April 13, 2001

Mr. Oliver D. Kingsley, President
and Chief Nuclear Officer
Exelon Nuclear
Exelon Generation Company, LLC
1400 Opus Place, Suite 500
Downers Grove, IL 60515

SUBJECT: CLINTON NUCLEAR POWER STATION
NRC INSPECTION REPORT NO. 50-461/01-04(DRP)

Dear Mr. Kingsley:

On March 31, 2001, the NRC completed a safety inspection at your Clinton Power Station. The enclosed report presents the results of that inspection. The results of this inspection were discussed on April 3, 2001, with Mr. M. Pacilio and other members of your staff.

This inspection was an examination of 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. Within these areas, the inspection consisted of a selected examination of procedures and representative records, observations of activities, and interviews with personnel. This report integrates the inspection results of the resident inspectors' activities, a radiation protection effluent program review, and a review of heat sink performance program analysis.

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/

Thomas J. Kozak, Chief
Projects Branch 4
Division of Reactor Projects

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

Enclosure: Inspection Report No. 50-461/01-04(DRP)

See Attached Distribution

cc w/encl: J. Heffley, Vice President
W. Bohlke, Senior Vice President
Nuclear Services
J. Cotton, Senior Vice President -
Operations Support
M. Pacilio, Plant Manager
R. Krich, Director - Licensing
J. Skolds, Chief Operating Officer
C. Crane, Senior Vice President -
Mid-West Regional Operating Group
J. Benjamin, Vice President - Licensing
And Regulatory Affairs
H. Stanley, Operations Vice President
R. Helfrich, Senior Counsel, Nuclear
Mid-West Regional Operating Group
W. Lliff, Regulatory Assurance Manager (Acting)
Document Control Desk-Licensing
Illinois Department of Nuclear Safety

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U. S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket No:	50-461
License No:	NPF-62
Report No:	50-461/01-04
Licensee:	AmerGen Energy Company, LLC
Facility:	Clinton Power Station
Location:	Route 54 West Clinton, IL 61727
Dates:	February 24 through March 31, 2001
Inspectors:	P. L. Louden, Senior Resident Inspector C. E. Brown, Resident Inspector S. K. Orth, Senior Radiation Specialist J. A. Gavula, Specialist Inspector D. E. Zemel, Illinois Department of Nuclear Safety
Approved by:	Thomas J. Kozak, Chief Projects Branch 4 Division of Reactor Projects

NRC's REVISED REACTOR OVERSIGHT PROCESS

The federal Nuclear Regulatory Commission (NRC) recently revamped its inspection, assessment, and enforcement programs for commercial nuclear power plants. The new process takes into account improvements in the performance of the nuclear industry over the past 25 years and improved approaches of inspecting and assessing safety performance at NRC licensed plants.

The new process monitors licensee performance in three broad areas (called strategic performance areas): reactor safety (avoiding accidents and reducing the consequences of accidents if they occur), radiation safety (protecting plant employees and the public during routine operations), and safeguards (protecting the plant against sabotage or other security threats). The process focuses on licensee performance within each of seven cornerstones of safety in the three areas:

Reactor Safety	**Radiation Safety**	**Safeguards**
•Initiating Events	•Occupational	•Physical Protection
•Mitigating Systems	•Public	
•Barrier Integrity		
•Emergency Preparedness		

To monitor these seven cornerstones of safety, the NRC uses two processes that generate information about the safety significance of plant operations: inspections and performance indicators. Inspection findings will be evaluated according to their potential significance for safety, using the Significance Determination Process, and assigned colors of GREEN, WHITE, YELLOW or RED. GREEN findings are indicative of issues that, while they may not be desirable, represent very low safety significance. WHITE findings indicate issues that are of low to moderate safety significance. YELLOW findings are issues that are of substantial safety significance. RED findings represent issues that are of high safety significance with a significant reduction in safety margin.

Performance indicator data will be compared to established criteria for measuring licensee performance in terms of potential safety. Based on prescribed thresholds, the indicators will be classified by color representing varying levels of performance and incremental degradation in safety: GREEN, WHITE, YELLOW, and RED. GREEN indicators represent performance at a level requiring no additional NRC oversight beyond the baseline inspections. WHITE corresponds to performance that may result in increased NRC oversight. YELLOW represents performance that minimally reduces safety margin and requires even more NRC oversight. And RED indicates performance that represents a significant reduction in safety margin but still provides adequate protection to public health and safety.

The assessment process integrates performance indicators and inspection so the agency can reach objective conclusions regarding overall plant performance. The agency will use an Action Matrix to determine in a systematic, predictable manner which regulatory actions should be taken based on a licensee's performance. The NRC's actions in response to the significance (as represented by the color) of issues will be the same for performance indicators as for inspection findings. As a licensee's performance degrades, the NRC will take more and increasingly significant action, which can include shutting down a plant, as described in the Action Matrix.

More information can be found at: http://www.nrc.gov/NRR/OVERSIGHT/index.html.

SUMMARY OF FINDINGS

IR 05000461-01-04(DRP), on 02/24-03/31/2001, AmerGen Energy Company LLC, Clinton Power Station; integrated inspection report.

The inspection was conducted by resident and regional specialist inspectors. No findings of significance were identified.

Report Details

Summary of Plant Status

The licensee operated the plant at approximately 100 percent power throughout the inspection period. Brief periods at less than 100 percent occurred to conduct routine surveillances.

1. Reactor Safety

1R04 Equipment Alignments (71111.04)

a. Inspection Scope

The inspectors reviewed piping and instrument diagrams, system procedures, previously identified equipment deficiencies, and condition reports as part of partial system walkdowns. These activities were conducted to verify that equipment was appropriately aligned for these high risk-importance safety systems during a high pressure core spray (HPCS) system maintenance outage. The walkdowns included the ventilation, cooling water, and power supplies for each system.

- Low Pressure Core Spray (LPCS) system
- Residual Heat Removal (RHR) system Train "B"
- Residual Heat Removal (RHR) system Train "C"

b. Findings

No findings of significance were identified.

1R05 Fire Protection (71111.05)

a. Inspection Scope

The inspectors observed the conduct of a scheduled fire drill on March 9, 2001. The drill was conducted off-hours and was a simulated fire in the Division I emergency diesel generator (EDG) room. The purpose of the inspection was to assess the licensee's fire brigade readiness to prevent and fight fires. Specific aspects of the readiness evaluation included proper use of protective clothing, proper use of respiratory protection devices, appropriate use of fire hoses, proper use of fire fighting strategies, effective use of communications, and fire brigade leadership command and control.

b. Findings

No findings of significance were identified.

1R07 Heat Sink Performance (71111.07)

a. Inspection Scope

A specialist inspector reviewed documents associated with thermal performance testing of the residual heat removal (RHR) system “B” heat exchanger, the Division III EDG jacket water heat exchanger, and the high pressure core spray (HPCS) system pump room cooler. These heat exchangers were chosen based on having a high risk achievement worth in the station's probabilistic safety assessment. While on site, the inspector reviewed completed surveillances, associated calculations, instrument calibration records, and maintenance work orders and performed independent calculations to verify that these activities adequately ensured proper heat transfer. The inspector reviewed the documentation to confirm that the test methodology was consistent with accepted industry practices, that test acceptance criteria were consistent with design basis values, and that the test results appropriately considered differences between test and design conditions. The inspector also reviewed the documentation to confirm that methods used to inspect the heat exchangers were consistent with expected degradation and that the established acceptance criteria were consistent with accepted industry standards. The inspector also reviewed condition reports concerning heat exchangers to verify that the licensee had an appropriate threshold for identifying issues and to evaluate the effectiveness of the corrective actions to the identified issues. The documents that were reviewed are included at the end of the report.

b. Findings

No findings of significance were identified.

1R12 Maintenance Rule Implementation (71111.12)

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 (MR category a (1)) group. The systems were:

- RHR Trains A, B, and C
- Auxiliary power systems
- 125 Volt-direct-current system

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 activity:

- CPS 9015.01, "Standby Liquid Control System Operability," Revision 38, to assess the adequacy of a risk analysis change from a high risk to a normal risk condition for this activity.

b. Findings

No findings of significance were identified.

1R15 Operability Evaluations (71111.15)

a. Inspection Scope

The inspectors reviewed an operability evaluation generated following the unplanned opening of the reserve auxiliary transformer (RAT) to static VAR control (SVC) tie electrical circuit breaker due low gas pressure on March 18, 2001. The review was to verify that operability was properly justified and that no unrecognized risk increase had occurred. The review included condition report (CR) 2-01-02-147 which was initiated to assess a high-voltage condition on the station safety-related busses.

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 ensure that the activities were adequate to verify system operability and functional capability after a Div-I maintenance outage:

- Standby gas treatment system
- Shutdown service water
- EDG ventilation systems

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 verify that risk significant systems and equipment were capable of performing their intended safety functions and assessed their operational readiness:

- HPCS pump and water-leg pump testing including full-flow tests and valve operability tests
- CPS 9070.01, “Control Room HVAC Air Filter Package Operability Test Run,” Revision 25a

b. Findings

No findings of significance were identified.

2. RADIATION SAFETY

Cornerstone: Public Radiation Safety (PS)

2PS2 Radioactive Gaseous and Liquid Effluent Treatment and Monitoring Systems

.1 Liquid and Gaseous Release Systems Walkdowns

a. Inspection Scope

The inspector performed walkdowns of the major components of the liquid effluent treatment and monitoring system (e.g., radiation and flow monitors, tanks, and pumps) to verify that the current system configuration was as described in the Updated Final Safety Analysis Report (UFSAR) and the Offsite Dose Calculation Manual (ODCM). Specifically, the inspector reviewed the condition of the point of discharge radiation monitors and the condition of equipment in the following areas:

- excess water holding tanks;
- filter/demineralizer sludge tank rooms;
- waste sludge tank “A” and “B” rooms;
- chemical waste collector tank rooms;
- waste collector tank room;
- floor drain evaporator recirculation pump room;
- floor drain evaporator heater room;
- floor drain evaporator outer room;

- concentrated waste tanks room, and
- concentrated waste tanks pump room.

The inspector also evaluated the material condition of the gaseous treatment and monitoring system to ensure that the equipment was as described in the UFSAR and ODCM. In particular, the following filtration and monitoring system components were inspected:

- station heating, ventilation, and air conditioning (HVAC) exhaust process radiation monitor (PRM);
- standby gas treatment system (SGTS) exhaust PRM;
- station HVAC exhaust accident range PRM;
- SGTS exhaust accident range PRM;
- drywell purge exhaust, "A", "B', and "C" trains;
- main control room ventilation, "A" and "B" trains; and
- emergency control room air treatment, "A" and "B" trains.

The inspector also observed ongoing activities, including observations of plant chemistry personnel performing weekly surveillances on the main HVAC and the SGTS stack monitors. These activities included noble gas and tritium sampling and the change-out of the particulate filters and silver zeolite cartridges on one division of each monitoring system. The inspector also observed a chemistry technician performing sampling and analysis of shutdown service water to verify that personnel properly collected the samples and demonstrated adequate analytical practices to ensure that effluents were properly quantified.

b. Findings

No findings of significance were identified.

.2 Radioactive Effluent Release Data and Changes to the Offsite Dose Calculation Manual (ODCM)

a. Inspection Scope

The inspector reviewed the 1999 Annual Radioactive Effluent Release and Radiological Environmental Operation Report and radioactive effluent release data for January 2000 through February 2001 to verify that the radioactive effluent program was implemented as described in the UFSAR and ODCM and to ensure that any anomalies in the release data were adequately understood by the licensee. The inspector reviewed the licensee's offsite dose calculations to ensure that the licensee had properly calculated the offsite dose from radiological effluent releases and to determine if any annual Technical Specifications (TSs) or ODCM limits (i.e., Appendix I to 10 CFR Part 50 values) were exceeded. In addition, the inspector reviewed Revision 19 to the ODCM and the licensee's technical justifications for the change to verify that the change was made in accordance with the requirements of the TSs.

b. Findings

No findings of significance were identified.

.3 Air Cleaning Systems

a. Inspection Scope

The inspector reviewed the most recent results of the in-place filter testing of high efficiency particulate air filters and charcoal absorbers for the control room emergency filtration/pressurization system, the SGTS, and selected plant ventilation systems. The inspector also reviewed the results of the laboratory tests performed on the charcoal absorbers sampled from the control room emergency filtration/pressurization system, the SGTS, and selected plant ventilation system to verify that the air cleaning systems were tested in compliance with TSs and that test results met acceptance criteria. The inspector also reviewed surveillance test results for the stack and vent flow rates to verify that the flow rates and periodicity of testing were consistent with the UFSAR.

b. Findings

No findings of significance were identified.

.4 Effluent Monitor and Analytical Instrument Quality Controls

a. Inspection Scope

The inspector reviewed records of calibrations performed since the last inspection for each point of discharge effluent PRM to verify that each monitor was calibrated as required by the licensee's ODCM. The inspector also reviewed the current effluent radiation monitor alarm setpoint values to assess the accuracy and agreement with the ODCM requirements.

The inspector reviewed quality control documents, calibration procedures, and records for chemistry instrumentation used to quantify effluent releases. In particular, the inspector reviewed the most recent annual calibrations, annual calibration verifications, instrument control charts, and interlaboratory comparison test results for the radiochemical analytical instruments to verify that the equipment was properly maintained consistent with station procedures to ensure that effluents were properly quantified.

b. Findings

No findings of significance were identified.

.5 Identification and Resolution of Problems

a. Inspection Scope

The inspector reviewed selected years 2000 to 2001 licensee quality assurance audits and chemistry/radiation protection departments self-assessments which were used to evaluate, identify, characterize and prioritize problems with the radioactive waste effluent treatment and monitoring program. The reviews were conducted to verify that radiological effluent issues were adequately addressed. The inspector also reviewed condition reports (CRs) related to the liquid and gaseous radioactive waste effluent program generated in years 2000 to 2001 to confirm that identified problems were entered into the licensee's corrective action program and were appropriately resolved in a timely manner.

b. Findings

No findings of significance were identified.

4. Other Activities (OA)

4OA1 Performance Indicator Verification

.1 Radiological Effluent TSs (RETS)/Offsite Dose Calculation Manual (ODCM) Radiological Effluent Occurrence Performance Indicator

a. Inspection Scope

The inspector reviewed the licensee's CRs for calendar year 2000 and offsite dose calculations (January 2000 through February 2001) to identify any occurrences that were not identified by the licensee and verify that the licensee had accurately reported the performance indicator (PI) for the public radiation safety cornerstone.

b. Findings

No findings of significance were identified.

4OA3 Event Followup (71153)

.1 (Closed) LER 50-461/2000-002 and 50-461/2000-002-01: "Out-of-Phase Synchronization Results in Damage to Division 3 Emergency Diesel Generator and Inadequate Design of Static VAR Compensator Freeze Circuit Results in Overvoltage of Class 1E Divisional Bus." On February 28, 2000, the licensee damaged the Div-3 EDG while paralleling it to the emergency reserve auxiliary transformer (ERAT) for surveillance testing. The licensee's initial investigation indicated that the SVC had contributed to the severity if the damage due to a delayed freeze signal. However, subsequent analyses concluded that the SVC did not contribute to the event. The revised root cause attributed the event to paralleling the EDG about 90 degrees out of phase. This issue was previously dispositioned in NRC IR 50-461/2000002 as an NCV of 10 CFR Part 50, Appendix B, Criterion III and was entered into the licensee's corrective action program.

.2 (Closed) LER 50-461/2000-008: "Failure to Meet Technical Specification Requirements for Reactor Cavity Upper Containment Pool Water Level During Refueling Operations." In 1997, a generic concern was identified that the upper containment pool level might not have met the TS required minimum of 23 feet above the reactor pressure vessel flange (RPV) during previous refueling outages. Past occurrences when the reactor vessel cavity water levels were below the 23 feet limit were assessed to have no safety significance. This issue is considered a minor violation of TS 3.9.6 and was entered into the licensee's corrective action program. As part of its corrective actions, the licensee submitted to the NRC License Amendment Request 133 which reduced the required reactor vessel level from 23 feet to 22 feet 8 inches. The request was approved on October 12, 2000.

4OA6 Meetings

The inspectors presented the inspection results to Mr. M. Pacilio, Station Manager, and other members of licensee management at the conclusion of the inspection on April 3, 2001. The licensee acknowledged the findings presented.

The inspectors asked the licensee whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

PARTIAL LIST OF PERSONS CONTACTED

Licensee

K. Baker, Design Engineering Manager
J. Heffley, Site Vice President
W. Iliff, Director - Regulatory Assurance Director
T. Arnold, Acting Senior Manager Plant Engineering
K. Baker, Director, Design Engineering
G. Hughes, Senior Engineer
W. Lipscomb, Acting Training Director
M. Pacilio, Plant Manager
J. Randich, Work Management Director
R. Svaleson, Operations Director
J. Sutherland, Radiation Protection and Safety Director
F. Tsakeres, Maintenance Director
P. Walsh, Site Engineering Director
E. Wrigley, Nuclear Oversight Manager
E. Halverson, Supervisor Mechanical Design

ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

None

Closed

50-461/2000-008	LER	Failure to Meet TS Requirements for Reactor Cavity Upper Containment Pool Water Level During Refueling Operations
50-461/2000-002 50-461/2000-002-01:	LER	Out-of-Phase Synchronization Results in Damage to Division 3 Emergency Diesel Generator and Inadequate Design of Static VAR Compensator Freeze Circuit Results in Overvoltage of Class 1E Divisional Bus

Discussed

None

LIST OF ACRONYMS

ADAMS	Agencywide Documents Access and Management System
CPS	Clinton Power Station
CR	Condition Report
EDG	Emergency Diesel Generator
ERAT	Emergency Reserve Auxilary Transformer
HPCS	High Pressure Core Spray
HVAC	Heating, Ventilation, and Air Conditioning
INPO	Institute of Nuclear Power Operations
LPCS	Low Pressure Core Spray
MR	Maintenance Rule
NRC	Nuclear Regulatory Commission
ODCM	Offsite Dose Calculation Manual
PARS	Publicly Available Records
PI	Performance Indicator
PMT	Post-Maintenance Testing
PRM	Process Radiation Monitor
RAT	Reserve Auxiliary Transformer
RETS	Radiological Effluent Technical Specifications
RHR	Residual Heat Removal
RPV	Reactor Pressure Vessel
SGTS	Standby Gas Treatment System
SVC	Static VAR Control
UFSAR	Updated Final Safety Analysis Report

LIST OF BASELINE INSPECTIONS PERFORMED

The following inspectable area procedures were used to perform inspections during the report period. Documented findings are contained in the body of the report.

Inspection Procedure Number	Title	Report Section
71111.04	Equipment Alignment	1R04
71111.05	Fire Protection	1R05
71111.07	Heat Sink Performance	1R07
71111.12	Maintenance Rule Implementation	1R12
71111.13	Maintenance Risk Assessment and Emergent Work Evaluation	1R13
71111.15	Operability Evaluations	1R15
71111.19	Post Maintenance Testing	1R19
71111.22	Surveillance Testing	1R22
71122.1	Radioactive Gaseous and Liquid Effluent Treatment and Monitoring System	2PS2
71151	Performance Indicator Verification	4OA1
71152	Identification and Resolution of Problems	4OA2
71153	Event Follow-up	4OA3

ATTACHMENT 1

LIST OF DOCUMENTS REVIEWED

The following is a list of licensee documents reviewed during the inspection, including documents prepared by others for the licensee. Inclusion of a document on this list does not imply that NRC inspectors reviewed the entire documents, but, rather that selected sections or portions of the documents were evaluated as part of the overall inspection effort. In addition, inclusion of a document on this list does not imply NRC acceptance of the document, unless specifically stated in the body of the inspection report.

1R07 Heat Sink Performance

01DG11	Calculation for Diesel Generator - Tube Plugging, Revision 5, January 15, 1993
ECN 31050	Revise 1DG13A Data Sheet to be Consistent with Fouling Factors of Other Diesels
065-17-PCC-02	Evaluation of Diesel Generator Heat Exchanger Performance Data from 1990 to 1997, Revision 0, February 5, 1998
065-17-PCC-04	Description and Verification of the Diesel Generator Heat Exchanger Performance Test Evaluation Spreadsheets, Revision 1, September 5, 1998
65-19	Specification No. MPR-65-19, MPR-1920, Revision 2
65-22	Calculation MPR-65-22, MPR-1920, Revision 1
VY 45, Vol A&B	Performance Evaluation of VY System Cooling Coils Under SX Flow Acceptance Limits, Revision 3
CR 1-98-07-131	As-Found Flow Measurement Below Minimum Specified in Procedure for DG13A
CR 1-98-08-250	All Holes in Tube Sheet Were Not Measured
CR 2-00-09-076	As-Found Flow Measurement Below Minimum Value Specified in CPS2700.13 Calculation Attachment
CR 2-01-030124	Lack of Internal Inspection for RHR Heat Exchanger
*CR 2-01-03-167	Excel Spreadsheet Calculated Different Uncertain Allowables for Heat Exchanger Test Results
*CR 2-01-03-178	Proceduralized Temperature Limit Exceeded During the Performance of Several DG Heat Exchanger Performance Test
*CR 2-01-03-180	Unstable Test Conditions Invalidated Div III DG Heat Exchanger Performance Test Performed in November 2000
*CR 2-01-03-193	Test Results from 1VY08SA dated January 24, 2000, are not Consistent with what is Expected
*A/R 00424955	Revise Flow Rate Through DG13A HX Tubes to Agree with ECN 31050
M05-1035	P&ID Diesel Generator Cooling System (DG) Sheet 8, Revision H
ET0-2	NSED Instruction, GL 89-13 Data Reduction and Test Result Evaluation
2602.01	Heat Exchanger Performance of Shutdown Service Water Coolers Covered by NRC GL 89-13
2700.19	Div III Diesel Generator Jacket Water Cooler Heat Exchanger Performance for NRC GL 89-13. Performed November 29, 2000 and October 27, 1999

2602.01D032	RHR B Heat Exchanger, 1E12B001B. Performed January 21, 2000 and January 30, 1998
2602.01D025	HPCS Room Cooler Hydraulic Resistance Test, 1VY08SA. Performed January 24, 2000 and November 29, 2000
MWR D74147	Isolate, Open, Inspect and Clean SX Side of Heat Exchanger March 26, 1998
MWR D63147	Remove Heat Exchanger Plugs for Coils 1VY08SA to Inspect September 23, 1993
MWR D51314	Heat Exchanger East and West End Covers Have Excessive Pitting in Gasket Area, Need to Weld, June 27, 1998
MWR D51560	Open One End of Heat Exchanger DG13A, Perform Visual and Boroscopic Examination, May 1994
PMMDGA078	Open, Inspect, Boroscope, Eddy Current and Clean If Necessary the Heat Exchanger for Division III, Diesel Generator, June 10, 1998

Radiation Safety

Clinton Power Station Procedures Nos.

CPS 2104.01, Revision 3,	HEPA Filter Bypass Leak Test
CPS 2104.02, Revision 3,	Charcoal Absorber Leak Test
CPS 2104.03, Revision 4,	Charcoal Absorber Sample Checklist
CPS 3315.03, Revision 0c,	Radiation Monitoring (AR/PR)
CPS 6103.02, Revision 12,	Efficiency and Energy Calibration of HPGe Detectors
CPS 6718.01, Revision 6,	Station Operating Manual, Chemical/Radiochemical Procedure, Tritium Activity Determination
CPS 6948.02, Revision 15,	SGTS Stack Effluent- PRM Iodine and Particulate, Sampling and Analysis
CPS 6952.01, Revision 8,	Liquid PRM Sampling and Analysis
CPS 6954.01, Revision 13,	HVAC Stack Effluent- Noble Gas and Tritium, Sampling and Analysis
CPS 6954.02, Revision 13,	HVAC Stack Effluent- PRM Iodine and Particulate, Sampling and Analysis
CPS 9432.42, Revision 35,	Main Stack Flow Monitor OFT-VR500 Channel Calibration
CPS 9432.43, Revision 36,	Standby Gas Treatment System (SGTS) Flow Monitor OFT-VG001 Channel Calibration
CPS 9432.44, Revision 34,	Off Gas Effluent Flow Monitor N66-N010 (NO61) Channel Calibration
CPS 9432.45, Revision 35,	Plant Service Water Effluent Flow Monitor 1FT-WS103, Channel Calibration
CPS 9437.40, Revision 40,	HVAC System Exhaust PRM 0RIX-PR001 (PR002) Calibration
CPS 9437.41, Revision 39d,	SGTS Exhaust PRM 0RIX-PR003 (PR004) Channel Calibration Test
CPS 9437.61, Revisions 40b and 40c,	Post Treatment Off Gas System Process Radiation Monitor (PRM) 1RIX-PR035, (1RIX-PRO41) Calibration Test
CPS 9437.62, 37, 37a, 37b, 37c and 37e,	Liquid Process Radiation Monitor Calibration Procedure for 1RIX-PR004 (5,36,37,38,39)
CPS 9437.63, Revision 37d,	Liquid Process Radiation Monitor 1RIX-PR004 (5,36,37,38,39) Calibration Test

CPS 9437.64, Revisions 36 and 36a,	Accident Range Stack Monitor (AXM) 0RIX-PR008, 0RIX-PR012 Channel Calibration
CPS 9866.01, Revision 24,	HEPA Filter Testing
CPS 9866.02, Revision 29,	Charcoal Absorber Leak Testing
CPS 9866.03, Revision 26,	Charcoal Absorber Sample Checklist (Procedure)
CPS 9911.50, Revision 39,	Liquid Radioactive Discharge Surveillance
CPS 9911.59, Revision 29a,	Gaseous Radioactive Effluent surveillance- Monthly
CPS 9911.60, Revision 30b,	Gaseous Radioactive Effluent Surveillance
NOP-118.02, Revision 1,	Field Observation Report

Condition Report Nos.

2-00-03-113
2-00-05-047
2-00-06-086
2-00-08-030
2-00-09-059
2-00-09-015
2-01-02-149
2-01-02-180
2-01-02-184
2-01-02-209
2-01-02-134
2-01-03-007
2-01-03-008
2-01-03-127
2-01-03-129
2-01-03-172
2-01-03-202

Instrument Calibrations

CPS 9432.42, Revision 35,	Main Stack Flow Monitor OFT-VR500 Channel Calibration, data for OFT-VR500 performed in calendar year 2000/01
CPS 9432.43R20, Revision 36,	Standby Gas Treatment System (SGTS) Flow Monitor OFT-VG001 Channel Calibration, data for OFT-VG001 performed in calendar year 2000/01
CPS 9432.44A20, Revision 34,	Off Gas Effluent Flow Monitor N66-N010 (NO61) Channel Calibration, data for N010 performed in calendar year 2000/01
CPS 9432.45, Revision 35,	Plant Service Water Effluent Flow Monitor 1FT-WS103) Channel Calibration, data for test on 1FT-WS103 performed in calendar year 2000/01
CPS 9437.40A20, Revision 40a,	HVAC System Exhaust PRM 0RIX-PR001 (PR002) Calibration, data for 0RIX-PR001 performed in calendar year 2000/01
CPS 9437.41, Revision 39d,	SGTS Exhaust PRM 0RIX-PR003 (PR004) Channel Calibration, for 0RIX-PR003 and 0RIX-PR004 performed in calendar year 2000/01
CPS 9437.61,	Post Treatment Off Gas System Process Radiation

Revisions 40b and 40c,	Monitor (PRM) 1RIX-PR035, (1RIX-PRO41) Calibration Test, data for test on 1RIX-PR035 and 1RIX-PR041 performed in calendar year 2000/01
CPS 9437.62, Revisions 37, 37a, 37b, 37c, and 37e,	Liquid Process Radiation Monitor Calibration procedure for 1RIX-PR004 (5,36,37,38,39), data for test on 1RIX-PR004, 1RIX- PR005, 1RIX-PR037, 1RIX-PR038, 1RIX-PR0039 and performed in calendar year 2000/01
CPS 9437.63R24, Revision 37c,	Liquid Process Radiation Monitor 1RIX-PR004 (5,36,37,38,39) Calibration Test, data for test on 0RIX-R040 performed in calendar year 2000/01
CPS 9437.64D001, Revisions 34a and 36,	Accident Range Stack Monitor (AXM) 0RIX-R008, 0RIX-R012 Channel Calibration, data for test on 0RIX-R008 and 0RIX-R012 performed in calendar year 2000/01

CPS Chemistry Addendum Data Sheet, Proportional Counter “B,” Beta Detector Efficiency calibration performed in calendar year 2000/01

CPS Chemistry HPGe Isotopic Analysis Report, October 3, 2000, Efficiency Verification for 500 ml Marinelli performed in calendar year 2000/01

CPS Chemistry HPGe Isotopic Analysis Report, September 21, 2000, Efficiency Verification for 4.0 L Marinelli performed in calendar year 2000/01

CPS Chemistry HPGe Isotopic Analysis Report, September 21, 2000, Efficiency Verification for Gas 4.6 L Marinelli performed in calendar year 2000/01

CPS Chemistry HPGe Isotopic Analysis Report, October 4, 2000, Efficiency Verification for 250 ml Marinelli performed in calendar year 2000/01

CPS Chemistry HPGe Isotopic Analysis Report, September 22, 2000, Efficiency Verification for AgZeolite Shelf1 performed in calendar year 2000/01

CPS Chemistry HPGe Isotopic Analysis Report, September 22, 2000, Efficiency Verification for 47 mm Filter Shelf 1 performed in calendar year 2000/01

CPS Chemistry HPGe Detector Calibration Report, October 3-4 2000, Efficiency Calibration for 500 cc Marinelli performed in calendar year 2000/01

Proportional counter “B”, Background checks, October 1999 to February 2001

Proportional counter “B”, Alpha source checks, October 1999 to February 2001

Quality Assurance Audits and Licensee Self-Assessments

Quality Assurance Assessment Report, Assessment 2000-06-41-24, June 30, 2000
Radioactive Gaseous and Liquid Effluents/ODCM Self-Assessment, March 3, 2001
Field Observation Report #2001-PS-016, Radioactive Gaseous and Liquid Effluents

Self- Assessment, Chemistry Department Review, March 15, 2001

Surveillance Records

CPS 2104.01D001, Revision 3,	HEPA Filter Bypass Leak Test (Data Sheet), data for test on #IN66-D016, #OVQ01SB, #OVQ01SA, and #OVQ01SC performed in 2000 and 2001
CPS 2104.02D001, Revision 4,	Charcoal Absorber Leak Test (Data Sheet), data for tests on #OVQ07FA, #OVQ07FC, and #OVQ07FB performed in 2000 and 2001
CPS 2104.03C001, Revision 4,	Charcoal Absorber Sample Checklist (Data sheet), data for tests on #OVQ07FA, #OVQ07FC, and #OVQ07FB performed in 2000 and 2001
CPS 9866.01D001, Revision 24,	HEPA Filter Testing, data for filter Units #OVC095B, #OVGO7FA/11FA, #OVC095A, and #OVG015B performed in 2000 and 2001
CPS 9866.02D001, Revision 29,	Charcoal Absorber Leak Testing, data from Units #OVC075B, # OVC095B, #OVG015B, #OVC075A, and #OVG08FA performed in 2000 and 2001
CPS 9866.03C001, Revision 26,	Charcoal Absorber Sample Checklist, data from Units #OVC095B, #OVC075B, #OVG08FA, #OVC075A, and #OVG015B performed in 2000 and 2001
CPS 9911.59, Revision 29a,	Gaseous Radioactive Effluent Surveillance- Monthly Data Sheets, September 2000 to February 2001

CPS Chemistry HPGe Isotopic Analysis Report, March 22, 2001, sample from 1PR039

Control Charts for High Purity Germanium (HPGe) detector(s), December 21, 2000 to February 21, 2001

Exelon Nuclear: Clinton Station Regulatory Assessment Performance Indicator, R.PR.01: RETS/ODCM Radiological Effluent Occurrence, (Revision 1), January/February 2001

Licensee Comparison Charts #1 and #2 to all reporting laboratories, Second Quarter and Fourth Quarter 1999: Mixed Gamma liquid, Mixed Gamma filter, and Other Nuclides

Results of Interlaboratory Radiochemistry Cross Check Program, 4th Quarter 1999, 2 nd Quarter 2000, and 4 th Quarter 2000

Semiannual Radioactive Effluent Release Report, Gaseous Effluents-Mixed Mode Level Releases, Doses to a Member of the Public Due to Radioiodines, Tritium, and Particulate in Gaseous Releases, Air Doses Doe to Gaseous Releases, Gaseous Effluents- Summation of All Releases, Unit 1, January 2000 to June 2000

* Indicates condition report or action request initiated as a result of NRC inspection activity.

LIST OF INFORMATION REQUESTED FOR HEAT SINK INSPECTION

For heat exchangers (HXs) [1VY08SA, (HPCS Pump Room Cooler), 1DG13A, (Division III EDG Hx), and 1E12B001B, (RHR Hx B)] the following information is needed by March 19, 2001, to support the biennial "Heat Exchanger Performance" inspection procedure 71111.07:

1. Copy of the two most recently completed tests confirming thermal performance of each HX. Include documentation and procedures that identify the types, accuracy, and location of any special instrumentation used for these tests. (e.g., high accuracy ultrasonic flow instruments or temperature instruments). Include calibration records for the instruments used during these tests.

2. Copy of the evaluations of data for the two most recent completed tests confirming the thermal performance of each HX.

3. Copy of the calculation which establishes the limiting (maximum) design basis heat load which is required to be removed by each of these HXs.

4. Copy of the calculation which correlates surveillance testing results from these HXs with design basis heat removal capability (e.g., basis for surveillance test acceptance criteria).

5. The clean and inspection maintenance schedule for each HX.

6. For the last two clean and inspection activities completed on each HX, provide a copy of the document describing the inspection results.

7. Provide a copy of the document which identifies the current number of tubes in service for each heat exchanger and the supporting calculation which establishes the maximum number of tubes which can be plugged in each HX.

8. Provide a copy of the document establishing the repair criteria (plugging limit) for degraded tubes which are identified in each HX.

9. Copy of the design specification and heat exchanger data sheets for each HX.

10. Copy of the vendor/component drawing for each HX.

11. Provide a list of issues with a short description documented in your corrective action system associated with these HXs in the past 3 years.

12. Provide a list of calculations with a short description which currently apply to each HX.

13. Provide HX performance trending data tracked for each HX.