

January 20, 2005

Mrs. Mary G. Korsnick
Vice President, R.E. Ginna Nuclear Power Plant
R.E. Ginna Nuclear Power Plant, LLC
1503 Lake Road
Ontario, New York 14519

SUBJECT: R. E. GINNA NUCLEAR POWER PLANT- NRC INTEGRATED INSPECTION
REPORT 05000244/2004005

Dear Mrs. Korsnick:

On December 31, 2004, the US Nuclear Regulatory Commission (NRC) completed an inspection at your R. E. Ginna facility. The enclosed integrated inspection report documents the inspection findings, which were discussed on January 13, 2005, 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 one finding of very low safety significance (Green) which was also determined to involve a violation of NRC requirements. However, because of its very low safety significance, and because it was entered into your corrective action program, the NRC is treating this issue as a non-cited violation, in accordance with Section VI.A.1 of the NRC's Enforcement Policy. If you contest the non-cited violation noted in this report, you should provide a response with the basis for your denial, within 30 days of the date of this inspection report, to the Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555-0001; with copies to the Regional Administrator, Region I; the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, D.C. 20555-0001; and the NRC Resident Inspector at the Ginna facility.

Mrs. Mary G. Korsnick

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In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response (if any) will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of the NRC's document system (ADAMS). ADAMS is accessible from the NRC Website at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,

/RA/

James M. Trapp, Chief
Projects Branch 1
Division of Reactor Projects

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

Enclosure: Inspection Report 05000244/2004005
w/ Attachment: Supplemental Information

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U.S. NUCLEAR REGULATORY COMMISSION

REGION I

Docket No: 50-244

License No: DPR-18

Report No: 05000244/2004005

Licensee: Constellation Energy, **R.E. Ginna Nuclear Power Plant, LLC**

Facility: R. E. Ginna Nuclear Power Plant

Location: 1503 Lake Road
Ontario, New York 14519

Dates: October 1, 2004 - December 31, 2004

Inspectors: K. Kolaczyk, Senior Resident Inspector
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Projects Branch 1
Division of Reactor Projects

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SUMMARY OF FINDINGS

IR 05000244/2004005; 10/01/2004 - 12/31/2004; R. E. Ginna Nuclear Power Plant; Other Activities.

The report covered a 3-month period of inspection by resident inspectors and announced inspections by regional specialists. One Green non-cited violation (NCV), was identified. The significance of most findings is indicated by their color (Green, White, Yellow, Red) using Inspection Manual Chapter (IMC) 0609, "Significance Determination Process" (SDP). Findings for which the SDP does not apply may be Green or be assigned a severity level after NRC management review. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 3, dated July 2000.

A. NRC-Identified and Self-Revealing Findings

Cornerstone: Initiating Events

Green. A violation of 10 CFR 50 Appendix B, Criterion XII, "**Control of Measuring and Test Equipment**," was identified by inspectors when they noted that prior to December 2003 several alarms on the panel for the temperature compensated support system, which monitors a critical dimension between the safety valves and support columns, were "locked in" and the degraded condition had not been investigated and resolved.

This finding is greater than minor, because it is associated with the equipment performance attribute of the initiating events cornerstone and affected the cornerstone objective of limiting the likelihood of events that upset plant stability and challenge critical safety functions. In accordance with Manual Chapter 0609, Appendix A, "Significance Determination of Reactor Findings for At-Power Situations," the inspectors conducted a Significance Determination Process (SDP) phase 1 screening and determined that the finding is of very low safety significance (Green). The SDP process screened to Green since the degraded condition of the monitoring system does not contribute to both the likelihood of a reactor trip and the likelihood that mitigation equipment or functions will not be available. This finding did not contribute to the likelihood of a primary or secondary system LOCA initiator, since the critical gaps were found to be acceptable. Additionally, the finding did not increase the likelihood of a fire or internal/external flood. This finding has cross-cutting aspects associated with the failure to properly identify the problem and resolve the situation to produce a timely corrective action. Corrective actions taken included restoring the monitoring system so that it was not causing false alarms. (Section 4OA5)

B. Licensee-Identified Violations

None

REPORT DETAILS

Summary of Plant Status

Ginna began the period at full power. On October 15, 2004, a plant shutdown was commenced to facilitate repair of a check valve in the charging system. The plant shutdown was completed on October 16. The unit remained in Mode 3, until October 18, when the reactor was returned to Mode 1 and the turbine synchronized to the electrical grid. Full reactor power was reached later that day. The plant remained essentially 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 - 1 sample)

a. Inspection Scope

Using Ginna Procedure A-54.4.1, "Cold Weather Walkdown Procedures," as a reference, the inspectors reviewed Ginna's preparations for cold weather by walking down plant areas. Procedure M-1306.1, "Ginna Station, Maintenance Department Winterizing Inspection Program," was also used to determine if the plant was ready for adverse weather conditions. During the walkdown, in addition to examining the condition of area heaters, the inspectors verified that heat trace equipment was functioning, exterior doors and windows were appropriately sealed, and piping that was susceptible to freezing was insulated.

b. Findings

No findings of significance were identified.

1R04 Equipment Alignment (71111.04Q - 3 samples))

a. Inspection Scope

Partial System Walkdowns.

The inspectors used plant Technical Specifications, Ginna operating procedures, plant piping and instrument drawings (P&ID), and the Updated Final Safety Analysis Report (UFSAR) as guidance for conducting partial system walkdowns of the following plant systems:

- C On October 24, 2004, the inspectors completed a walkdown of the "A" diesel generator when the "B" diesel generator was out of service for surveillance and maintenance activities. The condition of the "A" diesel generator was examined, because of its high risk-significance. The inspection reviewed the alignment of system valves and electrical breakers to ensure proper in-service or standby configurations as described in plant procedures and drawings. During the

walkdown, the inspectors evaluated material conditions and general housekeeping of the system and adjacent spaces. The inspectors also verified that operations personnel were following plant Technical Specifications (TS).

- C The “D” standby auxiliary feedwater pump train was walked down on October 20, 2004, while the “C” standby auxiliary feedwater pump was out of service for planned maintenance. This train was examined because of its risk-significance. The inspection reviewed the alignment of the train valves and electrical breakers to ensure proper in-service and standby configurations were in place during maintenance as described in plant procedures and drawings. The material conditions and general housekeeping of the trains and adjacent spaces were examined as part of the inspection. The inspectors verified that operations personnel were following plant TS.
- C During the week of December 13, 2004, the inspectors conducted a walkdown of the “B” Residual Heat Removal (RHR) train while the “A” train was out of service. This train was walked down because of its risk-significance. The inspection reviewed the alignment of the train valves and electrical breakers to ensure proper in-service and standby configurations were in place during maintenance as described in plant procedures and drawings. The material conditions and general housekeeping of the trains and adjacent spaces were examined as part of the inspection. The inspectors verified that operations personnel were following plant TS.

d. Findings

No findings of significance were identified.

1R05 Fire Protection (711111.05Q - 10 samples)

a. Inspection Scope

Using the Ginna Fire Protection program documents as a guide, the inspectors performed walkdowns to determine if there was adequate control of transient combustibles and ignition sources. The material condition of fire protection systems, equipment and features, and the material condition of fire barriers were also inspected against industry standards. In addition, the passive fire protection features were inspected, including the ventilation system fire dampers, structural steel fire proofing, and electrical penetration seals. The following plant areas were inspected:

- Standby Auxiliary Feedwater Pump Room
- Control Room
- Intermediate Building Basement
- Cable Tunnel
- Relay Room
- Screenhouse
- “A” Battery Room

- “B” Battery Room
- “A” Diesel Generator Room
- “B” Diesel Generator Room

b. Findings

No findings of significance were identified.

1R06 Flood Protection Measures (71111.06 - 1 sample - internal)

a. Inspection Scope

Using the Ginna UFSAR and Probabilistic Safety Assessment (PSA) as a guide, the inspectors reviewed Constellation’s internal flood protection measures for the relay room area. The relay room was selected since it contains risk-significant equipment and contains piping for the service water and fire main systems that could serve as a source of flood water. The inspectors toured the relay room and verified that floor drains in the room were not obstructed, and fittings on the installed plant fire safety systems were not leaking.

b. Findings

No findings of significance were identified.

1R11 Licensed Operator Requalification Program (71111.11 - 2 samples)

3. Quarterly Resident Review of Requalification Activities

d. Inspection Scope

On November 29, 2004, the inspectors observed a licensed operator simulator scenario. The test observed was scenario ES1213-07, “Small Break LOCA.” The inspectors reviewed the critical tasks associated with the scenario, observed the operators’ performance, and observed the post-evaluation critique. The inspectors also reviewed and verified compliance with Ginna procedure OTG-2.2, “Simulator Examination Instructions.”

e. Findings

No findings of significance were identified.

2. Biennial Review of Licensed Operator Requalification Program

a. Inspection Scope

During the week of November 15, 2004, an in-office review of Requalification Examination administration for 2004 was conducted using NUREG 1021, Rev. 9,

"Operator Licensing Examination Standards for Power Reactors," and Inspection Procedure 71111.11, "Licensed Operator Requalification Program," Appendix A "Checklist for Evaluating Facility Testing Material."

To conduct this in-office review the inspectors contacted the Ginna training department by phone to discuss recent examination results, and any security issues during the exam preparation or administration. A review of unusual or atypical conditions that may have occurred during the testing cycle was also completed.

The results of the annual operating tests for 2004 were reviewed in office for grading. An assessment of whether pass rates are consistent with the guidance of NUREG-1021, Revision 9, "Operator Licensing Examination Standards for Power Reactors," and NRC Manual Chapter 0609, Appendix I, "Operator Requalification Human Performance Significance Determination Process (SDP)," was also performed. The SDP review verified the following:

- Crew pass rate was greater than 80%. (Pass rate was 100%)
- No written exam was administered in 2004.
- One individual failed a simulator scenario based on individual competencies.
- Individual pass rates on the job performance measures of the operating exam were greater than 80%. (Pass rate was 100%)
- More than 75% of the individuals passed all portions of the exam. (97% of the individuals passed all portions of the examination)

b. Findings

No findings of significance were identified.

1R12 Maintenance Effectiveness (71111.12 - 3 samples)

a. Inspection Scope

The inspectors evaluated work practices and follow-up corrective actions for selected system, structure, or component (SSC) issues at Ginna to assess the effectiveness of maintenance activities. The inspectors reviewed the performance history of those SSCs and assessed Ginna's extent of condition determinations for those issues with potential common cause or generic implications to evaluate the adequacy of Ginna's corrective actions. The inspectors reviewed Ginna's problem identification and resolution actions for these issues to evaluate whether Ginna personnel had appropriately monitored, evaluated, and dispositioned the issues in accordance with Ginna procedures and the requirements of 10 CFR 50.65, "Requirements for Monitoring the Effectiveness of Maintenance." In addition, the inspectors reviewed selected SSC classification, performance criteria and goals, and corrective actions implemented by Ginna personnel to verify whether the actions were reasonable and appropriate. The following issues were reviewed:

- During the month of November, the “A” and “B” service water pumps experienced excessive packing leakage. Corrective actions have been implemented to readjust the packing material. The inspector discussed these corrective actions with engineering, and reviewed the packing performance history to identify any trends.
- In the past two years, the motor-driven auxiliary feedwater pumps experienced numerous intermittent failures of the lube oil systems. Subsequently, a modification was developed and implemented which modified the lube oil systems and lubricant used for the pumps. A review was conducted to determine the effectiveness of the maintenance and maintenance rule activities at identifying, evaluating, and correcting the system deficiencies.
- During the month of October, on-line maintenance was performed on the “B” diesel generator which was normally conducted during a refueling outage. The inspectors reviewed the work scope and verified Ginna personnel had appropriately balanced system reliability with unavailability.

b. Findings

No findings of significance were identified.

1R13 Maintenance Risk Assessments and Emergent Work Control (71111.13 - 4 samples)

a. Inspection Scope

The inspectors evaluated the effectiveness of Ginna’s maintenance risk assessments required by paragraph a(4) of 10 CFR 50.65. This inspection included discussions with control room operators and scheduling department personnel regarding the use of Ginna’s online risk monitoring software. The inspectors reviewed equipment tracking documentation and daily work schedules, and performed plant tours to gain reasonable assurance that actual plant configuration matched the assessed configuration.

Additionally, the inspectors verified that Ginna’s risk management actions, for both planned and/or emergent work, were consistent with those described in procedure IP-PSH-2, "Integrated Work Schedule Risk Management." Risk assessments for the following out-of-service systems, structures, and/ or components were reviewed:

- Planned maintenance to gag shut valve (AOV-294) which would isolate the charging line to the cold leg injection path. This was planned to support the seal welding of a leaking charging check valve during a planned forced outage at hot standby. The gagging was ultimately determined to be unnecessary after containment entry and initial isolation was conducted. (October 14-16, 2004)
- Planning and implementation of seal welding on the charging system cold leg check valve (CV-9314) during a planned forced outage. (October 15-18, 2004)

- Planned maintenance on the Appendix "R" Intermediate Building Level Indication Panel to Calibrate Reactor Coolant System Loop 'A' Cold Leg Temperature Element. (October 27, 2004)
- Planned on-line maintenance of the "A" Coolant Charging Pump. A one-week outage of the Appendix "R" certified charging pump was reviewed and monitored during the outage period. (November 1-11, 2004)

b. Findings

No findings of significance were identified.

1R14 Operator Performance During Non-routine Evolutions and Events (71111.14 - 1 sample)

a. Inspection Scope

On December 14, 2004, the inspectors observed fuel handling personnel as they moved two fuel assemblies to new locations in the Spent Fuel Pool in order to clear an unplanned entry to the action statement for TS 3.7.13 "Spent Fuel Pool Storage." The fuel movements were necessitated by a Constellation discovery that a cannister of spent fuel pins stored in the pool had been placed in a location that violated TS requirements. The TS violation will be evaluated by the NRC when the Licensee Event Report is submitted. Apparently the error occurred when the cannister was returned from the West Valley Nuclear Project in the mid-1980's, and incorrect data for the burn-up of the pins in the cannister was entered into the on-site program used for tracking fuel assembly classifications. The error was identified on December 13, 2004, and the action statement of TS 3.7.13 was cleared by the fuel movement on December 14. In addition to watching the fuel movement, the inspectors questioned Ginna management and the fuel systems engineer with regard to the extent of condition review concerning unplanned entry into TS 3.7.13 and the process to correct the deficiency.

b. Findings

No findings of significance were identified.

1R15 Operability Evaluations (71111.15 - 3 samples)

a. Inspection Scope

The inspectors reviewed operability determinations to verify that the operability of systems important to safety was properly established, that the affected components or systems remained capable of performing their intended safety functions, and that plant and public risk were appropriately controlled. In addition, the inspectors reviewed the following operability evaluations to determine if system operability was properly justified in accordance with IP-CAP-1.1, "Technical Evaluation for Current Operability and Past Operability Determination Worksheet:"

- Action Report (AR) 2004-2510, Boron/Water Dripping Identified in “B” Loop Area
- AR 2004-2668, Algae on “A” SW Pump Strainer Greater than 90%
- AR 2004-3373, V-5173 Found Open, Should be Closed

b. Findings

No findings of significance were identified.

1R16 Operator Workarounds (71111.16 - 3 samples)

a. Inspection Scope

The inspectors conducted a control room walkdown, interviewed operators, and toured the plant with auxiliary operators to identify operator work-arounds. The inspectors reviewed control room deficiencies, maintenance identification tags on main control boards, degraded conditions on equipment important to safety, temporary alterations, Ginna-identified operator workarounds and operator challenges, and selected corrective action reports. The inspectors compared their observations to the requirements in A-52.16, "Operator Work-around & Challenge Control," including Attachments 3, 4, and 5.

The inspectors evaluated the operators' ability to implement normal, off-normal, and emergency operating procedures with the existing equipment deficiencies. The inspectors also determine whether the functional capability of a system or operator response to an initiating event would be adversely affected. In addition, the inspectors evaluated the cumulative and synergistic effects of the identified operator workarounds to determine whether there was an effect on multiple mitigating systems. This review constituted one sample of cumulative review of operator workarounds.

In addition, the inspectors reviewed the most significant control room deficiencies, maintenance identification tags, operator challenges, workarounds and selected corrective action reports to determine whether the functional capability of a system or a human reliability response during an event would be affected. This inspection activity represented two samples. The most risk significant operator workarounds included:

- Ionics Water Truck reliability issues necessitate frequent operator interaction to ensure adequate secondary water supply is maintained on site.
- Local throttling of AOV 624 and 625 is required to prevent loss of net positive suction head during containment recirculation phases of emergency procedures if instrument air is lost.

d. Findings

No findings of significance were identified.

1R19 Post-Maintenance Testing (71111.19 - 8 samples)a. Inspection Scope

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

- Work Order (WO) 20403476, Fill Containment Grease Caps #39, 81, and 135 with approved grease.
- WO 20403138, Calibration of Containment Sump "A" Level Transmitter LT-2044.
- WO 20402829, Minor Pump PM Inspection of Containment Spray Pump "A" and subsequent PT-3Q, Containment Spray Pump Quarterly Test.
- WO 20402585, Diesel Fire Pump Planned Maintenance Outage and subsequent PT-13 Operational Performance Test for Diesel Fire Pump.
- WO 20404448, During Performance of PT 17.2 R-14 did not pass High Voltage Check.
- WO 20401636 and 20401637, Swap out of "A" Emergency Diesel Generator output breakers and subsequent PT 12.1, EDG Monthly Operational retest.
- WO 20404359, Received SSA and SSB Trouble Alarms due to zone Z01 trouble alarm and subsequent retest with PT 13.11.
- WO 20403060, Calibrate SFP Heat Exchanger "B" Process Monitor and subsequent retest with PT 17.2

b. Findings

No findings of significance were identified.

1R20 Refueling and Other Outage Activities (71111.20 - 1 sample)a. Inspection Scope

On October 15, 2004, the inspectors observed control room operators reduce reactor power to enable repairs to be performed on check valve CV-9314. During the shutdown, the inspector verified operators adhered to station procedures, and effectively controlled control room activities so potential distractions did not occur. During the two-day shutdown, the inspectors verified plant TSs were followed for maintaining the operability of emergency core cooling systems (ECCS), and infrequently performed evolutions such as securing normal letdown flow and injecting into the reactor coolant system via the hot leg flow path were conducted in a safe and controlled manner.

During the plant shutdown, the inspectors toured containment to verify that, to the extent practicable, Constellation personnel had removed material from containment that could potentially clog the containment recirculation sump during certain accident scenarios. Several small articles were appropriately removed. The inspectors also verified that boric acid that had leaked from CV-9314 had been removed from components that were susceptible to corrosive wear. Further, the inspectors verified that the area around the reactor coolant pumps (RCP) was generally free from RCP oil, and both the "A" and "B" containment sumps were clean. The inspector also visually assessed the condition of systems in containment, and verified that Constellation had identified and entered discrepant conditions into the corrective action program.

When CV-9314 had been repaired, the inspectors observed portions of the reactor plant power ascension. Activities observed included rolling the turbine and synchronizing the generator with the electrical grid.

b. Findings

No findings of significance were identified.

1R22 Surveillance Testing (71111.22 - 8 samples)

a. Inspection Scope

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

- PT-2.10.15, "Main Steam Non-Return Check Valve Closure Verification" (October 16, 2004)
- T-18D, "Turbine Overspeed Trip Mechanism Oil Pressure Test" (October 16, 2004)
- PT-13.4.9, "Deluge Valve System Testing - System S-21 (#11 Transformer)" (October 16, 2004)
- PT-22.1, "Equipment Hatch Door Leak Rate Test" (October 17, 2004)
- CPI Temp 409-B-2, "Calibration of Reactor Coolant System Loop 'A' Cold Leg Temperature Element" (October 27, 2004)
- Dye Penetrant Examination of weld #28 in the Safety Injection System (December 14, 2004)
- PT 2.2Q, "Residual Heat Removal System - Quarterly" (December 16, 2004)
- PT 13.1, "Annual Fire Pump Insurance Surveillance Test" (December 20, 2004)

b. Findings

No findings of significance were identified.

1R23 Temporary Plant Modifications (71111.23 - 2 samples)a. Inspection Scope

The following temporary modifications were reviewed by the inspectors to verify they were installed in conformance with the instructions contained in procedure IP-DES-3, "Temporary Modifications:"

- Temporary Modification 2004-009, "Main Steam Header Support Contact Jumper"
- Temporary Modification 2004-0013, "CVCS Check Valve 9314 Seal Leakoff Valve and Pipe Nipple"

b. Findings

No findings of significance were identified.

Cornerstone: Emergency Preparedness1EP4 Emergency Action Level and Emergency Plan Changes (71114.04 - 1 sample)a. Inspection Scope

An in-office inspection, that reviewed recent changes to emergency plan implementing procedures, was conducted on December 17, 2004. A thorough review was conducted for documents related to the risk-significant planning standards (RSPS) and a general review was completed for non-RSPS documents. The review verified the changes, satisfied the standards of 10 CFR 50.54(q), 10 CFR 50.47(b), the requirements of 10 CFR 50 Appendix E, the intent of NUREG-0654, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," and verified that the changes did not decrease the effectiveness of the plan. These changes are subject to future NRC inspections to ensure that as a result of these changes the emergency plan continues to meet NRC regulations.

b. Findings

No findings of significance were identified.

1EP6 Drill Evaluation (71114.06 - 2 samples)a. Inspection Scope

On November 9, 2004, the inspectors observed portions of the annual emergency preparedness drill. The drill scenario included a loss of offsite power, a fire in the "B" emergency diesel generator room, an overpower event which caused core damage and a small break loss of coolant accident. The inspectors verified that the appropriate

emergency classifications were identified and notifications to external organizations were made within the time limits outlined in the Ginna emergency response plan.

On November 29, 2004, the inspectors observed a licensed operator simulator scenario that included a limited test of the Ginna emergency response plan licensed operator simulator scenario. The test observed was scenario ES1213-07, "Small Break LOCA." During the exercise, the inspectors verified that the crew properly classified the event per Emergency Plan Implementing Procedure (EPIP) 1-0, "Ginna Station Event Evaluation and Classification."

b. Findings

No findings of significance were identified.

2. RADIATION SAFETY

Cornerstone: Occupational Radiation Safety

2OS1 Access Control to Radiologically Significant Areas (71121.01 - 7 samples)

a. Inspection Scope

The inspector reviewed radiological work activities and practices, and procedural implementation during observations and tours of the facilities, and inspected procedures, records and other program documents to evaluate the effectiveness of Ginna's access controls to radiologically significant areas. This inspection activity represents the completion of seven (7) samples relative to this inspection area (i.e., inspection procedure sections 02.04.a thru c, 02.06.a and b, and 02.07.a and b) and fulfills the annual inspection requirements.

Job-In-Progress Reviews (02.04.a thru c)

During this inspection, the inspector attended a Radiation Work Permit (RWP) briefing for a change-out of a waste hold-up tank filter. The inspector also reviewed the RWP requirements and surveys, and observed the actions both of the radiation protection technician providing job coverage, and of the radiation workers. During a previous inspection in calendar year 2004, the inspector observed the loading and shipment of a radioactively-contaminated storage tank. Also, during a previous inspection in calendar year 2004, the inspector observed a pre-job briefing for the disassembly, repair, and reassembly of the "B" charging pump; the inspector observed the radiological controls implemented by the radiation protection technician covering the work activity on the charging pump and the radiological protection practices used by the radiation workers. In each case, the inspector determined that radiological conditions in the work area were adequately communicated to workers through briefings and postings, and verified the adequacy of radiological controls, the application of dosimetry to effectively monitor exposure to personnel, radiation protection job coverage, and contamination controls.

Radiation Worker Performance (02.06.a and b)

During the job performance observations described above, the inspector observed radiation worker performance with respect to stated radiation protection work requirements. The inspector determined that they were aware of the significant radiological conditions in their workplace and of the RWP controls/limits in place and that their performance took into consideration the level of radiological hazards present.

During each inspection performed in this area during this current year, the inspector reviewed any radiological problem reports which found that the cause of the event was due to radiation worker errors. The inspector determined that the corrective action approach taken by Constellation to resolve the reported problems appeared appropriate.

Radiation Protection Technician Proficiency (02.07.a and b)

During the job performance observations described above, the inspector examined radiation protection technician performance with respect to radiation protection work requirements. The inspector determined that they were aware of the radiological conditions in their workplace and of the RWP controls/limits and that their performance was consistent with their training and qualifications with respect to the radiological hazards and work activities.

During each inspection performed in this area during this current year, the inspector reviewed any radiological problem reports which found that the cause of the event was due to radiation protection technician error. The inspector determined that the corrective action approach taken by Constellation to resolve the reported problems appeared appropriate.

Related Activities

During this inspection week, the inspector observed radiologically controlled area (RCA) entries and exits being made by radiation workers at the primary RCA access control point to verify compliance with requirements for RCA entry and exit, wearing of record dosimetry, and issuance and use of alarming electronic radiation dosimeters. The inspector toured various elevations in the intermediate, auxiliary, and contaminated storage buildings inside the primary RCA to verify the adequacy of the radiological controls which were being implemented. The inspector observed work activities for compliance with the RWP requirements. During these observations and tours the inspector reviewed, for regulatory compliance, the posting, labeling, barricading, and level of radiological access control for locked high radiation areas (LHRAs), high radiation areas (HRAs), radiation and contamination areas, and radioactive material areas. On October 4 through October 7, the inspector observed the morning turnover meetings for the Health Physics (HP) technicians.

The inspector performed a selective examination of documents (as listed in the List of Documents Reviewed section) to evaluate the adequacy of radiological controls. The

review in this area was against criteria contained in 10 CFR 19.12, 10 CFR 20 (Subparts D, F, G, H, I, and J), technical specifications, and procedures.

b. Findings

No findings of significance were identified.

2OS2 ALARA Planning and Controls (71121.02 - 3 samples)

a. Inspection Scope

The inspector reviewed the effectiveness of Constellation's program to maintain occupational radiation exposure as low as is reasonably achievable (ALARA). This inspection activity represents the completion of three (3) samples relative to this inspection area (i.e., inspection procedure sections 02.02.c, 02.05.a, and 02.06) in partial fulfillment of the biennial inspection requirements.

Radiological Work Planning (02.02.c)

The inspector reviewed the site-specific trend in collective exposure. The inspector also examined the three-year-rolling average which placed the site in the first quartile for pressurized-water reactors. The inspector additionally reviewed source-term measurements from past refueling outages, including measurements of the average contact-dose-rates with reactor coolant piping and of dose rates inside the steam generator bowls.

Source-Term Reduction and Control (02.05.a)

The inspector utilized Ginna records to determine the historical trends and current status of tracked plant source terms. The inspector reviewed Constellation's draft five-year ALARA plan. This plan contained a number of ALARA initiatives involving plant primary chemistry, remote radiation protection (RP) monitoring, valve replacement, and outage shielding.

Radiation Worker Performance (02.06)

During the job performance observations described in Section 2OS1, the inspector observed radiation worker and RP technician performance during work activities being performed in radiation areas and high radiation areas. The workers and technicians demonstrated the ALARA philosophy in practice. The workers were familiar with the work activity scope and tools to be used, and utilized ALARA low-dose-waiting areas. Also, the inspector determined that the radiation worker performance indicated that the training/skill level was sufficient with respect to the radiological hazards and the work involved.

Related Activities

On October 6, the inspector met with the ALARA lead technician. The inspector discussed the historical measurements of the average contact-dose-rates with reactor coolant piping and of dose rates inside the steam generator bowls. The inspector also reviewed with the ALARA lead technician the ALARA initiatives in the draft five-year ALARA plan and discussed the status of ALARA planning for next year's spring outage.

The inspector performed a selective examination of documents (as listed in the List of Documents Reviewed section) for regulatory compliance and for adequacy of control of radiation exposure. The review was against criteria contained in 10 CFR 20.1101 (radiation protection programs), 10 CFR 20.1701 (use of process or other engineering controls), and procedures.

b. Findings

No findings of significance were identified.

2OS3 Radiation Monitoring Instrumentation and Protective Equipment (71121.03 - 1 sample)

a. Inspection Scope

The inspector reviewed the program for health physics instrumentation to determine the accuracy and operability of the instrumentation. This inspection activity represents the completion of one (1) sample relative to this inspection area (i.e., inspection procedure section 02.03) in partial fulfillment of the biennial inspection requirements.

Verify Calibration, Operability, and Alarm Setpoint (if applicable) of Several Types of Instruments and Equipment (02.03)

In previous inspections this year, the inspector identified both permanent radiation monitors associated with potential high and very high radiation areas, and fixed and portable RP instrumentation used for personnel monitoring and job coverage. During this inspection week, the inspector discussed the calibration of permanent radiation monitors with the engineer responsible for the area and process radiation monitoring systems. The inspector reviewed calibration records for selected installed process and area radiation monitors. Also, during this inspection week, the inspector discussed the calibration of portable RP instrumentation used for personnel monitoring and job coverage with the radiological support supervisor and with one of the instrument/monitors technicians. The inspector reviewed calibration records for selected fixed and portable RP instrumentation used for personnel monitoring and job coverage. The inspector met with the senior health physicist to discuss the site's use of 10 CFR Part 61 source term reviews to determine if the calibration sources being used were representative of the plant source term.

Related Activities

On October 5, the inspector toured the intermediate building (RCA and non-RCA sides), the auxiliary building, hot shop, and the control room to observe the physical condition of selected process and area radiation monitors. On October 6, the inspector toured and examined the HP instrumentation calibration facility.

The inspector performed a selective examination of documents (as listed in the List of Documents Reviewed section) for regulatory compliance and adequacy in this area. The review was against criteria contained in 10 CFR 20.1501, 10 CFR 20 Subpart H, technical specifications, and procedures.

b. Findings

No findings of significance were identified.

4. OTHER ACTIVITIES

4OA1 Performance Indicator Verification

1. Mitigating Systems Cornerstone (71151 - 1 Sample)

a. Inspection Scope

Using the criteria specified in Nuclear Energy Institute (NEI) 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 2, the inspectors verified the completeness and accuracy of performance data provided for safety system unavailability - Emergency AC power. Data was reviewed for the period of June 2003 to September 2004. To verify the accuracy of the data, the inspector reviewed monthly operating reports, NRC inspection reports, and operator logs.

b. Findings

No findings of significance were identified.

4OA2 Identification and Resolution of Problems

1. Occupational Radiation Safety (71121 - 1 sample)

a. Inspection Scope

The inspector selected four issues identified in the Corrective Action Program (CAP) for detailed review (ACTION Report Nos. 2004-2329, -2341, -2358, and -2375). The issues were associated with a shoe contamination detected at the guard house, unauthorized removal of a contaminated catch containment, an entry into the RCA without radiation worker training, and coaching on use of personnel contamination monitors. During this inspection week, the inspector met with the Radiation Protection Manager, the RP

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foreman, and the Radiological Support supervisor to discuss these issues. The documented reports for the issues were reviewed to ensure that the full extent of the issues were identified, appropriate evaluations were performed, and appropriate corrective actions were specified and prioritized.

b. Findings

No findings of significance were identified.

2. Semi-Annual Resident Office Review (71152 - 1 sample)

a. Inspection Scope

Continuous Review

As required by Inspection Procedure 71152, "Identification and Resolution of Problems," and in order to help identify repetitive equipment failures or specific human performance issues for follow-up, the inspectors performed a daily screening of items entered into the Ginna corrective action program. This review was accomplished by reviewing paper copies of each condition report, attending daily screening meetings, and accessing Ginna's computerized database.

Semi-Annual Review

Further, in an effort to identify trends where Ginna personnel have not implemented effective corrective action to prevent recurrence of equipment performance issues, the inspectors reviewed system health reports and conducted a screening review of all ARs initiated since June 2004. Based upon that initial review, and the inspector's knowledge of the plant, several ARs were selected for additional follow-up. Through review of the ARs, and discussions with personnel in the engineering and operations department, the inspector concluded that Ginna personnel were aware of the performance issues discussed in the ARs, and they had implemented corrective action to resolve the performance issues.

b. Findings and Observations

No findings of significance were identified.

3. Cross-Reference to PI&R Findings Documented Elsewhere

Section 4OA5 of this report describes a finding where Constellation personnel did not promptly repair a system that was used to monitor critical dimensions in a temperature compensated support system.

4OA5 Other Activities

(Closed) URI 05000244/2004002-03: Operability of the Main Steam Safety Valves is Not Known When Alarms Occur on the Main Steam Compensated Support System

Introduction. The inspector identified a Green non-cited violation (NCV) of 10 CFR 50 Appendix B Criterion XII, "Control of Measuring and Test Equipment," for failure to establish appropriate controls to ensure proper monitoring of a temperature compensated support system.

Description. NRC inspection report 5000244/2004002 identified that since startup from the October 2003 refuel outage, several alarms on the monitoring system for the temperature compensated support system for main steam safety valves had been "locked in." The inspection report documented that the locked-in alarms had not been investigated by Ginna personnel until December 2003, when an action report (AR) was initiated by personnel in the operations department. The inspector noted that since initiation of that AR, several other ARs, that documented other discrepancies with the system, had been written. After reviewing the corrective actions associated with the ARs, the inspector determined that although Ginna personnel had addressed the immediate issues documented in the ARs, the inspector could not determine if the corrective actions were timely or commensurate with the importance of the system. This was due to the fact that there was limited system design information, and the information that did exist was silent regarding the relative importance of the system. At the close of the report period, Ginna personnel were in the process of determining whether the steam support system has to be functioning properly to ensure the main steam safety valves are operable.

In July 2004, Constellation Energy completed an analysis of the support system and concluded that the system was needed to ensure stresses on the main steam header would not exceed code allowable values if the valves actuated. According to the report, limiting the gap between the safety valve elbows and heated supports to 1/16 inch would ensure stresses would be less than design values. As a result, the supports and monitoring system needed to be maintained, and contrary to what was observed by the inspector in October 2003, Ginna personnel should have implemented appropriate measures to ensure adverse conditions identified by the monitoring system were resolved in a timely manner.

Analysis. The performance deficiency associated with this issue was that prior to December 2003, Ginna personnel had not established appropriate controls to ensure that the monitoring system for the steam compensated supports was operable. As a result, Ginna personnel did not know if the critical gap dimension between the safety valves and supports had been maintained. The inspector did note however, that there was no definitive evidence that the critical dimension had not been maintained. Specifically, when the gaps were visually checked by Ginna personnel they were satisfactory. This finding is greater than minor, because it is associated with the equipment performance attribute of the initiating events cornerstone and affected the cornerstone objective of limiting the likelihood of events that upset plant stability and

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challenge critical safety functions. In accordance with Manual Chapter 0609, Appendix A, "Significance Determination of Reactor Findings for At-Power Situations," the inspectors conducted a Significance Determination Process (SDP) phase 1 screening and determined that the finding is of very low safety significance (Green). The SDP process screened to Green since the degraded condition of the monitoring system does not contribute to both the likelihood of a reactor trip and the likelihood that mitigation equipment or functions will not be available. This finding did not contribute to the likelihood of a primary or secondary system LOCA initiator, since the critical gaps were found to be acceptable. Additionally, the finding did not increase the likelihood of a fire or internal/external flood. This finding has cross-cutting aspects associated with the failure to properly identify the problem and resolve the situation to produce a timely corrective action. Corrective actions taken included restoring the monitoring system so that it was not causing false alarms.

Enforcement. **10 CFR 50, Appendix B, Criterion XII, "Control of Measuring and Test Equipment" requires, in part, that measures be established to assure that instruments and other measuring and testing devices used in activities affecting quality are properly controlled, calibrated, and adjusted at specified periods to maintain accuracy within necessary limits.** Contrary to the above, prior to December 2003, several alarms on the panel for the temperature compensated support system, which monitors a critical dimension between the safety valves and support columns, were "locked in" and the degraded condition had not been investigated and resolved. As a result, the critical 1/16 inch gap between the safety relief valve elbows and supports had not been adequately monitored. Because the degraded monitoring system has since been repaired and this finding has been entered into the Ginna station corrective action program in Action Report 2003-3282, "Steam Header Alarms," this violation is being treated as an NCV, consistent with Section VI.A.1 of the NRC Enforcement Policy: NCV 05000244/2004005-01, Failure to Establish Appropriate Measures to Assure the Monitoring Panel for the Compensated Steam Support System is Maintained.

4OA6 Meetings, Including Exit

On January 13, 2005, the resident inspectors presented the inspection results to the Vice President, Mrs. M. Korsnick, and other members of the licensee staff. The licensee acknowledged the conclusions and observations presented.

The inspectors asked the licensee whether any materials examined during the inspection should be considered proprietary. No proprietary information is presented in this report.

ATTACHMENT: SUPPLEMENTAL INFORMATION

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SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee personnel

S. Adams	Manager, Ginna Production
P. Bamford	Director, Operations
B. Flynn	Director, Special Projects
T. Harding	Senior Licensing Engineer
K. Holmes	Technician, Radiation Protection
J. Hotchkiss	Director, Mechanical Maintenance
W. Lipscomb	Assistant to Senior Vice President
T. Marlow	Plant Manager, Ginna Station
J. Pacher	Director, Primary Reactor Systems
R. Ploof	Director, Scheduling
J. Smith	Manager, Ginna Maintenance
W. Thomson	Director, Radiation Protection
T. White	Director, Balance of Plant Systems Engineering
R. Whalen	Manager, Nuclear Engineering Services
G. Wrobel	Director, Nuclear Safety and Licensing

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

None

Opened and Closed

05000244/2004005-01	NCV	Failure to Establish Appropriate Measures to Assure the Monitoring Panel for the Compensated Steam Support System is Maintained (Section 40A5)
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Closed

05000244/2004002-03	URI	Operability of the Main Steam Safety Valves is Not Known When Alarms Occur on the Main Steam Compensated Support System
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Discussed

None

LIST OF DOCUMENTS REVIEWED

Section 1EP4: Emergency Action Level and Emergency Plan Changes

Procedures:

Nuclear Emergency Response Plan, Rev 23
EPIP 1-0, Ginna Station Event Evaluation and Classification, Rev 33
EPIP 1-3, Site Area Emergency, Rev 8
EPIP 1-4, General Emergency, Rev 10
EPIP 1-5, Notifications, Rev 61, 62
EPIP 1-7, Accountability of Personnel, Rev 10
EPIP 1-9, Technical Support Center Activation, Rev 27
EPIP 1-11, Survey Center Activation, Rev 32
EPIP 1-13, Local Radiation Emergency, Rev 7
EPIP 1-15, Use of the Health Physics Network HPN, Rev 6
EPIP 1-17, Planning for Adverse Weather, Rev 6
EPIP 1-18, Discretionary Actions for Emergency Conditions, Rev 8
EPIP 2-8, Voluntary Acceptance of Emergency Radiation Exposure, Rev 7
EPIP 2-9, Administration of Potassium Iodine (KI), Rev 9
EPIP 2-12, Off-Site Surveys, Rev 24
EPIP 2-13, Iodine and Particulate Activity Determination from Air Samples, Rev 9
EPIP 2-16, Core Damage Estimation, Rev 14
EPIP 3-1, Emergency Operations Facility (EOF) Activation and Operations, Rev 27
EPIP 3-7, Security During Emergencies, Rev 11
EPIP 4-1, Public Information Response to an Unusual Event, Rev 8
EPIP 4-3, Accidental Activation of Ginna Emergency Notification System Sirens, Rev 16, 17
EPIP 4-6, Joint Emergency News Center Activation, Rev 11
EPIP 4-7, Public Information Organization Staffing, Rev 27, 28
EPIP 4-10, Silent Testing of the Ginna Sirens from the County Activation Points, Rev 6
EPIP 5-1, Offsite Emergency Response Facilities and Equipment Periodic Inventory Checks and Tests, Rev 30
EPIP 5-2, Onsite Emergency Response Facilities and Equipment Periodic Inventory Checks and Tests, Rev 34
EPIP 5-6, Annual Review of Nuclear Emergency Response Plan (NERP), Rev 5
EPIP 5-7, Emergency Organization, Rev 44, 45, 46

Section 2OS1: Access Control to Radiologically Significant Areas

Document:

RWP No. 04-1006, Rev. 0, Routine maintenance, tests, and inspections in high radiation areas

Procedures:

Procedure A-1.1, Rev. 41, Access control to locked high radiation and very high radiation areas

Procedure A-1.8, Rev. 18, Radiation Work Permits
Procedure RP-JC-Jobcoverage, Rev. 6, Job coverage

Section 2OS2: ALARA Planning and Controls

Documents:

Steam generator/reactor coolant loop piping dose rate survey data for March 1995, April 1996, March 2002, and September 2003
Ginna five-year ALARA plan (draft) (2005 - 2009)
ALARA dose report for 09-15-03 to 10-15-2003

Procedures:

Procedure A-1.6.1, Rev. 28, ALARA job reviews
Procedure A-1.8, Rev. 20, Radiation Work Permits
Procedure A-3, Rev. 55, Containment vessel access requirements
Procedure RP-ALA-REVIEW, Rev. 6, ALARA job review preparation

Section 2OS3: Radiation Monitoring Instrumentation

Documents:

Certificate of calibration for field calibrator kit model 878-10-5 (Cs-137), s/n 109, July 24, 1984
Calibration records for selected portable radiation and contamination survey and monitoring instrumentation and for fixed personnel radiation and contamination monitors, including:

- RO-20 survey meters
- ASP-1 survey meters
- Xetex model 330A telescan survey meter
- RADOS 51 personnel electronic dosimeters
- PCM-1C whole body contamination monitors
- PM7 portal monitors
- AMS-4 continuous air monitors
- Gilair5 personnel air samplers

Calibration records for selected installed process and area radiation monitors, including:

- RMS channel R-1, control room area monitor, July 7, 2003
- RMS channel R-2, containment area monitor (personnel hatch), September 18, 2003
- RMS channel R-4, charging pump room area monitor, July 8, 2003
- RMS channel R-5, spent fuel pool area monitor, August 3, 2004
- RMS channel R-6, nuclear sample room area monitor, August 4, 2004
- RMS channel R-7, seal table area (containment/ intermediate floor), September 17, 2003
- RMS channel R-9, steam generator letdown line, July 9, 2003

- RMS channel R-29, containment high range area monitor, September 18, 2003
- RMS channel R-30, containment high range area monitor, September 18, 2003
- RMS channel R-31, steam line monitor, August 4, 2003
- RMS channel R-32, steam line monitor, August 5, 2003

Procedures:

Procedure RP-INS-C-AMS-4, Rev. 4, Calibration of the Eberline AMS-4 constant air monitor
 Procedure RP-INS-C-ASP-1, Rev. 2, Calibration of the Eberline ASP-1 survey meter
 Procedure RP-INS-C-GILIAN, Rev. 3, Calibration of the Gilair5 air sampler
 Procedure RP-INS-C-PCM, Rev. 1, Calibration of the Eberline PCM
 Procedure RP-INS-C-PM7, Rev. 0, Calibration of the Eberline PM-7 gamma portal monitor
 Procedure RP-INS-C-PORTAL, Rev. 2, Calibration of the NNC gamma-40 portal monitor
 Procedure RP-INS-C-RAD-51, Rev. 5, Calibration of the RADOS electronic dosimeter
 Procedure P-9, Rev. 94, Radiation monitoring system

LIST OF ACRONYMS

ACTION	Abnormal Condition Tracking Initiation Or Notification
ADAMS	Agency-Wide Documents Access and Management System
ALARA	As Low As Is Reasonably Achievable
AR	Action Report
CAP	Corrective Action Program
CFR	Code of Federal Regulation
ECCS	Emergency Core Cooling System
EPIP	Emergency Plan Implementing Procedure
HP	Health Physics
HRA	High Radiation Area
IP	Inspection Procedure
LHRA	Locked High Radiation Area
NCV	Non-cited Violation
NEI	Nuclear Energy Institute
NRC	Nuclear Regulatory Commission
OS	Occupational Radiation Safety
PARS	Publicly Available Records
P&ID	Piping and Instrument Drawings
PSA	Probabilistic Safety Assessment
QA	Quality Assurance
RCA	Radiologically Controlled Area
RCP	Reactor Coolant Pump
RHR	Residual Heat Removal
RP	Radiation Protection
RSPS	Risk-Significant Planning Standards

RWP	Radiation Work Permit
SDP	Significance Determination Process
SSC	System, Structure, or Component
TS	Technical Specification
UFSAR	Updated Final Safety Analysis Report
WO	Work Order