

MISCELLANEOUS CORRESPONDENCE

FOR THE QUAD CITIES EXAMINATION - DEC 2002

cc: D. Sklar
H. Peterson (Braidwood & Byron)
A. M. Stone (Dresden, Gasbills, &c) 10 CFR 50.4



RS-00-96

October 6, 2000

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555-0001

Braidwood Station, Units 1 and 2
Facility Operating License Nos. NPF-72 and NPF-77
NRC Docket Nos. STN 50-456 and STN 50-457

Byron Station, Units 1 and 2
Facility Operating License Nos. NPF-37 and NPF-66
NRC Docket Nos. STN 50-454 and STN 50-455

Dresden Nuclear Power Station, Units 2 and 3
Facility Operating License Nos. DPR-19 and DPR-25
NRC Docket Nos. 50-237 and 50-249

LaSalle County Station, Units 1 and 2
Facility Operating License Nos. NPF-11 and NPF-18
NRC Docket Nos. 50-373 and 50-374

Quad Cities Nuclear Power Station, Units 1 and 2
Facility Operating License Nos. DPR-29 and DPR-30
NRC Docket Nos. 50-254 and 50-265

Subject: Response to Regulatory Issue Summary 2000-14, "Preparation and Scheduling of Operator Licensing Examinations"

Reference: NRC Regulatory Issue Summary 2000-14, "Preparation and Scheduling of Operator Licensing Examinations," dated September 6, 2000

This letter provides our voluntary response to the request for information contained in the referenced Regulatory Issue Summary (RIS). The NRC requested a voluntary response to the RIS be submitted within 30 days of receipt of the RIS. We received RIS 2000-14 on September 6, 2000. Accordingly, this response is due to be submitted by October 6, 2000.

ML003760554

NRC FORM 536 (8-2000)	U.S. NUCLEAR REGULATORY COMMISSION OPERATOR LICENSING EXAMINATION DATA	APPROVED BY OMB NO 3150-0131 EXPIRES 07/31/2002 <small>Estimated burden per response to comply with this voluntary information collection request: 1 hour. This information collection is used to plan budgets and resources for operator examinations. Send comments regarding burden estimate to the Records Management Branch (T-6 E6) U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001 or by internet e-mail to bjs1@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0131), Office of Management and Budget Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.</small>		
FACILITY Quad Cities Nuclear Power Station, Units 1 and 2 Facility Operating License Nos. DPR-29 and DPR-30 NRC Docket Nos. 50-254 and 50-265		NRC REGION <div style="text-align: center; font-size: 1.5em;">III</div>		
A. PROPOSED EXAMINATION PREPARATION SCHEDULE				
PROPOSED NUMBER	CY <u>01</u>	CY <u>02</u>	CY <u>03</u>	CY <u>04</u>
ESTIMATED NUMBER OF LICENSEE-PREPARED EXAMINATIONS	XX	1	1	1
ESTIMATED NUMBER OF NRC-PREPARED EXAMINATIONS	X 14	0	0	0
B. INITIAL OPERATOR LICENSING EXAMINATIONS				
PROPOSED NUMBER	CY <u>01</u>	CY <u>02</u>	CY <u>03</u>	CY <u>04</u>
NUMBER OF REACTOR OPERATORS	2	4	4	5
NUMBER OF SENIOR REACTOR OPERATORS-INSTANT	2 3	6	2	3
NUMBER OF SENIOR REACTOR OPERATORS-UPGRADE	0 1	3	3	3
NUMBER OF SENIOR REACTOR OPERATORS-LIMITED	0	0	0	0
PROPOSED DATES				
PRIMARY DATE	08/06/01 – 08/10/01	11/04/02 – 11/15/02	11/03/03 – 11/14/03	11/15/04 – 11/24/04
ALTERNATE DATE	08/13/01 – 08/17/01	10/28/02 – 11/08/02	10/27/03 – 11/07/03	11/29/04 – 12/10/04
C. PROPOSED GENERIC FUNDAMENTALS EXAMINATION (GFE) SCHEDULE				
PROPOSED NUMBER	CY <u>01</u>		CY <u>02</u>	
	FIRST	SECOND	FIRST	SECOND
ESTIMATED NUMBER OF CANDIDATES	0	15	0	9

** Pa D. Break on 11-29-00.*

April 2, 2001

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

Dear Mr. Kingsley:

In response to your facility letter dated October 6, 2000, we have tentatively scheduled an initial licensing examination for your operator license applicants at the Quad Cities Nuclear Power Station during the weeks of December 2 and December 9, 2002. Validation of the examination will occur at the station during the week of October 14, 2002. In the unlikely event that we are unable to support the examination during the scheduled weeks, we will inform you immediately upon discovery of such conditions and make arrangements to administer the examination at a mutually acceptable date.

As stated in your letter and confirmed in a telephone conversation between J. White, Quad Cities, and A. M. Stone, NRC, on February 20, 2001, your staff will develop the examination. To support the examination administration date, we have tentatively scheduled the date of September 30, 2002, to begin our review of your submitted examination.

Your letter indicated you are training approximately 13 candidates for the examination. Please inform us if the number of candidates declines below 10 as this will impact the examination schedule. Please also inform us at your earliest opportunity if you discover you are unable to support the examination on the scheduled dates.

Once your staff has determined a schedule for examination development, please have them contact the Chief Examiner to arrange for a suitable examination outline submittal date for NRC review. The intent is for the examination outline to be submitted early in the examination development process. This is to preclude the need to make significant changes to developed examination material as a result of the NRC review of the outline. Mr. Dell R. McNeil has been tentatively assigned as the Chief Examiner and can be reached at 630-829-9737.

A supplementary letter will be sent to the training department approximately 120 days prior to the examination outlining examination security expectations, listing the materials required by the NRC to conduct the examination, reconfirming the examination dates, and reconfirming the number of candidates you have in the training program. If you have any questions concerning this information, please contact Mrs. Ann Marie Stone of my staff at 630-829-9729.

ML010950051

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter 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,



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

Docket Nos. 50-254; 50-265
License Nos. DPR-29; DPR-30

cc: W. Bohlke, Senior Vice President, Nuclear Services
C. Crane, Senior Vice President - Mid-West Regional
J. Cotton, Senior Vice President - Operations Support
J. Benjamin, Vice President - Licensing and Regulatory Affairs
R. Krich, Director - Licensing
H. Stanley, Operations Vice President
J. Skolds, Chief Operating Officer
R. Helfrich, Senior Counsel, Nuclear
DCD - Licensing
T. J. Tulon, Site Vice President
G. Barnes, Quad Cities Station Manager
W. Beck, Regulatory Affairs Manager
W. Leach, Manager - Nuclear
Vice President - Law and Regulatory Affairs
Mid American Energy Company
M. Aguilar, Assistant Attorney General
Illinois Department of Nuclear Safety
State Liaison Officer, State of Illinois
State Liaison Officer, State of Iowa
Chairman, Illinois Commerce Commission
C. Peterson, Training Department

DOCUMENT NAME: G:\drs\qua03__01drs.wpd

To receive a copy of this document, indicate in the box "C" = Copy w/o attach/encl "E" = Copy with attach/encl "N" = No copy

OFFICE	RIII:DRS	<input checked="" type="checkbox"/>	RIII:DRS	<input checked="" type="checkbox"/>	RIII:DRS	<input checked="" type="checkbox"/>		
NAME	MABies:sd	<input checked="" type="checkbox"/>	AMStone	<input checked="" type="checkbox"/>	DEHills	<input checked="" type="checkbox"/>		
DATE	03/21/01	<input checked="" type="checkbox"/>	03/21/01	<input checked="" type="checkbox"/>	03/21/01	<input checked="" type="checkbox"/>		

OFFICIAL RECORD COPY

ADAMS Distribution:

AJM

DFT

SNB (Project Mgr.)

R. Mathew, NRR

D. C. Trimble, NRR:DIPM:IOLB

J. Caldwell, RIII

G. Grant, RIII

B. Clayton, RIII

SRI Quad Cities

DRP

DRSIII

PLB1

JRK1

BAH3

M. A. Bies, DRS



UNITED STATES
NUCLEAR REGULATORY COMMISSION

REGION III
801 WARRENVILLE ROAD
LISLE, ILLINOIS 60532-4351

November 28, 2001

Mr. Oliver D. Kingsley, President
Exelon Nuclear
Exelon Generation Company, LLC
Quad Cities Nuclear Power Station
4300 Winfield Road
Warrenville, IL 60555

Dear Mr. Kingsley:

In a telephone conversation on November 20, 2001, between Mr. Dan Snook, ILT Group Lead, and Mr. Hironori Peterson, Senior Operations Engineer, arrangements were made for the administration of licensing examinations at the Quad Cities Nuclear Power Station the weeks of December 2 and December 9, 2002. In addition, the NRC will make an examination validation visit to your facility the week of November 11, 2002.

As agreed during the telephone conversation, your staff will prepare the examinations based on the guidelines in Revision 8, Supplement 1, of NUREG-1021, "Operator Licensing Examination Standards for Power Reactors." The NRC regional office will discuss with your staff any changes that might be necessary before the examinations are administered.

To meet the above schedule, it will be necessary for your staff to furnish the examination outlines by August 19, 2002. The written examinations, operating tests, and the supporting reference materials identified in Attachment 2 of ES-201 will be due by October 7, 2002. Pursuant to 10 CFR 55.40(b)(3), an authorized representative of the facility licensee shall approve the outlines, examinations, and tests before they are submitted to the NRC for review and approval. All materials shall be complete and ready to use. Any delay in receiving the required examination and reference materials, or the submittal of inadequate or incomplete materials, may cause the examinations to be rescheduled.

In order to conduct the requested written examinations and operating tests, it will be necessary for your staff to provide adequate space and accommodations in accordance with ES-402, and to make the simulation facility available on the dates noted above. In accordance with ES-302, your staff should retain the original simulator performance data (e.g., system pressures, temperatures, and levels) generated during the dynamic operating tests until the examination results are final.

Appendix E of NUREG-1021 contains a number of NRC policies and guidelines that will be in effect while the written examinations and operating tests are being administered.

ML 013330267

To permit timely NRC review and evaluation, your staff should submit preliminary reactor operator and senior reactor operator license applications (Office of Management and Budget (OMB) approval number 3150-0090), medical certifications (OMB approval number 3150-0024), and waiver requests (if any) (OMB approval number 3150-0090) at least 30 days before the first examination date. If the applications are not received at least 30 days before the examination date, a postponement may be necessary. Signed applications certifying that all training has been completed should be submitted at least 14 days before the first examination date.

This letter contains information collections that are subject to the *Paperwork Reduction Act of 1995* (44 U.S.C. 3501 et seq.). These information collections were approved by the Office of Management and Budget, approval number 3150-0018, which expires on April 30, 2003.

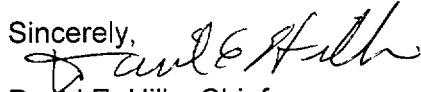
The public reporting burden for this collection is estimated to average 500 hours per response, including the time for reviewing instructions, gathering and maintaining the data needed, writing the examinations, and completing and reviewing the collection of information. Send comments on any aspect of this collection of information, including suggestions for reducing the burden, to the Information and Records Management Branch (T-6 F33), U.S. Nuclear Regulatory Commission, Washington, D.C. 20555-0001, or by Internet electronic mail at BJS1@NRC.GOV; and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0018), Office of Management and Budget, Washington, D.C. 20503.

The NRC may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number.

Thank you for your cooperation in this matter. Mr. Snook has been advised of the policies and guidelines referenced in this letter. If you have any questions regarding the NRC's examination procedures and guidelines, please contact Mr. Hironori Peterson at 630-829-9707, or me at 630-829-9733.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter 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,



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

Docket Nos. 50-254; 50-265
License Nos. DPR-29; DPR-30

See Attached Distribution

DOCUMENT NAME: G:\DRS\Qua112801drs.wpd

To receive a copy of this document, indicate in the box: "C" = Copy without attachment/enclosure "E" = Copy with attachment/enclosure "N" = No copy

OFFICE	RIII	<input checked="" type="checkbox"/> RIII	<input checked="" type="checkbox"/>			
NAME	HPeterson:sd	DEHills	POA			
DATE	11/13/01	AP	11/28/01			

OFFICIAL RECORD COPY

cc: W. Bohlke, Senior Vice President, Nuclear Services
C. Crane, Senior Vice President - Mid-West Regional
J. Cotton, Senior Vice President - Operations Support
J. Benjamin, Vice President - Licensing and Regulatory Affairs
K. Ainger, Director - Licensing
R. Hovey, Operations Vice President
J. Skolds, Chief Operating Officer
R. Helfrich, Senior Counsel, Nuclear
DCD - Licensing
T. J. Tulon, Site Vice President
G. Barnes, Quad Cities Station Manager
W. Beck, Regulatory Affairs Manager
W. Leach, Manager - Nuclear
Vice President - Law and Regulatory Affairs
Mid American Energy Company
M. Aguilar, Assistant Attorney General
Illinois Department of Nuclear Safety
State Liaison Officer, State of Illinois
State Liaison Officer, State of Iowa
Chairman, Illinois Commerce Commission
R. Armitage, Training Department

ADAMS Distribution:

AJM
DFT
SNB
RidsNrrDipmlipb
GEG
HBC
KKB
C. Ariano (hard copy)
DRPIII
DRSIII
PLB1
JRK1
D. C. Trimble, NRR:DIPM:IOLB
M. Bies (concurrence copy)

Exelon Generation Company, LLC
Quad Cities Nuclear Power Station
22710 206th Avenue North
Cordova, IL 61242-9740

www.exeloncorp.com

SVP-02-084

October 15, 2002

Regional Administrator
Region III
U.S. Nuclear Regulatory Commission
801 Warrenville Road
Lisle, IL 60532-4351

Quad Cities Station, Units 1 and 2
Facility Operating License Nos. DPR-29 and DPR-30
NRC Docket Nos. 50-254 and 50-265

Subject: Submittal of Integrated Initial License Training Examination

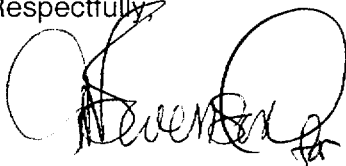
Enclosed is the Initial License Examination scheduled for the weeks of December 2, 2002, through December 13, 2002, at Quad Cities Station.

This submittal includes all appropriate Examination Standard forms, outlines, and materials in accordance with NUREG-1021, "Operator Licensing Examination Standards", Revision 8, Supplement 1.

In accordance with NUREG 1021, Revision 8, Supplement 1, Section ES-201, "Initial Operator Licensing Examination Process", please ensure that these materials are withheld from public disclosure until after the examinations are complete.

Should you have any questions concerning this letter, please contact Mr. W. J. Beck, Regulatory Assurance Manager, at (309)-227-2800. For questions concerning the examination, please contact Ken Moreland at (309) 227-4030.

Respectfully,



Timothy J. Tulon
Site Vice President
Quad Cities Nuclear Power Station

OCT 15 2002

Enclosures: (Hand delivered to Hironori Peterson, Chief Examiner, NRC Region III)

Examination Security Agreements (Form ES-201-3)
Administrative Walk-Through Job Performance Measures Sample Plan (Form ES-301-1)
Control Room Systems and Facility Walk-Through Test Outline (Form ES-301-2)
SRO Written Exam Sample Plan (Forms ES-401-1 and ES-401-5)
RO Written Exam Sample Plan (Forms ES-401-2 and ES-401-5)
Record of Rejected KA's (Form ES-401-10)
Operational Scenarios Sample Plan (Form ES-D-1)
RO/SRO Composite Examination with references attached
RO/SRO Control Room Systems and Facility Walk-Through Job Performance Measures with references attached
RO/SRO Administrative Topic Job Performances Measures with references attached
Integrated Plant Operation Scenario Guides
Completed Checklist:
 Operating Test Quality Checklist (Form ES-301-3)
 Simulator Scenario Quality Checklist (Form ES-301-4)
 Transient and Event Checklist (Form ES-301-5)
 Competencies Checklist (Form ES-301-6)
 Written Exam Quality Checklist (Form ES-401-7)

cc: (without attachments)
Chief, NRC Operator Licensing Branch
NRC Senior Resident Inspector – Quad Cities Station

October 15, 2002
U.S. Nuclear Regulatory Commission
Page 3

bcc: (without attachments)
NRC Project Manager – NRR
Manager of Energy Practice – Winston and Strawn
Manager, Licensing, Dresden and Quad Cities Stations
Exelon Document Control Desk Licensing (Hard Copy)
Exelon Document Control Desk Licensing (Electronic Copy) *
NRC Coordinator – Quad Cities Nuclear Power Station
Training Director – Quad Cities Nuclear Power Station
INPO Records Center
SVP Letter File

Exelon Generation Company, LLC
Quad Cities Nuclear Power Station
22710 206th Avenue North
Cordova, IL 61242-9740

www.exeloncorp.com

Nuclear

December 20, 2002

SVP-02-109

Regional Administrator, Region III
U.S. Nuclear Regulatory Commission
801 Warrenville Road
Lisle, IL 60532-4351

Quad Cities Generating Station, Units 1 and 2
Facility Operating License Nos. DPR-29 and DPR-30
NRC Docket Nos. 50-254 and 50-265

Subject: Initial License Training NRC Written Examinations

On December 12, 2002, Initial License Training (ILT) NRC written examinations were administered to seven (7) Senior Reactor Operator (SRO) candidates and four (4) Reactor Operator (RO) candidates at Quad Cities Nuclear Power Station. Review of the administered examinations by the Station's Training Department has identified comments on one (1) question which are detailed in the Attachment to this letter. The information presented in the Attachment is consistent with guidance provided in NUREG 1021 (Revision 8), ES-402, Section E. The Station requests review of the comments, and consideration be given to the recommended disposition for these items.

The attachments required by ES-501, Section A are also attached with the exception of:

1. The applicants original answer sheet and a copy, and the examination cover sheet.
 2. The master examination and the answer keys.
 3. Questions asked by and answers given to the applicants during the written examination.
- These were given to the lead examiner prior to leaving on December 12, 2002.

Should you have any questions concerning this letter, please contact Mr. W. J. Beck at (309) 227-2800.

Respectfully,



Timothy J. Tulon
Site Vice President
Quad Cities Nuclear Power Station

Attachments: Examination Comments and Supporting Material
Exam Analysis and applicant comments
Form ES-403-1, Written Examination Grading Quality Checklist
Written Examination seating chart
ES-201-3, Security Agreement (Partial)

cc: NRC Senior Resident Inspector – Quad Cities Generating Station
Hironori Peterson – Region III

DEC 27 2002

EXAMINATION COMMENTS

Examination Question Number: RO exam, question # 79

Question:

Unit 2 has experienced an ATWS.

Reactor power is ~ 20%.

The Unit Supervisor has directed SBLC injection into the RPV.

2A SBLC pump is electrically OOS.

The NSO has positioned the SBLC initiation switch to the SYS 1 & 2 position.

What is the expected response and what should be done per the Hard Card if the expected response does not occur?

Answer: b. On both the master exam and the RO only exam

One squib valve should fire.

Place the initiation switch to the SYS 2 & 1 position.

Reference: QCOP 1100-02, Rev. 8, LIC-1100, Rev. 7, pg. 14, Mods & LL 2002-02, pg. 1 & 2
KA # 211000 A2.08 4.1/4.2

Discussion: This question asks for the expected response when taking the initiation switch to the SYS 1 & 2 position with the 2A SBLC pump breaker OOS. When the class was originally taught SBLC, the squib valves were powered from their respective SBLC pump breaker. In Q2R16, a modification was installed to power the squib valve from a separate breaker other than the 2A SBLC pump breaker. Toward the end of the class, the class was taught all of the mods that had been installed during the time they were in class, so they were presented this information about the SBLC squib valve power supply being separate from the 2A SBLC pump breaker.

Recommendation: Based on the above information, change the correct answer to

d. On the master exam

c. On the RO only exam

Both squib valves should fire

Place the initiation switch to the SYS 2 & 1 position.

C. Power Supplies

1. SBLC Pump "A" is powered from MCC 18-1A(28-1A).
2. SBLC Pump "B" is powered from MCC 19-1(29-1).
3. Each injection valve and monitoring circuit is powered from its respective 480/120V AC breaker control power transformer. The 1(2)-1106A valve receives its power from the "A" pump breaker control power MCC 18-1A (28-1A) while the 1(2)-1106B valve receives its power from the "B" pump breaker control power MCC 19-1 (29-1). This means that if the "A" pump was Out-of-Service, the 1(2)-1106A would never fire and the continuity light should be extinguished. The same would hold true for the "B" pump and valve.

SR-1100-K17****SR-1100-K23**

I. MODIFICATIONS

- A. EC 335593, Reconfigure 2A SBLC Pump Motor Control Circuit.
[TR 02-175]

This Design Change Package was completed in Q2R16. It reconfigured the 120 VAC control circuit associated with the 2A SBLC pump motor. Control power for interposing relay (designated as CR), the local indicating lights, and the local start switch contacts were switched from MCC 28-1A cub E3. to cub E1 (formerly a spare cubicle.) Also, relay 2-1102A-HMA has been completely disconnected from the control circuit. This relay did not perform any required function in the control circuit.

While performing QCTS 0340-01 STANDBY LIQUID CONTROL SYSTEM OUTAGE SURVEILLANCE in Q2R16, the 2A SBLC pump tripped when the system was initiated from the Control Room. Troubleshooting determined an apparent cause of this pump trip. The control circuit relay (CR) experienced reduced voltage levels and de-energized. A normally open contact off this CR relay is in series with the Main (M) contactor coil for the motor. Once the CR relay de-energized, the M coil dropped out, stopping the pump motor. A high impedance ground on the SQUIB circuit is the apparent cause of the reduced voltage present in the control circuit.

The purpose of this emergent modification is to remove the CR relay, local start switch contact, and the local indicating lights from the same CPT that feeds the SQUIB valve circuit. A separate power supply from another CPT in a spare cubicle at the same MCC will be connected to supply power to the relay and indicating lights. This change will ensure that the motor will start and continue to run even if a high impedance fault occurs on the SQUIB control circuit following the firing of the SQUIB valves.

C/O notes in Passport have been added to alert C/O writers & approvers to highlight the fact that 2A SBLC pump is now different from 1A, 1B and 2B.

TIME293 PASSPORT TEXT BY TOPIC 03/22/82 18:44

Owner Key : 96085263-0886 From Panel : TIME30
Description : 2A SBLC PUMP STARTER CONTROL POWER Update Basis : ECHOTES 0050
Topic : E/O NOTES Scroll topics with notes F

Last updated By : JSCMR
Last updated Date : 02/26/82
Text Status : LOCKED

This breaker provides control power for the 2A SBLC pump, however the pump and associate squibs are powered by cubicle E3.

INJECTION OF STANDBY LIQUID CONTROL

A. PURPOSE

The purpose of this procedure is to provide the steps necessary to inject the Standby Liquid Control (SLC) System into the Reactor.

B. DISCUSSION

- B.1. The QGA Procedure will direct the injection of a specific percentage of the Storage Tank and then direct securing the SLC pumps. **IF** a LOCA is in progress, **THEN NOT** all Sodium Pentaborate injected will remain in the Reactor and the injection of SLC should continue until the SLC tank reaches 0%.
- B.2. The attachment to this procedure can be prepared and used as a Hard Card in accordance with CWPI-NSP-OP-1-5.

C. PREREQUISITES

- C.1. SLC system in standby lineup per QCOP 1100-01. _____
- C.2. Shift Manager or the Unit Supervisor has determined that SLC injection is required **OR** SLC injection is required in accordance with procedures **OR** SAMG. _____
- C.3. **IF** the Reactor cavity is flooded, **THEN** direct installation of the Fuel Pool to Canal Gate to prevent diffusion of Boron concentration to fuel pool volume. _____

D. PRECAUTIONS

- D.1. Do **NOT** allow SLC Storage Tank level to decrease below 0% to prevent damage to SLC pumps.
- D.2. The Reactor Water Cleanup System will be isolated upon initiation of the SLC pumps.

F.2. (cont'd)

- d. LI 1(2)-1140-2, TANK LEVEL is decreasing. _____
 - e. PI 1(2)-1140-1, PMP DISCH PRESS reads
≥ Reactor pressure. _____
 - f. Annunciator H-6, STANDBY LIQ SQUIB VALVE
CIRCUIT FAIL is ON. _____
 - g. Neutron flux level decreasing. _____
- F.3. **IF** indications do **NOT** show system injection,
THEN place keylock switch A AND B PUMP SELECT
to the position opposite the one initially
selected, either SYS 1 & 2 **OR** SYS 2 & 1 **AND**
verify injection indications in above step. _____
- F.4. **IF** reactor recirculation pumps have been
tripped per QGA procedure, **THEN leave**
recirculation pumps off. _____
- F.5. **IF** reactor recirculation pumps can be operated,
THEN operate at least one recirculation pump to
provide better mixing. _____
- F.6. **IF** a LOCA is in progress, **THEN** the injection of
SLC should continue until the SLC tank
reaches 0%. _____
- F.7. **IF** a LOCA is **NOT** in progress, **THEN continue** SLC
injection until otherwise directed by the QGA
procedures. _____
- F.8. **WHEN** SLC injection is complete, **THEN:**
- a. **Place** keylock switch A AND B PUMP SELECT
to OFF. _____
 - b. **Return** SLC system to standby per
QCOP 1100-01. _____

G. ATTACHMENTS

- G.1. Attachment A: Standby Liquid Control.

ATTACHMENT A (Page 1 of 1)

STANDBY LIQUID CONTROL

1. **Inject** SLC by selecting either SYS 1 & 2 **OR** SYS 2 & 1 with keylock switch A **AND** B PUMP SELECT.
2. **Verify** the following for indication of SLC system injection.
 - a. SQUIB A **AND** SQUIB B continuity lights are OFF.
 - b. FLOW light is ON.
 - c. RWCU System isolates.
 - d. LI 1(2)-1140-2, TANK LEVEL is decreasing.
 - e. PI 1(2)-1140-1, PMP DISCH PRESS \geq Reactor pressure.
 - f. Annunciator H-6, STANDBY LIQ SQUIB VALVE CIRCUIT FAIL is ON.
 - g. Neutron flux level decreasing.

Refer to QCOP 1100-02.

13-Dec-02

Training Request

TR# 02 - 685	Group: <input type="radio"/> SubGroup: NONE	Station: Quad Cities
--------------	---------------------------------------------	----------------------

EC 336481 and EC 337721	TSD Item: Yes
EC 335593	TAC Issue: No
	SRC Issue: Yes

Request:

incorporate these changes into the system lesson plans

Action Plan:

I will incorporate the changes, being made by these modifications into my system lesson plans.

Final Actions:

TR Requested By	Prepared By/Date	Cog Person/Due	Action Assigned/Due	Action Approval
Jensen, Mark W.	Jensen, Mark W.	Jensen, Mark W.	Jensen, Mark W.	08/20/2002
Requester Notified	08/05/2002	09/04/2002	06/30/2003	Closure Date
No				

Commitment:	Priority:
No	3

EXAMINATION ANSWER KEY

2002 Quad Cities NRC Exam

79

ID: Q #79 RO

Points: 1.00

Unit 2 has experienced an ATWS.

Reactor power is ~ 20%.

The Unit Supervisor has directed SBLC injection into the RPV.

2A SBLC pump is electrically OOS.

The NSO has positioned the SBLC initiation switch to the SYS 1 & 2 position.

What is the expected response and what should be done per the Hard Card if the expected response does NOT occur?

- A. One squib valve should fire;
Place the initiation switch to the SYS 1 position.
- B. One squib valve should fire;
Place the initiation switch to the SYS 2 & 1 position.
- C. Both squib valves should fire;
Place the initiation switch to the SYS 2 position.
- D. Both squib valves should fire;
Place the initiation switch to the SYS 2 & 1 position.

Answer: B

Question 79 Details

Question Type:	Multiple Choice
Topic:	Question #79 (RO) SR-1100-K26
System ID:	
User ID:	Q #79 RO
Status:	Active
Must Appear:	No
Difficulty:	2.00
Time to Complete:	0
Point Value:	1.00
Cross Reference:	QCOP 1100-02, R. 8
User Text:	211000A2.08
User Number 1:	4.10
User Number 2:	4.20
Comment:	76958 Modified question. High Order Answer is correct due to only the B squib firing due to the 2A SBLC pump being OOS. QCOP 1100-08, R. 9 (NRC exam review. Added info to the stem placing 2A SBLC pump OOS. The squib valves are powered from the pump breakers, so only 1 squib would fire. If the expected response does not happen, still required to take the switch to SYS 2 and 1.)

EXAMINATION

2002 NRC RO Exam

79

ID: Q #79 RO

Points: 1.00

Unit 2 has experienced an ATWS.

Reactor power is ~ 20%.

The Unit Supervisor has directed SBLC injection into the RPV.

2A SBLC pump is electrically OOS.

The NSO has positioned the SBLC initiation switch to the SYS 1 & 2 position.

What is the expected response and what should be done per the Hard Card if the expected response does NOT occur?

- A. Both squib valves should fire;
Place the initiation switch to the SYS 2 position.
- B. One squib valve should fire;
Place the initiation switch to the SYS 2 & 1 position.
- C. Both squib valves should fire;
Place the initiation switch to the SYS 2 & 1 position.
- D. One squib valve should fire;
Place the initiation switch to the SYS 1 position.

Exelon Generation Company, LLC
Quad Cities Nuclear Power Station
22710 206th Avenue North
Cordova, IL 61242-9740
www.exeloncorp.com

January 16, 2003

SVP-03-005

Regional Administrator, Region III
U.S. Nuclear Regulatory Commission
801 Warrenville Road
Lisle, IL 60532-4351

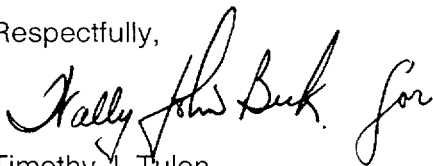
Quad Cities Nuclear Power Station, Units 1 and 2
Facility Operating License Nos. DPR-29 and DPR-30
NRC Docket Nos. 50-254 and 50-265

Subject: Initial License Training NRC Written Examinations

On December 12, 2002, Initial License Training (ILT) NRC written examinations were administered to seven (7) Senior Reactor Operator (SRO) candidates and four (4) Reactor Operator (RO) candidates at Quad Cities Nuclear Power Station. On December 20, 2002, a package was sent to complete the requirements of ES-501. The package included ES-201-3, Examination Security Agreement, which was partially completed at that point. This letter is for submittal of the completed Examination Security Agreement and the chart recorders as requested by the chief examiner.

Should you have any questions concerning this letter, please contact Mr. W. J. Beck at (309) 227-2800.

Respectfully,



Timothy J. Tulon
Site Vice President
Quad Cities Nuclear Power Station

Attachments: Examination Security Agreement ES-201-3
Chart Recorders

cc: NRC Senior Resident Inspector – Quad Cities Nuclear Power Station
David Hills – Region III
Hironori Peterson – Region III

JAN 22 2003