December 6, 2001

Mr. Oliver D. Kingsley, President
and Chief Nuclear Officer
Exelon Nuclear
Exelon Generation Company, LLC
4300 Winfield Road
Warrenville, IL 60555

SUBJECT: CLINTON POWER STATION
NRC INSPECTION REPORT 50-461/01-14(DRP)

Dear Mr. Kingsley:

On November 18, 2001, the NRC completed a safety inspection at your Clinton Power Station. The enclosed report documents the inspection findings which were discussed on November 16, 2001, with Mr. J. M. Heffley and other members of your staff.

This 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.

No findings of significance were identified.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter, and its enclosure will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at http://www.nrc.gov/NRC/ADAMS/index.html (the Public Electronic Reading Room).

Sincerely,

/RA/

Christine A. Lipa, Chief
Branch 4
Division of Reactor Projects

Docket No. 50-461
License No. NPF-62

Enclosure: Inspection Report No. 50-461/01-14(DRP)

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J. Skolds, Chief Operating Officer
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U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket No:	50-461
License No:	NPF-62
Report No:	50-461/01-14(DRP)
Licensee:	AmerGen Energy Company, LLC
Facility:	Clinton Power Station
Location:	Route 54 West Clinton, IL 61727
Dates:	October 1 through November 18, 2001
Inspectors:	P. L. Louden, Senior Resident Inspector C. E. Brown, Resident Inspector D. E. Zemel, Illinois Department of Nuclear Safety
Approved by:	Christine A. Lipa, Chief Branch 4 Division of Reactor Projects

SUMMARY OF FINDINGS

IR 05000461-01-14, on 10/01-11/18/2001, AmerGen Energy Company LLC, Clinton Power Station; reactor operations report.

This report covers a 6-week routine inspection, conducted by the resident inspectors. No findings of significance were identified during this inspection. The significance of most findings is indicated by their color (Green, White, Yellow, Red) using IMC 0609, "Significance Determination Process" (SDP). The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described at its Reactor Oversight Process website at http://www.nrc.gov/NRR/OVERSIGHT/index.html. Findings for which the SDP does not apply are indicated by "No Color" or by the severity level of the applicable violations.

A. Inspector Identified Findings

No findings of significance were identified.

B. Licensee Identified Findings

No findings of significance were identified.

Report Details

Summary of Plant Status

The plant was operated at essentially 100 percent power throughout the entire inspection period.

1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, Barrier Integrity

1R01 Adverse Weather (71111.01)

a. Inspection Scope

The inspectors reviewed design features, procedure implementation, and conducted independent walkdowns of equipment used to protect mitigating systems from adverse winter weather conditions. The following activity was conducted as part of this inspection effort:

- A turbine building roof inspection and a visual examination of other roofs was performed to assess structural integrity in preparation for winter weather.

b. Findings

No findings of significance were identified.

1R04 Equipment Alignments (71111.04Q)

a. Inspection Scope

The inspectors reviewed piping and instrument diagrams, system procedures, training manuals, previously identified equipment deficiencies, condition reports, and vendor information as part of a partial system walkdown of high risk-importance, safety systems during scheduled system maintenance outages on the opposite division or complementing system.

- High pressure core spray (HPCS) system was inspected during a planned maintenance outage on the reactor core isolation cooling (RCIC) system.

- Division II emergency Diesel Generator (EDG) was inspected while the Division I EDG was inoperable for monthly testing.

- Inspected electrical lineups for the safety related 4.16 kilo-Volt 1A1, 1B1, & 1C1 busses during Standby Liquid Control (SLC) pump B motor alignment.

b. Findings

No findings of significance were identified.

1R05 Fire Protection (71111.05Q and 71111.05A)

a. Inspection Scope

The inspectors reviewed portions of the licensee's Fire Protection Evaluation Report (FPER) and the Updated Safety Analysis Report (USAR) to verify consistency in the documented analysis with installed fire protection equipment at the station. To assess the control of transient combustibles and ignition sources, the material and operational condition of fire-protection systems and equipment, and the status of fire barriers, the inspectors conducted walk downs of the following risk significant areas:

- Control building and diesel building - 762 foot level, FPER Zones CB-1f, D-7, D-8, D-9, and D-10
- Diesel fuel oil storage tanks, FPER Zones D-1, D-2, and D-3
- Auxiliary building - 707 foot level Emergency Core Cooling System (ECCS) rooms, FPER Zones A-1a, A-2a, A-2b, A-c, A-a, A-b, and A-3c
- Containment (all accessible areas), FPER Fire Area C-2
- Auxiliary building 737, 762, & 781 foot levels, FPER Zones A-1b, 1c, 1d, & 1e; A-3d, 3e, 3f, & 3g

The inspectors also monitored the licensee's performance during Fire Drill Scenario U2001-26, "737 foot Control Building Bio-Assay Room Fire."

b. Findings

No findings of significance were identified.

1R11 Licensed Operator Requalification (71111.11)

a. Inspection Scope

The inspectors reviewed licensed operator requalification training to evaluate operator performance in mitigating the consequences of a simulated event, particularly in the areas of human performance. The inspectors evaluated operator performance attributes which included communication clarity and formality, timely performance of appropriate operator actions, appropriate alarm response, proper procedure use and adherence, and senior reactor operator (SRO) oversight and command and control. The inspectors also assessed the performance of the training staff evaluators involved in the requalification process. The inspectors observed the following:

- Simulator scenario “Security Intrusion and Station Blackout”
- Simulator scenario “Loss of Vacuum, Rapid Power Reduction, Blowdown”

b. Findings

No findings of significance were identified.

1R12 Maintenance Rule (10 CFR Part 50.65) Implementation (71111.12Q)

a. Inspection Scope

The inspectors reviewed the effectiveness of the licensee’s maintenance efforts in implementing the maintenance rule (MR) requirements, including a review of scoping, goal-setting, performance monitoring, short-term and long-term corrective actions, and current equipment performance problems. These systems were selected based on their designation as risk significant under the MR, or their being in the increased monitoring group (MR category (a)(1)). The systems were:

- Reactor Core Isolation Cooling
- Emergency Diesel Generators
- Standby Liquid Control

b. Findings

No findings of significance were identified.

1R13 Maintenance Risk Assessment and Emergent Work Evaluation (71111.13)

a. Inspection Scope

The inspectors observed the licensee’s risk assessment processes and considerations used to plan and schedule maintenance activities on safety-related structures, systems, and components particularly to ensure that maintenance risk and emergent work contingencies had been identified and resolved. The inspectors assessed the effectiveness of risk management activities for the following work activities or work weeks:

- Emergent work and work week activities for week ending October 27, 2001
- Risk assessment for SLC B pump motor alignment and SLC A operability after the power supply breaker tripped during surveillance (a repeat occurrence).

b. Findings

No findings of significance were identified.

1R14 Personnel Performance During Nonroutine Plant Evolutions and Events (71111.14)

a. Inspection Scope

The inspectors reviewed personnel performance during a planned nonroutine plant evolution which involved inhibiting the "A" Reactor Recirculation system flow control valve. This activity was conducted in response to an unplanned decrease in reactor power without an indicated change in Reactor Recirculation system flow control valve position.

b. Findings

No findings of significance were identified.

1R15 Operability Evaluations (71111.15)

a. Inspection Scope

The inspectors reviewed the following operability determinations and evaluations affecting mitigating systems to determine whether operability was properly justified and the component or system remained available such that no unrecognized risk increase had occurred.

- Condition Report 79346, "Motor closing starter for 1E51F095 failed to pickup"
- Condition Report 79339, "Division III diesel generator speed droop circuit, possible degradation"
- Condition Report 80351, "Unidentified Shutdown Service Water (SX) system water leakage path during a loss of dam"
- Condition Report 80545, "Radiographic testing & ultrasonic testing results of SX system piping"
- Condition Report 81197, "ERAT [emergency reserve auxiliary transformer] Cooling Skid Valve Leakage,"

b. Findings

No findings of significance were identified.

1R19 Post Maintenance Testing (71111.19)

a. Inspection Scope

The inspectors reviewed and observed portions of the following post-maintenance testing (PMT) activities involving risk significant equipment to determine whether the activities were adequate to verify system operability and functional capability:

- Condensate booster pumps A & C circuit breakers return to service
- Reactor Core Isolation Cooling (RCIC) system inlet valve (1E51F095) replacement, valve operator testing, and non-destructive testing
- RCIC governor operability PMT after maintenance
- Functional PMT of electrical bus 1C1 main feeder breaker protective relays logic system
- PMT after breaker 1A1 failed to close when swapped for refurbishment due to truck-operated cell (TOC) switch problems
- PMT on SLC B after motor to pump alignment and SLC A breaker tripping on a start signal

b. Findings

No findings of significance were identified.

1R22 Surveillance Testing (71111.22)

a. Inspection Scope

The inspectors observed portions of the following surveillance tests to determine whether risk significant systems and equipment were capable of performing their intended safety functions. The inspectors also assessed the operational readiness of the systems.

- Division III EDG monthly loaded run
- Control room ventilation (VC) system A valve operability
- Emergency reserve auxiliary transformer-static VAR (Volt Ampere reactive) compensator
- Reactor core isolation cooling steam supply valve, 1E51F095, motor operator starter relay
- Hydraulic control unit scram accumulator periodic testing
- Standby liquid control system quarterly test

b. Findings

No findings of significance were identified.

4. OTHER ACTIVITIES

4OA1 Performance Indicator Verification (71151)

To perform a periodic review of performance indicator (PI) data to determine its accuracy and completeness.

Cornerstones: Initiating Events, Barrier Integrity

.1 Unplanned Power Changes per 7000 Critical Hours

a. Inspection Scope

The inspectors verified the unplanned power changes per 7000 critical hours PI data reported by the licensee from April 2000 through September 2001. This was accomplished, in part, through a review of plant operating report data, operations department log entries, licensee event reports (LERs) and discussions with licensee personnel.

b. Issues and Findings

No findings of significance were identified.

.2 Reactor Coolant System Specific Activity

a. Inspection Scope

The inspectors verified the RCS activity performance indicator data reported by the licensee for April 2000 through September 2001. This was accomplished, in part, through a review of chemistry department log entries and discussions with licensee personnel.

b. Issues and Findings

No findings of significance were identified.

4OA6 Meeting(s)

Exit Meeting

The inspector presented the inspection results to Mr. J. M. Heffley and other members of licensee management at the conclusion of the inspection on November 16, 2001. The licensee acknowledged the findings presented. No proprietary information was identified.

KEY POINTS OF CONTACT

Licensee

K. Baker, Design Engineering Senior Manager
D. Basham, Acting Nuclear Oversight Manager
J. Heffley, Site Vice President
W. Iliff, Regulatory Assurance Manager
M. Pacilio, Plant Manager
J. Randich, Work Management Director
J. Sears, Radiation Protection Manager
R. Svaleson, Operations Director
F. Tsakeres, Training Director
J. Williams, Site Engineering Director

LIST OF ITEMS OPENED AND CLOSED

Opened

None

Closed

None

LIST OF ACRONYMS USED

ECCS	Emergency Core Cooling System
EDG	Emergency Diesel Generator
ERAT	Emergency Reserve Auxilary Transformer
FPER	Fire Protection Evaluation Report
HPCS	High Pressure Core Spray
LER	Licensee Event Report
MR	Maintenance Rule
PI	Performance Indicator
PMT	Post-Maintenance Testing
RCIC	Reactor Core Isolation Cooling
RCS	Reactor Coolant System
RR	Reactor Recirculation
SLC	Standby Liquid Control
SRO	Senior Reactor Operator
SX	Shutdown Service Water
USAR	Updated Safety Analysis Report
VAR	Volt Ampere Reactive

LIST OF DOCUMENTS REVIEWED

1R04 Equipment Alignments

CPS 3309.01	High Pressure Core Spray System	Revision 12
CPS 3309.E001	High Pressure Core Spray Electrical Lineup	Revision 6
CPS 3309.V001	High Pressure Core Spray Valve Lineup	Revision 11

1R05 Fire Protection

Fire Protection Evaluation Report (FPER)	Section 3.2, Auxiliary Building
FPER	Section 3.3, Containment Building
FPER	Section 3.4, Control Building
FPER	Section 3.5, Diesel Generator Building

1R11 Licensed Operator Requalification

SER 0024-00	Security Intrusion and Station Blackout
SER 0004-00	Loss of Vacuum, Rapid Power Reduction, Blowdown
Simulator Demonstration Examination Forms	Shift Manager and Individual Competency Evaluations

1R12 Maintenance Rule Implementation

Plant Health Report	Third Quarter 2001

1R14 Personnel Performance During Nonroutine Plant Evolutions and Events

Contingency Plan (OPS) 01-031	Lockout of “A” Reactor Recirculation System Flow Control Valve

1R15 Operability Evaluations

CR 79346	Motor Closing Starter for 1E51F095 Failed to Pickup
CR 79339	Division III Diesel Generator Speed Droop Circuit, Possible Degradation
CR 80351	Unidentified Shutdown Service Water System (SX) Water Leakage During a Loss of the Dam
CR 80545	Radiographic Testing & Ultrasonic Testing Results of SX System Piping
CR 81197	ERAT Cooling Skid Valve Leakage

1R19 Post Maintenance Testing

CPS 9054.01	"RCIC Quick Start Check"	Revision 2a
CPS 8501.75	"Bus 1C1 Main Feeder Breaker Protective Relays Logic System Functional Testing"	Revision 0d
CPS 3515.01	"Operation of 6900/4160/480V Circuit Breakers"	Revision 2a
CPS 9015.01	"Standby Liquid Control System Operability"	Revision 38a
CPS 8410.04	"Molded Case Circuit Breaker/Bucket Component Testing and Maintenance"	Revision 15d
CPS Work Order 20588	Starter Pickup Voltage and Associated Testing for 1E51F095 Valve	
CPS 3104.01	Condensate/Condensate Booster (CD/CB)	Revision 21

1R22 Surveillance Testing

CPS 9080.02	"Diesel Generator 1C Operability - Manual and Quick Start Operability"	Revision 44g
CPS 9170.02	"Control Room HVAC Chilled Water Valve Operability Test"	Revision 29
CPS 9384.01	"ERAT SVC Protective Relays Functional Test"	Revision 1a
CPS 8410.04	"Molded Case Circuit Breaker/Bucket Component Testing and Maintenance"	Revision 15d
CPS 9413.02	"Scram Accumulator Instrumentation Channel Calibration"	Revision 36a
CPS 9015.01.	"Standby Liquid Control System Operability"	Revision 38a