UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
2100 RENAISSANCE BOULEVARD, SUITE 100
KING OF PRUSSIA, PENNSYLVANIA 19406-2713

February 11, 2013

Mr. Joseph E. Pacher, Vice President
R.E. Ginna Nuclear Power Plant, LLC
Constellation Energy Nuclear Group, LLC
1503 Lake Road
Ontario, New York 14519

SUBJECT: R.E. GINNA NUCLEAR POWER PLANT, LLC - NRC INTEGRATED INSPECTION REPORT 05000244/2012005

Dear Mr. Pacher:

On December 31, 2012, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your R.E. Ginna Nuclear Power Plant, LLC (Ginna). The enclosed inspection report documents the inspection results, which were discussed on January 17, 2013, with you and other members of your staff.

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

This report documents two NRC-identified findings and two self-revealing findings of very low safety significance (Green). Two findings were determined to be violations of NRC requirements. However, because of the very low safety significance, and because these findings were entered into your corrective action program, the NRC is treating these findings as non-cited violations (NCVs) consistent with Section 2.3.2 of the NRC Enforcement Policy. If you contest any NCVs in this report, you should provide a 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, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555-0001; and the NRC Resident Inspector at Ginna. In addition, if you disagree with the cross-cutting aspect assigned to 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 Ginna.

In accordance with 10 Code of Federal Regulations 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response (if any) will be available electronically for

public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of the NRC's Agencywide Documents Access and Management 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
Reactor Projects Branch 1
Division of Reactor Projects

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

Enclosure: Inspection Report No. 05000244/2012005
w/ Attachment: Supplementary Information

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U.S. NUCLEAR REGULATORY COMMISSION

REGION I

Docket No.:	50-244
License No.:	DPR-18
Report No.:	05000244/2012005
Licensee:	Constellation Energy Nuclear Group, LLC
Facility:	R.E. Ginna Nuclear Power Plant, LLC
Location:	Ontario, New York
Dates:	October 1 through December 31, 2012
Inspectors:	N. Perry, Senior Resident Inspector D. Dodson, Resident Inspector E. Burket, Reactor Inspector T. Fish, Senior Operations Engineer N. Floyd, Reactor Inspector S. Hammann, Senior Health Physicist E. Knutson, Senior Resident Inspector T. Moslak, Health Physicist W. Schmidt, Senior Reactor Analyst E. Torres, Resident Inspector
Approved by:	Glenn T. Dentel, Chief Reactor Projects Branch 1 Division of Reactor Projects

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SUMMARY OF FINDINGS

IR 05000244/2012005; 10/01/2012 – 12/31/2012; R.E. Ginna Nuclear Power Plant, LLC (Ginna); Operability Determinations and Functionality Assessments; Refueling and Other Outage Activities; and Follow-Up of Events and Notices of Enforcement Discretion.

This report covered a 3-month period of inspection by resident inspectors and announced inspections performed by regional inspectors. Inspectors identified four findings of very low safety significance (Green), two of which were non-cited violations (NCVs). 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 aspects for the findings were determined using IMC 0310, "Components Within the Cross-Cutting Areas." 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. A self-revealing Green finding was identified for Ginna personnel not following Constellation procedure CNG-MN-4.01-GL004, "Work Package Writer's Guideline," Revision 00000, for planning a maintenance activity. Specifically, during the refueling outage, the work package for maintenance on the 'B' main feedwater pump did not identify the correct gasket for the lube oil filter canister; therefore, an incorrect gasket was installed. In addition, maintenance personnel missed an opportunity to prevent the installation of the incorrect gasket when they proceeded after recognizing that the work package was not specific on the gasket required. The gasket failed after being in service for approximately 10 days resulting in a significant oil leak and causing operators to rapidly reduce plant power to 47 percent to remove the pump from service and avoid a plant trip. Immediate corrective actions included replacing the gasket with the correct one and entering this issue into the corrective action program (CAP) as CR-2012-8912.

  This finding is more than minor because it is associated with the human performance attribute of the Initiating Events cornerstone and adversely impacted the cornerstone objective to limit the likelihood of events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. Additionally, the finding is similar to IMC 0612, "Power Reactor Inspection Reports," Appendix E, "Examples of Minor Issues," example 4.b in that a personnel error caused a transient. Using IMC 0609, Appendix A, the inspectors determined this finding did not cause a reactor trip and the loss of mitigation equipment relied upon to transition the plant from the onset of the trip to a stable shutdown condition. Therefore, the inspectors determined the finding to be of very low safety significance (Green). This finding has a cross-cutting aspect in the area of Human Performance, Work Practices, because Ginna personnel proceeded in the face of uncertainty or unexpected circumstances and installed a gasket without confirming it was the correct part [H.4.(a)]. (Section 4OA3)

Cornerstone: Mitigating Systems

- Green. The inspectors identified a Green non-cited violation (NCV) of Ginna Operating License Condition 2.C.(3), "Fire Protection," for failure to adequately evaluate changes to the approved fire protection program that could adversely affect the ability to achieve and maintain safe shutdown in the event of a fire. Specifically, Ginna changed the relay room halon suppression system (S08) inspection and testing frequency from semiannually to biennially and did not appropriately evaluate the change nor properly monitor conditions between testing. As a result, one of the relay room halon system storage cylinders was found below the minimum acceptable pressure. Immediate corrective actions included entering this issue into the CAP as CR-2012-7267, declaring the S08 system non-functional, and establishing a continuous fire watch within 1 hour.

  This finding is more than minor because if left uncorrected, the performance deficiency would have the potential to lead to a more significant safety concern. Specifically, the S08 system was last tested on October 13, 2011, and could have degraded to the point where it could not maintain minimum required halon concentration before it would have been retested and thoroughly inspected in October 2013. Using IMC 0609 Appendix F, a low degradation rating was assigned to this finding because the S08 system was determined to be functional and was expected to display nearly the same level of effectiveness and reliability as it would have had the degradation not been present. Therefore, the inspectors determined the finding to be of very low safety significance (Green). The finding does not have a cross-cutting aspect because the performance deficiency is not reflective of present plant performance. (Section 1R15)

- Green. The inspectors identified a Green non-cited violation (NCV) of Title 10 of the *Code of Federal Regulations* (CFR) Part 50 Appendix B, Criterion XVI, "Corrective Action," for Ginna's failure to establish measures to assure that conditions adverse to quality are promptly identified and corrected. Specifically, Ginna did not establish measures to promptly identify and correct accumulated water in the 'B' emergency diesel generator (EDG) underground fuel oil storage tank. Subsequently, on November 8, 2012, Ginna identified 1.75 inches of water in the 'B' EDG underground fuel oil storage tank and declared the EDG inoperable. Immediate corrective actions included entering this issue into the corrective action program as CR-2012-7792 and CR-2012-8407, and immediately pumping out, collecting and assessing the amount of water identified in the 'B' EDG underground fuel storage tank.

  This finding is more than minor because it is associated with the equipment performance attribute of the Mitigating Systems cornerstone and adversely impacted the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Additionally, the finding is similar to IMC 0612, Appendix E, "Examples of Minor Issues," example 3.j., issued August 11, 2009, in that the water identified in the 'B' EDG underground fuel oil storage tank created a reasonable doubt of operability of the 'B' EDG, because the level of water exceeded the operability limit specified in the monitoring plan. Using IMC 0609, Appendix G, Attachment 1, Checklist 4, the inspectors determined this finding did not increase the likelihood of a loss of reactor coolant system (RCS) inventory, did not degrade Ginna's ability to terminate a leak path or add RCS inventory when needed, and did not degrade Ginna's ability to recover decay heat removal once it is lost. Therefore, the inspectors determined the finding to be of very low safety significance (Green). This finding has a cross-cutting aspect in the area of

Problem Identification and Resolution, Corrective Action Program, because Ginna personnel did not thoroughly evaluate problems such that the resolutions addressed causes and extent of conditions [P.1.(c)]. (Section 1R15)

Cornerstone: Barrier Integrity

- Green. A self-revealing Green finding was identified for Ginna personnel not following Constellation procedure CNG-OP-1.01-1000, "Conduct of Operations," Revision 00700, which requires operators to understand conditions prior to starting equipment. Specifically, Ginna operators inappropriately started the 'B' spent fuel pool (SFP) cooling pump with the SFP low level alarm lit, SFP level decreasing, and the level very close to the pump trip set point. Consequently, 3 hours after being started, the 'B' pump unexpectedly tripped on SFP low level resulting in a loss of SFP cooling. Immediate corrective actions included entering this issue into the CAP as CR-2012-7843, starting the 'A' SFP cooling pump to restore SFP cooling, and adding water to the SFP.

  This finding is more than minor because it is associated with the human performance attribute of the Barrier Integrity cornerstone and adversely impacted the cornerstone objective of providing reasonable assurance that physical design barriers protect the public from radionuclide releases caused by accidents or events. Using IMC 0609, Appendix G, Attachment 1, Checklist 4, the inspectors determined this finding did not increase the likelihood of a loss of RCS inventory, did not degrade Ginna's ability to terminate a leak path or add RCS inventory when needed, and did not degrade Ginna's ability to recover decay heat removal once it is lost. Therefore, the inspectors determined the finding to be of very low safety significance (Green). This finding has a cross-cutting aspect in the area of Human Performance, Resources, because Ginna did not ensure that resources were available to assure nuclear safety, specifically those necessary for adequate and available facilities and equipment including physical improvements [H.2.(d)].
  (Section 1R20)

Other Findings

None

REPORT DETAILS

Summary of Plant Status

R.E. Ginna Nuclear Power Plant, LLC (Ginna) began the inspection period at full rated thermal power and operated at full power until October 21, 2012, when the plant was shut down for a scheduled refueling and maintenance outage. The station reached mode 6 (refueling) on October 27. Following completion of the refueling and maintenance activities, operators commenced a reactor startup on November 18. Operators returned the unit to full rated thermal power on November 24. On November 26, operators reduced power to approximately 47 percent following discovery of an oil leak on the lube oil filter canister of the 'B' main feedwater pump (MFP). Following repairs, operators returned the unit to 100 percent power on November 27. On December 11, operators reduced power to approximately 72 percent to complete troubleshooting and repairs of one of the four turbine control valves after it failed open on December 10 during testing. Following repairs, operators returned the unit to 100 percent on December 12, and Ginna operated at full power for the remainder of the report period.

1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, and Barrier Integrity

1R01 Adverse Weather Protection (71111.01 – three samples)

.1 Readiness for Seasonal Extreme Weather Conditions

a. Inspection Scope

The inspectors performed a review of Ginna's readiness for the onset of seasonal cold temperatures. The review focused on the service water (SW) pumps in the screen house, the auxiliary feedwater (AFW) system in the intermediate building, and outside areas. The inspectors reviewed the Updated Final Safety Analysis Report (UFSAR), technical specifications (TSs), control room logs, and the CAP to determine what temperatures or other seasonal weather could challenge these systems, and to ensure Ginna's personnel had adequately prepared for these challenges. The inspectors reviewed station procedures, including Ginna's seasonal weather preparation procedure and applicable operating procedures. The inspectors performed walkdowns of the selected systems to ensure station personnel identified issues that could challenge the operability of the systems during cold weather conditions. Documents reviewed for each section of this inspection report are listed in the Attachment.

b. Findings

No findings were identified.

.2 External Flooding

a. Inspection Scope

The inspectors completed an external flooding sample as documented in Section 4OA5.2, Temporary Instruction (TI) 2515/187 – Inspection of Near-Term Task Force Recommendation 2.3 Flooding Walkdowns.

b. Findings

No findings were identified.

.3 Imminent Adverse Weather

a. Inspection Scope

On October 29, 2012, with the anticipated arrival of hurricane Sandy, the National Weather Service issued a high wind warning with expected gusts of up to 65 miles per hour and 2 to 3 inches of rain in the Rochester area. Ginna experienced strong winds with sustained values as high as 72 miles per hour. Operators entered ER-SC.1, "Adverse Weather Plan," Revision 01802, and ER-SC.2, "High Water (Flood) Plan," Revision 00801, due to the adverse weather conditions. The inspectors assessed whether operator actions were in accordance with the procedures, and toured buildings and exterior areas of the plant that could be adversely affected by high winds and rainy conditions. Areas of focus included the intake structure and the transformer yard.

b. Findings

No findings were identified.

1R04 Equipment Alignment

Partial System Walkdowns (71111.04Q – three samples)

a. Inspection Scope

The inspectors performed partial walkdowns of the following systems:

- 'B' residual heat removal (RHR) system while the 'A' RHR system was out of service (OOS) on October 16, 2012
- 'A' spent fuel pool (SFP) cooling on October 25, 2012
- Valve alignment for core component movement on November 8, 2012

The inspectors selected these systems based on their risk-significance relative to the reactor safety cornerstones at the time they were inspected. The inspectors reviewed applicable operating procedures, system diagrams, the UFSAR, TSs, condition reports (CRs), and the impact of ongoing work activities on redundant trains of equipment in order to identify conditions that could have impacted system performance of their intended safety functions. The inspectors also performed field walkdowns of accessible portions of the systems to verify system components and support equipment were aligned correctly and were operable. The inspectors examined the material condition of

the components and observed operating parameters of equipment to verify that there were no deficiencies. The inspectors also reviewed whether Ginna staff had properly identified equipment issues and entered them into the CAP for resolution with the appropriate significance characterization.

b. Findings

No findings were identified.

1R05 Fire Protection

Resident Inspector Quarterly Walkdowns (71111.05Q – four samples)

a. Inspection Scope

The inspectors conducted tours of the areas listed below to assess the material condition and operational status of fire protection (FP) features. The inspectors verified that Ginna controlled combustible materials and ignition sources in accordance with administrative procedures. The inspectors verified that FP and suppression equipment were available for use as specified in the area pre-fire plan, and passive fire barriers were maintained in good material condition. The inspectors also verified that station personnel implemented compensatory measures for OOS, degraded, or inoperable FP equipment, as applicable, in accordance with procedures.

- Relay room on October 23, 2012
- Containment building basement floor on October 24, 2012
- Containment building operating floor on October 25, 2012
- Containment building intermediate level on October 30, 2012

b. Findings

No findings were identified.

1R06 Flood Protection Measures (71111.06 – one sample)

Internal Flooding Review

a. Inspection Scope

The inspectors reviewed the UFSAR, site flooding analysis, and plant procedures to assess susceptibilities involving internal flooding. The inspectors also reviewed the CAP to determine if Ginna identified and corrected flooding problems and whether operator actions for coping with flooding were adequate. The inspectors focused on the auxiliary building basement to verify the adequacy of equipment seals located below the flood line, floor and water penetration seals, watertight door seals, common drain lines and sumps, sump pumps, level alarms, control circuits, and temporary or removable flood barriers.

b. Findings

No findings were identified.

1R07 Heat Sink Performance (71111.07A – two samples)

a. Inspection Scope

The inspectors reviewed the RHR heat exchangers (HXs) and the component cooling water (CCW) HXs to determine their readiness and availability to perform their safety functions. The inspectors reviewed the design basis for the components and reviewed the results of previous inspections of these HXs. The inspectors discussed the results of the most recent inspections with engineering staff and reviewed pictures of the as-found and as-left conditions. The inspectors verified that Ginna initiated appropriate corrective actions for identified deficiencies. The inspectors also verified that the number of tubes plugged within the HXs did not exceed the maximum amount allowed.

b. Findings

No findings were identified.

1R08 Inservice Inspection Activities (71111.08 – one sample)

a. Inspection Scope

From October 23 to November 2, 2012, the inspectors conducted a review of Ginna's implementation of inservice inspection (ISI) program activities for monitoring degradation of the reactor coolant system (RCS) boundary, risk-significant piping and components, and containment systems during the refueling outage (RFO). The sample selection was based on the inspection procedure (IP) objectives and risk priority of those pressure-retaining components in the systems where degradation would result in a significant increase in risk. The inspectors observed in-process nondestructive examinations (NDEs), reviewed documentation, and interviewed Ginna personnel to verify that the NDE activities performed as part of the fifth interval, first period, of Ginna's ISI program were conducted in accordance with the requirements of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code Section XI, 2004 Edition, No Addenda.

NDE and Welding Activities

The inspectors performed direct observations of NDE activities in process and reviewed records of NDEs listed below:

ASME Code Required Examinations

- Direct field observation of a magnetic particle examination, surface inspection, integral attachment on the 'B' loop of the main steam system, ASME Class 2, MSU-15(IA), and record review of the examination report;
- Remote observation of the automatic volumetric ultrasonic examination of the reactor vessel closure head control rod drive mechanism penetration nozzles;

- Record review of the visual inspection of the accessible portions of the containment metallic liner;
- Record review of an ultrasonic examination of the 'A' steam generator (SG) inlet nozzle inner radius;
- Record review of the visual examination (VT-3) of the reactor pressure vessel bottom-mounted instrumentation penetrations.

The inspectors reviewed certifications of the NDE technicians performing the examinations. The inspectors also verified that the inspections were performed in accordance with approved procedures and that the results were reviewed and evaluated by certified Level III NDE personnel.

Other Augmented or Industry Initiative Examinations

The inspectors reviewed an inspection conducted to implement an industry initiative in accordance with MRP-146, "Management of Thermal Fatigue in Normally Stagnant Non-Isolable RCS Branch Lines," to verify the inspection was conducted in conformance with management guidelines. Specifically, the inspectors observed an in-process manual ultrasonic examination of a 10-inch RHR system elbow and reviewed the examination data record to verify that the activity was performed in accordance with applicable examination procedures and industry guidance.

Review of Originally Rejectable Indications Accepted by Evaluation

The inspectors reviewed the ASME Code Section XI evaluation of the bottom-mounted instrumentation penetration nozzle number 31 (A86/J-12) which was performed for an indication found during the ultrasonic examination performed in the 2011 RFO. This indication was located at the nozzle-to-weld interface and was determined to be created by the fabrication process. The inspectors verified that Ginna's acceptance was in accordance with ASME code requirements.

Repair/Replacement Consisting of Welding Activities

The inspectors performed a record review of the removal and replacement of the 'B' AFW pump discharge check valve to verify that the welding and applicable NDE activities were performed in accordance with ASME code requirements.

Pressurized-Water Reactor (PWR) Vessel Upper Head Penetration Inspection Activities

The inspectors verified that the reactor vessel closure head penetration J-groove weld examinations were performed in accordance with requirements of ASME Boiler and Pressure Vessel Code Case N-729-1, "Alternative Examination Requirements for PWR Vessel Upper Heads," and 10 Code of Federal Regulations (CFR) 50.55a (g)(6)(ii)(D) to ensure the structural integrity of the reactor vessel head pressure boundary. The inspectors directly observed a sample of reactor vessel closure head control rod drive mechanism penetration nozzle weld ultrasonic examinations and subsequent data analysis.

Boric Acid Corrosion Control Inspection Activities

The inspectors reviewed the boric acid corrosion control program, discussed the program with the boric acid program owner, and sampled photographic inspection records of boric acid found on safety-significant piping and components inside the containment structure during walkdowns conducted by Ginna personnel and directly observed by the inspectors on October 22, 2012. The inspectors observed the identification and documentation of non-conforming conditions of boric acid leaks in the CAP with a focus on areas that could cause degradation of safety-significant components. The inspectors verified that potential deficiencies identified during the walkdowns were entered into Ginna's CAP and reviewed evaluations of the more significant deficiencies documented in CRs (CR-2012-7181, safety injection (SI) loop 'B' cold leg vent valve 2843 leakage, and CR-2012-7168, reactor coolant pump seal flow instrument valve 385H leakage) to verify that the corrective actions were consistent with the requirements of the ASME code and 10 CFR 50, Appendix B, Criterion XVI. The inspectors also reviewed the associated engineering evaluations for the above CRs to verify that equipment or components that were wetted or impinged upon by boric acid solutions were properly analyzed for degradation that might impact their function.

SG Tube Inspection Activities

No SG tube inspections were performed during this RFO.

The inspectors reviewed the SG operational assessments from the previous RFO to confirm that not-performing SG tube inspections during the current RFO were in accordance with TS requirements and Electric Power Research Institute guidelines.

Identification and Resolution of Problems

The inspectors reviewed a sample of CRs, which identified NDE indications, deficiencies, and other nonconforming conditions since the previous RFO. The inspectors verified that nonconforming conditions were properly identified, characterized, evaluated, corrective actions identified, dispositioned, and appropriately entered into the CAP.

b. Findings

No findings were identified.

1R11 Licensed Operator Requalification Program and Licensed Operator Performance (71111.11 – three samples)

.1 Quarterly Review of Licensed Operator Requalification Testing and Training

a. Inspection Scope

The inspectors observed licensed operator simulator testing on November 27, 2012, which included a loss of heat sink coincident with a loss of offsite power and the failure of select components to automatically start as required. The inspectors evaluated operator performance during the simulated event and verified completion of risk-significant operator actions, including the use of abnormal and emergency operating

procedures. The inspectors assessed the clarity and effectiveness of communications, implementation of actions in response to alarms and degrading plant conditions, and the oversight and direction provided by the control room supervisor. The inspectors verified the accuracy and timeliness of the emergency classification made by the shift manager and the TS action statements entered by the shift technical advisor. Additionally, the inspectors assessed the ability of the crew and training staff to identify and document crew performance problems.

b. Findings

No findings were identified.

.2 Quarterly Review of Licensed Operator Performance in the Main Control Room

a. Inspection Scope

The inspectors observed and reviewed the shutdown of the plant on October 21, 2012, for the RFO. The inspectors observed pre-shift briefings and reactivity control briefings to verify that the briefings met the criteria specified in Ginna procedure CNG-OP-1.01-1000, "Conduct of Operations," Revision 00700, and CNG-OP-3.01-1000, "Reactivity Management," Revision 00701. Additionally, the inspectors observed the rapid load reduction on November 26 and the load reduction on December 11 in the control room to verify that operators followed appropriate procedures and conducted the power changes in a controlled manner and met established expectations and standards.

b. Findings

No findings were identified.

.3 Annual Review

a. Inspection Scope

On December 26, 2012, a region-based inspector conducted an in-office review of results of the Ginna-administered annual operating tests. The inspection assessed whether pass rates were consistent with the guidance of IMC 0609, Appendix I, "Operator Requalification Human Significance Determination Process." The requalification program baseline inspection including pass/fail results for the requalification written examinations to be administered in January and February 2013 will be documented in the next inspection report (05000244/2013002). The inspector verified that:

- Individual pass rates on the dynamic simulator scenarios were greater than 80 percent (pass rate was 88.5 percent)
- Individual pass rates on the job performance measures of the operating examination were greater than 80 percent (pass rate was 100 percent)
- Crew pass rates were greater than 80 percent (pass rate was 83.3 percent)

b. Findings

No findings were identified.

1R12 Maintenance Effectiveness (71111.12 – two samples)

a. Inspection Scope

The inspectors reviewed the samples listed below to assess the effectiveness of maintenance activities on structure, system, and component (SSC) performance and reliability. The inspectors reviewed system health reports, CAP documents, and maintenance rule basis documents to ensure that Ginna was identifying and properly evaluating performance problems within the scope of the maintenance rule. For each sample selected, the inspectors verified that the SSC was properly scoped into the maintenance rule in accordance with 10 CFR 50.65 and verified that the (a)(2) performance criteria established by Ginna staff was reasonable. As applicable, for SSCs classified as (a)(1), the inspectors assessed the adequacy of goals and corrective actions to return these SSCs to (a)(2). Additionally, the inspectors ensured that Ginna staff was identifying and addressing common cause failures that occurred within and across maintenance rule system boundaries.

- Turbine generator system control valve failure on December 10, 2012
- Loss of electrical bus 11A on October 22, 2012, and reviewed on December 26, 2012

b. Findings

No findings were identified.

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

a. Inspection Scope

The inspectors reviewed station evaluation and management of plant risk for the maintenance and emergent work activities listed below to verify that Ginna performed the appropriate risk assessments prior to removing equipment for work. The inspectors selected these activities based on potential risk significance relative to the reactor safety cornerstones. As applicable for each activity, the inspectors verified that Ginna personnel performed risk assessments as required by 10 CFR 50.65(a)(4) and that the assessments were accurate and complete. When Ginna performed emergent work, the inspectors verified that operations personnel promptly assessed and managed plant risk. The inspectors reviewed the scope of maintenance work and discussed the results of the assessment with the station's probabilistic risk analyst to verify plant conditions were consistent with the risk assessment. The inspectors also reviewed the TS requirements and inspected portions of redundant safety systems, when applicable, to verify risk analysis assumptions were valid and applicable requirements were met.

- Planned maintenance on the 'B' EDG on October 2, 2012
- Planned undervoltage (UV) relay testing on Bus 16 and 17 on October 30, 2012
- Planned maintenance on SW loop 'A' on November 2, 2012
- Elevated risk for reduced inventory on November 11, 2012
- Planned maintenance on power-operated relief valve (PORV) 430 on November 29, 2012
- Planned maintenance with the diesel fire pump start logic OOS on December 18, 2012

b. Findings

No findings were identified.

1R15 Operability Determinations and Functionality Assessments (71111.15 – four samples)

a. Inspection Scope

The inspectors reviewed operability determinations for the following degraded or non-conforming conditions:

- Relay room halon suppression system S08 cylinder pressure low on
- October 23, 2012
- Motor lugs identified loose on 'A' RHR motor on October 29, 2012
- Water identified in the 'B' EDG underground fuel oil storage tank on October 31, 2012
- Manipulator crane challenges on November 3, 2012

The inspectors selected these issues based on the risk significance of the associated components and systems. The inspectors evaluated the technical adequacy of the operability determinations to assess whether TS operability was properly justified and the subject component or system remained available such that no unrecognized increase in risk occurred. The inspectors compared the operability and design criteria in the appropriate sections of the TSs and UFSAR to Ginna's evaluations to determine whether the components or systems were operable. Where compensatory measures were required to maintain operability, the inspectors determined whether the measures in place would function as intended and were properly controlled by Ginna. The inspectors determined, where appropriate, compliance with bounding limitations associated with the evaluations.

b. Findings

b1. Failure to Adequately Evaluate Changes to the Relay Room Halon Suppression System Inspection and Testing Frequency

Introduction. The inspectors identified a Green non-cited violation (NCV) of Ginna Operating License Condition 2.C.(3), "Fire Protection," for failure to adequately evaluate changes to the approved FP program that could adversely affect the ability to achieve and maintain safe shutdown in the event of a fire. Specifically, Ginna changed the relay room halon suppression system (S08) inspection and testing frequency from semiannually to biennially and did not appropriately evaluate the change nor properly

monitor conditions between testing. As a result, one of the relay room halon system storage cylinders was found below the minimum acceptable pressure.

Description. On October 23, 2012, inspectors reviewed the FP features associated with the relay room. During the review, the inspectors identified that one of the 150-pound ansul halon 1301 cylinders was less than the minimum acceptable pressure required by Ginna procedure STP-O-13.4.33, "Station Halon Systems Bottle Weighing and S08 (Relay Room and Computer Room) Air Flow Test," Revision 00002. Specifically, at a temperature of approximately 80 degrees Fahrenheit, the minimum acceptable pressure for cylinder H-84126 is 361 pounds per square inch (psi); the inspectors observed the cylinder at a pressure of approximately 350 psi. In the event of a fire in the relay room, the halon 1301 extinguishing system is designed to maintain a halon concentration of 5 percent in the relay room for at least 5 minutes following delivery. Acceptable cylinder pressure indicates that each cylinder has not depressurized and lost the agent that it was designed to contain. Ginna conducted a detailed analysis of expected halon concentration in the relay room where the cylinder had lost some agent and concluded that there was sufficient halon in bottle H-84126 to maintain minimum concentration above 5 percent with sufficient margin remaining; the relay room is also equipped with a manual sprinkler system.

EPM-FPPR, "Ginna Fire Protection Program," Revision 008.0, lists National Fire Protection Association (NFPA) 12A, "Halon 1301 Fire Extinguishing Systems," 1985 Edition, as one of the codes analyzed in the code compliance assessment. NFPA 12A-1985 includes requirements to semiannually check the agent quantity and pressure of halon cylinders, to annually thoroughly inspect and test the system for proper operation, and to perform visual inspections of the system between annual inspections and tests. Ginna evaluation DA-ME-97-081, "Engineering Evaluation of Fire Protection System Inspection and Testing Performance," Revision 1, dated February 10, 2000, evaluated changes to surveillance frequencies for FP equipment. The evaluation, used to justify extending the testing frequency to once every 24 months, identified 4 instances over 17 performances of the S08 testing procedure (formerly PT-13.4.33, "Station Halon Systems Bottle Weighing and S08 (Relay Room and Computer Room) Air Flow Test," Revision 21) where bottle weights were less than required. On March 2, 2001, during the first performance of PT-13.4.33 after extending the surveillance frequency, approximately 17 months since the last performance of PT-13.4.33, a halon bottle (H-84072) was identified with a pressure of approximately 345 psi, which was below the minimum acceptable pressure of 375 psi. Ginna personnel generated CR-2001-0468 to document the low halon bottle pressure and replaced the out-of-specification halon bottle with a spare (H-84126) but took no additional action. The inspectors noted that since the change was made in 2000, Ginna did not properly monitor conditions by performing visual inspections of the system between inspections and tests as stated in NFPA 12A-1985.

The inspectors also reviewed Ginna's procedures for the review of FP changes. Procedure A-202, "Fire Protection Program and Ginna Station Staff Responsibilities for Fire Protection," Revision 02901, Section 3.0, "Instructions," states that the license condition allows changes to the approved FP program only if those changes do not adversely affect the ability to achieve and maintain safe shutdown. Contrary to these

procedure requirements, the change to the S08 surveillance frequency and the FP program adversely affected the ability to achieve and maintain safe shutdown.

Immediate corrective actions included entering this issue into the CAP as CR-2012-7267, declaring the S08 system non-functional, and establishing a continuous fire watch within 1 hour. Additional corrective actions included replacing the degraded cylinder with a spare cylinder that was within specification and completing a functionality assessment. Ginna also wrote CR-2012-9400 to track the reevaluation of the S08 inspection and testing frequency.

Analysis. The inspectors determined that Ginna's failure to adequately evaluate changes to the S08 inspection and testing frequency that could adversely affect the ability to achieve and maintain safe shutdown in the event of a fire was a performance deficiency that was within Ginna's ability to foresee and correct and should have been prevented. This finding is more than minor because if left uncorrected, the performance deficiency would have the potential to lead to a more significant safety concern. Specifically, the S08 system was last tested on October 13, 2011, and could have degraded to the point where it could not maintain minimum required halon concentration before it would have been retested and thoroughly inspected in October 2013. The inspectors evaluated the finding using the Phase 1, "Initial Characterization of Findings," worksheet in Attachment 4 to IMC 0609, "Significance Determination Process," issued June 2, 2011, which instructs the inspectors to utilize IMC 0609 Appendix F, "Fire Protection Significance Determination Process," issued February 28, 2005, when the finding involves fixed FP systems or affects the ability to reach and maintain safe shutdown conditions in case of a fire. A low degradation rating was assigned to this finding because the S08 system was determined to be functional and was expected to display nearly the same level of effectiveness and reliability as it would have had the degradation not been present. Therefore, the inspectors determined the finding is of very low safety significance (Green). In accordance with IMC 0612, "Power Reactor Inspection Reports," issued July 10, 2012, the finding does not have a cross-cutting aspect because the performance deficiency occurred approximately 12 years ago and is not reflective of present plant performance.

Enforcement. Ginna Operating License Condition 2.C.(3), in part, requires Ginna to adequately evaluate changes that could adversely affect the ability to achieve and maintain safe shutdown in the event of a fire. EPM-FPPR lists NFPA 12A-1985 as one of the codes analyzed in the code compliance assessment. NFPA 12A-1985 includes requirements to semiannually check the agent quantity and pressure of these cylinders, to annually thoroughly inspect and test the system for proper operation, and to perform visual inspections of the system between annual inspections and tests. Additionally, A-202, Section 3.0 states that the license condition allows changes to the approved FP program only if those changes do not adversely affect the ability to achieve and maintain safe shutdown. Contrary to the above, in February 2000, Ginna made changes to the approved FP program and did not adequately consider recent and subsequent performance issues that resulted in a condition adversely affecting the ability to achieve and maintain safe shutdown in that the relay room halon FP system's operability was affected. Specifically, Ginna did not adequately consider past performance issues in its evaluation justifying extending the S08 surveillance frequency from semiannually to biennially, and did not properly monitor conditions between testing. Immediate corrective actions included entering this issue into the CAP, declaring the S08 system non-functional, and establishing a continuous fire watch within 1 hour. Additionally,

Ginna determined that there was sufficient halon in bottle H-84126 to maintain minimum design concentration above 5 percent with sufficient margin remaining. Because this violation is of very low safety significance and Ginna entered this issue into their CAP as CR-2012-7267 and CR-2012-9400, this finding is being treated as an NCV consistent with Section 2.3.2 of the Enforcement Policy. **(NCV-05000244/2012005-01: Failure to Adequately Evaluate Changes to the Relay Room Halon Suppression System Inspection and Testing Frequency)**

b2. Failure to Establish Measures to Assure that Water in the 'B' EDG Underground Fuel Storage Tank was Promptly Identified and Corrected

Introduction. The inspectors identified a Green NCV of 10 CFR 50 Appendix B, Criterion XVI, "Corrective Action," for Ginna's failure to establish measures to assure that conditions adverse to quality are promptly identified and corrected. Specifically, Ginna did not establish measures to promptly identify and correct accumulated water in the 'B' EDG underground fuel oil storage tank. Subsequently, on November 8, 2012, Ginna identified 1.75 inches of water in the 'B' EDG underground fuel oil storage tank and declared the EDG inoperable.

Description. On October 30, 2012, Ginna personnel identified water in the technical support center (TSC) emergency diesel underground fuel storage tank while performing STP-E-12.5, "Technical Support Center Diesel Test," Revision 00200. Ginna personnel entered the issue into the CAP as CR-2012-7746. Immediate corrective actions included replacing the TSC emergency diesel fuel storage tank access port gasket. Additionally, the water was removed and a reasonable expectation of functionality assessment was completed in accordance with CNG-OP-1.01-1002, "Conduct of Operability Determinations/Functionality Assessments," Revision 00200. The inspectors noted that neither the immediate corrective actions nor the CR initially addressed the extent of condition.

The inspectors reviewed Constellation procedure CNG-CA-1.01-1000, "Corrective Action Program," Revision 00701, to determine what opportunities Ginna personnel had to identify necessary actions to address the extent of condition. CNG-CA-1.01-1000 requires the CR initiator, the supervisor, two operations senior reactor operators, and the operations maintenance coordinator to review CRs; CRs are then reviewed by the screening committee and the management review committee. None of the CR reviews prior to the screening and management review committees identified actions to address extent of condition. On October 31, 2012, the inspectors questioned Ginna's extent-of-condition review. Ginna personnel performed an extent-of-condition review and tested the security diesel, 'A' EDG, and 'B' EDG underground fuel oil storage tanks for accumulated water. No water was identified in the security diesel or 'A' EDG underground fuel oil storage tanks. However, approximately 1 inch of water was initially identified in the 'B' EDG underground fuel oil storage tank. Subsequently, Ginna personnel completed a reasonable expectation of functionality assessment for the water identified in the 'B' EDG underground diesel fuel storage tank and planned to complete a monitoring plan per CNG-OP-1.01-1009, "Monitoring and Contingency Planning for Abnormal Conditions," Revision 00000, to implement compensatory measures. The reasonable expectation of functionality assessment noted that there is approximately 2 inches between the bottom of the storage tank and the bottom of the perforated suction strainer. The assessment also noted that previous samples taken prior to

October 30, 2012, at the discharge of the fuel oil transfer pump per procedure T-27.8, "Fuel Oil Sampling," Revision 01200, have consistently shown no sediment or water.

On November 7, 2012, the monitoring and contingency plan was completed. This plan initiated weekly testing of the underground storage tanks by utilizing water level indicator paste applied to a dipstick. If more than 1.5 inches of water was detected, the contingency actions included declaring the EDG inoperable, pumping the water from the fuel storage tank, and increasing the frequency of monitoring for water. The plan also initiated similar one-time testing of the day tank and sampling of the fuel from the discharge of the 'B' fuel oil transfer pump. Prior to November 2012, Ginna did not have measures established to detect accumulated water in the bottom of the EDG fuel storage tanks. On November 8, the 'B' EDG was declared inoperable after a level of approximately 1.75 inches of water was identified in the underground storage tank, thereby impacting the operability and reliability of the 'B' EDG. Ginna staff sampled the 'B' EDG day tank and the discharge of the fuel oil transfer pump for water and concluded that no water entered the day tank, which supported past operability of the 'B' EDG.

Immediate corrective actions included entering this issue into the CAP as CR-2012-7792 and CR-2012-8407, and immediately pumping out, collecting and assessing the amount of water identified in the 'B' EDG underground fuel storage tank. Ongoing and completed corrective actions included replacing the manway gasket for the 'B' EDG underground fuel storage tank, documenting a search for the source and pathway of water into the tank, adding sampling for water to weekly operator rounds and after heavy rains, and completing repairs to the tank vault doors.

Analysis. The inspectors determined that the failure to establish measures to assure that conditions adverse to quality are promptly identified and corrected was a performance deficiency within Ginna's ability to foresee and correct and should have been prevented. Specifically, Ginna failed to identify water in the 'B' EDG underground fuel storage tank and take corrective actions. This finding is more than minor because it is associated with the equipment performance attribute of the Mitigating Systems cornerstone and adversely impacted the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Additionally, the finding is similar to IMC 0612, Appendix E, "Examples of Minor Issues," example 3.j., issued August 11, 2009, in that the water identified in the 'B' EDG underground fuel oil storage tank created a reasonable doubt of operability of the 'B' EDG, because the level of water exceeded the operability limit specified in the monitoring plan. An engineering analysis and additional sampling were performed that supported past operability of the 'B' EDG. The inspectors evaluated the finding using IMC 0609, Appendix G, Attachment 1, "Phase 1 Operational Checklists for Both PWRs and BWRs," Checklist 4, "PWR Refueling Operation: RCS level >23 feet or PWR Shutdown Operation with Time to Boil >2 hours And Inventory in the Pressurizer," issued February 25, 2004. The inspectors determined this finding did not increase the likelihood of a loss of RCS inventory, did not degrade Ginna's ability to terminate a leak path or add RCS inventory when needed, and did not degrade Ginna's ability to recover decay heat removal once it is lost. Therefore the inspectors determined the finding to be of very low safety significance (Green).

The inspectors determined that the finding has a cross-cutting aspect in the area of Problem Identification and Resolution, Corrective Action Program, because Ginna personnel did not thoroughly evaluate problems such that the resolutions addressed

causes and extent of conditions. Specifically, Ginna personnel had multiple opportunities to perform an adequate extent-of-condition review after water was identified in the TSC emergency diesel fuel storage tank. (P.1.c per IMC 0310)

Enforcement. 10 CFR 50 Appendix B, Criterion XVI requires, in part, that measures shall be established to assure that conditions adverse to quality, such as failures, malfunctions, deficiencies, deviations, defective material and equipment, and non-conformances are promptly identified and corrected. Contrary to the above, on October 30, 2012, Ginna failed to establish measures to assure that water in the 'B' EDG underground fuel oil storage tank, a deficiency that is a condition adverse to quality, was promptly identified and corrected. Subsequently, on November 8, Ginna identified 1.75 inches of water in the 'B' EDG underground fuel oil storage tank. Because this violation is of very low safety significance and has been entered into Ginna's CAP (CR-2012-7746, CR-2012-7792, and CR-2012-8407), this finding is being treated as an NCV, consistent with Section 2.3.2 of the NRC Enforcement Policy.
(NCV 05000244/2012005-02, Failure to Establish Measures to Assure that Water in the 'B' EDG Underground Fuel Storage Tank was Promptly Identified and Corrected)

1R18 Plant Modifications (71111.18 – one sample)

Permanent Modification

a. Inspection Scope

The inspectors evaluated a modification to the flux mapping system implemented by engineering change package (ECP)-11-000728, "Flux Mapping System Upgrade." The inspectors verified that the design bases, licensing bases, and performance capability of the affected systems were not degraded by the modification. In addition, the inspectors reviewed modification documents associated with the upgrade and design change, including installation and test documents. The inspectors also reviewed associated CRs, discussed the modification with engineering personnel, walked down the system in the control room and containment, and observed portions of the testing.

b. Findings

No findings were identified.

1R19 Post-Maintenance Testing (71111.19 – eight samples)

a. Inspection Scope

The inspectors reviewed the post-maintenance tests for the maintenance activities listed below to verify that procedures and test activities ensured system operability and functional capability. The inspectors reviewed the test procedure to verify that the procedure adequately tested the safety functions that may have been affected by the maintenance activity, that the acceptance criteria in the procedure was consistent with the information in the applicable licensing basis and/or design basis documents, and that the procedure had been properly reviewed and approved. The inspectors also witnessed the test or reviewed test data to verify that the test results adequately demonstrated restoration of the affected safety functions.

- 'A' RHR pump following planned maintenance on October 20, 2012
- Bus 18 undervoltage (UV) relays following planned maintenance on November 2, 2012
- Auxiliary building SW isolation valve following planned maintenance on November 8, 2012
- 'A' RHR pump motor-operated discharge valve 852A stroke timing following actuator maintenance on May 12, 2011, review performed on November 8, 2012
- 'C' containment fan relay planned maintenance on November 12, 2012
- Turbine-driven AFW pump following planned maintenance on November 19, 2012
- Main steam isolation valve testing following planned maintenance on November 15, 2012
- High pressure turbine governor control valve following unplanned maintenance on December 11, 2012

b. Findings

No findings were identified.

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

a. Inspection Scope

The inspectors reviewed Ginna's work schedule and outage risk plan for the maintenance and RFO, which was conducted October 21 through November 21, 2012. The inspectors reviewed Ginna's development and implementation of outage plans and schedules to verify that risk, industry experience, previous site-specific problems, and defense-in-depth were considered. During the outage, the inspectors observed portions of the shutdown and cool down processes, observed portions of the startup and heat up process, and monitored controls associated with the following outage activities:

- Configuration management, including maintenance of defense-in-depth, commensurate with the outage plan for the key safety functions and compliance with the applicable TSs when taking equipment OOS
- Implementation of clearance activities and confirmation that tags were properly hung and that equipment was appropriately configured to safely support the associated work or testing
- Installation and configuration of reactor coolant pressure, level, and temperature instruments to provide accurate indication and instrument error accounting
- Status and configuration of electrical systems and switchyard activities to ensure that TSs were met
- Monitoring of decay heat removal operations
- Impact of outage work on the ability of the operators to operate the SFP cooling system
- Reactor water inventory controls, including flow paths, configurations, alternative means for inventory additions, and controls to prevent inventory loss
- Activities that could affect reactivity
- Refueling activities, including fuel handling and fuel receipt inspections
- Fatigue management
- Identification and resolution of problems related to RFO activities

b. Findings

Introduction. A self-revealing Green finding was identified for Ginna personnel not following Constellation procedure CNG-OP-1.01-1000, "Conduct of Operations," Revision 00700, which requires operators to understand conditions prior to starting equipment. Specifically, Ginna operators inappropriately started the 'B' SFP cooling pump with the SFP low level alarm lit, SFP level decreasing, and the level very close to the pump trip set point. Consequently, three hours after being started, the 'B' pump unexpectedly tripped on SFP low level resulting in a loss of SFP cooling.

Description. Ginna's SFP cooling system is designed with two SFP cooling pumps, each with a HX. Additionally, there is a third pump that can be manually aligned to cool the SFP. The system can operate with any pump in combination with either HX. The 'A' SFP cooling pump is the preferred pump to run and is of lower capacity than the 'B' SFP cooling pump. When the 'A' pump is in operation, an alarm is normally lit in the control room for low flow; the low flow alarm is not lit with the 'B' SFP cooling pump running since it is of higher capacity. Operators in the main control room have no direct indications for SFP level, SFP cooling flow, or SFP temperature; these indications are local to the pumps and the SFP. There are two annunciator alarms for the SFP in the main control room; one alarm is for SFP low flow, and the other is for SFP high temperature, high level, or low level. When one of the two alarms actuates in the main control room, control room operators dispatch an auxiliary operator to determine what caused the alarm. Additionally, the SFP parameters are monitored by the plant auxiliary operators during their work shift rounds.

On October 31, 2012, the SFP low level alarm actuated in the main control room. Operators reviewed the alarm response procedure and made preparations to add water to the refueling cavity. Since the refueling cavity was tied to the SFP in preparations for refueling activities, the level in the SFP would rise as water was added to the refueling cavity. Levels in the refueling cavity and the SFP were decreasing due to known refueling cavity leakage of approximately 5 gallons per minute. Operators did not immediately add water to the refueling cavity since no source of makeup water was available at that time. Additionally, the refueling cavity level was in the administratively established operating band. During this time period, the 'A' SFP cooling pump was operating with the 'B' SFP cooling pump in standby. Approximately 7.5 hours later, the 'B' SFP cooling pump was started in order to secure the 'A' SFP cooling pump to facilitate maintenance on the 'A' SW system. Control room operators were aware that the low level alarm was lit and that refueling cavity and SFP levels were decreasing due to cavity leakage but did not understand that they were very close to the 'B' SFP cooling pump low level trip set point which occurs at 2 inches below the alarm set point. Three hours after the 'B' SFP cooling pump was started, it unexpectedly tripped when the SFP level lowered to the trip set point resulting in a loss of SFP cooling. Immediate corrective actions included starting the 'A' SFP cooling pump to restore SFP cooling, and adding water to the SFP.

The inspectors reviewed control room logs, the alarm response procedures, the associated CRs, the completed prompt investigation, the completed apparent cause evaluation, and discussed the event with operations personnel. The inspectors noted several previously identified discrepancies and identified new ones. The refueling cavity level was monitored in feet above the top of the reactor vessel flange, SFP level was

monitored in feet of elevation, and the SFP low level alarm actuated based on a measured value from the top of the pool liner. The control room operators did not have readily available information regarding correlation between the three level measurements of the two pools. Operators incorrectly assumed that the controlling band for the refueling cavity was sufficient to maintain the SFP level above the trip set point. Additionally, the SFP level alarm window in the control room indicated 'Hi-Lo Level 20 inches-12 inches' and was incorrect (the low level alarm actuated at 22.5 inches).

Another issue associated with SFP monitoring that presented problems for the control room operators was that when the 'A' SFP cooling pump was running, the control room annunciator alarm for low flow was always lit. Therefore, if the pump tripped, the operators in the main control room would not know it was no longer providing cooling to the SFP.

One of the operator fundamental standards in procedure CNG-OP-1.01-1000 was before operating a component, operators confirm an understanding of its function and interactions with other components. On October 31, operators started the 'B' SFP cooling pump while the annunciator for low level was lit without understanding that the SFP level was very close to the pump trip set point. Consequently, 3 hours after the 'B' SFP cooling pump was started, it unexpectedly tripped on SFP low level resulting in a loss of SFP cooling. SFP heat-up was not significant during the time when no SFP cooling pump was in operation.

Analysis. The performance deficiency associated with this finding was that Ginna personnel did not follow a standard in the conduct of operations procedure; this was within Ginna's ability to foresee and correct and should have been prevented. Specifically, operations personnel did not understand that the SFP level was very close to the 'B' SFP cooling pump trip set point prior to starting the pump, and therefore took no action to prevent the pump from tripping. Consequently, 3 hours after the 'B' SFP cooling pump was started with the SFP low level annunciator lit and SFP level decreasing, the pump unexpectedly tripped on SFP low level resulting in a loss of SFP cooling.

The finding is more than minor because it is associated with the human performance attribute of the Barrier Integrity cornerstone and adversely impacted the cornerstone objective of providing reasonable assurance that physical design barriers protect the public from radionuclide releases caused by accidents or events. Specifically, Ginna operators inappropriately started the 'B' SFP cooling pump with the SFP low level alarm lit, SFP level decreasing, and the level very close to the pump trip set point. This resulted in the trip of the running SFP cooling pump and a loss of SFP cooling. The inspectors evaluated the finding using IMC 0609, Appendix G, Attachment 1, "Phase 1 Operational Checklists for Both PWRs and BWRs," Checklist 4, "PWR Refueling Operation: RCS level >23 feet or PWR Shutdown Operation with Time to Boil >2 hours And Inventory in the Pressurizer," issued February 25, 2004. The inspectors determined this finding did not increase the likelihood of a loss of RCS inventory, did not degrade Ginna's ability to terminate a leak path or add RCS inventory when needed, and did not degrade Ginna's ability to recover decay heat removal once it is lost. Therefore, the inspectors determined the finding to be of very low safety significance (Green).
This finding has a cross-cutting aspect in the area of Human Performance, Resources, because Ginna did not ensure that resources were available to assure nuclear safety,

specifically those necessary for adequate and available facilities and equipment, including physical improvements. Specifically, operators did not have indications and readily available guidance concerning how the various pool and cavity levels related to one another in the main control room to properly understand the status of the SFP level. [H.2.(d)]

Enforcement: Ginna operators started the 'B' SFP cooling pump while the annunciator for low level was lit without understanding that the SFP level was very close to the pump trip set point contrary to procedure CNG-OP-1.01-1000. The issue was entered into Ginna's CAP as CR-2012-7843. This finding does not involve enforcement action because no regulatory requirement violation was identified. Because this finding does not involve a violation and is of very low safety significance, it is identified as a FIN. **(FIN 05000244/2012005-03: Failure to Meet a Conduct of Operations Standard Results in Loss of Spent Fuel Cooling)**

1R22 Surveillance Testing (71111.22 – five samples)

a. Inspection Scope

The inspectors observed performance of surveillance tests and/or reviewed test data of selected risk-significant SSCs to assess whether test results satisfied TSs, the UFSAR, and Ginna procedure requirements. The inspectors verified that test acceptance criteria were clear, tests demonstrated operational readiness and were consistent with design documentation, test instrumentation had current calibrations and the range and accuracy for the application, tests were performed as written, and applicable test prerequisites were satisfied. Upon test completion, the inspectors considered whether the test results supported that equipment was capable of performing the required safety functions. The inspectors reviewed the following surveillance tests:

- STP-O-R-10.3, Preparation for and Performance of Main Steam Safety Valve Test Using Set Point Verification Device, Revision 00301, on October 19, 2012, In-service Test (IST)
- STP-O-R-2.2, Diesel Generator Load and Safeguard Sequence Test, Revision 00800, on October 23, 2012 (IST)
- STP-O-R-24, SI Accumulator Check Valve, Revision 00300, on October 25, 2012 (IST)
- STP-O-23.22, Local Leak Rate Test of Reactor Coolant Drain Tank Discharge Header Pen 143, Revision 00102, on November 13, 2012
- STP-O-R-2.1, SI Integrated Functional Test, Revision 00104, on November 14, 2012 (IST)

b. Findings

No findings were identified.

Cornerstone: Emergency Preparedness

1EP6 Drill Evaluation (71114.06 – two samples)

.1 Emergency Preparedness Drill Observation

a. Inspection Scope

The inspectors evaluated the conduct of a Ginna hostile action-based emergency drill on November 29, 2012, to identify any weaknesses and deficiencies in the classification, notification, and protective action recommendation development activities. The inspectors observed emergency response operations at the incident command post to determine whether the event classification, notifications, and protective action recommendations were performed in accordance with procedures. The inspectors also reviewed the station drill critique to compare inspector observations with those identified by Ginna staff in order to evaluate Ginna's critique and to verify whether the Ginna staff was properly identifying weaknesses and entering them into the CAP.

b. Findings

No findings were identified.

.2 Training Observations

a. Inspection Scope

The inspectors observed a simulator training evolution for Ginna licensed operators on November 27, 2012, which required emergency plan implementation by an operations crew. Ginna planned for this evolution to be evaluated and included in performance indicator (PI) data regarding drill and exercise performance. The inspectors observed event classification and notification activities performed by the crew. The inspectors also attended the post-evolution critique for the scenario. The focus of the inspectors' activities was to note any weaknesses and deficiencies in the crew's performance and ensure that Ginna evaluators noted the same issues and entered them into the CAP.

b. Findings

No findings were identified.

2. RADIATION SAFETY

Cornerstone: Public Radiation Safety and Occupational Radiation Safety

2RS1 Radiological Hazard Assessment and Exposure Controls (71124.01)

a. Inspection Scope

During the period of October 22 to 26, 2012, the inspectors conducted 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) during RFO operations. Implementation of these controls was

reviewed against the criteria contained in 10 CFR 20, relevant TSs, and Ginna's procedures.

Plant Walkdown and Radiation Work Permit (RWP) Reviews

The inspectors toured accessible RCAs in the reactor building containment, intermediate building, and auxiliary building. Independent radiation surveys were performed of selected areas to confirm the accuracy of survey data and postings.

The inspectors identified radiologically significant jobs scheduled to be performed in containment. The inspectors reviewed the applicable RWPs, as low as is reasonably achievable (ALARA) job reviews, and the electronic dosimeter dose/dose rate alarm set points for the associated tasks to determine if the radiological controls were acceptable and if the set points were consistent with plant policy. Jobs reviewed included under reactor head inspections (RWP 12-9616), removal of piping insulation (RWP 12-5611), refueling (RWP 12-5618), fuel transfer system blind flange removal (RWP 12-9618), 'B' sump entries in the reactor building containment (RWP 12-9605), and the flux mapping modification (RWP 12-9621).

For the jobs reviewed with a significant dose rate gradient under reactor head inspections and blind flange removal, the inspectors determined whether dosimetry was appropriately specified and located on the portion of the body receiving the highest dose rate.

The inspectors evaluated the effectiveness of contamination controls by reviewing personnel contamination event reports and related CRs, and observing practices at various work locations in the reactor building containment, auxiliary building, and at the reactor building containment control point.

High Radiation Area and Very High Radiation Area Controls

The inspectors reviewed procedures related to the control of high dose rate, locked high radiation, and very high radiation areas. The inspectors discussed these procedures with radiation protection (RP) supervision to determine whether any changes made to these procedures reduced safety measures.

The inspectors reviewed the preparations made in response to changing plant radiological conditions due to the crud burst resulting from the addition of hydrogen peroxide to the RCS. Locked high radiation areas located in containment and auxiliary building were verified to be properly secured, posted, and monitored.

The inspectors reviewed the preparations made for various potentially high dose rate jobs including fuel transfers, reactor head inspections, and blind flange removal. This review included evaluating the effectiveness of contamination control measures, source term controls, including the use of temporary shielding, and maintaining high water levels in the fuel transfer canal.

Airborne Controls

There were no current RWPs for airborne radioactivity areas with the potential for individual worker internal exposures to exceed 10 millirems during the RFO. The

inspectors reviewed air sampling records for on-going jobs; e.g., removal of the reactor fuel transfer canal blind flange to confirm that airborne contamination was not significant. Additionally, the inspectors verified that engineering controls such as portable high efficiency particulate air filtration/ventilation systems were tested, operable, and used for tasks involving contaminated systems such as reactor head inspections.

Use of Respiratory Protection Devices

The inspectors verified that powered air purifying respirators were used as a contingency for specific tasks involving potential airborne contamination including fuel transfer system inspections.

External Dosimetry

The inspectors verified that detailed procedures were implemented associated with dosimeter use including routine dosimeter issuance, multi-badging, and extremity dosimeter use. The inspectors verified that dosimeters were worn on the body location receiving the highest dose rate. The inspectors verified that procedural controls were in place for external effective dose equivalent determinations that would be used for high dose gradient tasks like reactor head inspections. The inspectors reviewed CRs related to electronic dose and dose rate alarms received on electronic dosimetry to determine if the cause of the alarm was properly determined.

Radiation Worker and RP Technician Performance

During tours of RCAs in containment, the inspectors questioned radiation workers and RP technicians regarding the radiological conditions at the work site and the radiological controls that applied to their task. Additionally, radiologically related CRs including dose/dose rate alarm reports were reviewed to evaluate if the incidents were caused by repetitive radiation worker or technician errors and to determine if an observable pattern traceable to a similar cause was evident.

The inspectors attended pre-job RWP briefings for insulation removal, reactor head inspections, and entries into the fuel transfer area annulus to determine if workers were properly informed including discussions of past operating experiences, identification of the radiological conditions associated with their tasks, heat stress considerations, electronic dosimetry dose/dose rate set points, and dose mitigation measures.

Problem Identification and Resolution

The inspectors evaluated Ginna's program for assuring that access controls to radiologically significant areas were effective and properly implemented by reviewing relevant CRs. The inspectors verified that problems were identified in a timely manner, extent-of-condition and cause evaluations were performed, and corrective actions were appropriate to preclude repetitive problems.

b. Findings

No findings were identified.

2RS2 Occupational ALARA Planning and Controls (71124.02)

a. Inspection Scope

During the period October 22 to 25, 2012, 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 RFO operations. Implementation of these controls was reviewed against the criteria contained in 10 CFR 20 and Ginna's procedures.

Radiological Work Planning

The inspectors reviewed pertinent information regarding site cumulative exposure history, current exposure trends, and ongoing exposure challenges for the RFO.

The inspectors reviewed the ALARA plans for all outage projects whose estimated potential exposure could exceed five-person rem. Included in this review were scaffolding installation/removal (RWP 12-5612), refueling activities (RWPs 12-5618 and 12-9618), insulation removal/reinstallation (RWP 12-5611), and reactor head ISIs (RWPs 12-5616 and 12-9616).

The inspectors evaluated the departmental interfaces between RP, operations, maintenance, and engineering to identify missing ALARA program elements and interface problems. The evaluation was accomplished by interviewing site staff and reviewing outage station ALARA committee meeting minutes.

Verification of Dose Estimates

The inspectors reviewed the assumptions and basis for the outage exposure plan. The inspectors also reviewed the revisions made to various outage project dose estimates that resulted from exposure challenges presented by the station ALARA committee.

The inspectors reviewed Ginna's procedures and procedure implementation during the RFO associated with monitoring and re-evaluating dose estimates when the forecasted cumulative exposure for tasks was approached. The inspector reviewed the exposures for 10 workers who received the highest dose for 2012 to confirm that no individual exceeded the regulatory annual limit or the PI criteria.

Job Site Inspections

The inspectors reviewed the exposure controls specified in ALARA job reviews and RWPs for refueling activities, scaffolding installation, and attended pre-job RWP briefings for insulation removal activities, reactor head examinations, flux mapping modifications, and entries into the fuel transfer annulus area.

The inspectors observed workers perform reactor building containment mobilization, scaffold installation, and preparations for reactor disassembly. Workers were questioned regarding their knowledge of job site radiological conditions and ALARA measures applied to their tasks.

Source Term Reduction and Control

The inspectors reviewed the status and historical trends for the reactor source term. Through review of survey maps and interviews with the ALARA engineer, the inspectors evaluated recent source term measurements and control strategies. Specific strategies included maintaining an acid/reducing condition in the RCS following shutdown, utilization of macro-porous clean-up resin, enhanced chemistry controls, system flushes, maximization of SG water levels, and temporary shielding.

The inspectors assessed the effectiveness of temporary shielding by reviewing pre- and post-installation radiation survey data for shielding the pressurizer spray, chemical volume control system letdown, RCS, and RHR system piping.

Problem Identification and Resolution

The inspectors reviewed elements of Ginna's CAP related to implementation of the ALARA program to determine if problems were being entered into the program for timely resolution. CRs related to programmatic dose challenges, personnel contaminations, dose/dose rate alarms, and the effectiveness in predicting and controlling worker exposure were reviewed.

b. Findings

No findings were identified.

4. OTHER ACTIVITIES

4OA1 Performance Indicator Verification (71151 – two samples)

.1 Occupational Exposure Control Effectiveness

a. Inspection Scope

The inspectors reviewed implementation of Ginna's occupational exposure control effectiveness PI program. Specifically, the inspectors reviewed CRs and associated documents for occurrences involving locked high radiation areas, very high radiation areas, and unplanned exposures occurring over the past four calendar quarters against the criteria specified in Nuclear Energy Institute (NEI) 99-02, "Regulatory Assessment PI Guideline," Revision 6, to verify that all occurrences that met the NEI criteria were identified and reported as PIs.

b. Findings

No findings were identified.

.2 Radiological Effluent Technical Specification/Offsite Dose Calculation Manual Radiological Effluent Occurrences

a. Inspection Scope

The inspectors reviewed relevant release reports for the period October 1, 2011, through October 1, 2012, for issues related to the public radiation safety PI, which measures radiological effluent release occurrences that exceed 1.5 millirems/quarter whole body or 5.0 millirems/quarter organ dose for liquid effluents; 5 millirads/quarter gamma air dose, 10 millirads/quarter beta air dose, and 7.5 millirads/quarter for organ dose for gaseous effluents.

b. Findings

No findings were identified.

4OA2 Problem Identification and Resolution (71152 – four samples)

.1 Routine Review of Problem Identification and Resolution Activities

a. Inspection Scope

As required by IP 71152, "Problem Identification and Resolution," the inspectors routinely reviewed issues during baseline inspection activities and plant status reviews to verify that Ginna entered issues into the CAP at an appropriate threshold, gave adequate attention to timely corrective actions, and identified and addressed adverse trends. In order to assist with the identification of repetitive equipment failures and specific human performance issues for follow-up, the inspectors performed a daily screening of items entered into the CAP.

b. Findings

No findings were identified.

.2 Semi-Annual Trend Review

a. Inspection Scope

The inspectors performed a semi-annual review of site issues, as required by IP 71152 to identify trends that might indicate the existence of more significant safety issues. In this review, the inspectors included repetitive or closely related issues that may have been documented by Ginna outside of the CAP, such as trend reports, PIs, major equipment problem lists, system health reports, maintenance rule assessments, and maintenance or CAP backlogs. The inspectors also reviewed Ginna's CAP database for the third and fourth quarters of 2012 to assess CRs written in various subject areas (equipment problems, human performance issues, etc.), as well as individual issues identified during the NRCs daily CR review (Section 4OA2.1). The inspectors reviewed Ginna's quarterly trend reports for the second and third quarters of 2012, conducted in accordance with CNG-CA-1.01-1007, "Performance Improvement Program Trending and Analysis," Revision 00300, to verify that Ginna personnel were appropriately evaluating and trending adverse conditions in accordance with applicable procedures.

b. Findings and Observations

No findings were identified.

The inspectors evaluated a sample of issues and events that occurred over the course of the past two quarters to determine whether issues were appropriately considered as emerging or adverse trends. The inspectors verified that these issues were addressed within the scope of the CAP or through department review and documentation in the quarterly trend presentation for overall assessment. For example, the inspectors noted that Ginna personnel had appropriately identified safety and operator fundamentals as continuing trends, and maintenance human performance as a new low level trend.

.3 Annual Sample: Review of the Operator Workaround Program

a. Inspection Scope

The inspectors reviewed the cumulative effects of the existing operator workarounds, operator burdens, existing operator aids and disabled alarms, and open main control room deficiencies to identify any effect on emergency operating procedure operator actions, and any impact on possible initiating events and mitigating systems. The inspectors evaluated whether station personnel had identified, assessed, and reviewed operator workarounds as specified in Ginna procedure, A-52.16, “Operator Workaround/Challenge Control,” Revision 02301.

The inspectors reviewed Ginna’s process to identify, prioritize and resolve main control room distractions to minimize operator burdens. The inspectors reviewed the system used to track these operator workarounds and recent Ginna self assessments of the program. The inspectors also toured the control room and discussed the current operator workarounds with the operators to ensure the items were being addressed on a schedule consistent with their relative safety significance.

b. Findings and Observations

No findings were identified.

The inspectors determined that the issues reviewed did not adversely affect the capability of the operators to implement abnormal or emergency operating procedures. The inspectors also determined that Ginna entered operator workarounds and burdens into the CAP at an appropriate threshold and planned or implemented corrective actions commensurate with their safety significance.

.4 Annual Sample: SG Loop Load Swap

a. Inspection Scope

The inspectors performed an in-depth review of Ginna’s evaluation and corrective actions associated with an existing SG steam flow rate swap condition. Specifically, in one SG, a small step flow increase with a corresponding dome pressure decrease may occur while the opposite SG experiences a flow decrease, by a lesser amount with a corresponding dome pressure increase. This loop load swap phenomenon leads to a

net increase in steam flow which causes a small reactor power increase. Ginna determined that frictional resistance changes due to pressure fluctuations in the main steam piping system in the intermediate building were causing the loop load swaps. To limit the amount of adjustments the operators need to make to the turbine setting during a loop load swap, the plant has been and is operating at 99.8 percent power.

The inspectors assessed Ginna's problem identification threshold, cause evaluation, extent-of-condition review, and the prioritization and timeliness of corrective actions to determine whether Ginna was appropriately identifying, characterizing, and correcting problems associated with this issue and whether the corrective actions were appropriate. The inspectors compared the actions taken to the requirements of Ginna's CAP and 10 CFR 50, Appendix B.

The inspectors reviewed CRs and associated documents including the apparent cause evaluation performed in 2010, third party engineering assessments, and SG pressure trends. The inspectors also performed a field walkdown of the main steam system in the intermediate and turbine buildings to assess the material condition and review the locations where temporary instrumentation was installed to monitor the affects of the load swaps. The inspectors interviewed engineering and operations personnel to assess the acceptability and appropriateness of the implemented corrective actions.

b. Findings and Observations

No findings were identified.

Ginna determined the apparent cause of the randomly occurring loop load swaps was due to pressure pulsations in the main steam system. The steam in the main steam piping periodically experienced fluctuating pressures at a frequency that matched the structural natural frequency. When the pressure fluctuations matched the structural natural frequency, resonance would occur causing frictional resistance changes. Based on this analysis, Ginna personnel implemented corrective actions including obtaining an independent engineering assessment, installing temporary instrumentation to collect and analyze data, and changing the operation of the plant to not exceed 99.8 percent power. The inspectors determined Ginna's conclusion and corrective actions were reasonable in accordance with their CAP and commensurate with their safety significance.

.5 Annual Sample: Radiation Monitoring Systems Obsolescence

a. Inspection Scope

During the period October 22 to 25, 2012, the inspectors evaluated the effectiveness of Ginna's CAP in response to the past identification of inoperable main steam line radiation monitors (RMs) (R-31 and R-32) that resulted in a 30-day special report to the NRC in December 2011. On a broader scope, the inspectors assessed Ginna's response to the aging and obsolescence of RMs.

Specifically, the inspectors reviewed CRs, system health reports, action plans, Ginna procedures, and technical studies that were generated to identify radiation monitoring instruments with obsolescence issues and to develop plans for repair or replacement of the affected instruments.

Background

On October 26, 2011, RMs R-31 and R-32 were taken OOS for maintenance that involved replacing degraded cables. Upon restoring the system to service, both RMs again failed. Troubleshooting revealed several failed circuit boards and subcomponents. Repairs and component replacements were performed from available stock; however, the system faults were not corrected. Ginna determined that repairs could not be expeditiously completed because the original manufacturer of these instruments no longer supported maintenance of this system, and replacement parts were not available due to obsolescence.

Assessments

Identification of Issues

The inspectors determined that specific procedural criteria (CNG-CA-1.01-1000, "Corrective Action Program," Revision 00701) had been established to ensure that any questionable instrument performance or failure that could potentially affect long-term reliability be addressed by the CAP. As a conservative measure, Ginna consistently generated CRs at a low threshold to ensure that any off-normal condition was promptly addressed by the CAP.

To ensure that component common mode failure was evaluated, an extent of condition was routinely performed on instrument failures to address potential problems with similar components and instruments.

Additionally, the plant health committee was required to review those CRs that related to RM instruments covered by the maintenance rule and to ensure that the scope of the issue was properly developed and actions prioritized in a timely manner.

Ginna also evaluates operating experiences at other nuclear facilities to identify the potential for similar instrument failures that could affect monitoring capabilities at Ginna. Operating experiences are captured in CRs, are evaluated, and the lessons learned from other facilities are applied to site programs.

Prioritization and Evaluation of Issues

The inspectors determined that a dedicated engineering standard (CNG-FES-053, "System Health Reporting," Revision 00005) had been implemented to systematically evaluate and trend instrument performance issues and addressed the effectiveness of past corrective actions through the system health reporting program. By evaluating radiation monitoring system health reports, the plant health committee develops strategies for repair or replacement of monitors that have repeat failures. Repair strategies include using available spare parts, cannibalizing parts from abandoned instruments, procuring parts from a certified vendor, contracting for the parts to be manufactured, or obtaining parts from another facility having similar instrumentation.

Effectiveness of Corrective Actions

In response to past instrument age-related failures whose repair was precluded by the unavailability of spare parts and/or equipment obsolescence, Ginna implemented broad-

based corrective actions in monitoring equipment reliability and mitigating future problems. These measures have been captured in the long-term asset management record.

The plant health committee developed a 5-year action plan and prioritized the replacement of monitors including two particulate, iodine, and noble gas (SPING) monitors (the plant vent monitor (RM-14A) and the containment vent monitor (RM-12A), respectively). In addition, the action plan addressed replacement of the containment high range monitors (R-29 and R-30), the waste tank monitor (R-22), and several area monitors (R-23 to R-28, R-33 to R-35).

b. Findings and Observations

No findings were identified.

The inspectors determined that thorough and timely evaluations of the aging and obsolescence of process RMs were performed. An independent consultant provided a comprehensive and in-depth evaluation of specific process RMs at Ginna which experienced excessive failures and obsolescence issues. From this systematic evaluation, options for actions were developed to prevent or mitigate future failures. Ginna has placed a high priority on monitoring instrument performance and addressing obsolescence issues by scheduling the replacement of RMs that have questionable reliability and no longer have manufacturer support. Appropriate actions have been taken by Ginna to assure that radiological conditions were properly monitored and regulatory requirements were met.

4OA3 Follow-Up of Events and Notices of Enforcement Discretion (71153)

a. Inspection Scope

On November 26, 2012, the inspectors responded to the control room to observe operator response to an ongoing event. The 'B' MFP had developed a significant oil leak and operators were rapidly reducing plant power in order to safely remove the pump from service. The inspectors subsequently reviewed the root cause for the MFP oil leak to determine if maintenance activities had been conducted in accordance with Constellation procedures and practices.

b. Findings

Introduction. A self-revealing Green finding was identified for Ginna personnel not following Constellation procedure CNG-MN-4.01-GL004, "Work Package Writer's Guideline," Revision 00000, for planning a maintenance activity. Specifically, during the RFO, the work package for maintenance on the 'B' MFP did not identify the correct gasket for the lube oil filter canister cover; therefore, an incorrect gasket was installed. The gasket failed after being in service for approximately 10 days resulting in a significant oil leak and causing operators to rapidly reduce plant power to 47 percent to remove the pump from service and avoid a plant trip.

Description. On November 26, 2012, Ginna personnel identified a substantial oil leak from the 'B' MFP. Control room operators were immediately notified and a rapid load reduction was initiated in order to remove the MFP from service. Plant power was

reduced to 47 percent, the pump was shut down, and the oil leakage was contained. An issue response team was formed to investigate the oil leakage, and a CR was initiated (CR-2012-8912). Ginna staff identified the leakage was from the oil filter canister cover due to installation of an incorrect gasket.

The investigation determined that an incorrect gasket was installed during the RFO earlier in November 2012. Maintenance completed on the 'B' MFP during the outage included changing the oil and oil filter. During the initial run after the maintenance, personnel noted a small leak through the oil filter canister cover gasket. They removed the pump from service and prepared to replace the leaking gasket. However, no part number was identified for the gasket during the maintenance planning. Maintenance personnel then looked at the MFP gaskets in stock and selected one based on its size such that it fit between the filter canister and the cover. However, the selected gasket was a round O-ring instead of the required square-edged gasket and eventually failed on November 26. Maintenance personnel missed an opportunity to prevent the installation of the incorrect gasket when they proceeded after recognizing that the work package was not specific on the gasket required. Corrective actions included replacing the gasket with the correct one and initiating CR-2012-8912.

Through discussions with maintenance supervision, the inspectors determined that Ginna failed to identify and confirm that a replacement part used during a maintenance activity was the correct part. Ginna management concluded that maintenance personnel should have identified and verified the correct gasket part either with stockroom personnel, the vendor, or through the assistance of engineering personnel.

Constellation procedure CNG-MN-4.01-GL004 established the standards for work order planning. The guideline stated that an appropriate level of detail is necessary in order for the least experienced, qualified individual to successfully complete the task without direct supervision. Additionally, the guideline states that if the consequences of incorrect performance or omission of action are severe with potential for equipment damage, more information should be provided. The work package did not meet this standard as the package did not specify the replacement gasket.

Analysis. The performance deficiency associated with this finding was that Ginna maintenance personnel did not follow Constellation procedure CNG-MN-4.01-GL004 for planning a maintenance activity; this was within Ginna's ability to foresee and correct, and should have been prevented. Specifically, during the refueling outage, the work package for maintenance on the 'B' main feedwater pump did not identify the correct gasket for the lube oil filter canister cover; therefore, an incorrect gasket was installed.

This finding is more than minor because it is associated with the human performance attribute of the Initiating Events cornerstone and adversely impacted the cornerstone objective to limit the likelihood of events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. Specifically, Ginna personnel failed to specify in the work package which gasket was to be installed on the 'B' MFP oil filter canister, which resulted in the wrong gasket being installed. This resulted in a significant oil leak after approximately 10 days of operation, and a plant transient as operators rapidly reduced plant power in order to avoid a plant trip. Additionally, the finding is similar to IMC 0612, Appendix E, "Examples of Minor Issues," example 4.b. issued August 11, 2009, in that a personnel error caused a transient. The inspectors evaluated the finding using Phase 1, "Initial Characterization of Findings,"

worksheet issued June 19, 2012, in Attachment 4 to IMC 0609, "Significance Determination Process," issued June 2, 2011. This attachment directed the inspectors to evaluate the finding using IMC 0609, Appendix A, "Significance Determination Process for Findings At-Power," issued June 19, 2012. The inspectors determined this finding did not cause a reactor trip and the loss of mitigation equipment relied upon to transition the plant from the onset of the trip to a stable shutdown condition (e.g. loss of condenser, loss of feedwater). Therefore, the inspectors determined the finding to be of very low safety significance (Green).

This finding has a cross-cutting aspect in the area of Human Performance, Work Practices, because Ginna personnel proceeded in the face of uncertainty or unexpected circumstances and installed a gasket without confirming it was the correct part. [H.4.(a)]

Enforcement. Ginna personnel failed to properly identify a replacement component in the work package and consequently installed an incorrect lube oil filter canister cover gasket in the 'B' MFP. This issue was entered into Ginna's CAP as CR-2012-8912. This finding does not involve enforcement action because no regulatory requirement violation was identified. Because this finding does not involve a violation and is of very low safety significance, it is identified as a FIN. **(FIN 05000244/2012005-04, Incorrect Oil Filter Gasket Installed in the 'B' Main Feedwater Pump Canister Cover)**

4OA5 Other Activities

.1 Operation of an Independent Spent Fuel Storage Installation (ISFSI) (IP 60855)

a. Inspection Scope

The inspectors evaluated Ginna's activities related to long-term operation and monitoring of their ISFSI and verified that activities were being performed in accordance with the certificate of compliance, TSs, NRC regulations, and Ginna procedures.

The inspectors performed tours of the ISFSI to assess the material condition of the pad and the loaded horizontal storage modules. The inspectors also verified that transient combustibles were not being stored on the ISFSI pad or in the vicinity of the horizontal storage modules. The inspectors confirmed vehicle entry onto the ISFSI pad was controlled in accordance with Ginna's procedures and verified that Ginna was appropriately performing daily horizontal storage modules surveillances in accordance with TS requirements.

The inspectors interviewed reactor engineering personnel and reviewed Ginna's program associated with fuel characterization and selection for storage from the last ISFSI loading campaign in October and November 2011. The inspectors verified that the criteria met the conditions for cask and canister use as specified in the certificate of compliance. The inspectors also confirmed that physical inventories were conducted annually and were maintained as required by the regulations.

The inspectors reviewed radiological records from the last ISFSI loading campaign to confirm that radiation and contamination levels measured on the casks were within limits specified by TSs and consistent with values specified in the UFSAR. The inspectors reviewed RP procedures and RWPs associated with ISFSI operations. The inspectors also reviewed annual environmental reports to verify that areas around the ISFSI pad

and the ISFSI site boundary were within limits specified in 10 CFR Part 20 and 10 CFR Part 72.104.

The inspectors reviewed CRs and the associated follow-up actions that were generated since Ginna's last loading campaign to ensure that issues were entered into the CAP, prioritized, and evaluated commensurate with their safety significance. The inspectors also reviewed Ginna's 10 CFR 72.48 screenings.

b. Findings

No findings were identified.

.2 (Closed) NRC TI 2515/187 – Inspection of Near-Term Task Force Recommendation 2.3 Flooding Walkdowns

a. Inspection Scope

The inspectors verified that Ginna's walkdown packages contained the elements as specified in NEI 12-07, "Guidelines for Performing Verification Walkdowns of Plant Food Features".

The inspectors accompanied Ginna personnel on their walkdown of the auxiliary building operating floor and verified that they confirmed the following flood protection features:

- Visual inspection of the flood protection feature was performed if the flood protection feature was relevant. External visual inspection for indications of degradation that would prevent its credited function from being performed was performed
- Reasonable simulation
- Critical SSC dimensions were measured
- Available physical margin, where applicable, was determined
- Flood protection feature functionality was determined using either visual observation or by review of other documents

The inspectors verified that noncompliances with current licensing requirements and issues identified in accordance with the 10 CFR 50.54(f) letter, Item 2.g of Enclosure 4, were entered into Ginna's CAP. In addition, issues identified in response to Item 2.g that could challenge risk significant equipment and Ginna's ability to mitigate the consequences will be subject to additional NRC evaluation.

b. Findings and Observations

No NRC-identified or self-revealing findings were identified. This completes the inspection requirements for TI 2515/187.

.3 (Closed) NRC TI 2515/188, Inspection of Near-Term Task Force Recommendation 2.3 Seismic Walkdowns

a. Inspection Scope

The inspectors accompanied Ginna personnel on their seismic walkdowns of the auxiliary building intermediate floor on July 30, 2012, the EDG rooms and the standby AFW pump room on August 2 and verified that Ginna confirmed that seismic features were free of potential adverse seismic conditions:

- Anchorage was free of bent, broken, missing or loose hardware
- Anchorage was free of corrosion that is more than mild surface oxidation
- Anchorage was free of visible cracks in the concrete near the anchors
- Anchorage configuration was consistent with plant documentation
- SSCs will not be damaged from impact by nearby equipment or structures
- Overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls are secure and not likely to collapse onto the equipment
- Attached lines have adequate flexibility to avoid damage
- The area was free of potentially adverse seismic interactions that could cause flooding or spray in the area
- The area was free of potentially adverse seismic interactions that could cause a fire in the area
- The area was free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)

The inspectors independently performed walkdowns of the vital battery rooms on August 7, 2012, the screen house on August 14, and verified the following:

- Anchorage was free of bent, broken, missing or loose hardware
- Anchorage was free of corrosion that is more than mild surface oxidation
- Anchorage was free of visible cracks in the concrete near the anchors
- Anchorage configuration was consistent with plant documentation
- SSCs will not be damaged from impact by nearby equipment or structures
- Overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls are secure and not likely to collapse onto the equipment
- Attached lines have adequate flexibility to avoid damage
- The area was free of potentially adverse seismic interactions that could cause flooding or spray in the area
- The area was free of potentially adverse seismic interactions that could cause a fire in the area
- The area was free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)

Observations made during the walkdown that could not be determined to be acceptable were entered into Ginna's CAP for evaluation.

Additionally, the inspectors verified that items that could allow the SFP to drain down rapidly were added to the seismic walkdown equipment list and these items were walked down by Ginna.

b. Findings and Observations

No NRC-identified or self-revealing findings were identified. This completes the inspection requirements for TI 2515/188.

4OA6 Meetings, Including Exit

Exit Meeting

On January 17, 2013, the inspectors presented the inspection results to Mr. Joseph Pacher, Vice President, and other members of the Ginna staff. The inspectors verified that no propriety information was retained by the inspectors or documented in this report.

ATTACHMENT: SUPPLEMENTARY INFORMATION

SUPPLEMENTARY INFORMATION

KEY POINTS OF CONTACT

Licensee Personnel

J. Pacher	Vice President, Ginna
D. Bierbrauer	Manager, Nuclear Safety and Security
J. Bowers	General Supervisor, Radiation Protection
E. Dean III	Plant General Manager
S. Doty	Manager, Maintenance
M. Geckle	Manager, Training
K. McLaughlin	General Supervisor, Shift Operations
T. Mogren	Manager, Engineering Services
T. Paglia	Manager, Operations
S. Preston	Director, Performance Improvement Unit
J. Scalzo	Director, Emergency Preparedness
S. Snowden	General Supervisor, Chemistry
J. Wells	General Supervisor, Engineering Programs
S. Wihlen	Manager, Integrated Work Management

LIST OF ITEMS OPENED, CLOSED, DISCUSSED, AND UPDATED

Opened/Closed

05000244/2012005-01	NCV	Failure to Adequately Evaluate Changes to the Relay Room Halon Suppression System Inspection and Testing Frequency (Section 1R15)
05000244/2012005-02	NCV	Failure to Perform an Adequate Extent-of-Condition Review for Water Identified in the Technical Support Center Diesel Fuel Storage Tank (Section 1R15)
05000244/2012005-03	FIN	Failure to Meet a Conduct of Operations Standard Results in Loss of Spent Fuel Pool Cooling (Section 1R20)
05000244/2012005-04	FIN	Incorrect Oil Filter Gasket Installed in the ‘B’ Main Feedwater Pump Canister Cover (Section 4OA3)

Closed

05000244/2515/187	TI	Inspection of Near-Term Task Force Recommendation 2.3 Flooding Walkdowns (Section 4OA5)
05000244/2515/188	TI	Inspection of Near-Term Task Force Recommendation 2.3 Seismic Walkdowns (Section 4OA5)

LIST OF DOCUMENTS REVIEWED

Section 1R01: Adverse Weather Protection

Procedures
ER-SC.1, Adverse Weather Plan, Revision 01802
ER-SC.2, High Water (Flood) Plan, Revision 00801
O-22, Cold Weather Walkdown Procedure, Revision 00803 and Revision 00804

Condition Reports
CR-2012-7677
CR-2012-8812

Section 1R04: Equipment Alignment

Procedures
O-2.3.1A, Containment Closure Capability within 2 Hours during RCS Reduced Inventory Operation, Revision 02600
O-15.2, Valve Alignment for Reactor Head Lift, Core Component Movement, and Periodic Status Checks, Revision 03601
S-9, SFP Cooling System Operation, Revision 00404
STP-O-30.2, RHR System Valve and Breaker Position Verification, Revision 00001

Drawings
33013-1247, Auxiliary Coolant RHR, Revision 046
33013-1248, Auxiliary Cooling SFP Cooling, Revision 038

Condition Reports
CR-2012-7727
CR-2012-7444

Section 1R05: Fire Protection

Document
EPM-FPPR, Ginna Station FP Program Report Volumes 1, 2 and 3, Revision 008.0
Ginna FP Program, Revision 8.0

Procedures
A-3.1, Containment Storage and Closeout Inspection, Revision 04700
A-54.7, FP Tour, Revision 03402

A-202, FP Program and Ginna Station Staff Responsibilities for FP, Revision 02901
FPS-16, Bulk Storage of Combustible Materials and Transient Fire Loads, Revision 01501
FRP-1.0, Containment Basement, Revision 00600
FRP-2.0, Containment Intermediate Floor, Revision 00700
FRP-3.0, Containment Operating Floor, Revision 00700
O-6.1, Auxiliary Operator Rounds and Log Sheets, Revision 04601
STP-O-13.4.33, Station Halon Systems Bottle Weighing and S08 (Relay Room and Computer Room) Air Flow Test, Revision 00002

Drawings
33013-2540, Fire Response Plan General Plant Drawing Index and Symbol Legend, Revision 008
33013-2542, Fire Response Plan Containment Structure and Intermediate Building Plan – Basement Floor Elevation 235 feet 8 inches, Revision 005
33013-2545, Fire Response Plan Containment Structure and Intermediate Building Plan – Intermediate Floor Elevation 253 feet 3 inches, Revision 009
33013-2551, Fire Response Plan Containment Structure and Intermediate Building Plan – Operations Floor Elevation 278 feet 4 inches and 274 feet 6 inches, Revision 007
33013-2559, Fire Response Plan Control Building Plan Views, Revision 013

Condition Reports
CR-2012-7276
CR-2012-7401
CR-2012-7726
CR-2012-7732

Section 1R06: Flood Protection Measures

Documents
1-DC-787-0428-13, Water Intrusion into the RHR Pit from Auxiliary Building Suppression Systems, Revision 003
DA-CE-95-125, Seismic Analysis of Refueling Water Storage Tank, Revision 000
DA-ME-10-027, SW Flooding Analysis of Intermediate Building Sub-basement and Auxiliary Building Basement, Revision 000
Integrated Plant Safety Assessment Report, Systematic Evaluation Program, Supplement Number 1
MPR-3084, Evaluation of Internal and External Flooding at Ginna, Revision 0

Drawings
33013-1247, Auxiliary Coolant RHR Piping and Instrument Drawing (P&ID), Revision 046
33013-1272, Waste Disposal-Liquid Reactor Coolant Drain Tank P&ID, Revision 014

Condition Reports
CR-2012-5884
CR-2012-6114
CR-2012-7611
CR-2012-7682

Work Order
WO C92066310

Section 1R07: Heat Sink Performance

Procedure
STP-I-60.6A, CCW HX Performance Test, Revision 00100

Drawings
33013-1245, Auxiliary Coolant CCW P&ID, Revision 033
33013-1247, Auxiliary Coolant RHR P&ID, Revision 046

Condition Reports
CR-2010-2969
CR-2011-3454
CR-2012-7531
CR-2013-0163

Work Orders
WO C90671909
WO C90671911

Section 1R08: Inservice Inspection Activities

Documents
12GCA044, Ultrasonic Test Calibration Report, dated November 2, 2012
12GCA045, Ultrasonic Test Calibration Report, dated November 2, 2012
12GCA080, Ultrasonic Test Calibration Report, dated November 1, 2012
2011 Owner's Activity Report for RFO-35 Inservice Examinations, dated August 22, 2011
Boric Acid Program Health Report, 3rd Quarter 2012
CENG-GNPP-CISI-002, Second 10-Year Containment ISI Plan, dated December 29, 2009
CENG-GNPP-ISI-005, Fifth 10-Year ISI Plan, dated December 29, 2009
IP-SGP-2, SG Tube Integrity Assessment, Revision 00401
ISI Program Health Report, 2nd Quarter 2012
LR-BAC-PROGPLAN, License Renewal - Boric Acid Corrosion Program, Revision 3
LTR-SGDA-11-148, Evaluation of Foreign Objects in the Secondary Side of Ginna SGs, Revision 1
LTR-SGMP-11-47, Structural Limit Curve for Ginna Foreign Object Wear, dated May 18, 2011
LTR-SGMP-11-48, Assessment of Foreign Object Wear Indications, Ginna Station 2011 RFO, dated May 18, 2011
OE-2010-1838
OE-2010-0354
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SG Tube Inspection Report - End of Cycle 35 RFO, May 2011
Welding Program Health Report, 2nd Quarter 2012

Procedures
EP-MT-101, Magnetic Particle Examinations Acceptance Criteria, Revision 00100
EP-MT-105, Magnetic Particle Examinations, Revision 00301

EP-UT-205, Manual Ultrasonic Examination of Vessel-to-Nozzle Inside Radius Sections (Non-Appendix VIII), Revision 00101
EP-UT-211, Ultrasonic Examination of Piping Butt Welds, Socket Welds, and Base Material for Thermal Fatigue Damage, Revision 00201
EP-VT-112, Visual Examination of Class MC and Metallic Liners of Class CC Components, Revision 00300
EP-VT-116, Visual Examination of Reactor Vessel Head, Revision, 00200
IP-CAP-1.9, Boric Acid Leakage Initial Investigation Form, Revision 00901
IP-IIT-1, ASME Section XI, Repair and Replacement Program/Process for Class 1, 2, & 3, Revision 01200
IP-IIT-7, Boric Acid Corrosion Monitoring Program, Revision 00900
WDI-STD-1041, Reactor Vessel Head Penetration Ultrasonic Examination Analysis, Revision 8
WDI-STD-1118, Guidelines for Reactor Vessel Head Inspection Coverage Calculations, Revision 0

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CR-2011-6337	CR-2012-5578	CR-2012-7305
CR-2011-6538	CR-2012-7152	CR-2012-7470
CR-2011-7556	CR-2012-7166	CR-2012-7501
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12GU013, Summary Number I005900, Ultrasonic Examination of 'A' SG Inlet Nozzle inside Radius Section, dated November 2, 2012
12GV322, Summary Number I411111, Visual Examination (VT-3) of Reactor Pressure Vessel Bottom-Mounted Instrumentation Penetrations, dated October 29, 2012
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Section 1R11: Licensed Operator Requalification Program

Documents
FRH1-OSA, Loss of Heat Sink, Revision 01
Master Physical Fidelity List, dated May 2012

Procedures
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CNG-OP-3.01-1000, Reactivity Management, Revision 00701
CNG-TR-1.01-1007, Simulator Configuration Management and Testing, Revision 00001
GSG-2.4, Control of Simulator Fidelity, Revision 00600
OTG-2.2, Simulator Examination Instructions, Revision 43

Section 1R12: Maintenance Effectiveness

Documents
TGS System Health Report, October 1 to December 31, 2012
TGS01 Function Details, dated December 11, 2012
TGS02 Function Details, dated December 11, 2012
TGS02 Maintenance Rule Status/Goal Record, dated December 13, 2012

Procedures
CNG-AM-1.01-1023, Maintenance Rule Program, Revision 00200
M-109, Auxiliary Electro Hydraulic Governor High Pressure Fluid System Adjustment, Calibration, and Maintenance, Revision 03401

Drawing
33013-1232, Main Steam Non-Safety Related P&ID, Revision 031

Condition Reports

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CR-2007-4816	CR-2010-4522	CR-2012-8785
CR-2008-5856	CR-2010-4683	CR-2012-8949
CR-2009-7982	CR-2011-4111	CR-2012-9204
CR-2010-2700	CR-2011-6707	CR-2012-9301

Section 1R13: Maintenance Risk Assessments and Emergent Work Control

Documents
Contingency Planning Worksheet 2012-004, Diesel Generator 'B' Inoperable but Available During Bus 16 and 17 UV Detection Work
Contingency Planning Worksheet 2012-011, SFP HX 'A' and 'A' CCW HX Unavailable During a SW Loop Outage
Contingency Planning Worksheet 2012-015, Protection of RHR and SFP
EPM-FPPR, Ginna Station FP Program Report Volumes 1, 2 and 3, Revision 008.0
RWP 12-6008, Containment Entries while Reactor is Critical, Revision 01

Procedures
A-52.4, Control of Limiting Conditions for Operating Equipment, Revision 14102
CNG-OP-4.01-1000, Integrated Risk Management, Revision 01101
IP-ALA-1, ALARA Challenge Board, Revision 00100
IP-OUT-2, Outage Risk Management, Revision 01802
O-6, Operations and Processing Monitoring, Revision 10610
O-6.11, Surveillance Requirement/Routine Operations Check Sheet, Revision 16402

OPG-PROTECTED-EQUIPMENT, Operations Protected Equipment Program, Revision 00300
STP-O-13.4.40, TSC Heating, Ventilation, and Air Conditioning Charcoal Filter Deluge System S31, Revision 00000

Drawing
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CR-2012-7963
CR-2012-7966
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CR-2012-8965
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Work Orders
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WO C91325978

Section 1R15: Operability Evaluations

Documents
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EPM-FPPR, Ginna Station FP Program Report Volumes 1, 2 and 3, Revision 008.0
ND-FPP, FP Program, Revision 01500
RHR 'A' Extent of Condition Interoffice Memorandum, dated October 20, 2012
RHR 'A' Motor Past Operability Determination, dated October 23, 2012

Procedures
A-54.7, FP Tour, Revision 03402
A-202, FP Program and Ginna Station Staff Responsibilities for FP, Revision 02901
CH-190, Diesel Fuel Oil Testing Program, Revision 00400
CH-240, Sampling, Handling and Evaluation of On-Site Diesel Fuel Oil Storage Tanks, Revision 00002
CNG-AM-1.01-1023, Maintenance Rule Program, Revision 00200
CNG-CA-1.01-1000, CAP, Revision 00701
CNG-OP-1.01-1002, Conduct of Operability Determinations/Functionality Assessments, Revision 00200
EP-3-P-0132, FP Appendix R Conformance Verifications, Revision 00702
PT-13.4.33, Station Halon Systems Bottle Weighing and S08 (Relay Room and Computer Room) Air Flow Test, Revision 021
STP-E-12.5, TSC Diesel Test, Revision 00200
STP-O-13.4.33, Station Halon Systems Bottle Weighing and S08 (Relay Room and Computer Room) Air Flow Test, Revision 00002
T-27.8, Fuel Oil Sampling, Revision 1200

Drawing
33013-2559, Fire Response Plan Control Building Plan Views, Revision 013

Condition Reports
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CR-2011-5847
CR-2012-7267
CR-2012-7746
CR-2012-7792
CR-2012-8407
CR-2012-9400

Work Orders
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WO C90927990
WO C91608680
WO C92068391
WO C92079619

Section 1R18: Plant Modifications

Document
ECP-11-000728, Flux Mapping System Upgrade, Revision 0000

Condition Reports
CR-2012-8464
CR-2012-8840
CR-2012-8842
CR-2012-8986
CR-2012-9385

Work Orders
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Section 1R19: Post-Maintenance Testing

Documents
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NRC Information Notice 2010-03, Failures of MOVs due to Degraded Stem Lubrication, dated February 3, 2010
Technical Assistance Request (TIA 96-007), Regulatory Acceptability of Lubricating Valves Prior to Surveillance Testing, dated July 2, 2006
UDS/VIPER Test Evaluation for MOV 852A, dated May 11, 2011

Procedures
IP-IIT-2, Inservice Testing Program for Pumps and Valves, Revision 01200
M-64.1.2, MOV Analysis and Test System Testing of MOVs, Revision 04000
M-109, Auxiliary Electro Hydraulic Governor High Pressure Fluid System Adjustment, Calibration, and Maintenance, Revision 03401
STP-I-9.1.18, UV Protection, 480-Volt Safeguard Bus 18, Revision 00300
STP-O-2.1-COMP-B, SI Pump 'B' Comprehensive Test, Revision 00200
STP-O-2.2-COMP-A, RHR Pump 'A' Comprehensive Test, Revision 00201
STP-O-2.6.5, RCS Overpressure Protection System PORV Operability Verification, Revision 00101
STP-O-2.10.5, Main Steam Isolation Valve Shutdown Exercising Requirements, Revision 00200
STP-O-3-COMP-A, Containment Spray Pump 'A' Comprehensive Test, Revision 00300
STP-O-16-COMP-T, AFW Turbine Pump – Comprehensive Test, Revision 01700

STP-O-50.26, Differential Pressure Testing of Auxiliary Building SW Isolation MOV-4616 and MOV-4735, Revision 00100
STP-O-R-2.7B, Train 'B' SI Sequence Timers, Revision 00101

Drawing
33013-1231, Main Steam (Safety Related) P&ID, Revision 043

Condition Reports

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CR-2010-1649	CR-2012-7397	CR-2012-9204
CR-2011-3476	CR-2012-7402	
CR-2012-7098	CR-2012-7407	

Work Orders

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Section 1R20: Refueling and Other Outage Activities

Documents
Contingency Planning Worksheet 2012-002, Diesel Generator 'B' Inoperable due to Motor Control Center 'D' Breaker Swap, dated September 21, 2012
Contingency Planning Worksheet 2012-008, Equipment Hatch Removed in Mode 6 >23 feet and <23 feet, dated September 21, 2012
Contingency Planning Worksheet 2012-011, SFP HX 'A' and 'A' CCW HX Unavailable During a SW Loop Outage, dated September 21, 2012
Contingency Planning Worksheet 2012-015, Protection of RHR and SFP, dated September 21, 2012
Operations Night Orders dated November 23, 2012

Procedures
A-3.1, Containment Storage and Closeout Inspection, Revision 04700
AP-PRZR.1, Abnormal Pressurizer Pressure, Revision 01700
AP-RCC.2, RCC/RPI Malfunction, Revision 01400
AR-F-19, Pressurizer PORV Outlet Hi Temp 145 Degrees Fahrenheit, Revision 01101
AR-K-21, SFP Low Flow 1100 GPM, Revision 8
AR-K-29, SFP Hi Temp 115 Degrees Fahrenheit Hi-Lo Level 20 inches 12 inches, Revision 13 and Revision 01400
CNG-MN-1.01-1005, Scaffold Control, Revision 00400
CNG-OP-1.01-1000, Conduct of Operations, Revision 00700
CNG-OP-5.01, Water Hammer Prevention and Mitigation Program, Revision 00000
CNG-SE-1.01-1001, Fitness for Duty Program, Revision 00500
IP-CAP-1.9, Boric Acid Leakage Initial Investigation Form, Revision 00901
IP-IIT-7, Boric Acid Corrosion Control Program, Revision 01000
IP-OUT-2, Outage Risk Management, Revision 01900
O-1.1, Plant Heatup from Cold Shutdown to Hot Shutdown, Revision 16601
O-1.1B, Establishing Containment Integrity, Revision 06700
O-2.1, Normal Shutdown to Hot Shutdown, Revision 13302

O-2.2, Plant Shutdown from Hot Shutdown to Cold Conditions, Revision 15404
O-2.3, Draining the RCS to Lowered Inventory <84 inches but >64 inches, Revision 04803
O-2.3.1, Draining and Operation at Reduced Inventory of the RCS, Revision 08600
O-2.3.1A, Containment Closure Capability within 2 Hours during RCS Reduced Inventory Operation, Revision 02600
O-15.2, Valve Alignment for Reactor Head Lift, Core Component Movement, and Periodic Status Checks, Revision 03601
OPG-OPERATIONS-EXPECTATIONS, Operations Department Expectations, Revision 01404
S-3.4Z, Alternative Methods for Filling the Refueling Cavity, Revision 00300
S-9, SFP Cooling System Operation, Revision 00404
S-9S, Standby SFP Cooling System Installation, Fill and Vent Including Fire Water to SFP Backup Cooling, Revision 02606
S-12.2, Operator Action in the Event of Indication of Significant Increase in Leakage, Revision 04602

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CR-2009-6994	CR-2012-7963	CR-2012-8724
CR-2012-7128	CR-2012-7966	CR-2012-8725
CR-2012-7151	CR-2012-7995	CR-2012-8731
CR-2012-7172	CR-2012-8114	CR-2012-8734
CR-2012-7173	CR-2012-8361	CR-2012-8755
CR-2012-7187	CR-2012-8519	CR-2012-8789
CR-2012-7207	CR-2012-8534	CR-2012-8851
CR-2012-7350	CR-2012-8621	CR-2012-9401
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CR-2012-7680	CR-2012-8685	CR-2012-9499
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Section 1R22: Surveillance Testing

Procedures
IP-IIT-2, Inservice Testing Program for Pumps and Valves, Revision 01200
IP-IIT-3.1, Containment Isolation Valve Leak Rate Testing, Revision 00300
P-12, Electrical System Precautions, Limitations, and Set Points, Revision 02201
STP-I-32.1-B, Plant Safeguard Logic Test Train 'B', Revision 00400
STP-O-23.22, Local Leak Rate Test of Reactor Coolant Drain Tank Discharge Header Pen 143, Revision 00102
STP-O-R-2.1, SI Integrated Functional Test, Revision 00104
STP-O-R-2.2, Diesel Generator Load and Safeguard Sequence Test, Revision 00800
STP-O-R-10.3, Preparation for and Performance of Main Steam Safety Valve Test Using Set Point Verification Device, Revision 00301
STP-O-R-24, SI Accumulator Check Valve Operability Test, Revision 00300

Drawings
33013-1231, Main Steam (Safety Related) P&ID, Revision 041
33013-1262, SI and Accumulators P&ID, Revision 007, Sheet 2 of 2

Condition Reports

CR-2011-1629	CR-2011-6415	CR-2012-7381
CR-2011-2598	CR-2012-7059	CR-2012-8312
CR-2011-3475	CR-2012-7066	CR-2012-8548
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CR-2011-5538	CR-2012-7377	

Work Orders

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WO C90672019	WO C90672088	

Section 2RS1: Radiological Hazard Assessment and Exposure Controls

Procedures

A-1.1, Access Control to Locked High Radiation and Very High Radiation Areas, Revision 04802
CNG-RP-1.01-1000, On-Line Dose Performance Threshold Criteria, Revision 00000
CNG-RP-1.01-2001, Dosimetry, Revision 00000
CNG-RP-1.01-3001, Alpha Monitoring and Control, Revision 00000
RP-1006, RP NRC PI, Revision 00001
RP-ALPHA-RAD-MON, Alpha Radiation Monitoring, Revision 00200
RP-SUR-POST, Radiological Postings and Boundary Control, Revision 01301
RP-SUR-REL, Unconditional Release of Material from Restricted Areas, Revision 01900
RPG-20, Pre-H2O2 Addition (Crud Burst) Postings
RPG-72, RP Guideline Alpha Characterization

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CR-2012-2945	CR-2012-4672

Section 2RS2: Occupational ALARA Planning and Controls

Document

ALARA Committee Meetings August 8 and September 12, 2012, Minutes

Procedures

IP-RPP-9, Department ALARA Advocate, Revision 00000
ND-ALA, ALARA, Revision 00800
RP-ALA-PLAN/RWP-PREP, RWP, Revision 00403
RP-ALA-REVIEW, ALARA Job Review, Revision 01002

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12-5611, Insulation Work Activities
12-5612, Scaffold Work Activities
12-5616/12-9616, Reactor Vessel ISI Examinations
12-5618/12-9618, Refueling Activities

4OA1: Performance Indicator Verification

Document
NEI-99-02, Regulatory Assessment PI Guideline, Revision 6

4OA2: Problem Identification and Resolution

Documents
AREVA Engineering Information Record 51-9041601-000, Ginna Targeted Process RM Evaluation
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Procedures
A-52.16, Operator Workaround/Challenge Control, Revision 02301
CNG-CA-1.01-1000, CAP, Revision 00701
CNG-CA-1.01-1007, Performance Improvement Program Trending and Analysis, Revision 0300
CNG-FES-053, System Health Reporting, Revision 00005
CNG-OP-1.01-1000, Conduct of Operations, Revision 00800
CNG-OP-1.01-1001, Operation Decision Making, Revision 00500
CNG-OP-3.01-1000, Reactivity Management, Revision 00701
CNG-QL-1.01-1008, Quarterly Report Process, Revision 00400
O-6.3, Maximum Unit Power, Revision 04901

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CR-2009-5135	CR-2012-0129	CR-2012-9209
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CR-2010-4019	CR-2012-3687	CR-2012-9226
CR-2011-2766	CR-2012-3813	CR-2012-9250
CR-2011-2781	CR-2012-4072	
CR-2011-3821	CR-2012-6265	
CR-2011-4790	CR-2012-6369	
CR-2011-6910	CR-2012-7106	
CR-2011-6921	CR-2012-7107	
CR-2011-7170	CR-2012-8459	
CR-2011-7572	CR-2012-9061	
CR-2011-7741	CR-2012-9082	
CR-2011-7787	CR-2012-9156	
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07-1300, RM-12A and RM-14A Replacement
08-0260, R-22, R-23 through R-28, and R-33 through R-35
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Apparent Cause Evaluation for Steam Flow Load Swap Anomaly, dated March 30, 2010
CA-2011-2724, Perform ECP Evaluation to Summarize Information for SG Load Swap Events
Operational Decision Making Checklist for Load Swap, dated August 27, 2012
SG 'A' and 'B' Average Pressure Trends, dated June 17, July 26, and September 4, 2012

4OA3: Follow-Up of Events and Notices of Enforcement Discretion

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CR-2012-5003	CR-2012-6780	CR-2012-8557
CR-2012-5004	CR-2012-6808	CR-2012-8912
CR-2012-5005	CR-2012-6830	CR-2012-8931
CR-2012-5089	CR-2012-6918	CR-2012-9427
CR-2012-5136	CR-2012-8137	CR-2012-0740
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10 CFR 72.212 Evaluation Report
50.59 Screening Section 2B, Revision of Procedure GMM-24-02-ISFSI01
72.48 Screening Section 2B, Revision of Procedure GMM-24-02-ISFSI01
Annual Radiological Environmental Operating Report, 2011
Radiological Survey – Map Number 710, TS Survey, SN004, Canister Number 6
Radiological Survey – Map Number 742, 10 Horizontal Storage Module Units
RWP 11-5001, ISFSI Activities, Revision 0

LIST OF ACRONYMS

ADAMS	Agencywide Documents Access and Management System
AFW	auxiliary feedwater
ALARA	as low as is reasonably achievable
ASME	American Society of Mechanical Engineers
BWR	boiling water reactor
CAP	corrective action program
CCW	component cooling water
CFR	Code of Federal Regulations
CR	condition report
ECP	engineering change package
EDG	emergency diesel generator
FP	fire protection
HX	heat exchanger
IMC	Inspection Manual Chapter
IP	inspection procedure
ISFSI	independent spent fuel storage installation
ISI	in-service inspection
IST	in-service test
MFP	main feedwater pump
MOV	motor-operated valve
NCV	non-cited violation
NDE	nondestructive examination
NEI	Nuclear Energy Institute
NFPA	National Fire Protection Association
NRC	Nuclear Regulatory Commission
OOS	out of service
P&ID	piping and instrument drawing
PARS	Publicly Available Records
PI	performance indicator
PORV	power-operated relief valve
psi	pounds per square inch
PWR	pressurized water reactor
RCA	radiological controlled area
RCS	reactor coolant system
RFO	refueling outage
RHR	residual heat removal
RM	radiation monitor
RP	radiation protection
RWP	radiation work permit
SDP	significance determination process
SFP	spent fuel pool
SG	steam generator
SI	safety injection
SSC	structure, system, and component
SW	service water
TI	temporary instruction
TS	technical specification

TSC	technical support center
UFSAR	Updated Final Safety Analysis Report
UV	undervoltage
WO	work order