

August 16, 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  
INITIAL LICENSE EXAMINATION REPORT 50-461/01-301(DRS)

Dear Mr. Kingsley:

On July 23, 2001, the NRC completed initial operator licensing examinations at your Clinton Power Station. The enclosed report presents the results of the examination.

Clinton Power Station training department personnel administered the written examination on July 23, 2001, and NRC examiners administered the operating examination during the week of July 16, 2001. Three reactor operator and five senior reactor operator applicants were administered license examinations. The results of the examinations were finalized on August 8, 2001. All eight applicants passed all sections of their respective examinations resulting in the issuance of three reactor operator licenses and five senior reactor operator licenses.

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

We will gladly discuss any questions you have concerning this examination.

Sincerely,

***/RA by David Pelton Acting For/***

David E. Hills, Chief  
Operations Branch  
Division of Reactor Safety

Docket Nos. 50-461  
License Nos. NPF-62

Enclosures:   1. Operator Licensing Examination Report  
                  50-461/01-301(DRS)  
                  2. Facility Comments and NRC Resolutions  
                  3. Simulation Facility Report  
                  4. Written Examinations and Answer Keys (RO & SRO)

cc w/encls 1 & 2:   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. Illiff, Regulatory Assurance Manager (Acting)  
                      Document Control Desk-Licensing  
                      Illinois Department of Nuclear Safety

cc with encls 1, 2, 3 & 4: P. Walsh, Training Manager

O. Kingsley

-2-

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Document Control Desk-Licensing  
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cc with encls 1, 2, 3 & 4: P. Walsh, Training Manager

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U. S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket No:	50-461
License No:	NPF-62
Report No:	50-461/01-301(DRS)
Licensee:	Exelon Generation Company, LLC
Facility:	Clinton Power Station
Location:	Route 54 West Clinton, IL 61727
Dates:	July 16 through July 23, 2001
Examiners:	David L. Pelton, Chief Examiner Hironori Peterson, Examiner Rene Vogt-Lowell, Examiner
Approved by:	David E. Hills, Chief Operations Branch Division of Reactor Safety

## SUMMARY OF FINDINGS

ER 05000461-01-301(DRS), on 07/16-07/23/2001, Exelon Generation Company, LLC, Clinton Power Station, Unit 1. The announced operator licensing initial examination was conducted by regional examiners in accordance with the guidance of NUREG-1021, "Operator Licensing Examination Standards for Power Reactors," Revision 8, Supplement 1.

### Examination Summary

Three reactor operator applicants and five senior reactor operator applicants were administered written and operating examinations for initial operator licensing. All eight applicants passed all sections of their respective examinations resulting in the issuance of three reactor operator licenses and five senior reactor operator licenses (Section 4OA5.1).

## Report Details

### **1. OTHER ACTIVITIES (OA)**

#### 4OA5 Other

##### .1 Initial Licensing Examinations

###### a. Inspection Scope

The NRC examiners conducted announced operator licensing initial examinations during the weeks of July 16 and July 23, 2001. The facility's training staff used the guidance established in NUREG-1021, "Operator Licensing Examination Standards for Power Reactors," Revision 8, Supplement 1, to prepare the examination outline and to develop the written and operating examinations. The facility's training staff administered the written examination on July 23, 2000. The NRC examiners administered the operating examination the week of July 16, 2001. Three reactor operator applicants and five senior reactor operator applicants were examined.

###### b. Findings

###### Written Examination

The NRC examiners determined that the written examination, as originally submitted by the licensee, was within the range of acceptability expected for a proposed examination. Examination changes, agreed upon between the NRC and the licensee, were made according to NUREG-1021. The licensee provided post-examination comments on two written examination questions that were administered to the applicants. Both of these questions appeared only on the reactor operator examination. The licensee's specific comments and the NRC's resolution of those comments were included in Enclosure 2 to this report.

###### Operating Test

The NRC examiners determined that the operating test, as originally submitted by the licensee, was within the range of acceptability expected for a proposed examination. Examination changes, agreed upon between the NRC and the licensee were made according to NUREG-1021.

###### Examination Results

Three reactor operator applicants and five senior reactor operator applicants were administered written and operating examinations for initial operator licensing. All eight applicants passed all sections of their respective examinations resulting in the issuance of three reactor operator licenses and five senior reactor operator licenses.

.2 Examination Security

a. Inspection Scope

The examiners reviewed and observed the licensee's implementation of examination security requirements during the examination preparation and administration.

b. Findings

The NRC examiners determined that the licensee's examination security practices associated with the development and administration of the operator license examinations were satisfactory.

4OA6 Meeting(s)

Exit Meeting

The chief examiner presented the examination team's preliminary observations and findings to Mr. Heffley and other members of the licensee management on July 23, 2001. The licensee acknowledged the observations and findings presented and did not identify any proprietary information.



## KEY POINTS OF CONTACT

### Licensee

D. Clines, Initial License Examination Lead  
K. Evans, Emergency Planning Department  
J. Heffley, Site Vice President  
W. Iliff, Regulatory Assurance Director  
M. Pacilio, Plant Manager  
T. Pickley, Nuclear Training Department  
S. Russell, Midwest Regional Operating Group Examination Coordinator  
T. Shortell, Operations Training Manager  
R. Svaeson, Operations Director  
P. Walsh, Training Manager  
L. Westbrook, Operations Department Representative

### NRC

Patrick Loudon, Clinton Senior Resident Inspector

## LIST OF ACRONYMS USED

ADAMS	Agency-Wide Document Access and Management System
DRS	Division of Reactor Safety
EOP	Emergency Operating Procedure
HVAC	Heating, Ventilation, and Air Conditioning
LOCA	Loss Of Coolant Accident
NRC	Nuclear Regulatory Commission
PARS	Publicly Available Records
RPV	Reactor Pressure Vessel
RO	Reactor Operator
SRO	Senior Reactor Operator

Facility Comments and NRC Resolutions

Written Examination Record Number 54 (RO examination question number 48):

**Comment:** The question asked for the condition that would result in an automatic closure of the control room train "A" maximum outside air dampers (0VC48YA and 49YA). The original correct answer was answer "b"; high radiations level at the east and west intake. Upon further review, the licensee believed that answer "a", high radiation levels at the east or west intake was also correct. The licensee recommended that the NRC accept both answers "b" and "a" as correct.

**NRC Resolution:** The licensee's recommendation was accepted. The examiners reviewed Annunciator Procedure 5050.07, "HI RADIATION CONT RM HVAC SYS DIVISION 1," and Clinton Power Station Procedure 3402.01, "Control Room HVAC [heating, ventilation, and air conditioning]." The control room HVAC system consists of two trains ("A" and "B") each with two radiation detection channels per train. The system will realign, closing the outside air dampers, if either one channel alarms in each train (high radiation levels at the east and west intake) or if two channels alarm in one train (high radiation levels at the east or west intake).

Written Examination Record Number 88 (RO examination question number 74):

**Comment:** The question stated that a design basis loss of coolant accident (LOCA) had occurred, the plant had successfully scrammed, and that the "A" recirculation pump breaker control power fuses had blown. The question then listed various reactor pressure vessel (RPV) level instrumentation and asked which was viable at that time. The original correct answer was answer "d"; actual vessel level cannot be determined at this time. Upon further review, the licensee believed that answer "a", actual vessel level can only be determined by the fuel zone [RPV level instrument] as it is qualified to function under post-LOCA conditions, was also correct. The licensee recommended that the NRC accept both answers "d" and "a" as correct.

**NRC Resolution:** The licensee's recommendation was accepted. The examiners reviewed Clinton Power Station Student Handbook for the Nuclear Boiler Instrumentation System, Lesson Plan LP85423-01, "Nuclear Boiler Instrumentation System," Clinton Emergency Operating Procedure (EOP) 6, "Primary Containment Control," and the EOP-6 Technical Basis. Answer "a" was originally considered incorrect since the fuel zone RPV level instrument is not functional when recirculation pumps are running and it was assumed that the "A" recirculation pump was still running due to the fact that the pump breaker control power fuses had blown and the pump would not have tripped once RPV level reached the low-low level setpoint. However, the stem of the question does not specifically state

the order of events. It is possible that RPV level reached the low-low level setpoint, the "A" recirculation pump tripped, and then the breaker control power fuses blew. As a result, the "A" recirculation pump would not have been running leaving the fuel zone RPV level instrument as the only viable level instrument.

Simulation Facility Report

Facility Licensee: Clinton Nuclear Power Plant, Unit 1

Facility Docket No.: 50-461

Operating Tests Administered: July 16 - 23, 2001

The following documents observations made by the NRC examination team during the initial operator license examination. These observations do not constitute audit or inspection findings and are not, without further verification and review, indicative of non-compliance with 10 CFR 55.45(b). These observations do not affect NRC certification or approval of the simulation facility other than to provide information which may be used in future evaluations. No licensee action is required in response to these observations.

During the conduct of the simulator portion of the operating tests, the following items were observed:

ITEM	DESCRIPTION
None	

Enclosure 4

Written Examinations and Answer Keys (RO/SRO)

Reactor Operator Examination ADAMS Accession No. ML012280194

Senior Reactor Operator Examination ADAMS Accession No. ML012280179