DCS

Docket No. 50-219

FEB 7 1994

Mr. John J. Barton
Vice President and Director
GPU Nuclear Corporation
Oyster Creek Nuclear Generating Station
P.O. Box 388
Forked River, New Jersey 08731

Dear Mr. Barton:

SUBJECT: INSPECTION REPORT NO. 50-219/93-17

This refers to your December 13, 1993, correspondence, in response to our September 15, 1993, letter. We have reviewed this matter in accordance with NRC Inspection Manual Procedure 92701.

Thank you for informing us of the corrective and preventive actions documented in your letter regarding the weakness in development of simulator scenarios for requalification examinations. We find these actions acceptable pending verification during a future inspection of your licensed program. Also, thank you for submitting your final Biennial Exam Report. It was thorough and quite informative.

We appreciate your cooperation.

Sincerely,

Coloinal Signed .....

RICHARD J. CONTE

Richard J. Conte, Chief BWR Section Division of Reactor Safety

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cc:

M. Laggart, Manager, Corporate Licensing
G. Busch, Manager, Site Licensing, Oyster Creek
Public Document Room (PDR)
Local Public Document Room (LPDR)
Nuclear Safety Information Center (NSIC)
K. Abraham, PAO (2) (w/copy of letter dtd December 13, 1993)
NRC Resident Inspector
State of New Jersey (w/copy of letter dtd December 13, 1993)

bcc:

Region I Docket Room (with concurrences)
J. Rogge, DRP
DRS File

bcc (VIA E-MAIL):

V. McCree, OEDO
J. Stolz, NRR/PD 1-4
A. Dromerick, NRR/PD 1-4
M. Shannon, NRR/ILPB

# (VIA E-MAIL AND NO ATTACHMENTS):

R. Cente, DRS T. Walker, DRS

RI:DRS
Walker/dmg

RI:DRS Conte 02/5/94

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GPU Nuclear Corporation
Post Office Box 388
Route 9 South
Forked River, New Jersey 08731-0388
609 971-4000
Writer's Direct Dial Number:

C321-93-2361 December 13, 1993

U.S. Nuclear Regulatory Commission Attn: Document Control Desk Washington, DC 20555

Dear Sir:

Subject:

Oyster Creek Nuclear Generating Station

Docket No. 50-219

Response to Operator Requalification Examination

Report 93-17

As requested, enclosed is a description of our approach to programmatically address the simulator scenario weaknesses identified in section 3.2 of your inspection report dated September 15, 1993.

Also being provided as discussed with your staff are three ES-601-1 Examination Security Agreement forms. Additionally, we have enclosed our finalized Biennial Exam Report.

If you should have any questions or require further information, please contact Brenda DeMerchant, OC Licensing Engineer at (609) 971-4642.

Very truly yours

John J. Bayton Vice President & Director

Oyster Creek

JJB/BDEM: jc

Administrator, Region 1 Senior NRC Resident Inspector

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# RESPONSE TO DYNAMIC SIMULATOR SCENARIO DEFICIENCY

The Oyster Creek Dynamic Simulator Exam Bank will be revised to meet the intent of NUREG 1021 ES-604 quantitative and qualitative guidelines prior to the biennial requalification examination to be administered in 1995. Also, any dynamic simulator examination scenarios used during the 1994 annual operating examination will be revised to meet the intent of NUREG 1021.

Included in the process of revision will be enhancing the scenario description and scenario objectives, clarifying scenario end points and critical tasks, and adding additions malfunctions. The addition of malfunctions will enhance prioritization of actions especially while exercising the Technical Specifications, abnormal procedures and EOPs. A checklist for simulator scenario development has been generated to ensure that all of the above actions are completed. This checklist has been included as attachment 1.

# Attachment 1

#### OYSTER CREEK SIMULATOR SCENARIO REVIEW CHECKLIST

FORMAT		
APPROXIMATION	1.	General Description accurately describes scenario
	2.	Setup information contained entirely in body of scenario
***********	3.	Multiple console instructor actions listed in bullet form
	4.	Plant parameter cues listed in appropriate operator actions
***************	5.	Critical tasks contain measurable performance standards
*************	6.	Scenario objectives are specific to scenario
QUANTI	TAT	IVE ATTRIBUTES
-MORREST AND ADDRESS OF	1.	Total malfunctions (4-8)
-	2.	Malfunctions that occur after EOP entry (1-4)
	з.	Abnormal Events (1-2)
-	4.	Major Transients (1-2)
-	5.	EOPs used beyond primary scram response EOP (1-3)
-	6.	EOP contingency procedures used (0-3)
	7.	Approximate scenario run time (45-60 minutes)*
	8.	EOP run time (40-70% of scenario)*
***************************************	9.	Critical tasks (2-5)
***************************************	10.	Technical Specifications used
QUALIT	ATI	VE ATTRIBUTE
-	1.	Scenario contains at least one event that requires prioritization of operator actions
· indi	car	es that this item will be checked during simulator

validation

#### 1. Preexamination

I acknowledge that I have acquired specialized knowledge about the requalification examination scheduled for the week(s) indicated in this agreement as of the date of my signature and agree that I will not knowingly divulge any information about this examination to any unauthorized persons. I understand that I am not to participate in any instruction involving those licensees scheduled to be administered this requalification examination from this date until completion of examination administration. I further understand that violation of the conditions of this agreement may result in cancellation of the examination and/or an enforcement action against me or the facility licensee by whom I am employed or whom I represent.

#### 2. Post-examination

I did not, to the best of my knowledge, divulge any information concerning the examination(s) administered during the week(s) indicated to any unauthorized persons. I did not participate in instructing those licensees who were administered this requalification examination(s) from the date that I entered into this security agreement until the completion of examination administration.

Examination Per	riod 8/9/199.	3_ t	to 8	13/1993	
Printed Name	Pre-examination Certification (1)			Post-examination Certification (2)	
John J. Sims CLINTON SILVERS OHIM H. HEVENS & Grey Years J. D. KOWALSKI P. F. Seallon S.M. STURIL D. SIMPHILL D. SIMPHILL D. A. SHAPPER JAY VALLAGE GARL SOENTING PLENT DICST RETE DOSTE	The State of the s	Date Date Date Date Date Date Date Date	7-23-93	Stan Sulle Stan	Date 9-29-98 Date 9-29-98 Date 4-11-13 Date a/20/43 Date 11/30/43 Date 11/30/43 Date 11/30/43 Date 11-15-93 Date 9-15-93 Date 9-15-93 Date 9/27/53

#### 1. Preexamination

I acknowledge that I have acquired specialized knowledge about the revalification examination scheduled for the week(s) indicated in this agreement as of the date of my signature and agree that I will not knowingly divulge any information about this examination to any unauthorized persons. I understand that I am not to participate in any instruction involving those licensees scheduled to be administered this requalification examination from this date until completion of examination administration. I further understand that violation of the conditions of this agreement may result in cancellation of the examination and/or an enforcement action against me or the facility licensee by whom I am employed or whom I represent.

# 2. Post-examination

I did not, to the best of my knowledge, divulge any information concerning the examination(s) administered during the week(s) indicated to any unauthorized persons. I did not participate in instructing those licensees who were administered this requalification examination(s) from the date that I entered into this security agreement until the completion of examination administration.

Examination Peri	od 8/9/1993	to	8/13/1993	
Printed Name	Pre-examination Certification (1)		Post-examination Certification (2)	
DEN BRITTLER  & SLAVET  & SELENBLY  STEDLENBLY  STEDLENBLY  STEDLENBLY  DOS NOTICE  HERSON & VIROLINE  BLEND DELLE  SLEPEN DELLE  SLEPEN DELLE  JAMES E PRANK	All Sand	Date 7-23-9 Date 7-23-9 Date 7-23-9 Date 7/23/9 Date 7/23/9 Date 7/23/9 Date 7/23/9 Date 7-26-9 Date 7-26-9 Date 7-26-9 Date 8-10-9 Date 8-10-9 7/8:30	off sik where properly to a	Date 10-13-43 Date 11-13-15-3 Date 11-13-15-3 Date 10-13-43 Date 11-13-15 Date 11-13-15 Date 11-23-13 Date 11-23-93

#### 1. Preexamination

I acknowledge that I have acquired specialized knowledge about the requalification examination scheduled for the week(s) indicated in this agreement as of the date of my signature and agree that I will not knowingly divulge any information about this examination to any unauthorized persons. I understand that I am not to participate in any instruction involving those licensees scheduled to be administered this requalification examination from this date until completion of examination administration. I further understand that violation of the conditions of this agreement may result in carcellation of the examination and/or an enforcement action against me or the facility licensee by whom I am employed or whom I represent.

#### 2. Post-examination

I did not, to the best of my knowledge, divulge any information concerning the examination(s) administered during the week(s) indicated to any unauthorized persons. I did not participate in instructing those licensees who were administered this regualification examination(s) from the date that I entered into this security agreement until the completion of examination administration.

Examination Period	8/9/1993	to	8/13/1993	
	Pre-examination Certifigation (1)		Post-examination Certification (2)	
Dependent Depend	Ship was	Date 8/0/93 Date 8/1/93 Date 8/1/93 Date 8/1/93 Date 8/1/93 Date 8/1/93	De la	Date 10-25-93 Date 10-25-93 Date 10-25-93 Date 10-25-93 Date 10-25-93 Date 10-12-5 Date 10-12-5 Date 10-12-5 Date 11-12-93

# GPU NUCLEAR OYSTER CREEK OPERATIONS TRAINING FINAL BIENNIAL EXAM REPORT

Examination Dates.	August 10 through September 1	0, 1993
Examination Team:	NRC EXAM TEAM	GPUN EXAM TEAM
	T. Walker - Lead Examiner A. Burritt C. Tyner	J. Sims - Lead Examiner B. Havens C. Silvers S. Sowell H. Tritt G. Young
Submitted:	G. P. Young, Requal Program	11/16/93 Coordinator
Reviewed:	H. G. Tritt, Lead Instructor	11/16/52
Reviewed:	N. L. Boulware, Lead Instructor	1/12/83 or
Approved:	She Cayper 8. W. Cropper, Operations Tra	11/18/93 aining Manager
Concurred:	D. Kowalski, Manager Plant	11/24/9.3 Training
Concurred:	P. F. Scallon, Manager Plant C	11/30/93

#### **EXAMINATION SUMMARY**

Biennial examinations were administered under the cognizance of the NRC to seven Reactor Operators and seven Senior Reactor Operators during the week of August 9, 1993. These operators were divided into three crews; two operating crews and one staff crew. The examinations were graded concurrently by the NRC and GPUN. All three crews performed satisfactorily during the simulator examination and no individual crew member required remediation. All fourteen operators passed both the JPM walkthroughs and the written examination. Oyster Creek's licensed operator requalification program was determined by the NRC and GPUN to be satisfactory based on the criteria established in E.S. 601 of NUREG 1021, revision 7.

Biennial examinations were administered by GPUN to sixteen Reactor Operators, nineteen Senior Reactor Operators and seventeen SRO Certs from August 16, 1993 to September 10, 1993. There were eight crews; four licensed operating crews, one licensed staff crew and three certified staff crews. Seven crews performed satisfactorily during the simulator examination and no individual crew member required remediation. One certified staff crew failed the simulator examination and was successfully remediated on November 12, 1993. Fifty-one operators/certs passed both the JPM walkthroughs and the written examination. One Reactor Operator failed the written exam and then successfully passed a second written exam on September 7, 1993.

#### INTRODUCTION

On June 21, 1993, all the Biennial Requalification Exam reference materials, including the sample plan, were delivered to the NRC Regional Office.

On July 8, 1993, the test outline and the proposed exam were sent to the NRC Regional Office.

On July 26, 1993, an exam entrance meeting was conducted by the NRC at Oyster Creek. Criteria for a satisfactory licensed operator requalification program was established (2 of the 3 crews and 75% of the individuals must pass the exam). The NRC exam team met with the GPUN exam team to validate the written, JPM and Dynamic Simulator exam materials. The validation was completed on July 27.

On August 2, 1993, the revised exam was sent to the NRC Regional Office. On August 5, six test questions and one JPM were revised as requested by the NRC.

On August 10, 1993, the written exam was administered to fourteen participants. On August 10 and 11, the dynamic simulator exams were conducted for three crews. On August 12, the JPMs were administered to fourteen participants.

On August 13, 1993, an exam exit meeting was conducted by the NRC at Oyster Creek.

#### NRC EXAM TEAM

# T. Walker - Lead Examiner

A. Burritt

C. Tyner

#### GPUN EXAM TEAM

J. Sims - Lead Examiner

B. Havens

C. Silvers

S. Sowell

H. Tritt

G. Young

From August 16 to September 10, 1993, biennial examinations were administered by GPUN to fifty-two oper nors/certs (eight crews).

#### EXAM PREPARATION

The following items were noted about GPUN's exam preparation process:

- Good detailed Sample Plan and Test Outline. Could be made more selfexplanatory.
- Good cooperation and coordination with NRC exam team.

The following items were noted and incorporated into the administered exam as discovered by the NRC/GPUN exam preparation process:

- JPM Standards were improved by adding detail to the actions required by the operator.
- Dynamic Simulator Scenario difficulty was increased by placing ABN required actions at the beginning of the scenario and adding more malfunctions during the scenario.
- Written test items were revised to orient questions more toward required operator actions.
- All support information for each written test item was reviewed in detail to provide all required links to references, tasks, objectives and lesson plans.

# **EXAM RESULTS**

# NRC MONITORED RESULTS

Facility: Oyster Creek	Overall Results	Total	Passed		Failed	
Eyam Dates: 08/10/93		#	#	%	#	%
08/12/93	ROs	7	7	100	0	0
NRC Examiners:	SROs	9	9	100	0	0
T. Walker	TOTAL	16	16	100	0	0
A. Burritt						
C. Tyner	CREWS	3	3	100	0	0

#### OYSTER CREEK MONITORED RESULTS

Facility: Oyster Creek		Overall Results	Total	Passed		Failed	
Exam Dates:	08/09/93		#	#	%	#	%
	to 09/10/93	ROs	23	22	96	11	4
		SROs	26	26	100	0	0
		CERTS	17	17	100	0	0
		TOTAL	66	65	98	1	2
		CREWS	1.1	10	91	31	9

NOTES:

A Reactor Operator failed the written exam, took it again on 09/07/93 and passed it

<sup>2</sup>A Staff crew failed the simulator portion, took it again on 11/12/93 and passed it.

#### GENERIC STRENGTHS

- EOP Support Procedures
- During Dynamic Simulator Transients; Anticipation of plant response was timely and well communicated to the crew.
- Effective cooperation between the NRC and GPUN exam teams contributed to a very smooth overall process. Good all-around biennial examination. Good performance by operating and staff crews.

#### AREAS FOR IMPROVEMENT

- Knowledge of normal plant operating procedures for filling the Torus.
- Alarm recognition and panel awareness
- Complete three-point communication
- Consistent self-checking
- Prioritization decisions when in multiple EOP legs
- Re-evaluate need for Support Procedure 30, Confirmation of Primary Containment Isolation.
- Determining EOP actions based on Secondary Containment parameters
- Understanding of what constitutes a Primary system
- How a rod block is caused or cleared
- Procedure usage for Control Room HVAC
- JPM techniques were rusty for both evaluators and operators.
- Ensure the conditions are the same in the Simulator and the Control Room (key placement).
- Dynamic Simulator; Floor Evaluators must cover back panels to observe all operator actions.

# AREAS FOR IMPROVEMENT (Cont.)

- Simulator Fidelity; Performed well, however, the noise level was a concern (after the Biennial exam was completed, carpet was installed on the simulator floor)
- Written Exam; Minor revisions, used some substitute questions. Orient questions to solicit required operator actions
- JPMs; Minor changes in performance standards, substituted some JPMs to better evaluate tasks
- Dynamic Scenarios; Bank did not meet guidelines in standard, Prioritization of actions were simplistic, short on malfunctions after EOP entry, short on Technical Specifications exercised

#### GENERIC WEAKNESSES

- Proper prioritization of the steps in Support Procedure 21, Alternate Insertion of Control Rods
- RAPs not always referenced
- Timely positive pressure control with the EMRVs was not consistent
- Knowledge of which RPV level instruments were usable
- Knowledge of effect of 125 VDC loss on 4160V/460V breakers
- Effect of pump switch position on auto-initiated Core Spray
- Interpretation of Tech Specs based on O.O.S equipment
- Knowledge of modification to Containment Spray logic
- Knowledge of when CRD pump interlocks are in effect