



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**
REGION III
2443 WARRENVILLE ROAD, SUITE 210
LISLE, IL 60532-4352

March 17, 2009

Mr. Charles G. Pardee
Senior Vice President, Exelon Generation Company, LLC
President and Chief Nuclear Officer (CNO), Exelon Nuclear
4300 Winfield Road
Warrenville IL 60555

SUBJECT: CLINTON POWER STATION, EVALUATION OF CHANGES, TESTS, OR
EXPERIMENTS AND PERMANENT PLANT MODIFICATIONS BASELINE
INSPECTION REPORT 05000461/2009006(DRS)

Dear Mr. Pardee:

On February 13, 2009, the U.S. Nuclear Regulatory Commission (NRC) completed an Evaluations of Changes, Tests, or Experiments and Permanent Plant Modifications Inspection at your Clinton Power Station. The enclosed report documents the inspection results, which were discussed on February 13, 2009, with Mr. F. A. Kearney and other members of your staff.

This inspection examined activities conducted under your license as they relate to safety and to 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. Based on the results of this inspection, no findings of significance were identified.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be made 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), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,

/RA/
Robert Daley, Chief
Engineering Branch 3
Division of Reactor Safety

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

Enclosure: Inspection Report No. 05000461/2009006(DRS)
w/Attachment: Supplemental Information

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Letter to Mr. Charles Pardee from Mr. Robert Daley dated March 17, 2009.

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cc w/encl: Site Vice President - Clinton Power Station
Plant Manager - Clinton Power Station
Manager Regulatory Assurance - Clinton Power Station
Senior Vice President - Midwest Operations
Senior Vice President - Operations Support
Vice President - Licensing and Regulatory Affairs
Director - Licensing and Regulatory Affairs
Manager Licensing - Clinton, Dresden and Quad Cities
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Assistant Attorney General
J. Klinger, State Liaison Officer,
Illinois Emergency Management Agency
Chairman, Illinois Commerce Commission

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J. Klinger, State Liaison Officer,
Illinois Emergency Management Agency
Chairman, Illinois Commerce Commission

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U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket No: 50-461

License No: NPF-62

Report No: 05000461/2009006(DRS)

Licensee: Exelon Generation Company, LLC

Facility: Clinton Power Station

Location: Clinton, IL

Dates: January 26, 2009 through February 13, 2009

Inspectors: Alan Dahbur, Senior Reactor Inspector (Lead)
Caroline Acosta, Senior Reactor Inspector
George M. Hausman, Senior Reactor Inspector

Observer: Jasmine Gilliam, Reactor Engineer

Approved by: R. Daley, Chief
Engineering Branch 3
Division of Reactor Safety (DRS)

Enclosure

SUMMARY OF FINDINGS

IR 05000461/2009006 (DRS); 01/26/2009 – 02/13/2009; Clinton Power Station; Evaluations of Changes, Tests, or Experiments and Permanent Plant Modifications.

This report covers a two-week announced baseline inspection on Evaluations of Changes, Tests, or Experiments and Permanent Plant Modifications. The inspection was conducted by Region III based engineering inspectors. Based on the results of this inspection, no findings of significance 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). Findings for which the SDP does not apply may be Green or be assigned a severity level after NRC management review. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 4, dated December 2006.

A. NRC-Identified and Self-Revealed Findings

Cornerstone: Initiating Events, Mitigating Systems, and Barrier Integrity

No findings of significance were identified.

B. Licensee-Identified Violations

No findings of significance were identified.

REPORT DETAILS

1. REACTOR SAFETY

Cornerstone: Initiating Events, Mitigating Systems, and Barrier Integrity

1R17 Evaluation of Changes, Tests, or Experiments and Permanent Plant Modifications (71111.17)

.1 Evaluation of Changes, Tests, or Experiments

a. Inspection Scope

From January 26, 2009 through February 13, 2009, the inspectors reviewed two safety evaluations (SEs) performed pursuant to 10 CFR 50.59 to determine if the evaluations were adequate and that prior NRC approval was obtained as appropriate. The inspectors also reviewed 15 screenings and two equivalency evaluations where licensee personnel had determined that a 10 CFR 50.59 evaluation was not necessary. The inspectors reviewed these documents to determine if:

- the changes, tests, or experiments performed were evaluated in accordance with 10 CFR 50.59 and that sufficient documentation existed to confirm that a license amendment was not required;
- the safety issue requiring the change, tests or experiment was resolved;
- the licensee conclusions for evaluations of changes, tests, or experiments were correct and consistent with 10 CFR 50.59; and
- the design and licensing basis documentation was updated to reflect the change.

The inspectors used, in part, Nuclear Energy Institute (NEI) 96-07, "Guidelines for 10 CFR 50.59 Implementation," Revision 1, to determine acceptability of the completed evaluations, and screenings. The NEI document was endorsed by the NRC in Regulatory Guide 1.187, "Guidance for Implementation of 10 CFR 50.59, Changes, Tests, and Experiments," dated November 2000. The inspectors also consulted Part 9900 of the NRC Inspection Manual, "10 CFR Guidance for 10 CFR 50.59, Changes, Tests, and Experiments."

This inspection constituted two samples of evaluations and 17 samples of changes as defined in IP 71111.17-04.

b. Findings

No findings of significance were identified.

.2 Permanent Plant Modifications

a. Inspection Scope

From January 26, 2009 through February 13, 2009, the inspectors reviewed 13 permanent plant modifications that had been installed in the plant during the last three years. This review included in-plant walkdowns for portions of the modified Emergency Diesel Generator Exhaust System and Emergency Diesel Generator Fuel Oil Day Tank System. The modifications were selected based upon risk significance, safety significance, and complexity. The inspectors reviewed the modifications selected to determine if:

- the supporting design and licensing basis documentation was updated;
- the changes were in accordance with the specified design requirements;
- the procedures and training plans affected by the modification have been adequately updated;
- the test documentation as required by the applicable test programs has been updated; and
- post-modification testing adequately verified system operability and/or functionality.

The inspectors also used applicable industry standards to evaluate acceptability of the modifications. The list of modifications and other documents reviewed by the inspectors is included as an attachment to this report.

This inspection constituted 13 permanent plant modification samples as defined in IP 71111.17-04.

b. Findings

No findings of significance were identified.

4. OTHER ACTIVITIES (OA)

4OA2 Identification and Resolution of Problems

.1 Routine Review of Condition Reports

a. Inspection Scope

From January 26, 2009 through February 13, 2009, the inspectors reviewed Corrective Action Process documents that identified or were related to 10 CFR 50.59 evaluations and permanent plant modifications. The inspectors reviewed these documents to evaluate the effectiveness of corrective actions related to permanent plant modifications and evaluations for changes, tests, or experiments issues. In addition, corrective action documents written on issues identified during the inspection were reviewed to verify adequate problem identification and incorporation of the problems into the corrective action system. The specific corrective action documents that were sampled and reviewed by the inspectors are listed in the attachment to this report.

b. Findings

No findings of significance were identified.

4OA6 Meetings

.1 Exit Meeting Summary

On February 13, 2009, the inspectors presented the inspection results to Mr. F. A. Kearney, and other members of the licensee staff. The licensee personnel acknowledged the inspection results presented and did not identify any proprietary content.

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee

F. A. Kearney, Site Vice President
M. E. Kanavos, Plant Manager
R. D. Weber, Site Engineering Director
J. D. Ellis, Work Management Director
J. T. Conner, Operation Director
C. VanDenburgh, Nuclear Oversight Manager
D. J. Kemper, Regulatory Assurance Manager
J. M. Stovall, Radiation Protection Manager
J. W. Rappeport, Chemistry Manager
C. S. Williamson, Security Manager
R. A. Schenck, Manager Site Project Manager
B. D. Bunte, Sr. Manager Design Engineering
R. S. Frantz, Regulatory Assurance Representative
M. Hager, Engineering
J. Wilcox, Engineering
N. Evans, Engineering

Nuclear Regulatory Commission

C. Kemker, Senior Resident Inspector
R. Daley, Chief, Engineering Branch 3, DRS

LIST OF ITEMS OPENED, CLOSED AND DISCUSSED

Opened, Closed, and Discussed

None

LIST OF DOCUMENTS REVIEWED

The following is a list of documents reviewed during the inspection. Inclusion on this list does not imply that the NRC inspectors reviewed the documents in their entirety, but rather, that selected sections or portions of the documents were evaluated as part of the overall inspection effort. Inclusion of a document on this list does not imply NRC acceptance of the document or any part of it, unless this is stated in the body of the inspection report.

10 CFR 50.59 EVALUATIONS

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>
CL-2007-E-005	Application of TRACG04 for Stability Analysis	December 12, 2007
CL-2007-E-012	SF and RH Modes for Refueling Cavity Fill	April 05, 2007

10 CFR 50.59 SCREENINGS

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>
CL-2006-S-035	Revise the RCIC High Steam Flow Isolation Time Delay	Revision 0
CL-2006-S-041	Control Room HVAC Supply Fan B (0VC03CB) and Motor Replacement	Revision 0
CL-2007-S-014	Disconnect Leads for Circuit Breaker 252-AT1AA1 Relay 74-AT1AA1 to Bypass Alarm to Window 1D on MCR Panel 1H13-P877-14A	Revision 0
CL-2007-S-015	RC & IS – Disconnect SOLA Transformers to the Branch Junction Modules (BJMs) and Convert the 120Vac UPS Power Supply to the Rod Gang Panel from Dual Fuse to the Original Single Fuse Configuration (EC363051)	Revision 0
CL-2007-S-019	Bypass Limit Switch Contacts of RCIC Steam Line Outboard Isolation Valve 1E51-F064 (EC365827)	Revision 0
CL-2007-S-022	Relocate Testing Requirements from ORM 2.1.2 to USAR 4.6.3.1.1.5	Revision 1
CL-2007-S-023	Compensatory Measure #1 of Operability Evaluation #629127-02 and revision to CPS 9080.01, 02 & 03, D001, 002, & 003.	Revision 0
CL-2007-S-026	Revise TS Bases B 3.5.3, RCIC System, Applicable Safety Analyses	Revision 1
CL-2007-S-052	Revise TR 4.6.6.1 and TR 4.6.6.3 from 14 Days to 31 Days	Revision 0
CL-2007-S-053	Revise Rod Block Testing Requirements	Revision 1

10 CFR 50.59 SCREENINGS

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>
	TR 4.2.1.1, TR 4.2.3.1, and TR 4.2.5.1 in the Operational Requirements Manual (ORM)	
CL-2008-S-011	Address Concern with location of DIV 3 DG Grounding Resistor	Revision 0
CL-2008-S-018	Add a Justification on How Penetration 1MC-34 and 1MC-79 Meet GDC 56	Revision 0
CL-2008-S-022	Add Time Delay Relays and Replace Control Switches to IA System Containment Isolation Valves Logic to Prevent Inadvertent Scram on Momentary Loss of Power to Valve Solenoids (EC331623)	Revision 0
CL-2008-S-028	Change in SX System Conditions with Freeze Seals in Place/EC372215 R/0	Revision 0
CL-2008-S-029	Bypass the Remote Control and Indication of the Steam Jet Air Ejector 1B Valve (1B21-F304B)	Revision 0

MODIFICATIONS

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>
EC 358900	Division 1 SX Water Hammer Vacuum Breakers for VX	Revision 04
EC 359920	Replacement for CVE-1 Relays in Safety Switchgears	Revision 0
EC 361114	Provide Alternate Tripping DC Power to CW Pump Motor	Revision 0
EC 361378	Replace WS Relief Valve 1WS167A with Higher Setpoint	Revision 0
EC 366152	Level Alarm/ Control Setpoints DG Day Tanks DIV I, II, and III	Revision 1
EC 368270	Modify Exhaust Screen for DG Siv. 1, 2 & 3	Revision 1
EC 331623	Add Time Delay Relays and Replace Control Switches to IA System Containment Isolation Valves Logic to Prevent Inadvertent Scram on Momentary Loss of Power to Valve Solenoids (CL-2008-S-022)	Revision 0
EC 358492	Provide Specific Details for Replacement of the Bucket in MCC A, 1AP29E Cub 2A, SSW System 1A Isolation Valve 1SX014A, with a Spectrum Bucket in Support of EC 330624 (N/A)	Revision 0
EC 363051	RC & IS Reliability Single Fuse & SOLA Transformer Retirement (CL-2007-S-015)	Revision 0

MODIFICATIONS

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>
EC 365827	Bypass Limit Switch Contacts of RCIC Steam Line Outboard Isolation Valve 1E51-F064 (T-Mod) (CL-2007-S-019)	Revision 0
EC 366719	Provide Alternate Design for Replacing the ITE/Gould Type J10 Relays Installed in the MCCs 0AP56E, 0AP57E, 1AP95E and 1AP96E Located in the Harsh Environmental Zones (N/A)	Revision 0
EC 367081	Environmental Qualification Review of GE Auxiliary Relay Type CR120B & CR120BD (Replacement for ITE J10 & J13 Relays) (Ref: Nutherm Test Report EGC-9785R, Rev. 1) (N/A)	Revision 0
EC 382198	Determine If Alternate GE CR120BD Relay Contact Chatter Is Acceptable for Unit Substation 1A & 1B Applications and Determine If Any Calculations are Impacted	Revision 0

ITEM EQUIVALENCY EVALUATIONS

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>
Evaluation 57906	Item Equivalency Evaluation for the GE CR120BD04341 Relay, Cat. ID 1423706-1	Revision 0
Evaluation 54017	Item Equivalency Evaluation for a Temperature Switch Catalog ID 1415242-1	Revision 0

CORRECTIVE ACTION PROGRAM DOCUMENTS ISSUED DURING INSPECTION

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>
IR 00870983	10 CFR 50.59 Screening Could not Be readily Retrieved	January 23, 2009
IR 00873987	Procedure 5286 Not Revised for DG Day Tank 1C Low Alarm CHG	January 30, 2009
IR 00874061	NRC Question Regarding 50.59 Screening for ORM Change	January 30, 2009
IR 00876062	Incorrect USAR Description for 1MC-34	February 04, 2009
IR 00879332	Weakness Identified in 10 CFR 50.59 Screening Document	February 11, 2009
IR 00879750	NRC MOD & 50.59 Inspection Identified USAR Issue with EDG Exhaust	February 12, 2009
IR 00880020	Weakness Identified in 10CFR50.59 Screening Document	February 12, 2009
IR 00878838	Typing Error in EC 366719	February 10, 2009

CORRECTIVE ACTION PROGRAM DOCUMENTS ISSUED DURING INSPECTION

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>
IR 00879377	2009-50.59 Insp. – NRC ID'D Vague EQ App Statement	February 11, 2009

CORRECTIVE ACTION PROGRAM DOCUMENTS REVIEWED

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>
IR 00531090	Clarify Tech Spec Bases for LCO 3.5.3 "RCIC"	September 14, 2006
IR 00588586	USAR Description Incorrect for Containment Penetration	February 07, 2007
IR 00629127	CDBI FASA DG Day Tank Discrepancies on CALC-IP-C-0111 & SAR	May 14, 2007
IR 00669650	Errors Found in New S&L CALC Rev. for DO Day Tank Setpoint	September 10, 2007
IR 00695303	CDBI Potential Common Mode Design Deficiency of Diesel Gen	November 6, 2007
IR 00697048	CDBI- Div 3 DG Grounding Resistor Housing is not Ventilated	November 09, 2007
IR 00736316	NCV 2007008-02: DIV 3- EDG Neutral Ground Resistor Design	February 14, 2008
IR 00778187	1SX70A Near Code Required Minimum	May 21, 2008
IR 00870918	QRT Review Identifies Weakness in 10 CFR 50.59 Screening Documents	January 23, 2009
IR 00627562	Abnormal Voltage Indicated During Surveillance	May 10, 2007

DRAWINGS

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>
M05-1060	P&ID Suppression Pool Clean-up and Transfer (SF) Sht. 1	X
M05-1035	Diesel Gen Aux System (DG) Starting Air Exhaust & Combustion Sys	AE
M05-1052	Shutdown Service Water (SX), Sht. 004	V
M05-1056	Plant Service Water (WS)	AH

PROCEDURES

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>
CPS 3810.01	Diesel Generator Fuel Oil Transfer Pump Operability	Revision 1e
CPS 9080.03	Diesel Generator 1C Operability- Manual and Quick Start Operability	Revision 29a
CPS 5286	Low Fuel Level (Day Tank or Storage Tank)	Revision 27f

PROCEDURES

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>
CPS 9861.05	Water Local Leak Rate Testing	Revision 24e
CPS 9430.30	NSPS Untested Islands/ Calibration 1-999 Second Time Delay	Revision 38
CC-AA-403	Maintenance Specification: Selection and Control of Freeze Seal Location	Revision 5
CPS 3318.01	Suppression Pool Cleanup/Transfer (SP)	Revision 9
CPS 4007.03	Rod Drop	Revision 8d
CPS 4301.01	Earthquake	Revision 13c
CPS 4304.01	Flooding	Revision 4e

OPERABILITY EVALUATIONS

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>
629127-02	Operability Evaluation for Day Tank (1DG01KA, 1DG01KB and 1DG01KC)	Revision 1

OTHER DOCUMENTS/REFERENCES

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>
EQ-CL023	Checklist for Environmental Qualification for Mechanical and Electrical Equipment	June 30, 2008
EGC-9785R	Nutherm Qualification Report on General Electric Auxiliary Relay Type CR120B & CR120BD	October 28, 2005
EC 366167	Evaluate EDG Fuel Pump Air Clearing Time	Revision 0
DC-DG-01-CP	Diesel Generators Design Criteria	Revision 8
WO 01104865	Work Document - OP PMT Perform CPS 9861.09D011	September 25, 2008
Calculation 85-479	Diesel Exhaust Rupture Disc	0A

LIST OF ACRONYMS USED

ADAMS	Agencywide Documents Access and Management System
CFR	Code of Federal Regulations
CNO	Chief Nuclear Officer
DRS	Division of Reactor Safety
EC	Engineering Change
EDG	Emergency Diesel Generator
IMC	Inspection Manual Chapter
NEI	Nuclear Energy Institute
NRC	U.S. Nuclear Regulatory Commission
PARS	Public Available Records System
SDP	Significance Determination Process
SE	Safety Evaluation