

January 24, 2003

Mr. John L. Skolds, President  
and Chief Nuclear Officer  
Exelon Nuclear  
Exelon Generation Company, LLC  
4300 Winfield Road  
Warrenville, IL 60555

SUBJECT: CLINTON POWER STATION  
NRC INTEGRATED INSPECTION REPORT 50-461/02-09

Dear Mr. Skolds:

On December 31, 2002, the U.S. Nuclear Regulatory Commission (NRC) completed an integrated inspection at your Clinton Power Station. The enclosed report documents the inspection findings which were discussed on January 8, 2003, with Mr. M. Pacilio 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 inspector reviewed selected procedures and records, observed activities, and interviewed personnel.

Based on the results of this inspection, one self-revealing finding of very low safety significance (Green) which involved a violation of NRC requirements was identified. However, because of the very low safety significance and because it is entered into your corrective action program, the NRC is treating this finding as a Non-Cited Violation (NCV) consistent with Section VI.A of the NRC Enforcement Policy. If you contest any NCV in this report, you should provide a 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 DC 20555-0001; with copies to the Regional Administrator Region III; the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001; and the NRC Resident Inspector at the Clinton Power Station.

Since the terrorist attacks on September 11, 2001, the NRC has issued two Orders (dated February 25, 2002, and January 7, 2003) and several threat advisories to licensees of commercial nuclear power reactors to strengthen licensee capabilities, improve security force readiness, and enhance access authorization. The NRC also issued Temporary Instruction 2515/148 on August 28, 2002, that provided guidance to inspectors to audit and inspect licensee implementation of the interim compensatory measures (ICMs) required by the February 25<sup>th</sup> Order. Phase 1 of TI 2515/148 was completed at all commercial nuclear power reactors in 2002, and the remaining inspections are scheduled for completion in 2003. Additionally, table-top security drills were conducted at several licensees to evaluate the impact of expanded adversary characteristics and the ICMs on licensee protection and mitigative

strategies. Information gained and discrepancies identified during the audits and drills were reviewed and dispositioned by the Office of Nuclear Security and Incident Response. During 2003, the NRC will continue to monitor overall safeguards and security controls, conduct inspections, and resume force-on-force exercises at selected nuclear power plants. Should threat conditions change, the NRC may issue additional Orders, advisories, and temporary instructions to ensure adequate safety is being maintained at all commercial nuclear power reactors.

In accordance with 10 CFR 2.790 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). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,

*/RA/*

Ann Marie Stone, Chief  
Branch 3  
Division of Reactor Projects

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

Enclosure: Inspection Report No. 50-461/02-09  
w/Attachment: Supplemental Information

cc w/encl: Site Vice President - Clinton Power Station  
Clinton Power Station Plant Manager  
Regulatory Assurance Manager - Clinton  
Chief Operating Officer  
Senior Vice President - Nuclear Services  
Senior Vice President - Mid-West Regional Operating Group  
Vice President - Mid-West Operations Support  
Vice President - Licensing and Regulatory Affairs  
Director Licensing - Mid-West Regional Operating Group  
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**U.S. NUCLEAR REGULATORY COMMISSION**

REGION III

Docket No: 50-461

License No: NPF-62

Report No: 50-461/02-09

Licensee: AmerGen Energy Company, LLC

Facility: Clinton Power Station

Location: Route 54 West  
Clinton, IL 61727

Dates: October 1 through December 31, 2002

Inspectors: P. L. Loudon, Senior Resident Inspector  
C. E. Brown, Resident Inspector  
D. E. Funk Jr., Physical Security Inspector  
M. W. Mitchell, Radiation Specialist  
H. Peterson, Senior Operations Engineer  
J. E. Rutkowski, Reactor Engineer  
S. J. Vias, Reactor Inspector - Region II

Approved by: Ann Marie Stone, Chief  
Branch 3  
Division of Reactor Projects

## SUMMARY OF FINDINGS

IR 05000461-02-09, AmerGen Energy Company LLC, on 10/01-12/31/02, Clinton Power Station: Access Control to Radiologically Significant Areas.

This report covers a 3-month period of baseline resident inspection and announced baseline inspections on radiation protection, maintenance rule, and security. The inspections were completed by Region III inspectors and the resident inspectors. The maintenance rule implementation inspection (71111.12B) was conducted by a Region II inspector. One Green finding which was a Non-Cited Violation (NCV) was identified. The significance of most findings is indicated by their color (Green, White, Yellow, Red) using Inspection Manual Chapter (IMC) 0609, "Significance Determination Process" (SDP). Findings for which the SDP does not apply may be "Green" or be assigned a severity level after NRC management review. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 3, dated July 2000.

### A. Inspector-Identified and Self Revealing Findings

#### **Cornerstone: Occupational Radiation Safety**

Green. A finding of very low safety significance was identified through a self-revealing event, when a maintenance mechanic received an unexpected uptake of radioactive material during a valve maintenance procedure resulting in a 115 millirem committed effective dose equivalent (CEDE) dose. This self-revealing finding was caused by inadequate implementation of radiation protection procedures and improper work oversight by the radiation protection staff.

The finding is more than minor because it affects the occupational radiation safety cornerstone objective for exposure/contamination control and monitoring. Although an unexpected intake occurred, the radiological conditions associated with the work activity were not of a magnitude sufficient to produce a substantial potential for an exposure in excess of regulatory limits. Therefore, the finding was of very low safety significance (i.e., not an as-low-as-reasonably-achievable finding, not an overexposure or substantial potential for an overexposure, and did not compromise the ability to assess dose). A Non-Cited Violation of 10 CFR 20.1501(a)(1)(ii) was identified for failure to conduct surveys as necessary to assess the radiological conditions and to control exposure to airborne radioactive material (Section 20S1).

### B. Licensee-Identified Violations

No findings of significance were identified.

## REPORT DETAILS

### Summary of Plant Status

The plant was operated at approximately 92 percent rated thermal power producing 100 percent electrical output throughout the inspection period.

#### 1. REACTOR SAFETY

##### **Cornerstone: Initiating Events, Mitigating Systems, and 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:

- Independent verification of the licensee's cold weather preparations in accordance with CPS 1860.01, "Cold Weather Preparations Checklist," Revision 2b.

##### b. Findings

No findings of significance were identified.

#### 1R04 Equipment Alignments (71111.04S)

##### .1 Complete Semi-Annual Walkdown

##### 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 full system walkdown of the following high risk-importance, safety system. The documents listed at the end of this report were used by the inspectors to evaluate this area.

- High pressure core spray (HPCS) system

##### b. Findings

No findings of significance were identified.

1R05 Fire Protection (71111.05Q)

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 completed walk downs of the following risk significant areas (three samples total):

- Screen House, Zones M-1, M-2a, M-2b, M-3, and M-4; Division 1 Emergency Diesel Generator, Zones, D-5a and D-5b; and Diesel Fuel Tanks, Zones D-2 and D-3.
- Fuel Building, Zone F-1p and
- Auxiliary building, Zones A-1a, A-1b, A-1d, A-1e, A-2a, A-2b, A-2c, A-2d, A-2k, A-2m, A-2n, A -2o, A-3a, A-3b, A-3c, A-3d, A-3e, A-3f, A-3g, A-4, and A-5; and Diesel Fuel Tank Zone D-1.

b. Findings

No findings of significance were identified.

1R06 Flood Protection Measures (71111.06)

a. Inspection Scope

The inspectors verified that flooding mitigation plans and equipment were consistent with the design requirements and risk analysis assumptions. The inspectors reviewed USAR Section 3.4.1 for internal flooding events and reviewed condition reports and work orders on the following:

- Emergency core cooling systems water-tight doors.

b. Findings

No findings of significance were identified.

1R11 Licensed Operator Requalification (71111.11)

.1 Biennial Written Examination and Annual Operating Test Results

a. Inspection Scope

The inspectors reviewed the overall pass/fail results of individual written tests, Job Performance Measure (JPM) operating tests, and simulator operating tests (required to be given per 10 CFR 55.59(a)(2)) administered by the licensee during calendar year 2002. The overall results were compared with the significance determination process in



accordance with NRC Manual Chapter 0609, Appendix I, "Operator Requalification Human Performance Significance Determination Process (SDP)."

b. Findings

No findings of significance were identified.

1R12 Maintenance Effectiveness (71111.12B)

.1 Review of Maintenance Rule Periodic Assessment

a Inspection Scope

The objective of the inspection was to:

- verify that the periodic evaluation was completed within the time restraints defined in 10 CFR 50.65, the maintenance rule (once per refueling cycle, not to exceed 2 years), ensuring that the licensee reviewed its goals, monitoring, preventive maintenance activities, industry operating experience, and made appropriate adjustments as a result of that review;
- verify that the licensee balanced reliability and unavailability during the previous refueling cycle, including a review of safety significant structures, systems, and components (SSC);
- verify that (a)(1) goals were met, corrective actions were appropriate to correct the defective condition including the use of industry operating experience, and (a)(1) activities and related goals were adjusted as needed; and
- verify that the licensee has established (a)(2) performance criteria, examined any SSCs that failed to meet their performance criteria, or reviewed any SSCs that have suffered repeated maintenance preventable functional failures including a verification that failed SSCs were considered for (a)(1).

The inspectors examined the last two periodic evaluation reports for the time frames March 2000 through December 2001 and March 1998 through March 2000. The assessment report was issued to satisfy paragraph (a)(3) of 10 CFR 50.65. The inspectors reviewed the assessments to determine if they were issued in accordance with the time requirements of the MR and included evaluation of: balancing reliability and unavailability; MR (a)(1) and (a)(2) activities; and use of industry operating experience. To verify compliance with 10 CFR 50.65, the inspectors reviewed selected MR activities and documentation covered by the assessment period from the following risk significant systems: Feedwater (FW), High Pressure Core Spray (HPCS), Emergency Diesel Generator (DG), Shutdown Service Water (SX). The inspectors also reviewed selected maintenance rule activities associated with corrective actions for the Feedwater System recently reclassified as MR (a)(1). Additionally, the inspectors reviewed semiannual system health reports and two MR self assessment reports issued during the period covered by the periodic assessment to determine if corrective actions for deficiencies were being appropriately addressed. The inspectors also performed

several plant walkdowns of portions of the systems reviewed to assess material condition of the facility. The documents listed at the end of this report were also used by the inspectors to evaluate this area.

b. Findings

No findings of significance were identified.

1R16 Operator Work-Arounds (71111.16)

a. Inspection Scope

The inspectors completed a cumulative effect review of all operator work-arounds to identify any potential effect on the functionality of mitigating systems. The review included an assessment of documented work-arounds and challenges and also included a review of selected operations procedures for possible proceduralized work-arounds.

b. Findings

No findings of significance were identified.

1R17 Permanent Plant Modifications (71111.17)

a. Inspection Scope

The inspectors verified that modifications performed during increased risk-significant configurations do not place the plant in an unsafe condition by reviewing the work plans and manning to:

- Change the main power transformer (MPT) sudden-pressure trip logic from a one-of-one to a two-of-two trip function on all MPT phases transformers.

The documents listed at the end of this report were also used by the inspectors to evaluate this area.

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:

- Reactor Core Isolation Cooling, PMT runs after governor maintenance and
- Standby Liquid Control System “B” maintenance and operability PMT, following pump repairs.

The documents listed at the end of this report were also used by the inspectors to evaluate this area.

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.

- Low-Pressure Core Spray and Residual Heat Removal A pump and valve operability per CPS 9052.02, “LPCS/RHR A Pumps & LPCS A Water Leg Pump Operability,” Revision 41e.
- Emergency Reserve Auxiliary Transformer Static-VAR-Compensator (ERAT/SVC) return to service surveillance activities and
- division 1 Shutdown Service Water operability per CPS 069.01, “Shutdown Service Water Operability Test,” Revision 42b.

b. Findings

No findings of significance were identified.

**Cornerstone: Emergency Preparedness**

1EP6 Drill Evaluation (71114.06)

a. Inspection Scope

The inspectors observed the emergency response activities associated with the drill conducted on December 5, 2002. Specifically, the inspectors verified that the emergency classification and simulated notifications were properly completed, and that the licensee adequately critiqued the training. Additionally, the inspectors observed licensee activities during the drill in the simulated control room, the Technical Support Center, and the Operational Support Center (OPC). The activities in the plant of a team dispatched by the OSC were observed by the inspectors. The documents listed at the end of this report were also used by the inspectors to evaluate this area.

b. Findings

No findings of significance were identified.

**2. RADIATION SAFETY**

**Cornerstone: Occupational Radiation Safety**

2OS1 Access Control to Radiologically Significant Areas (71121.01)

.1 Problem Identification and Resolution

a. Inspection Scope

The inspectors reviewed documentation (specific procedures, condition report (CR), and draft root cause evaluation) for a self-revealing event (occupational exposure control issue) that was identified during maintenance on the 1G33005C valve in the Reactor Water Clean-up (RWCU) vault, on November 6, 2002. The inspectors reviewed the issue to determine what radiological barriers had failed and what barriers remained to limit the potential for additional exposure.

b. Findings

Introduction

A self-revealing Green finding and associated Non-Cited Violation was identified. The finding was identified when a maintenance mechanic received an unexpected uptake of radioactive material during a valve maintenance procedure, resulting in a 115 millirem committed effective dose equivalent (CEDE) dose.

Description

During a maintenance outage that included work in the RWCU vault on valve 1G33005C, a mechanical maintenance worker did not have adequate radiation protection oversight. Specifically, the radiation protection technician (RPT) initially covering the work obtained samples of airborne radioactive material levels early in the evolution, in accordance with management expectations for job coverage. Following shift changes of RPT staff and mechanical maintenance staff over a 12 hour period, additional air sampling was not performed by the RPT staff. During a majority of the time that work was conducted, the RPT staff did not oversee the work or periodically walk-down the engineering controls to assure that there were no changes that could affect worker radiation safety. The inspectors noted that the worker conducted dry mechanical flapping of a highly contaminated valve (400 millirad/hour removable beta/gamma contamination) for approximately 4 hours. The inspectors noted that the radiation protection personnel did not conduct air sampling to assess airborne concentrations in the worker breathing zone or in the general area at regular intervals during the valve flapping. Additionally, the inspectors noted that the mechanical maintenance worker may have moved the high efficiency particulate air (HEPA) filtered ventilation intake hose from its position above the valve during the mechanical flapping without appropriate radiation protection direction and oversight.

### Analysis

The inspectors determined that the failure to survey for airborne concentrations and properly oversee radiation worker activities was a radiation protection technician performance deficiency warranting a significance evaluation in accordance with NRC Inspection Manual Chapter 0612, "Power Reactor Inspection Reports," Appendix B, "Issue Disposition Screening," issued on April 29, 2002. The inspectors determined that the finding was more than minor because it was associated with the Radiation Safety Cornerstone program and process attribute and affected the exposure/contamination control and monitoring objective.

The inspectors determined that the finding did not involve ALARA planning or work controls, there was no overexposure or a substantial potential for an overexposure, and the ability to assess dose was not compromised. The inspectors concluded that the significance determination process (SDP) assessment for this finding was of very low safety significance (Green).

### Enforcement

10 CFR 20.1501(a)(1)(ii) requires that each licensee make or cause to be made surveys that may be necessary for the licensee to comply with the regulations in Part 20 and that are reasonable under the circumstances to evaluate the extent of radiation levels, concentrations or quantities of radioactive materials, and the potential radiological hazards that could be present. Pursuant to 10 CFR 20.1003, *survey* means an evaluation of the radiological conditions and potential hazards incident to the production, use, transfer, release, disposal, or presence of radioactive material or other sources of radiation. On November 6, 2002, the licensee did not make surveys to assure compliance with 10 CFR 20.1204(a)(1), which requires the licensee, for purposes of assessing dose used to determine compliance with occupational dose equivalent limits, to take suitable and timely measurements of concentration of radioactive material in air in work areas. Specifically, the licensee did not conduct an adequate assessment or evaluation of the radiological conditions and potential hazards during dry mechanical flapping of valve 1G33005C. Although it was known to the licensee that high concentrations of beta/gamma emitting isotopes (approximately 400 millirad smearable) existed in valve 1G33005C, the licensee did not take suitable and timely air sampling measurements to detect the concentration of airborne radioactive material in the workers' breathing zone and assess the potential for worker intake of radioactive material. However, since the licensee documented this issue in its corrective action program (Condition Report and Root Cause Investigation Action Tracking Item Nos. 00131880/00131819) and because the violation is of very low safety significance, the violation is being treated as a Non-Cited Violation (NCV 50-461/02-09-01).

## **3. SAFEGUARDS**

### 3PP1 Response to Contingency Events (71130.03)

#### a. Inspection Scope

The inspectors reviewed the status of security operations and assessed licensee implementation of the protective measures in place as a result of the current, elevated threat environment.

b. Findings

No findings of significance were identified.

3PP4 Security Plan Changes (71130.04)

a. Inspection Scope

The inspectors reviewed Revision 34 (dated June 3, 2002) to the Clinton Power Station Physical Security Plan to verify that the changes did not decrease the effectiveness of the security plan. The referenced revisions were submitted in accordance with 10 CFR 50.54(p).

b. Findings

No findings of significance were identified.

4. **OTHER ACTIVITIES (OA)**

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**

Reactor Coolant System Specific Activity

a. Inspection Scope

The inspectors evaluated the RCS activity performance indicator data reported by the licensee for April 2001 through September 2002. This was accomplished, in part, through a review of chemistry department log entries and discussions with licensee personnel. The inspectors verified that the licensee accurately reported performance as defined by the applicable revision of Nuclear Energy Institute Document 99-02, Regulatory Assessment Performance Indicator Guideline.”

b. Issues and Findings

No findings of significance were identified.

#### 4OA2 Identification and Resolution of Problems (71152)

##### .1 Routine Operations

###### a. Inspection Scope

As discussed in previous sections of this report, the inspectors routinely reviewed issues during baseline inspection activities and plant status reviews to verify that they were being entered into the licensee's corrective action system at an appropriate threshold, that adequate attention was being given to timely corrective actions, and that adverse trends were identified and addressed. Minor issues entered into the licensee's corrective action system as a result of inspectors' observations are generally denoted in the report.

###### b. Findings

No findings of significance were identified.

##### .2 Review of Reactor Water Cleanup Work (Annual Sample)

###### a. Inspection Scope

For this sample, the inspectors focused on the repeat nature of maintenance and diagnostic activities conducted to improve reliability of the Reactor Water Cleanup System. The inspectors also reviewed the personnel dose received during the maintenance and troubleshooting activities.

###### b. Finding

No findings of significance were identified. However, the inspectors did note that a large percentage (<30 percent) of the on-line station dose for the year was attributed to RWCU maintenance and troubleshooting activities.

#### 4OA5 Other Activities

##### .1 Completion of Appendix A to TI 2515/148, Rev 1

The inspectors completed the pre-inspection audit for interim compensatory measures at nuclear power plants, dated September 13, 2002.

#### 4OA6 Meetings

##### .1 Exit Meeting

The inspectors presented the inspection results to Mr. M. Pacilio and other members of licensee management at the conclusion of the inspection on January 8, 2003. The inspectors asked the licensee whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

.2 Interim Exit Meetings

Interim exits were conducted for:

- Safeguards inspection with Mr. E. Wrigley on December 5, 2002.
- Licensed Operator Requalification with Mr. Tom Shortell, Operations Training Manager on November 22, 2002, and on December 20, 2002, via telephone.
- Maintenance Effectiveness with Mr. J. Williams, Site Engineering Director on December 5, 2002
- Access Control, Occupational Radiation Safety inspection with Mr. K. Polson, Plant Manager on 12/04/02.



## KEY POINTS OF CONTACT

### Licensee

M. Pacilio, Site Vice President  
K. Polson, Plant Manager  
J. Cunningham, Work Management Director  
R. Davis, Radiation Protection Manager  
R. Davis, Radiation Protection Director  
C. Dieckmann, Shift Operations Superintendent (off-going)  
R. Frantz, Regulatory Assurance Representative  
J. Icard, Maintenance Rule Coordinator  
W. Iliff, Regulatory Assurance Director  
J. Madden, Nuclear Oversight Manager  
D. Schavey, Operations Director (on-coming)  
R. Schmidt, Maintenance Manager  
J. Sears, Chemistry Manager  
T. Shortell, Operations Training Manager  
R. Svalesson, Operations Director (off-going)  
F. Tsakeres, Training Manager  
J. Williams, Site Engineering Director  
C. Williamson, Security Analyst  
E. Wrigley, Security Manager  
R. Zacholski, Shift Operations Superintendent (on-coming)

## LIST OF ITEMS OPENED, CLOSED AND DISCUSSED

### Opened

50-461/02-09-01	NCV	Failure to perform an adequate radiological survey and provide adequate oversight during work activities that resulted in an unexpected intake of radioactive material (Section 2OS1)
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### Closed

50-461/02-09-01	NCV	Failure to perform an adequate radiological survey and provide adequate oversight during work activities that resulted in an unexpected intake of radioactive material contaminating an individual (Section 2OS1)
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### Discussed

None

## LIST OF DOCUMENTS REVIEWED

### 1R01 Adverse Weather

CPS 1860.01, "Cold Weather Preparations Checklist," Revision 2b.

### 1R04 Equipment Alignments

Plant Drawing M05-1074, "High Pressure Core Spray System," Revision AG

Clinton Power Station Procedure 9051.01, "HPCS System Pump Operability,"  
Revision 38

CPS Procedure 9051.05, "HPCS System Discharge Header Filled and Flow Path  
Verification," Revision 25

### 1R05 Fire Protection

Updated Safety Analysis Report (USAR) 9.5.1, "Fire Protection"

### 1R06 Flood Protection

USAR 9.4, "Water Level (Flood) Design

### 1R12 Maintenance Rule Implementation

Focus Area Self-Assessment Report Clinton Station-Maintenance Rule Implementation;  
dated June 19 through June 23, 2000

System Status Report; dated December 3, 2002

Assessment of Maintenance Effectiveness at Clinton Power Station; Report Period  
March 1, 1998, through March 1, 2000

Assessment of Maintenance Effectiveness at Clinton Power Station; Report Period  
March 1, 2000 through December 1, 2001 (augmented to 10/20/02)

System Health Indicator Program; Semi-Annual System Summaries; dated January 1,  
2002 through July 1, 2002 (Including reports for DG, FW, HP and SX)

Issue Tracking for (a)(1) and Red/Yellow Systems; dated December 3, 2002

Maintenance Rule (a)(1) SHIP Red; Yellow and Near Yellow Systems Report; dated  
December 3, 2002

Clinton Narrative Logs for various shifts from the period of June 26, 2002, through  
November 1, 2002.

Exelon Nuclear- ER-AA-310, Implementation of the Maintenance Rule, Rev. 1

Exelon Nuclear- ER-AA-310-1001; Maintenance Rule - Scoping; Rev. 0

Exelon Nuclear- ER-AA-310-1002; Maintenance Rule - SSC Risk Significance Determination; Rev. 0

Exelon Nuclear- ER-AA-310-1003; Maintenance Rule - Performance Selection; Rev. 0

Exelon Nuclear- ER-AA-310-1004; Maintenance Rule - Performance Monitoring; Rev. 0

Exelon Nuclear- ER-AA-310-1005; Maintenance Rule - Dispositioning Between (a)(1) and (a)(2); Rev. 0

Exelon Nuclear- ER-AA-310-1006; Maintenance Rule -Expert Panel Roles and Responsibilities; Rev. 0

Exelon Nuclear- ER-AA-310-1007; Maintenance Rule - Periodic (a)(3) Assessment; Rev. 0

Exelon Nuclear- ER-AA-600-1044; Maintenance Rule Support; Rev. 0

Exelon Nuclear- LS-AA-125-1003; Apparent Root Cause Evaluation Manual; Rev. 2

Exelon Nuclear- LS-AA-125-1001; Root Cause Analysis Manual; Rev. 3

Expert Panel Meeting Minutes for the period of April through October 2002

Clinton Power Station - Probabilistic Risk Assessment Quantitative Evaluation of Performance Criteria; dated December 2001

1R16 Operator Workarounds

Collective Assessment of the Operations Department Workarounds and Challenges Database

1R17 Permanent Plant Modifications

Main Power Transformer "A" Trip Logic Change, EC 337880

Main Power Transformer "B" Trip Logic Change, EC 338001

Main Power Transformer "C" Trip Logic Change, EC 338002

Main Power Transformer "D" Trip Logic Change, EC 338003

1R19 Post Maintenance Testing

Reactor Core Isolation Cooling System PMT, CPS 9054.01 under Work Order 467733 on October 17, 2002

Standby Liquid Control System PMT, CPS 9015.01 under Work Order 475961 on November 15, 2002

1R22 Surveillance Testing

CPS 9052.02, "LPCS/RHR A Pumps & LPCS A Water Leg Pump Operability," Revision 41e.

CPS 069.01, "Shutdown Service Water Operability Test," Revision 42b.

EP6 Drill Evaluation

Procedure EP-AA-1003, "Radiological Emergency Plan Annex for Clinton Power Station" Revision 2

Procedure EP-AA-112-300, "Operations Support Center Activation and Operation," Revision 3

Clinton Power Station 2002 Emergency Plan Exercise Book, dated December 5, 2002

2OS1 Access Controls For Radiologically Significant Areas

CR1318800; Radworker Receives Planned Internal Exposure; dated November 6, 2002

CR131819; Air Sample Not Taken During Lapping; dated November 6, 2002

CR131912; Declining Trend in RP Performance; dated November 15, 2002

RP-1127-03; CPS Radiological Survey Sheet; Revision 1998

RP-AA-220; Intake Investigation Form; Revision 1

RP-AA-401; ALARA Briefing Checklist; Revision 2

RP-AA-403; Administration of the Radiation Work Permit Program; Revision 1

RP-MW-403-1001; Radiation Work Permit Processing; Revision 0

RP-AA-441; Operational ALARA Planning and Controls

RP-CL-441; Evaluation and Selection Process for Respirator Ruse; Revision 0

RP-CL-441-102; TEDE ALARA Evaluation Worksheet; Revision 0

RP-AA-1002; Radiation Protection Stop Work Authority; Revision 1

CPS 1900.21; Radiological Controlled Area Access and Exit; Revision 5c

CPS 7100.02; Air Sample Assay; Revision 1c.

CPS 7100.02; Air Activity Data Sheet; Revision 0.

RWP 10001666; Reactor Water Clean Up System Outage; Revision 0

OA1 Performance Indicator Verification

Assorted Chemistry Log Data and Performance Indicator Tracking Database Information

OA2 Identification and Resolution of Problems

EC 331226, "Leak Repair of Suction Nozzle Flange on "C" RT Pump," Revision 1

EC 331227, "Leak Repair on Flange near Strainer OG33-D30C", Revision 1

Temporary Modification for RT "A" Pump, "Installation of Vibration Reducer"

Condition Report 136150, "Critique of RT System Outage Identifies Areas for Improvement" dated December 19, 2002

ALARA Dose Reports for RT Work during 2002

## LIST OF ACRONYMS USED

ADAMS	Agency wide Documents Access and Management System
ALARA	As-Low-As-Reasonably-Achievable
CEDE	Committed Effective Dose Equivalent
CFR	Code of Federal Regulation
CR	Condition Report
DRS	Division of Reactor Safety
ERAT	Emergency Reserve Auxiliary Transformer
FPER	Fire Protection Evaluation Report
HEPA	High Efficiency Particulate Air
HPCS	High Pressure Core Spray
IMC	Inspection Manual Chapter
JPM	Job Performance Measure
LPCS	Low Pressure Core Spray
MPT	Main Power Transformer
NCV	Non-Cited Violation
NRC	Nuclear Regulatory Commission
OPC	Operational Support Center
PARS	Publicly Available Records
PI	Performance Indicator
PMT	Post Maintenance Testing
RCS	Reactor Coolant System
RHR	Residual Heat Removal
RPT	Radiation Protection Technician
RT	Reactor Water Cleanup
RWCU	Reactor Water Clean-up
SDP	Significant Determination Process
SVC	Static VAR Compensator
USAR	Updated Safety Analysis Report