

UNITED STATES NUCLEAR REGULATORY COMMISSION REGION I 475 ALLENDALE ROAD

475 ALLENDALE ROAD KING OF PRUSSIA, PA 19406-1415

July 25, 2008

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

SUBJECT: R.E. GINNA NUCLEAR POWER PLANT - NRC INTEGRATED INSPECTION REPORT 05000244/2008003

Dear Mr. Carlin:

On June 30, 2008, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your R.E. Ginna Nuclear Power Plant. The enclosed integrated inspection report documents the inspection results, which were discussed on July 14, 2008, with you and 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 NRC-identified and two self-revealing findings of very low safety significance (Green). Two of these findings were determined to be violations of NRC requirements. However, because of their very low safety significance, and because they were entered into your corrective action program, the NRC is treating these findings as non-cited violations (NCVs) consistent with Section VI.A.1 of the NRC Enforcement Policy. If you contest any NCV in this report, you should provide a written response within 30 days of the date of this inspection report with the basis for your denial, to the Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington D.C. 20555-0001; with copies to the Regional Administrator, Region I; the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, D.C. 20555-0001; and the NRC Resident Inspector at R.E. Ginna Nuclear Power Plant.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosure, and your response (if any) will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of the

2

NRC's document system (ADAMS). ADAMS is accessible from the NRC Web Site at <u>http://www.nrc.gov/reading-rm/adams.html</u> (the Public Electronic Reading Room).

Sincerely,

/**RA**/

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

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

Enclosure: Inspection Report No. 05000244/2008003 w/ Attachment: Supplemental Information

<u>cc w/encl</u>:

- M. J. Wallace, Vice President, Constellation Energy
- B. Barron, President, CEO & Chief Nuclear Officer, Constellation Energy Nuclear Group, LLC
- P. Eddy, Electric Division, NYS Department of Public Service
- C. Donaldson, Esquire, Assistant Attorney General, New York Department of Law
- C. Fleming, Esquire, Senior Counsel, Nuclear Generation, Constellation Nuclear Energy Nuclear Group, LLC
- D. Wilson, Director, Licensing, R.E. Ginna Nuclear Plant , LLC
- P. Tonko, President and CEO, New York State Energy Research and Development Authority
- J. Spath, Program Director, New York State Energy Research and Development Authority
- G. Bastedo, Director, Wayne County Emergency Management Office
- M. Meisenzahl, Administrator, Monroe County, Office of Emergency Preparedness
- T. Judson, Central New York Citizens Awareness Network

NRC's document system (ADAMS). ADAMS is accessible from the NRC Web Site at <u>http://www.nrc.gov/reading-rm/adams.html</u> (the Public Electronic Reading Room).

Sincerely, /**RA**/ Glenn T. Dentel, Chief Projects Branch 1 Division of Reactor Projects

Distribution w/encl:

S. Collins, RA M. Dapas, DRA D. Lew, DRP J. Clifford, DRP S. Williams, RI OEDO R. Nelson, NRR D. Pickett, PM, NRR B. Vaidya, PM, NRR G. Dentel, DRP N. Perry, DRP J. Hawkins, DRP K. Kolaczyk, DRP, Senior Resident Inspector M. Marshfield, DRP, Resident Inspector H. Jones, DRS M. Rose, DRP, Resident OA Region I Docket Room (with concurrences) ROPreports@nrc.gov (All IRs)

SUNSI Review Complete___NSP____ (Reviewer's Initials)

DOCUMENT NAME: T:\DRP\BRANCH1\Ginna\Reports\2008-003\2008-003 Draft Shell.doc

After declaring this document "An Official Agency Record" it **will** be released to the Public. ML082110555

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

OFFICE	RI/DRP	RI/DRP	RI/DRP	
NAME	*KKolaczyk/MJM For	NPerry/NSP	GDentel/GTD	
DATE	07/24/08	07/24/08	07/25/08	

*Concurrence received via telecon

OFFICIAL RECORD COPY

1

U.S. NUCLEAR REGULATORY COMMISSION

REGION I

Docket No.:	50-244
License No.:	DPR-18
Report No.:	05000244/2008003
Licensee:	R.E. Ginna Nuclear Power Plant, LLC
Facility:	R.E. Ginna Nuclear Power Plant
Location:	Ontario, New York
Dates:	April 1, 2008 through June 30, 2008
Inspectors:	 K, Kolaczyk, Senior Resident Inspector M. Marshfield, Resident Inspector K. Mangan, Senior Reactor Inspector M. Modes, Senior Reactor Inspector N. Perry, Senior Emergency Response Coordinator K. Young, Senior Reactor Inspector H. Jones, Reactor Inspector R. Rolph, Health Physicist
Approved by:	Glenn T. Dentel, Chief Projects Branch 1 Division of Reactor Projects

TABLE OF CONTENTS

SU	MMARY O	F FINDINGS	3
REF	PORT DE	TAILS	5
1.	REACTO	DR SAFETY	5
	1R01	Adverse Weather Protection	5
	1R04	Equipment Alignment	6
	1R05	Fire Protection	7
	1R07	Heat Sink Performance	8
	1R08	Inservice Inspection Activities	8
	1R11	Licensed Operator Requalification Program	9
	1R12	Maintenance Effectiveness	9
	1R13	Maintenance Risk Assessments and Emergent Work Control	10
	1R15	Operability Evaluations	11
	1R18	Plant Modifications	11
	1R19	Post-Maintenance Testing	12
	1R20	Refueling and Other Outage Activities	13
	1R22	Surveillance Testing	16
	1EP2	Alert and Notification System Evaluation	
	1EP3	Emergency Response Organization Staffing and Augmentation System	17
	1EP4	Emergency Action Level and Emergency Plan Changes	
	1EP5	Correction of Emergency Preparedness Weaknesses	19
2.	RADIATI	ON SAFETY	
	20S1	Access Control To Radiologically Significant Areas	
	20S2	ALARA Planning and Controls	
	20S3	Radiation Monitoring Instrumentation and Protective Equipment	23
4.	OTHER	ACTIVITIES	23
	40A1	Performance Indicator Verification	23
	40A2	Identification and Resolution of Problems	24
	40A3	Followup of Events and Notices of Enforcement Discretion	
	40A5	Other Activities	27
	40A6	Meetings, Including Exit	29
ΑΤΊ	ACHMEN	IT: SUPPLEMENTAL INFORMATION	29
KE١	POINTS	OF CONTACT	A-1
LIS	T OF ITEN	IS OPENED, CLOSED, AND DISCUSSED	A-1
LIS	T OF DOC	CUMENTS REVIEWED	A-1
LIS	T OF ACR	ONYMS	A-10

SUMMARY OF FINDINGS

IR 05000244/2008003; 04/01/2008 – 06/30/2008; R.E. Ginna Nuclear Power Plant (Ginna), Refueling and Other Outage Activities, Emergency Response Organization Staffing and Augmentation System, and ALARA Planning and Controls.

The report covered a three-month period of inspection by resident inspectors and region-based inspectors. Three Green findings, two of which were non-cited violations (NCVs) were identified. The significance of most findings is indicated by their color (Green, White, Yellow, Red) using Inspection Manual Chapter (IMC) 0609, "Significance Determination Process" (SDP). The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 4, dated December 2006.

A. NRC-Identified and Self-Revealing Findings

Cornerstone: Initiating Events

<u>Green</u>. The inspectors identified a self-revealing NCV of Technical Specification 5.4.1.a when control room operators closed the inlet and outlet Residual Heat Removal (RHR) system isolation valves while conducting a plant heat-up with the 'A' reactor coolant system loop inoperable. This was contrary to procedural requirements which require operators to verify that two reactor coolant system loops are operable and at least one is operating prior to isolating the RHR system. Several minutes after isolating the RHR system, the control room operators recognized they were not complying with the procedure, and restored power to the RHR isolation valves. The time that the RHR system was isolated from the reactor coolant system was 15 minutes.

This finding was determined to be of very low safety significance (Green) using Phase 1, Appendix G, Attachment 1, Checklist 4 of IMC 0609. This finding was of very low safety significance because the finding did not increase the likelihood of a loss of RCS inventory, degrade the ability of Ginna to terminate a leak path or add RCS inventory when needed, nor degrade the ability to recover RHR. This finding has a crosscutting aspect in the area of human performance because operators did not adhere to the procedural requirements prior to removing the RHR system from service (H.4.b per IMC 0305). (Section 1R20)

Cornerstone: Emergency Preparedness

<u>Green</u>. The inspectors identified an NRC-identified NCV of 10 CFR 50.47(b)(2) for failure of Ginna's process for maintaining timely augmentation of on-shift staff. Ginna's nuclear emergency response plan (NERP) states that the survey team member position will be staffed by six individuals reporting onsite within one hour of the declaration of an ALERT or higher classification. Results from testing the off-hours notification of the response organization for the four quarters, starting in June 2007 through March 2008, indicated that fewer than six individuals would have responded for the survey team member position within one hour of event declaration. Plant management entered the issue into their corrective action program and took appropriate immediate corrective actions following identification of the issue by the inspectors.

This finding is more than minor because it is associated with the emergency response organization (ERO) performance attribute and affected the objective of the Emergency Preparedness cornerstone to ensure timely augmentation of on-shift staff. In accordance with the Emergency Preparedness Significance Determination Process, this finding is of

very low safety significance because the failure to comply with 10 CFR 50.47(b)(2) was a planning standard problem, but not a planning standard functional failure. The inspectors determined that this finding has a crosscutting aspect in the area of problem identification and resolution because Ginna did not take appropriate corrective actions to qualify more individuals for the survey team position in 2007 (P.1.d per IMC 0305). (Section 1EP3)

Cornerstone: Occupational Radiation Safety

<u>Green</u>. The inspectors identified a self-revealing finding of very low safety significance associated with occupational exposure control. During the planned refueling outage, Ginna did not effectively manage its radioactive source term and work activities to prevent unnecessary occupational exposure to workers during 'B' sump strainer modification and steam generator inspections. Specifically, the collective occupational radiation dose received by individuals for these two activities exceeded the planned or intended dose that Ginna determined was as low as is reasonably achievable (ALARA) for the work activities.

This finding is more than minor because each of the two work activities exceeded their initial estimates by more than 50 percent and each accumulated more than five personrem, as described in Appendix E of IMC 0612, example (6.b). Additionally, the finding affected the program and process attribute of the Occupational Radiation Safety cornerstone to ensure the adequate protection of the worker health and safety from exposure to radiation from radioactive material during routine civilian nuclear reactor operations. This finding is of very low safety significance because the 3-year rolling average exposure for Ginna was less than 135 person-rem. This finding has a crosscutting aspect in the area of human performance work control because Ginna did not effectively coordinate work activities to incorporate actions to address the impact of changes to the work scope or activity that were appropriate under the circumstances (H.3.b per IMC 0305). (Section 2OS2)

B. <u>Licensee-Identified Violations</u>

None.

REPORT DETAILS

Summary of Plant Status

R.E. Ginna Nuclear Power Plant (Ginna) began the inspection period operating at full rated thermal power (FRTP) and operated at essentially full power until April 20, 2008, when the plant was shut down for a scheduled refueling outage (RFO). On May 11, the plant was restarted, and the turbine synchronized to the grid. On May 14, FRTP was reached. On May 15, power was rapidly reduced to 50 percent when both heater drain pumps tripped during maintenance activities. On May 16, power ascension was started, and FRTP was reached on May 17. For the remainder of the report period, with the exception of minor power reductions for testing, the plant remained at full power.

1. **REACTOR SAFETY**

Cornerstones: Initiating Events, Mitigating Systems, and Barrier Integrity

- 1R01 <u>Adverse Weather Protection</u> (71111.01 Two samples)
- .1 Hot Weather Preparations
- a. Inspection Scope

The inspectors reviewed Ginna's preparations for hot weather and performed walkdowns of plant areas during the week of May 12, 2008. To perform the review, the inspectors used the criteria and design criterion outlined in Ginna procedure O-23, "Hot Weather Seasonal Readiness Walkdown," Rev. 00300, and the Updated Final Safety Analysis Report (UFSAR), Rev. 20. As part of the walkdown, local area temperatures were checked, as well as the operability of ventilation and air conditioning cooling systems, to ensure that the plant was prepared to handle warm weather conditions. Areas of focus were the relay room, the 'A' and 'B' battery rooms, and the 'A' and 'B' emergency diesel generator rooms. Documents reviewed are listed in the Attachment.

b. Findings

No findings of significance were identified.

- .2 Grid Stability
- a. <u>Inspection Scope</u>

Using the criteria in Ginna procedure O-6.9, "Ginna Station Operating Limits for Station 13A Transmission," during the week of May 12, the inspectors evaluated the readiness of offsite and alternate AC power systems. The inspectors verified that communication protocols between the transmission system operator and the plant were specified in Ginna's procedures to ensure appropriate information was being exchanged. The inspectors verified that the procedures addressed measures to monitor and maintain availability and reliability of these systems during adverse weather conditions. Documents reviewed are listed in the Attachment.

b. Findings

No findings of significance were identified.

- 1R04 Equipment Alignment (71111.04)
- .1 <u>Partial System Walkdown</u> (71111.04Q Three samples)
- a. Inspection Scope

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

The following plant system alignments were reviewed:

- On April 21 and 22, 2008, the inspectors used procedure "Alignment and Operation of the Reactor Vessel Overpressure Protection System," Rev. 04701 to conduct a walkdown of the reactor vessel overpressure protection system when the system was aligned to support Mode 5 plant operations;
- On April 24, 2008, the inspectors performed a walkdown of the 'C' safety injection pump lineup established by O-2.3.1, "Draining and Operation at Reduced Inventory of the Reactor Coolant System," Rev. 08500, to verify that the system was aligned properly to support drain down for mid-loop operations; and
- On April 30, 2008, during refueling operations, the inspectors performed a walkdown of the 'A' residual heat removal system line-up as established by O-15.2, "Valve Alignment for Head Lift, Core Component Movement and Periodic Status Checks," Rev. 30.
- b. Findings

No findings of significance were identified.

- .2 <u>Complete Walkdown</u> (71111.04A One sample)
- a. Inspection Scope

The inspectors performed a detailed walkdown of the auxiliary feedwater (AFW) system to identify any discrepancies between the existing equipment lineup and the specified lineup. The AFW system was chosen because of its risk significant function to provide makeup water to the steam generators. The inspectors verified proper system alignment as specified by TS, UFSAR, plant procedures, and P&IDs. Documentation associated with open maintenance requests and design issues were reviewed and included items tracked by plant engineering to assess their collective impact on system operation. In addition, the inspectors reviewed the associated corrective action database to verify that any equipment alignment problems were being identified and appropriately resolved.

Documents reviewed are listed in the Attachment.

b. Findings

No findings of significance were identified.

- 1R05 <u>Fire Protection</u> (71111.05)
- .1 <u>Quarterly Inspection</u> (71111.05Q Five samples)
- a. Inspection Scope

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

- Auxiliary Building Mezzanine Level (Fire Zone ABM);
- Auxiliary Building Basement (Fire Zone ABB);
- 'B' Station Battery Room (Fire Zone BR1B);
- Intermediate Building Cold Side Basement (Fire Zone IBN-1); and
- Containment Vessel (Fire Area RC).
- b. Findings

No findings of significance were identified.

- .2 <u>Annual Inspection</u> (71111.05A One sample)
- a. Inspection Scope

The inspectors observed an announced test of Ginna's fire brigade on June 4, 2008. The test involved a simulated fire in the all volatile treatment (AVT) room located in the basement of the technical support center structure. The inspectors observed fire brigade personnel obtain their protective equipment, travel to the simulated fire location, and demonstrate how they would extinguish a fire in the AVT room. Following the drill, the inspectors observed the post-drill critique, and verified that performance issues were discussed and documented in Ginna's corrective action program. The inspectors evaluated the performance of the brigade using the criteria outlined in the following procedures: SC- 3.1.1, "Fire Alarm Response (Fire Brigade Activation)," Rev. 17; SC- 3.4.1, "Fire Brigade and Control Room Personnel Responsibilities," Rev. 38; and FRP- 28, "All-Volatile Treatment Room," Rev. 6.

b. Findings

No findings of significance were identified.

1R07 <u>Heat Sink Performance</u> (71111.07 - Two samples)

a. Inspection Scope

During the planned RFO, the inspectors examined the heat exchangers (HX) for the 'A' and 'C' containment recirculating fans, which had been opened for inspection as part of Ginna's Service Water System Reliability Optimization Program (SWSROP). The inspectors verified the HX were inspected in accordance with the applicable procedure and the SWSROP. The purpose of the review was to verify that the HX inspections conformed to Ginna's commitments to Generic Letter 89-13, "Service Water System Problems Affecting Safety-Related Equipment."

The inspectors compared the inspection results for the HX to the established acceptance criteria to verify that the results were acceptable and that the HX operated in accordance with design. The inspectors reviewed system health reports and interviewed applicable system engineers.

The inspectors reviewed a sample of condition reports (CRs) related to the containment air recirculation fan coolers to ensure that Ginna was appropriately identifying, characterizing, and resolving problems related to these systems and components within regulatory requirements and Ginna's commitments. Documents reviewed are listed in the Attachment.

b. Findings

No findings of significance were identified.

1R08 Inservice Inspection Activities (71111.08 - One sample)

a. Inspection Scope

The purpose of this inspection was to assess the effectiveness of Ginna's Inservice Inspection (ISI) program for monitoring degradation of the reactor coolant system boundary, risk significant piping system boundaries, and the containment boundary. The ISI activities were evaluated against the criteria specified in the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, Section XI requirements, and applicable NRC Regulatory Requirements. Documents reviewed are listed in the Attachment.

In evaluating the effectiveness of the steam generator degradation management system, the inspectors reviewed a number of Electric Power Research Institute (EPRI) eddy current examination technique specification sheets to determine whether eddy current probes and equipment were qualified for the expected degradation mechanisms. The sheets corresponded to the degradation mechanism being evaluated. A Ginna qualified examination technique was reviewed to determine if the technique qualification conformed to the qualification requirements specified by EPRI guidelines, "Pressurized Water Reactor Steam Generator Examination Guidelines, 100318, Appendix H." The procedure was qualified in accordance with the guideline. The inspectors witnessed the calibration and evaluation of a wear indication on R78C24 by a senior eddy current analyst.

The inspectors performed an observation of an ultrasonic volumetric examination and the visual surface examination of the contaiment liner. The inspectors reviewed a work order package for ultrasonic examination on service water (SW) piping from reactor compartment cooler. This examination was initiated to verify the minimum pipe wall thickness of the 2-inch and 2½-inch SW piping. The inspectors also observed the ultrasonic examination of weld 14B-F5 using a 70 degree search unit.

The ultrasonic examination disclosed that piping/fittings near penetration 209 inside the containment, in some local areas, were 0.064 inch, and 0.066 inch which were less than code required minimum wall of 0.070 inch. These areas were less than 1-square inch each. As corrective action, the piping in question was replaced. A CR (2008-3243) was initiated to document, track, and disposition these findings in Ginna's corrective action program.

b. Findings

No findings of significance were identified.

- 1R11 Licensed Operator Regualification Program (71111.11Q One sample)
- a. Inspection Scope

On June 13, 2008, the inspectors observed licensed operator simulator training that focused on emergency action level (EAL) event evaluation, classification, and assessment. One scenario was run during the approximately 90-minute training session, which was periodically stopped at different times to provide operators a chance to classify the event given the plant conditions. Once operators classified the event, training instructors discussed with operators the basis for the event classification and possible alternative EAL classification scenarios. While reviewing the training session, the inspectors verified that the instructors were following the guidance contained in a pre-established lesson plan that was entitled "EAL Simulator Scenario Lesson Plan" dated June 9, 2008.

b. Findings

No findings of significance were identified.

1R12 <u>Maintenance Effectiveness</u> (71111.12Q - Two samples)

a. Inspection Scope

The inspectors evaluated work practices and follow-up corrective actions for two issues involving degraded conditions of safety-related systems, structures, and components (SSCs) for maintenance effectiveness. The inspectors reviewed Ginna's implementation of the maintenance rule and verified that the conditions associated with the referenced CRs were evaluated against applicable maintenance rule functional failure criteria as found in Ginna's scoping documents and procedures. The inspectors reviewed Ginna's problem identification and resolution actions for these issues to evaluate whether Ginna had appropriately monitored, evaluated, and dispositioned the issues in accordance with procedures and the requirements of 10 CFR Part 50.65, "Requirements for Monitoring the Effectiveness of Maintenance." In addition, the inspectors discussed these issues with

system engineers and maintenance rule coordinators to verify that they were tracked against performance criteria and goals, and corrective actions were taken or planned to verify whether the actions were reasonable and appropriate. Documents reviewed are listed in the Attachment.

The following conditions were reviewed:

- CR 2008-5445, Samples line valves AOV 966B and AOV 953 leaking by
- CR 2008-2428, Control room ventilation sensors XE-6851 and XE-6853 found out of position
- b. <u>Findings</u>

No findings of significance were identified.

- 1R13 <u>Maintenance Risk Assessments and Emergent Work Control</u> (71111.13 Six samples)
- a. Inspection Scope

The inspectors evaluated the effectiveness of Ginna's maintenance risk assessments required by 10 CFR Part 50.65(a)(4). The inspectors discussed with control room operators and scheduling department personnel regarding the use of Ginna's online risk monitoring software. The inspectors reviewed equipment tracking documentation and daily work schedules, and performed plant tours to verify that actual plant configuration matched the assessed configuration. Additionally, the inspectors verified that risk management actions, for both planned and emergent work, were consistent with those described in IP PSH-2, "Integrated Work Schedule Risk Management." Documents reviewed are listed in the Attachment.

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

- A planned monthly surveillance on the 'A' emergency diesel generator while the 'A' service water pump was out for maintenance, and the plant was in adverse weather conditions under ER-SC.1, for high winds (April 2, 2008);
- Planned surveillance of emergency diesel generator sequence test while simultaneously conducting tests of safety injection logic circuitry and containment radiation monitor calibrations (April 21, 2008);
- Planned maintenance on the pressurizer level indicating system performed using PT-32-B-SD, "Reactor Trip Logic Test Train B," Rev. 14. (May 8, 2008);
- Unplanned maintenance on the level indicating system for the heater drain tank (May 15 and 16, 2008);
- Unplanned maintenance to replace a cracked actuator for valve 4629, service water return from 'A' containment recirculation fan cooler (May 21 and 22, 2008); and
- Planned surveillance testing of the steam driven auxiliary feedwater pump (June 11, 2008).

b. <u>Findings</u>

No findings of significance were identified.

- 1R15 Operability Evaluations (71111.15 Six samples)
- a. Inspection Scope

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

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

- CR 2008-2745, 320A and/or 388A are leaking-by in containment, active boron leak in Chemical and Volume Control System impacting FIT-179;
- CR 2008-3968, Eddy current inspection detected foreign material wear in A & B generator at lattice grid structures and lattice grid wear in the B steam generator;
- Part 21-2008-04, "Notification Regarding Identification of Defect: ALCO Snubber Valve Micro-cracking";
- CR 2008-4203, Component cooling water heat exchanger coating degradation;
- CR 2008-3318, MSU-26 continues to fail after repeated repairs; and
- CR 2008-5653, D Standby auxiliary feedwater discharge check valve failed prompt closure test.
- b. Findings

No findings of significance were identified.

- 1R18 Plant Modifications (71111.18 Two samples)
- .1 <u>Temporary Modification</u> (One sample)
- a. Inspection Scope

The inspectors reviewed temporary plant modification 2008-0011, "Disconnect SI Accumulator B Drain Piping to the RCDT in Containment," to determine whether the temporary change adversely affected system availability or adversely affected a function important to plant safety. The inspectors reviewed the associated system design bases including the UFSAR and TS and assessed the adequacy of the safety determination screening and evaluation. The inspectors also assessed configuration control of the temporary change by reviewing selected drawings and procedures to verify whether appropriate updates had been made. The inspectors compared the actual installation with

Enclosure

the temporary modification documents to determine whether the implemented change was consistent with the approved, documented modification. The temporary modification was reviewed by the inspectors in the field to verify it had been installed in conformance with the instructions contained in procedure IP-DES-3, "Temporary Modifications," Revision 19. Documents reviewed are listed in the Attachment.

b. Findings

No findings of significance were identified.

- .2 <u>Permanent Modification</u> (One sample)
- a. <u>Inspection Scope</u>

The inspectors reviewed plant change record (PCR) 2008-0004, "Main Steam Check Valve Upgrade," which was installed during the RFO to address several material condition issues with the valves including excessive packing leakage and repetitive failures of the valve counterweight assemblies. The inspectors reviewed the PCR to ensure that the change was performed in accordance with Ginna's licensing basis; and the post-modification test would provide reasonable assurance that the valves would operate in accordance with design criteria. Documents reviewed are listed in the Attachment.

b. Findings

No findings of significance were identified.

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

The inspectors observed portions of post-maintenance testing (PMT) activities in the field to determine whether the tests were performed in accordance with approved procedures. The inspectors assessed each test's adequacy by comparing the test methodology to the scope of maintenance 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. Documents reviewed are listed in the Attachment.

The following PMT activities were reviewed:

- PT-2.6.6, "Auxiliary Feedwater Valve Surveillance," Rev. 14, under WO 20803111, "Troubleshoot and Repair AOV 9710B–Stroke Time Failure," which corrected the stroke time failure of AOV 9710B during PT-36Q-D, "Standby Auxiliary Feedwater Pump D – Quarterly," Rev. 54 (April 13, 2008);
- PT-16Q-T, "Auxiliary Feedwater Quarterly," Rev 5700 to address the issues identified in CR 2008-3414, Steam Driven Auxiliary Feedwater Pump Inlet Valve MOV 3505A in an Over Thrust Condition (April 25, 2008);
- STP-O-2.6.5, "RCS Overpressure Protection System PORV Operability Verification," Rev. 00000, and STP-O-R-1.4, "Valve Interlock Verification – Reactor Coolant

System," Rev. 00000, after repairs were performed during the RFO per WO 20700680, "PORV-430 is Leaking-by, Perform Inspection/Repair/Replace Internals," and WO 20704149, "Perform a Major Inspection of PORV-431C" (May 4, 2008);

- M-64.1.2, "MOVATs Testing of Motor Operated Valves (MOVs)," Rev. 35, after RFO work was performed to repair MOV-516 using WO 20602545, "Perform Major Inspection of MOV-516" (May 6, 2008);
- S-23.3.A , "Reactor Compartment Cooling System Pre-startup Procedure," Rev.15, which was done, in part, for WO 20803196, "Cut Out and Replace Service Water Piping at Penetrations 209 and 201" (May 8, 2008);
- PCR 2008-0004, "Main Steam Check Valve Upgrade," Rev. 0, Post-Maintenance Test Activities (May 12, 2008);
- PT-2.3, "Safeguard Power Operated Valve Operations" Retest for WO 20706890, "Grease/Lube MOV 814" (June 23, 2008).

b. Findings

No findings of significance were identified.

1R20 <u>Refueling and Other Outage Activities</u> (71111.20 – One Sample)

a. Inspection Scope

On April 20, 2008, the inspectors observed the plant shutdown for a scheduled refueling outage (RFO). The shutdown included a trip of the main turbine from approximately 30 percent power. Prior to the shutdown, the inspectors observed surveillance testing activities for systems that would be placed in service during the RFO.

With one exception, the shutdown activities went as planned. The exception involved difficulties encountered during testing of turbine protective trips when operators determined the low lube oil pressure trip would not reset. The inspectors observed Ginna troubleshooting operations and the implementation of compensatory actions.

Shortly after the plant entered Mode 4, the inspectors toured the containment structure to examine the condition of plant structures and components. Particular attention was paid to the Reactor Coolant Pump (RCP) oil leakage collection systems, the condition of the 'B' containment sump, and Ginna's efforts to identify and assess boric acid leakage from plant systems and components.

While the plant was in Mode 5, the inspectors walked down fire hose stations in containment to ensure they had been correctly aligned. The inspectors also walked down both trains of the residual heat removal (RHR) system to ensure they were available to provide decay heat removal. During the RHR system walkdown, the inspectors verified that both trains had electric power, and maintenance was not being performed on protected systems.

Using Operating Experience Smart Sample (OESS) FY2007-03, Revision 1, crane and heavy lift inspection, supplemental guidance for IP-71111.20, a review of reactor head lift plans was performed. The inspectors identified that Ginna had a valid load-drop analysis and the movement of the head was performed both on and off in accordance with the requirements of the analysis. A review of plans for movements of the 'A' RCP motor was also performed to verify the activities were performed in accordance with the load drop analysis.

Once the plant entered Mode 6, the inspectors toured the refueling cavity and examined the sandbox area that had been removed for life extension-related inspection activities. The inspectors verified that Ginna personnel were aware of potentially degraded areas in the sandbox region, and had assessed the significance of the as-found condition.

The inspectors verified preparations for refueling and observed several hours of fuel shuffle operations in containment and the control room. Ventilation line-ups and equipment line-ups were verified prior to the commencement of refueling.

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

When refueling was completed, the plant transitioned to Mode 5 in preparation for plant startup. The inspectors toured containment to verify Ginna personnel were removing refueling-related equipment and to ensure issues identified during boric acid walkdown inspections had been resolved. Specific attention was devoted to the 'B' sump which was walked down by the inspectors to ensure no foreign material was present that could impact the performance of the emergency core cooling system pumps. The conditions of the sump screens, which were modified during the outage were examined to ensure they were intact and not obstructed. Sump walls were also verified to be intact.

While the plant was in Mode 5, the inspectors verified Ginna had established adequate controls to ensure electrical power to safety-related equipment was protected.

The inspectors observed portions of the reactor coolant system (RCS) heat-up and toured the containment when the 350 and 1,000 pound leak test inspections were being performed by Ginna non-destructive evaluation personnel. When observing the leak test inspections, the inspectors verified that examination points were identified in procedure, PT7, "ISI System Leakage Test RCS," personnel were following the procedure, and maintenance personnel were appropriately briefed on salient aspects of the examination.

b. Findings and Observations

<u>Introduction</u>: A Green NCV of TS 5.4.1.a "Procedures" was identified for a failure of control room operators to correctly implement procedure O-1.1, "Plant Heat-up from Cold Shutdown to Hot Shutdown," while conducting a plant heat-up following completion of the RFO.

<u>Description</u>: On May 8, 2008, at approximately 9:00 a.m. while the plant was in Mode 4 and conducting a plant heat-up per procedure O-1.1, control room operators isolated the RHR system from the reactor coolant system by closing the RHR inlet and outlet isolation

valves MOVs 700, 701, 720 and 721, and de-energized the power supply breakers to the valves. At the time of the event, the 'A' reactor coolant system loop was not operable because the lift pump for the 'A' reactor coolant pump was not functioning properly, which prevented starting the reactor coolant pump. The 'B' loop pump was operable.

Closing the inlet and outlet RHR system valves with the 'A' reactor coolant system loop inoperable was contrary to the requirements of step 6.8.9(9)(a) of O-1.1, which stated that prior to isolating the RHR system, operators shall verify that two reactor coolant system loops are operable and at least one is operating.

Several minutes after isolating the RHR system, the control room operators recognized they were not complying with O-1.1, and they restored power to the RHR isolation valves. The time that the RHR system was isolated from the reactor coolant system was 15 minutes. The performance deficiency associated with this finding was a failure of operators to correctly implement O-1.1.

A Ginna investigation into this event attributed the error to an inadequate understanding of the requirements to meet the applicable governing TS 3.4.6, and a misreading of a step 6.8.9(9)(a) in procedure O-1.1.

<u>Analysis</u>: This finding is more than minor because it is associated with the Initiating Events cornerstone and affects the cornerstone objective of limiting the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. This finding was determined to be of very low safety significance (Green) using Phase 1, Appendix G, Attachment 1, Checklist 4 of IMC 0609. This finding screened to Green because of the following:

- The finding did not increase the likelihood of a loss of RCS inventory.
- The finding did not degrade the ability of Ginna to terminate a leak path or add RCS inventory when needed.
- The finding did not degrade the ability to recover Decay Heat Removal once it had been lost.

This finding has a crosscutting aspect in the area of human performance because operators did not adhere to the procedural requirements outlined in O-1.1 prior to removing the RHR system from service (H.4.b per IMC 0305).

<u>Enforcement</u>: Technical Specification 5.4.1.a "Procedures" requires, in part, that the applicable procedures recommended in Regulatory Guide 1.33, Revision 2, Appendix A, February 1978, be established, implemented, and maintained. Regulatory Guide 1.33 requires, in part, that procedures be implemented for heat-up of the reactor coolant system. Procedure O-1.1 is required by Regulatory Guide 1.33. Step 6.8.9(9)(a) of O-1.1 states that operators shall verify that two reactor coolant system loops are operable and at least one operating prior to isolating the RHR system.

Contrary to the requirements of step 6.8.9(9)(a), during the May 8 plant heat-up, operators isolated the RHR system when the 'A' reactor coolant system loop was inoperable. Because this issue was determined to be of very low safety significance and has been entered into Ginna's corrective action program (CR 2006-0370), this violation is being treated as an NCV, consistent with section VI.A.1 of the NRC Enforcement Policy. (NCV 05000244/2008003-01, Failure to Correctly Implement Reactor Coolant Heat-up Procedure)

1R22 <u>Surveillance Testing</u> (71111.22 – Seven samples)

a. Inspection Scope

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

- PT-3Q, "Containment Spray Pump Quarterly Test," Rev. 4501 (April 1, 2008) (IST)
- S-12.4, "RCS Leakage Surveillance Record Instructions," Rev. 054 (April 17, 2008) (RCS)
- STP-O-2.6.5-SD, "RCS Overpressure Protection System PORV Operability Verification," Rev. 0000 (April 20, 2008)
- STP-O-R-2.2, "Diesel Generator Load and Safeguard Sequence Test," Rev. 00000 (April 21, 2008) (IST)
- PT-17.2, "Process Radiation Monitors R-11 R-18, R-20 R-22 Iodine Monitors R-10A and R-10B," Rev. 12600 (April 21, 2008)
- STP-O-12.1, "Emergency Diesel Generator A," Rev. 00201 (June 3, 2008)
- PT-2.3, "Safeguard Power Operated Valve Operations," Rev. 10500 (June 23, 2008) (IST)
- b. Findings

No findings of significance were identified.

Cornerstone: Emergency Preparedness

- 1EP2 Alert and Notification System Evaluation
- a. <u>Inspection Scope</u> (71114.02 One sample)

An onsite review was conducted to assess the maintenance and testing of Ginna's alert and notification system (ANS). During this inspection, the inspectors interviewed emergency preparedness (EP) staff responsible for implementation of the ANS testing and maintenance. Condition reports pertaining to the ANS were reviewed for causes, trends, and corrective actions. The inspectors interviewed the system engineer regarding the ANS siren system performance from January 2007 through May 2008. The inspectors reviewed the ANS procedures and the ANS design report to ensure compliance with those commitments for system maintenance and testing. In addition, the inspectors reviewed changes to the design report and how these changes are captured. The inspection was conducted in accordance with NRC Inspection Procedure 71114, Attachment 2. Planning standard 10 CFR 50.47(b)(5) and the related requirements of 10 CFR 50 Appendix E were used as reference criteria.

b. <u>Findings</u>

No findings of significance were identified.

1EP3 Emergency Response Organization Staffing and Augmentation System

a. <u>Inspection Scope</u> (71114.03 – One sample)

A review of Ginna's emergency response organization (ERO) augmentation staffing requirements and the process for notifying the ERO was conducted. This was performed to ensure the readiness of key staff for responding to an event and to ensure timely facility activation. The inspectors reviewed procedures and CRs associated with the ERO notification system and drills, and reviewed records from call-in drills. The inspectors interviewed personnel responsible for testing the ERO augmentation process, and reviewed the training records for a sampling of ERO to ensure training and qualifications were up to date. The inspectors reviewed procedures for ERO administration and training, and verified a sampling of ERO participated in exercises in 2007 and 2008. The inspectors also reviewed records of offsite agency training and the June 2, 2008, respirator and self-contained breathing apparatus (SCBA) qualification list. The inspection was conducted in accordance with NRC Inspection Procedure 71114, Attachment 3. Planning standard 10 CFR 50.47(b)(2) and related requirements of 10 CFR 50 Appendix E were used as reference criteria.

b. Findings

<u>Introduction</u>: The inspectors identified a Green NCV associated with emergency preparedness planning standard 10 CFR 50.47(b)(2). Ginna failed to maintain timely augmentation of on-shift staff regarding the radiological survey team member position.

<u>Description</u>: Ginna conducts a quarterly call test to ensure the ERO is capable of being augmented in a timely manner. Ginna's nuclear emergency response plan (NERP), Section 4.2, Emergency Organization, states that the survey team member position will be staffed by six individuals reporting onsite within one hour of the declaration of an ALERT or higher classification. During review of results of the previous four quarterly call tests, the inspectors identified that the survey team member position had not been filled with six individuals for any of the tests. For the testing conducted in June 2007 through March 2008, the survey team member position would not have been staffed by six responders within one hour of event classification; only three or four individuals were able to respond within one hour.

The survey team member position is a "pooled" position, meaning that the personnel are not assigned on-call ERO duties, but are notified and are expected to respond as a group. Ginna's ERO designated eight or nine individuals as survey team members during the four quarter tests. However, during each test two of the individuals were identified as living more than 60 minutes away and are noted as second shift only for off hours. This means that all, or nearly all, of the identified individuals would have been required to respond within 60 minutes. Ginna initiated CRs for each of the first two quarterly tests where the positions were not filled. However, corrective actions to qualify more individuals for the survey team position were not completed. The failure to maintain timely augmentation of on-shift staff is a performance deficiency.

Following identification of the issue by the inspectors, Ginna entered the concern into their corrective action program. The week following the inspection, Ginna indicated that they had qualified three more individuals for the survey team position and were planning on qualifying several additional individuals in the near future.

<u>Analysis</u>: This finding is more than minor because it affected the Emergency Response Organization Readiness attribute of the Emergency Preparedness cornerstone to ensure Ginna is capable of implementing adequate measures to protect the health and safety of the public in the event of a radiological emergency.

The inspectors assessed the finding using IMC 0609, Appendix B, Emergency Preparedness Significance Determination Process, and determined the finding to be of very low safety significance. IMC 0609, Appendix B, Sheet 1, "Failure to Comply," and Section 4.2 of Appendix B were used to reach this determination. Using IMC 0609, Appendix B, Sheet 1, the failure to comply with 10 CFR 50.47(b)(2) was a planning standard problem, but not a planning standard functional failure. Ginna had other qualified ERO survey team members who would have arrived, but later than one hour. Therefore, the inspectors determined the planning standard function had been degraded, and this finding was of very low safety significance (Green). The staffing deficiencies did not affect the outcome of protecting the health and safety of the public. The inspectors determined that this finding has a crosscutting aspect in the area of problem identification and resolution because Ginna did not take appropriate corrective actions to qualify more individuals for the survey team position in 2007 (P.1.d per IMC 0305).

<u>Enforcement</u>: 10 CFR 50.47(b)(2) requires, in part, timely augmentation of response capabilities is available. Ginna's NERP, Section 4.2, Emergency Organization, states that the survey team member position will be staffed by six individuals reporting onsite within one hour of the declaration of an ALERT or higher classification.

Contrary to the above, results from testing the off-hours notification of the response organization for the four quarters, starting in June 2007 through March 2008, indicated that fewer than six individuals would have responded for the survey team member position within one hour of event declaration. Because this finding is of very low safety significance and because it was entered into Ginna's corrective action program (CR 2008-5153), this violation is being treated as an NCV, consistent with Section VI.A of the NRC Enforcement Policy: (NCV 05000244/2008003-02, Failure to Maintain Timely ERO Augmentation of On-shift Staff)

1EP4 Emergency Action Level and Emergency Plan Changes

a. <u>Inspection Scope</u> (71114.04 – One sample)

Prior to this inspection, the NRC had received and acknowledged changes made to Ginna's nuclear emergency plan and implementing procedures. These changes, which Ginna had determined did not result in a decrease in effectiveness to the Plan and concluded that the changes continued to meet the requirements of 10 CFR 50.47(b) and Appendix E to 10 CFR 50, were made in accordance with 10 CFR 50.54(q). During this inspection, the inspectors conducted a review of Ginna's 10 CFR 50.54(q) screenings for all the changes made to the EALs and all of the changes made to the Plan from June 2006 through May 2008 that could potentially result in a decrease in effectiveness. This review of the EAL and Plan changes did not constitute an approval of the changes, and as such, the changes are subject to future NRC inspection. The inspection was conducted in accordance with NRC Inspection Procedure 71114, Attachment 4. The requirements in 10 CFR 50.54(q) were used as reference criteria.

b. Findings

No findings of significance were identified.

1EP5 Correction of Emergency Preparedness Weaknesses

a. <u>Inspection Scope</u> (71114.05 – One Sample)

The inspectors reviewed a sampling of self-assessment procedures and reports to assess Ginna's ability to evaluate their performance and programs. The inspectors reviewed CRs from January 2007 through May 2008 initiated by Ginna from drills, self assessments, and audits. Other drill reports reviewed included medical/health physics, fire, integrated, and call-in. In addition, the inspectors reviewed two Unusual Event Reports and audits for 2007 and 2008 required by 50.54(t). This inspection was conducted in accordance with NRC Inspection Procedure 71114, Attachment 5. Planning standard10 CFR 50.47(b)(14) and the related requirements of 10 CFR 50 Appendix E were used as reference criteria.

b. Findings

No findings of significance were identified.

2. RADIATION SAFETY

Cornerstone: Occupational Radiation Safety (OS)

- 2OS1 Access Control To Radiologically Significant Areas (71121.01 Eleven samples)
- a. Inspection Scope

From April 28 to May 2, 2008, the inspectors performed the following activities to verify that Ginna was properly implementing physical, administrative, and engineering controls for access to locked high radiation areas (LHRA), and other radiologically controlled areas (RCA) during the RFO. Implementation of these programs was reviewed against the criteria contained in 10 CFR 20, TSs, and Ginna's procedures.

Plant Walkdown and Radiation Work Permits (RWP) Reviews

The inspectors identified exposure-significant work areas and reviewed associated Ginna controls, surveys, postings, and barricades for acceptability. The inspectors toured accessible RCA, and with the assistance of a radiation protection technician, performed independent radiation surveys of selected areas to confirm the accuracy of survey data and the adequacy of postings. The inspectors reviewed RWP for work in HRA and for airborne radioactivity areas with a potential for internal exposures of greater than 50 mrem committed effective dose equivalent (CEDE). During the period of the inspection and since the start of the RFO, there were no internal exposures greater than 50 mrem CEDE. The inspectors examined controls for highly activated or contaminated materials within the spent fuel pool.

Problem Identification and Resolution

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

Jobs-in-Progress Review

The inspectors selected the 'B' sump strainer modification, repack of valve 311C, and steam generator activities for observation. The inspectors attended the management oversight board, ALARA brief, and observed the work from the radiation monitoring system cameras for the repack of valve 311C. The inspectors reviewed the radiological job requirements and observed the performance with respect to the requirements. The inspectors questioned workers to assess the workers' knowledge of the radiological conditions in the area and the radiological job requirements. The repack of valve 311C required that the whole body dosimeter be relocated to the individual's head.

b. Findings

No findings of significance were identified.

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

a. Inspection Scope

From April 28 to May 2, 2008, 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 criteria contained in 10 CFR 20, applicable industry standards, and Ginna's procedures.

Inspection Planning

The inspectors reviewed pertinent information regarding cumulative exposure history, current exposure trends, and ongoing activities. The inspectors reviewed Ginna's 3-year rolling average dose and compared Ginna's average with industry average. The inspectors verified that Ginna's ALARA program procedure and the RWP procedure include job estimating and tracking.

Radiological Work Planning

The inspectors received a list of the five work activities ranked highest by estimated exposure for the RFO. The inspectors reviewed the ALARA evaluations and RWP for these work activities. The inspectors reviewed the results achieved with the intended dose established in Ginna's ALARA planning for these work activities.

Verification of Dose Estimates

The inspectors reviewed the applicable procedures to determine the methodology for estimating work activity exposures. The inspectors reviewed Ginna's method for adjusting exposure estimates. The inspectors attended an ALARA committee meeting where adjustments to the outage dose estimate were presented.

Job Site Inspections

The inspectors observed three job sites: 'B' sump strainer modification, 'A' reactor coolant pump work, and work in the pressurizer area. The inspectors evaluated if the workers received appropriate on-the-job supervision and appropriate briefings of radiological

conditions.

Radworker Performance

The inspectors observed individual worker performance to determine if the workers demonstrated ALARA philosophy. The inspectors questioned workers about the radiological conditions in the work area and if the workers knew where the highest and lowest dose rates were in their area.

Source Term Reduction and Control

The inspectors reviewed the status and historical trends of source terms. The inspectors reviewed the shutdown clean-up and chemistry controls prior to and during shutdown.

Declared Pregnant Workers

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

Problem Identification and Resolution

The inspectors reviewed audits and self assessments since the previous inspection to verify identified problems were put in the corrective action program. The inspectors reviewed elements of the corrective action program related to implementing the ALARA program to determine if problems were being entered into the program for timely resolution. Four CRs related to participation at ALARA meetings, dose estimates, and ALARA resources were reviewed.

b. Findings and Observations

Introduction: The inspectors identified a self-revealing finding of very low safety significance (Green) associated with occupational exposure control. Specifically, Ginna failed to implement effective occupational exposure control for two work activities ('B' sump strainer modification and steam generator inspections) once plant radiation conditions changed.

<u>Description:</u> During the RFO, Ginna did not effectively manage work activities to prevent unnecessary occupational radiation exposure to workers involved with the 'B' sump strainer modification (RWP No. 5800) and the steam generator inspections (RWP Nos. 5711 and 9711) once plant radiation conditions changed. Specifically, three weeks prior to plant shutdown, Ginna replaced demineralizer resins that changed reactor coolant system (RCS) pH causing chemical shocks that resulted in several unexpected crud bursts prior to plant shutdown. In addition, once the plant was shut down, cleanup of the RCS was delayed following an induced crud burst (hydrogen peroxide addition), when the purification system was isolated for greater than the expected 26 hours to facilitate performance of a test of the safety injection system. The extended isolation of the letdown system and pre-outage crud bursts caused an increased source term that was not expected or planned relative to performance of reactor work activities to assure the work was performed with occupational exposure ALARA.

The initial dose estimates for the specified RWP were primarily based on historical dose

rates for the same or similar work activities, person-to-hour estimates provided by maintenance and engineering groups to accomplish the work activities, and were reviewed by Ginna management. However, Ginna failed to revise the RWP estimates when the actual work environment and conditions were different than originally anticipated due to the crud bursts and the expected work scope increased. For example, the 'B' sump strainer modification had additional scope added and steam generator inspections included significant rework which was not expected. Further, Ginna did not perform timely in-progress reviews for these work activities even though actual dose accumulation was significantly more than originally estimated.

The inspectors assessed this issue as a single performance deficiency for the failure to reassess work planning and controls following changes in working conditions that were different than anticipated or planned and affected the ability to assure the occupational exposure was maintained ALARA. These two work activities were determined to have exceeded Ginna's original ALARA planning and estimation, i.e., occupational exposure greater than five person-rem and greater than 50 percent of their initial estimated dose. Specifically, as of May 1, 2008, the 'B' sump strainer modification work had an actual accrued dose of 11.400 person-rem compared to Ginna's estimate of 5.427 person-rem; and as of April 30, the steam generator inspections had an actual accrued dose of 11.932 person-rem compared to Ginna's estimate of 5.750 person-rem. The inspectors determined that Ginna should have been able to recognize changes in the radiological conditions and the emergent work affecting both of these activities and reassess the conditions to assure that the radiological work exposure to personnel was ALARA.

The emergent and changed radiological conditions were not fully recognized and effectively assessed to assure occupational exposure to personnel was maintained ALARA relative to work involving the 'B' sump strainer modification and the steam generator inspections. Accordingly, the occupational exposure that was originally planned and expected for these work activities was exceeded without sufficient reassessment, planning, and work control to assure that, to the extent practical, occupational exposure for these activities was maintained ALARA. As a result, the activities resulted in unplanned, unintended occupational collective dose, a condition that was well within Ginna's ability to recognize, foresee, correct, and prevent by reassessment of the conditions and implementation of commensurate planning and work control.

The failure to implement controls to achieve occupational doses that are ALARA and which resulted in unplanned, unintended occupational collective dose is a performance deficiency that was reasonably within Ginna's ability to foresee and correct and which should have been prevented.

<u>Analysis:</u> This finding is more than minor because each of the two work activities exceeded their initial estimates by more than 50 percent and each accumulated more than five person-rem, as described in Appendix E of IMC 0612, example (6.b). Additionally, the finding affected the program and process attribute of the Occupational Radiation Safety cornerstone to ensure the adequate protection of the worker health and safety from exposure to radiation from radioactive material during routine civilian nuclear reactor operations. This finding was determined to be of very low safety significance (Green) because Ginna's 3-year rolling average was less than 135 person-rem, as described in Appendix C of IMC 0609, Section IV, Step 2 (b).

This finding has a crosscutting aspect in the human performance work control area, because Ginna did not effectively coordinate work activities to incorporate actions to

address the impact of changes to the work scope or activity that were appropriate under the circumstances, i.e., radiological conditions changed and emergent work was required, a circumstance for which it was appropriate to reassess the changed work conditions and environment to assure that continued work was adequately planned, controlled, and monitored to assure that occupational exposures were maintained ALARA (H.3.b per IMC 0305).

Enforcement: The ALARA rule contained in 10 CFR 20.1101(b), "Statements of Consideration," indicates that compliance with the ALARA requirement will be judged on whether Ginna has incorporated measures to track and, if necessary, to reduce exposures and not whether exposures and doses represent an absolute minimum or whether Ginna has used all possible methods to reduce exposures. Further, consistent with Appendix B of IMC 0612, since Ginna does have a defined program to track and reduce occupational exposure and this finding is considered an isolated example and not an ALARA program breakdown, it is not considered a violation of 10 CFR 20.1101(b). This issue was entered into Ginna's corrective action program (CR 2008-3957). (FIN 05000244/2008003-03 Failure to Implement Effective Occupational Exposure Control)

- 2OS3 <u>Radiation Monitoring Instrumentation and Protective Equipment</u> (71121.03 One sample)
- a. Inspection Scope

From April 28 to May 2, 2008, the inspectors performed the following activities to evaluate that Ginna was utilizing properly calibrated and source-checked radiological instruments to monitor radiological conditions. Implementation of these programs was reviewed against the criteria contained in 10 CFR 20, applicable industry standards, and Ginna's procedures.

The inspectors observed 10 radiological instruments in use in the containment and auxiliary building during the RFO. The inspectors verified the calibration due dates were not expired and the instrument source checks were current. The inspectors reviewed six CRs related to radiological instruments. The inspectors also observed a radiation protection technician perform pre-use checks of an instrument.

b. Findings

No findings of significance were identified.

4. OTHER ACTIVITIES

- 4OA1 <u>Performance Indicator Verification</u> (71151)
- .1 <u>Cornerstone: Mitigating Systems</u>
- a. <u>Inspection Scope</u> (71151 One sample)

Using the criteria specified in Nuclear Energy Institute (NEI) 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 5, the inspectors verified the completeness and accuracy of the performance indicator (PI) data for safety system functional failures. To verify the accuracy of the data, the inspectors reviewed monthly operating reports, NRC inspection reports, and Ginna event reports issued from January 2007 to March 2008.

b. <u>Findings</u>

No findings of significance were identified.

- .2 Cornerstone: Barrier Integrity
- a. <u>Inspection Scope</u> (71151 One sample)

The inspectors reviewed Ginna's operations logs and chemistry surveillance records to verify the accuracy of data reported under the reactor coolant system (RCS) leak rate PI. The inspectors used the guidance provided in NEI 99-02, Revision 5, to assess the accuracy of Ginna's collection and reporting of the PI data. The inspectors also observed a sample of S-12.4, "RCS Leakage Surveillance Record Instructions," which determines RCS leakage rates submitted under this PI. The PI data reviewed for RCS leak rate encompassed the period from August 2007 until March 2008.

b. <u>Findings</u>

No findings of significance were identified.

- .3 Cornerstone: Emergency Preparedness
- a. <u>Inspection Scope</u> (71151 Three samples)

The inspectors reviewed data for the emergency preparedness PIs which are: (1) Drill and Exercise Performance; (2) ERO Drill Participation; and (3) ANS Reliability. The inspectors reviewed supporting documentation from drills and tests for April 2007 through March 2008 to verify the accuracy of the reported data. The review of these PIs was conducted in accordance with NRC Inspection Procedure 71151. The acceptance criteria used for the review were 10 CFR 50.9 and NEI 99-02, Revision 5.

b. <u>Findings</u>

No findings of significance were identified.

4OA2 Identification and Resolution of Problems (71152)

- .1 <u>Semi-Annual Review</u> (71152 One sample)
- a. Inspection Scope

In order to identify trends that might indicate the existence of a more significant safety issue, the inspectors reviewed CRs initiated from June 2007 to June 2008, the 4th quarter 2007 and 1st quarter 2008 corrective action trend reports, the daily plant status report, and the 1st quarter 2008 and 2nd quarter 2008 system health reports. The inspectors also discussed trends and potential trends with appropriate plant personnel.

b. <u>Findings and Observations</u>

No findings of significance were identified. No trends were noted that indicated a potential significant safety issue. Trends identified by the inspectors had already been recognized by Ginna, and corrective actions initiated as necessary.

.2 <u>Continuous Review of Items Entered into the Corrective Action Program</u> (71152 – One sample)

a. <u>Inspection Scope</u>

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 Ginna's corrective action program. This review was accomplished by reviewing condition reports, periodic attendance at daily screening meetings, and accessing Ginna's computerized corrective action database.

b. Findings

No findings of significance were identified.

- .3 <u>Operator Workarounds</u> (71152 One sample)
- a. Inspection Scope

The inspectors reviewed the operator workaround program to verify that workaround problems were identified at an appropriate threshold and entered into the corrective action program. To perform this review, the inspectors performed a control room walkdown and discussed deficiencies with control room operators to determine if deficiencies were appropriately identified and that their impact on operations was assessed. Operator workarounds that affected a mitigating system's function or the operator's ability to implement abnormal and emergency operating procedures were reviewed more closely. For example, one item that had been identified by Ginna as a degraded condition, the need for operators to verify that an appropriate gap is maintained between the main steam safety valves and their dead weight supports, was walked down by the inspectors. As part of this review, the inspectors reviewed the procedure for workaround control and a recent self-assessment report regarding the aggregate impact of the active operator workarounds, challenges, and degraded operability items.

b. Findings and Observations

No findings of significance were identified.

4OA3 Followup of Events and Notices of Enforcement Discretion (71153 - Three samples)

a. Inspection Scope

.1 <u>Seal Injection Indications Identified During ISI Activities</u>

On May 1, 2008, during a periodic non-destructive examination, Ginna Inservice Inspection (ISI) personnel found three small circular indications on an elbow in the seal injection line for the 'B' reactor coolant pump (RCP). The depth of the deepest indication was 0.125 to 0.375 inches and appeared to have been made by a drill bit. A Ginna evaluation determined that the indications did not affect the structural integrity of the pipe which had a pipe wall thickness of 0.4 inches. The elbow was last inspected in 1997 during the last 10-year ISI examination. No indications were noted during that inspection.

A subsequent Ginna investigation concluded that the indications were probably caused during the process of installing insulation on the pipe elbow. As part of an extent of condition review, the pipe elbow on the 'A' RCP was examined and no indications were identified. Inspectors' follow-up of this issue included examining the elbow on the 'B' RCP seal injection line, reviewing the operability determination which evaluated the significance of the indications, and verifying Ginna was following the appropriate event evaluation procedures.

.2 <u>Heater Drain Tank Pump Trip</u>

On May 15, 2008, control room operators rapidly reduced reactor power to 50 percent when both heater drain tank pumps tripped. Prior to the event, instrumentation and control (I&C) technicians were troubleshooting failed level indicating and control systems on the heater drain tank. A Ginna investigation determined that the most probable cause for the loss of heater drain tank pumps was a low level in the heater drain tank, a condition that was unknown to control room operators since the drain tank level indicating systems were not functioning. The inspectors reviewed Ginna's investigation of this event, verified that the failed level indicating systems had been restored to service, and that, prior to the event, the troubleshooting actions that I&C personnel had performed on the level indicating system were prudent given the plant conditions that existed at the time.

.3 Unplanned Power Transient

On June 29, 2008, an unplanned reactor power decrease to 97 percent occurred when control room operators added boric acid to the volume control tank (VCT). Prior to the event, the chemical volume control system was automatically adding a blend of boric acid and water to the VCT when operators noticed a decrease in Tavg followed by an increase in Tavg. To compensate for the increase in Tavg, the operators added boric acid to the VCT and reduced load off the turbine. No safety limits were exceeded. A Ginna investigation determined that the most probable cause for the decrease and subsequent increase in Tavg was malfunction of valves 110A, 110B, and 110C. The inspectors reviewed Ginna's investigation of this event and verified operator actions were adequate. An incident response team was assembled and troubleshooting actions were initiated by operations and I&C personnel.

b. Findings

No findings of significance were identified.

- 40A5 Other Activities
- .1 <u>Hemyc Compensatory Measures Review</u>
- a. <u>Inspection Scope</u>

The inspectors completed a walkdown of plant areas containing systems protected by Hemyc fire wrap and reviewed the commitments Ginna made to the NRC in a letter from Ginna, dated June 9, 2006, in response to Generic Letter 2006-03, "Potentially Nonconforming Hemyc and MT Fire Barrier Configuration," dated April 10, 2006. The inspectors also reviewed the adequacy of compensatory measures outlined in Ginna's documented evaluation (Fire Protection Program and Appendix R Conformance Review Screen, Attachment A; and A-202 Evaluation of Compensatory Measures for Degraded Hemyc, dated June 30, 2006) for deviations taken to the commitments previously made in Ginna's June 9, 2006, letter. The review verified that the alternate compensatory measures outlined in Ginna's evaluation would not adversely affect the ability to achieve and maintain safe shutdown in the event of fire. The inspectors verified that Ginna continues to track Hemyc installations as protection system impairments and the alternate compensatory measures using staff guidance provided in Regulatory Issue Summary 2005-07, Compensatory Measures to Satisfy the Fire Protection Program Requirements," dated April 19, 2005, remain in place pending completion of the modifications and evaluations.

b. Findings

No findings of significance were identified.

- .2 (Closed) Temporary Instruction 2515/172, Reactor Coolant System Dissimilar Metal Butt Welds
- a. Inspection Scope

The purpose of this Temporary Instruction (TI) was to support the Office of Nuclear Reactor Regulation/Division of Component Integrity by inspecting and reporting on Ginna's performance on implementing MRP-139. Specifically, the inspectors provided a qualitative description of the effectiveness of Ginna's dissimilar metal butt weld inspection and mitigation program.

No welds exist at Ginna that fall under the jurisdiction of MRP-139, and therefore, this TI. The inspectors reviewed with the engineering staff at Ginna how this was determined, the records reviewed, and the conclusion supported.

b. Findings

No findings of significance were identified.

.3 (Closed) Temporary Instruction 2525/166, Pressurized Water Reactor Containment Sump Blockage

a. Inspection Scope

The inspectors performed the inspection in accordance with TI 2515/166, Pressurized Water Reactor Containment Sump Blockage. The TI was developed to support the NRC review of Ginna's activities in response to NRC Generic Letter (GL) 2004-02, "Potential Impact of Debris Blockage on Emergency Sump Recirculation at Pressurized Water Reactors." Specifically, the inspectors verified implementation of the modifications and required procedure changes were consistent with the proposed actions committed to in the GL response. The inspectors reviewed a sample of the licensing and design documents to verify that they were either updated or in the process of being updated to reflect the modifications. The inspectors performed a walkdown of the strainer installation to verify it was performed in accordance with the approved design change package. In addition, the inspectors walked down the containment to assess the adequacy of the coatings on surfaces in containment. Finally, the inspectors verified that there were no choke-points not accounted for by Ginna's calculations that could prevent water from reaching the recirculation sump during a design basis accident. Documents reviewed are listed in the Attachment.

Evaluation of Inspection Requirements

The TI requires the inspectors to evaluate and answer the following questions:

Did Ginna implement the plant modifications and procedure changes committed to in their GL 2004-02 response? The inspectors verified that actions implemented by Ginna as described in response to GL 2004-02 were complete related to the installation of the sump screen. The inspectors determined that the procedures to programmatically control potential debris generation sources were updated. Finally, the inspectors reviewed Ginna's emergency operating procedures and verified that the procedures ensured the assumptions described in Ginna's supplemental response to the GL were in alignment with the procedure guidance.

Has Ginna updated its licensing basis to reflect the corrective actions taken in response to GL 2004-02? The inspectors verified that changes to the facility or procedures as described in the UFSAR that were identified in Ginna's GL 2004-02 response were reviewed and documented in accordance with 10 CFR 50.59. As part of this review, the inspectors verified that Ginna did not require NRC approval prior to implementing those changes. The inspectors also verified that Ginna intends to update the USFAR to reflect the final modification and associated procedure changes taken in response to GL 2004-02. Finally, the inspectors verified that Ginna intends to provide a final response to GL 2004-02 within 60 days of startup from the RFO.

Based on the inspectors' review of the hardware modifications, and the procedure and licensing bases changes, the inspection requirements of the TI are complete, and the TI is closed.

This documentation of TI-2515/166 completion, as well as any results of sampling audits of Ginna's actions, will be reviewed by the NRC staff (Office of Nuclear Reactor Regulation) as input, along with the GL 2004-02 responses to support closure of GL 2004-02 and Generic Safety Issue-191 (GSI), "Assessment of Debris Accumulation on

Pressurized Water Reactor Sump Performance." The NRC will notify Ginna by letter of the results of the overall assessment as to whether GSI-191 and GL 2004-02 have been satisfactorily addressed at Ginna.

b. <u>Findings</u>

No findings of significance were identified.

I4OA6 Meetings, Including Exit

.1 Management Site Visit

On April 28, 2008, a site visit was performed by Mr. J. Clifford, Deputy Director, Division of Reactor Projects for Region I. During Mr. Clifford's visit, he toured portions of the plant including the containment structure and met with Ginna managers.

.2 Exit Meeting Summary

On July 14, 2008, the resident inspectors presented the inspection results to Mr. John Carlin and other members of his staff, who acknowledged the findings. The inspectors verified that none of the material examined during the inspection is considered proprietary in nature.

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee Personnel

Vice President, Ginna
Manager, Radiation Protection
Assistant Operations Manager (Shift)
Scheduling Manager
Chemistry Supervisor
Emergency Preparedness Manager
Plant Manager
Manager, Nuclear Engineering Services
Manager of Operations

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Opened and Closed

05000244/2008003-01	NCV	Failure to Correctly Implement Reactor Coolant Heat-up Procedure (Section 1R20)
05000244/2008003-02	NCV	Failure to Maintain Timely ERO Augmentation of On-shift Staff (Section 1EP3)
05000244/2008003-03	FIN	Failure to Implement Effective Occupational Exposure Control (Section 20S2)
Closed		
05000244/2515/172	TI	Reactor Coolant System Dissimilar Metal Butt Welds (Section 40A5)
05000244/2515/166	TI	Pressurized Water Reactor Containment Sump Blockage (Section 40A5)

LIST OF DOCUMENTS REVIEWED

Section 1R01: Adverse Weather Protection

<u>Document</u>

Updated Final Safety Analysis Report (UFSAR) Rev. 20

A-1

Procedures

- AP-SW.2 Loss of Service Water, Rev. 00801
- EPIP 1-17 Planning for Adverse Weather, Rev. 8
- ER-ELEC.1 Restoration of Offsite Power, Rev. 17
- ER-SC.1 Adverse Weather Plan, Rev. 01700
- ER-FIRE.1 Alternate Shutdown for Control Complex Fire, Rev. 02701
- ER-SH.1 Response to Loss of Screen House, Rev. 2
- ER-SC.3 Low Screen House Water Level, Rev. 02000
- O-6.9 Ginna Operating Limits for Station 13A Transmission, Rev. 03100
- O-23 Hot Weather Seasonal Readiness Walkdown, Rev. 00300

Condition Reports

2008-2834 2007-5821 2007-0012 2007-3616

2007-6286

Work Orders 20704997 20703056 20703617 20705288

Section 1R04: Equipment Alignment

Documents

Diesel Generator Emergency Power System Health Report (Q2-2008) UFSAR 8.1.4.2, Emergency Power TS Basis B 3.8.1, AC Sources 4S Diesel Generator Emergency Power System Integrated work schedule week 336L

Procedures

- O-7 Alignment and Operation of the Reactor Vessel Overpressure Protection System, Rev. 04701
- O-2.3.1 Draining and Operation at Reduced Inventory of the Reactor Coolant System, Rev. 08500
- O-15.2 Valve Alignment for Head Lift, Core Component Movement and Periodic Status Checks, Rev. 30
- T-27.1 EDG 'A' Pre-Startup Alignment, Revision 05600
- T-27.2 EDG 'B' Pre-Startup Alignment, Revision 05800
- T-27.4 Diesel Generator Operation, Revision 039

<u>Drawings</u>

- 33013-1239 Diesel Generator 'A' and 'B', rev 4
- 33013-1247 Auxiliary Coolant Residual Heat Removal (AC) P&ID, Rev. 40
- 33013-1263 RCS Overpressure Protection Nitrogen Accumulator System, Rev. 10
- 33013-1261 Containment Spray (SI), Rev. 37
- 33013-1262 Safety Injection and Accumulators, Rev. 10

Condition Report 2008-004728 2008-003377

Section 1R05: Fire Protection

<u>Document</u>

Ginna Fire Protection Program, Rev. 4d

Procedures

O-2.2 SC-3.16.3.1 SC- 3.1.1 SC- 3.4.1 FRP- 28	Plant Shutdown from Hot Shutdown to Cold Conditions, Rev. 14900 Set Up of Containment Hose Reels during Outage, Rev. 1 Fire Alarm Response (Fire Brigade Activation), Rev. 17 Fire Brigade and Control Room Personnel Responsibilities, Rev. 38 All-Volatile Treatment Room, Rev. 6
<u>Drawings</u>	
33013-1991	Fire Protection Fire Service Water Auxiliary Building, Intermediate Building, and
	Containment Building P&ID
33013_2542	Fire Response Plan CNMT Structure and Intermediate Building Plan Basement

- 33013-2542 Fire Response Plan CNMT Structure and Intermediate Building Plan, Basement Floor Elev. 235 feet 8 inches
- 33013-2545 Containment Fire Response Plan CNMT, Structure and Intermediate Building Plan, Intermediate Floor Elev. 253 feet 3 inches

Condition Report

2008-5098

Section 1R07: Heat Sink Performance

<u>Documents</u>

Service Water System Reliability Optimization Program, Rev. 8 CMP-10-07-RECIRCFANA, Rev. 000500

Work Order 206003248

Section 1R08: Inservice Inspection

<u>Documents</u> EP-NDE-603, Grid Layout for Erosion/Corrosion UT Examinations, Rev. 000 EP-NDE-605, UT Examinations for Erosion/Corrosion, Rev. 000 BOP-UT-08-117, UT Data Sheet Report

Drawings

C381 to C358, Station SW inside Reactor Containment from Penetration 209 to Reactor Cavity Cooler, Sheets 28, 30, 32

<u>Condition Reports</u> 2008-3243 2008-3244 Work Orders

20702150 UT Examination/Evaluation of 2-1/2" SW System Piping at P209 Scope Expansion to Include Piping at P201, Rev. 5

Section 1R11: Licensed Operator Regualification

<u>Document</u>

EAL Simulator Scenario Lesson Plan, June 9, 2008

Section 1R12: Maintenance Effectiveness

Documents

System Health Report for Radiation Monitoring, Qtr 1, 2008 Record ID 2007-005 Form MR5, Maintenance Rule Goal Determination, Rev. 4 Record ID 2004-010 Form MR5, Maintenance Rule Goal Determination, Rev. 4 Ginna IST Program for Valves 951, 966B, and 966C

Procedures

P-9, Radiation Monitoring System, Rev. 09801
S-14, Area and Process Radiation Monitoring System, Rev. 02601
S-14.8, Operation of Containment Ventilation, Rev. 14
S-14.7, Operation of Area Radiation Monitors, Rev. 7
S-14.10, Operation of Process Radiation Monitors, Rev. 16
STP-O-2.5.1, Air Operated Valves, Quarterly Surveillance, Rev. 00201
IP-IIT-3, Containment Leakage Rate Testing Program, Rev. 00600
IP-IIT-3.1, Containment Isolation Valve Leak Rate Testing, Rev. 1
PTT-23.12A, Containment Isolation Valve Leak Rate Testing Pressurizer Steam Sample Pen 207A, Rev. 3

Drawing

33013-1278 Nuclear Sampling P&ID, Sheets 1 and 2

Condition Reports

2008-5377	2008-4680	2008-1200
2008-5331	2008-4628	2008-3201
2008-5260	2008-4494	2008-4144
2008-5224	2008-3299	2008-4648
2008-5094	2006-1591	2008-4649
2008-4846	2006-6011	2008-4947
2008-4836	2007-3865	2008-5445

Section 1R13: Maintenance Risk Assessments and Emergent Work Evaluation

Documents

STP-O-12.1, Emergency Diesel Generator 'A', Rev. 00100
ER-SC.1, Adverse Weather Plan, Rev. 17
STP-O-R-2.2, Diesel Generator Load and Safeguard Sequence Test, Rev. 00000
PT-17.2, Process Radiation Monitors R-11 – R-18, R-20 – R-22 Iodine Monitors R-10A and R-10B, Rev. 12600
STP-I-32.1-A, Plant Safeguard Logic Test Train 'A'

S-23.1, Containment Recirculation Fan 'A' Alignment, Rev. 18 UFSAR 8.1.4.2, Emergency Power TS Basis B 3.8.1, AC Sources Diesel Generator Emergency Power System Health Report, 2nd Qtr. 2008

Drawings

33013-1239 Diesel Generator 'A' and 'B', Sheets 1 and 2, Rev. 4

33013-1923 Feedwater Heater Drain System, Rev. 22

Condition Reports

2008-4728 2008-3377 2008-4627

Work Order

20803854 Actuator for Valve 4629 Cracked

Section 1R15: Operability Evaluations

Documents

 Part 21-2008-04, Notification Regarding Identification of Defect: ALCO Snubber Valve Micro-Cracking
 Immediate Change Processing Form for Procedure STP-O-2.9, June 25, 2008
 ISTM-153, In-Service Test Program Memorandum, June 25, 2008
 ACB No. 2008-0095, Acceptance Criteria Basis Form for CV-9705B, MOV-9704B, and CV-9700B

Procedures

STP-O-2.9, Check Valve and Manual Valve Exercising, Rev. 00100 PT-36Q-D, Standby Auxiliary Feedwater Pump D – Quarterly, Rev. 05500 PT-36-COMP-D, Standby Auxiliary Feedwater Pump D – Comprehensive Test, Rev. 00500

<u>Drawing</u>

33013-1238 Standby Auxiliary Feedwater P&ID, Rev. 25

Condition Reports

2008-2745	2008-3687
2008-4166	2008-3318
2008-3968	2008-4203
2008-3477	2008-5653

Section 1R18: Plant Modifications

Document PCR 2008-0004, Main Steam Check Valve Upgrade

<u>Condition Reports</u> 2008-4291 2008-4292

Section 1R19: Post-Maintenance Testing

Documents

M-64.1.2, MOVATs Testing of Motor Operated Valves, Rev. 35 PT-36Q-D, Standby Auxiliary Feedwater Pump D, Quarterly, Rev. 05400 PT-2.6.6, Auxiliary Feedwater Valve Surveillance, Rev. 14 STP-O-2.6.5, RCS Overpressure Protection System PORV Operability Verification, Rev. 0 STP-O-R-1.4, Valve Interlock Verification – Reactor Coolant System, Rev. 0 Ginna ISI Program, Rev. 7

Condition Reports 2008-2854 2008-3928 2008-4139

2008-4177 2008-4198

Work Orders

20803111	Troubleshoot and Repair AOV-9710B, Stroke Time Failure
20602545	Perform Major Inspection of MOV-516
20700680	PORV-430 is Leaking-by Perform Inspection/Repair/Replace Internals
20704149	Perform a Major Inspection of PORV-431C

Section 1R20: Refueling and Other Outage Activities

<u>Documents</u>

NRC Inspection Report Docket No. 50-244 /86-02

Rigging Plan for Reactor Coolant Pump Motor Change Out

Final Report for the Reactor Head Drop Analysis for Ginna, Job # 83084, Cygna Energy Services, March 9, 1984

Procedures

O-2.1A	Alternate Shutdown to Hot Shutdown with Reactor Trip at 30% Power, Rev. 00000
O-2.3	Draining the Reactor Coolant System to <84" but >64", Rev. 04400
O-2.3.1	Draining and Operation at Reduced Inventory of the Reactor Coolant System,
	Rev. 08500

STP-O-R-2.2 Diesel Generator Load and Safeguard Sequence Test, Rev. 00000

O-15.2 Valve Alignment for Reactor Head Lift, Core Component Movement, and Periodic Status Checks, Rev. 03100

Condition Reports

2008-2937	2008-3604	2008-4120	2008-4271
2008-3110	2008-3613	2008-4124	2008-4284
2008-3192	2008-3627	2008-4326	2008-4291
2008-3432	2008-3646	2008-4291	
2008-3438	2008-3761	2008-4132	
2008-3470	2008-3762	2008-4171	
2008-3508	2008-3787	2008-4181	
2008-3514	2008-3806	2008-4201	
2008-3518	2008-3903	2008-4230	
2008-3557	2008-4025	2008-4257	

Section 1R22: Surveillance Testing

Procedures	
PT-2.3	Safeguard Power Operated Valve Operations Rev 10500
PT-3Q	Containment Spray Pump Quarterly Test, Rev. 04501
PT-17.2	Process Radiation Monitors R-11 to R-18, R-20 to R-22 Iodine Monitors R-10A and
	R-10B, Rev. 12600
S-12.4	RCS Leakage Surveillance Record Instructions, Rev. 54
STP-O-12.1	Emergency Diesel Generator 'A', Rev. 00201
STP-O-R-2.2	Diesel Generator Load and Safeguard Sequence Test, Rev. 0
STP-O-2.6.5 S	SD RCS Overpressure Protection System PORV Operability Verification Rev. 0

Condition Report

2008-2831

Section 1EP2: Alert and Notification System Evaluation

<u>Condition Reports</u> 2008-5155 2007-7713

Section 1EP3: Emergency Response Organization Staffing and Augmentation System

Documents

IP-EPP-5, Emergency Response Organization Expectations and Responsibilities, Rev. 00400 EPIP 5-9, Testing the Off-Hours Notification of the Response Organization and Quarterly

Telephone Number Checks, Rev. 01700 EPIP 1-5, Notifications, Rev. 07800 Ginna's Nuclear Emergency Response Plan, Rev. 02800

Condition Reports 2008-4938 2008-5153 2007-8076 2007-8075 2007-4782

Section 1EP4: Emergency Action Level and Emergency Plan Changes

<u>Condition Reports</u> 2007-4228 2007-6652

Section 1EP5: Correction of Emergency Preparedness Weaknesses

Document Unusual Events Reports for July 4, 2007, and January 30, 2008-07-03

<u>Condition Report</u> 2008-0391 2008-3990

Attachment

2008-0929 2007-8729 2008-0962 2008-3927 2007-5951 2008-4533

Section 20S1: Access Control to Radiologically Significant Areas

Procedures

RP-ALA-PLAN/RWP-PREP, ALARA Planning and RWP Preparation, Rev. 1

Condition Reports	
2008-0411	2008-1482
2008-0895	2008-2132
2008-1196	2008-2228
2008-1423	2008-2231

<u>Audits and Assessments</u> 2007-0078 Radiography/Boundary Control 4th Quarter 2007 Quarterly Report

Section 2OS2: ALARA Planning and Controls

ProceduresRP-ALA-PLAN/RWP-PREPALARA Planning and RWP Preparation, Rev. 1RP-ALA-REVIEWALARA Job Reviews, Rev. 8

<u>Condition Reports</u> 2008-1087 2008-1964 2008-2506 2008-3957

Audits and Assessments 2007-0076 ALARA Planning 2007-0093 Source Term Control 4th Quarter 2007 Quarterly Report

Section 20S3: Radiological Instruments and Other Protective Equipment

<u>Condition Reports</u> 2008-0246 2008-1007 2008-2525

2008-0368 2008-2448

Section 4OA1: Performance Indicator Verification

Documents

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

Attachment

S-12.4, RCS Leakage Surveillance Record Instructions

Section 4OA2: Identification and Resolution of Problems

Documents

4th Quarter 2007 and 1st Quarter 2008 Corrective Action Trend Reports 1st and 2nd Quarter 2008 System Health Reports for All Systems Available

Condition Reports 2008-4567 2007-6158 2008-0935

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

Document

Troubleshooting Plan for CR 2008-5802, June 30, 2008

Drawing

33013-1266 Auxiliary Building Chemical Volume and Control System, Boric Acid P&ID

Condition Report 2008-5802

Section 40A5: Other Activities

Documents

A202, Evaluation of Compensatory Measures for Degraded Hemyc, June 30, 2006 EP-3-S-0306, Change Impact Evaluation Form, Rev. 3 Generic Letter 2006-03, Potentially Nonconforming Hemyc and MT Fire Barrier Configuration PCR 2007-0018, Containment Recirculating Fan Cooler System Duct Removal, Rev. 0

PCR 2007-0021, Containment Permanent Sump 'B' Strainer Upgrade, Rev. 0

Regulatory Issue Summary 2005-07, Compensatory Measures to Satisfy the Fire Protection Requirements, April 19, 2005

Security Training PowerPoint Concerning Vehicle Searches

Supplementary Response to GL 2004-02, Potential Impact of Debris Blockage on Emergency Recirculation during Design Basis Accidents at Pressurized Water Reactors, February 29, 2008

Updated Final Safety Analysis Report, Rev. 20

Procedures **Procedures**

A-3.1, Containment Storage and Closeout Inspection, Rev. 39

CN-SEE-I-07-9, Ginna Sump Debris Downstream Effects Evaluation for ECCS Equipment, Rev.

CN-SEE-I-07-10, Ginna Sump Debris Downstream Effects Evaluation for Valves, Rev. 1

ECCS Sump Strainer Replacement installation Procedure for Ginna, Rev. 2

EP-3-P-0601, Containment Coating Condition Assessment Procedure, Rev. 0

ES-1.3, Transfer to Cold Leg Recirculation, Rev. 42

GC-76.11, Painting Application and Inspection, Rev. 5

A-10

LIST OF ACRONYMS

ADAMS	Agency-Wide Documents Access and Management System
AFW	Auxiliary feedwater
ALARA	As low as is reasonably achievable
ANS	Alert and notification system
ASME	American Society of Mechanical Engineers
AVT	All volatile treatment
CEDE	Committed effective dose equivalent
CR	Condition report
EAL	Emergency action level
ECCS	Emergency core cooling system
EP	Emergency preparedness
EPRI	Electric Power Research Institute
ERO	Emergency response organization
FRTP	Full rated thermal power
GL	Generic letter
GINNA	R E Ginna Nuclear Power Plant
GSI	Generic Safety Issue
HRA	High radiation areas
HX	Heat exchangers
I&C	Instrumentation and control
IMC	Inspection Manual Chapter
ISI	Inservice inspection
IHRΔ	Locked high radiation areas
MOV	Motor operated value
	Nuclear Epergy Institute
	Non cited violation
	Nuclear Emergency response plan
	Onerating experience emert comple
	Dising & instrument drawings
	Piping & Instrument drawings
PARO	Publiciy Available Records
PCR	Plant change record
PI	Performance indicator
PMI	Post-maintenance testing
RCA	Radiologically controlled area
RCP	Reactor coolant pump
RCS	Reactor coolant system
RFO	Refueling outage
RHR	Residual heat removal
RWP	Radiation work permit
SDP	Significance determination process
SCBA	Self Contained Breathing Apparatus
SSC	Systems, structures, and components
SW	Service water
SWSROP	Service water system reliability optimization program
TI	Temporary instruction
TS	Technical specification
UFSAR	Updated Final Safety Analysis Report
VCT	Volume Control Tank
WO	Work order