December 12, 2002

Mr. John T. Conway
Site Vice President
Nine Mile Point Nuclear Station, LLC
P.O. Box 63
Lycoming, NY 13093

SUBJECT: NINE MILE POINT UNIT 1 OPERATOR AND SENIOR REACTOR OPERATOR INITIAL EXAMINATION REPORT NO. 50-220/02-302

Dear Mr. Conway:

This report transmits the results of the reactor operator (RO) and senior reactor operator (SRO) licensing examination conducted by the NRC during the period of September 30 to October 7, 2002. This examination addressed areas important to public health and safety and was developed and administered using the guidelines of the "Examination Standards for Power Reactors" (NUREG-1021, Revision 8, Supplement 1).

Based on the results of the examination, four of the five SRO and one of four RO applicants passed all portions of the examination. One SRO applicant and three RO applicants failed the written portion of the examination. The nine applicants included five instant SROs and four ROs. Mr. J. Caruso discussed performance insights observed during the examination with Mr. M. Navin on October 3, 2002. On November 18, 2002, final examination results, including individual license numbers, were given during a telephone call between Mr. J. Caruso and Mr. R. Thurow.

Please note from the enclosed report that 5% of the RO exam answer key changed due to post exam comments. In accordance with section C.2.c of the Examination Standard (ES) 501, the NRC is requesting that Constellation Energy Group provide a written response within 60 days to explain why these post exam changes were necessary and what actions will be taken to improve future license exams.

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). These records include the final examination and are available in ADAMS ({RO and SRO} Written - Accession Number ML023240459; {RO and SRO} Operating Section A - Accession Number ML023240485; {RO and SRO} Operating Section B - Accession Number ML023240491; and {RO and SRO} Operating Section C - Accession Number ML023240525; also, Licensee Post Written Examination Comments (Attachment 2) Accession ML023240550. ADAMS is accessible from the NRC Web site at http://www.nrc.gov/reading-rm/ADAMS.html (the Public Electronic Reading Room).

Should you have any questions regarding this examination, please contact me at (610) 337-5183, or by E-mail at RJC@NRC.GOV.

Sincerely,

/RA/

Richard J. Conte, Chief
Operational Safety Branch
Division of Reactor Safety

Docket No(s). 50-220
License No. NPF-69

Enclosure: Initial Examination Report No. 50-220/02-302

cc w/encl:
M. J. Wallace, President, Nine Mile Point Nuclear Station, LLC
L. Pisano, Manager - Nuclear Training
G. Wilson, Esquire
M. Wetterhahn, Esquire, Winston and Strawn
J. M. Petro, Jr., Esquire, Counsel, Constellation Power Source, Inc.
J. Rettberg, New York State Electric and Gas Corporation
P. D. Eddy, Electric Division, NYS Department of Public Service
C. Donaldson, Esquire, Assistant Attorney General, New York Department of Law
J. V. Vinquist, MATS, Inc.
W. M. Flynn, President, New York State Energy Research and Development Authority
J. Spath, Program Director, New York State Energy Research and Development Authority
Supervisor, Town of Scriba
C. Adrienne Rhodes, Chairman and Executive Director, State Consumer Protection Board
T. Judson, Central NY Citizens Awareness Network

Distribution w/encl: **(VIA E-MAIL)**
Region I Docket Room (with concurrences)
G. Hunegs, SRI - NRC Resident Inspector
H. Miller, RA
J. Wiggins, DRA
M. Evans, DRP
H. Nieh, RI EDO Coordinator
S. Richards, NRR (ridsnrrdlpmlpdi)
P. Tam, PM, NRR
D. Skay, PM, NRR (Backup)
N. Perry, DRP
P. Torres, DRP
R. Junod, DRP
T. Byron, INPO (ByronTR@Inpo.org)
W. Lanning, DRS
R. Crlenjak, DRS
R. Conte, DRS
J. Caruso, Chief Examiner, DRS
C. Buracker, DRS (Master Exam File)
DRS OL Facility File
DRS File

DOCUMENT NAME: C:\ORPCheckout\FileNET\ML023460494.wpd
ADAMS PACKAGE: ML021400073
After declaring this document "An Official Agency Record" it **will** be released to the Public.
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	RI/DRS		RI/DRS		RI/DRP		RI/DRS			
NAME	CBuracker		JCaruso		MEvans		RJConte			
DATE	11/22/02		11/22/02		11/25/02		12/12/02			

OFFICIAL RECORD COPY

U. S. NUCLEAR REGULATORY COMMISSION

REGION I

Docket No(s):	50-220
License No:	DPR-63
Report No:	50-220/02-302
Licensee:	Constellation Nuclear
Facility:	Nine Mile Point Unit 1
Dates:	October 7, 2002 (Written Examination Administration) September 30 - October 3, 2002 (Operating Test Administration) October 7 - November 1, 2002 (Examination Grading)
Examiners:	J. Caruso, Senior Operations Engineer (Chief Examiner) D. Muller, Senior Operations Engineer P. Peterson, Senior Operations Engineer G. Johnson, Operations Engineer (under instruction)
Approved by:	Richard J. Conte, Chief Operational Safety Branch Division of Reactor Safety

SUMMARY OF FINDINGS

IR 05000220/02-302; September 30 - October 7, 2002; Nine Mile Point Unit 1; Initial Operator Licensing Examination. There were a total of nine applicants (4 ROs, and 5 SRO instants) who took the initial licensing examination. Five of the nine applicants passed all portions of the examination.

The written examinations were administered by the facility and the operating tests were administered by two NRC region-based examiners and one NRC program office examiner.

A. Inspector Identified Findings

No findings of significance were identified.

B. License Identified Findings

No findings of significance were identified.

Report Details

1. REACTOR SAFETY

Mitigating Systems - Reactor Operator (RO) and Senior Reactor Operator (SRO) Initial License Examination

a. Scope of Review

The Nine Mile Point Unit 1 training and operations personnel developed the written and operating initial examinations and together with the NRC examination team verified or ensured, as applicable, the following:

- The examination was prepared and developed in accordance with the guidelines of Revision 8, Supplement 1 of NUREG-1021, "Operator Licensing Examination Standards for Power Reactors." A review was conducted both in the Region I office and at the Nine Mile Point Unit 1 plant and training facility. Final resolution of comments and incorporation of test revisions were conducted during and following the onsite preparation week.

- Simulation facility operation was proper.

- A test item analysis was completed on the written examination for feedback into the systems approach to training program.

- Examination security requirements were met.

The NRC examiners administered the operating portion of the examination to all applicants from September 30 - October 3, 2002. The written examination was administered by the Nine Mile Point Unit 1 training staff on October 7, 2002.

b. Findings

Grading and Results

There were a total of nine applicants (4 reactor operators, and 5 SRO instants) who took the initial licensing examination. Five of the nine applicants passed all portions of the examination.

There were five post-written examination comments that were submitted by the licensee and one of these comments (i.e., regarding common question RO 015/SRO 054) was later amended by the licensee (Attachment 2). The NRC's resolution of these comments is addressed in Attachment 3.

The NRC staff review of post exam comments resulted in deleting or changing the answers to 5% of the questions on the RO written exam and 2% of the questions on the SRO written exam. In accordance with NUREG-1021,Section ES-501, paragraph C.2.c., if the facility licensee recommends deleting or changing the answers to 5 percent or more of the questions on a written exam that it developed, the regional office should request that the facility licensee address the problem.

Examination Preparation and Quality

The submitted examination was within the acceptable range. However, as explained in the preceding section the number of post exam comments is reflective of the exam submittal quality and adequacy of technical exam review conducted which was primarily the licensee's responsibility.

Examination Administration and Performance

An apparent generic applicant weakness was identified during the NRC's administration Simulator Operating Test, Scenario #1, "APRM failure/Recirc Pump seal failure/LOCA with degraded core spray systems". Five of six applicants when questioned demonstrated a lack of knowledge concerning the HPCI logic (interlock). In addition, the licensee initiated DER-NM-2002-4256, on October 1, 2002 to further evaluate the adequacy of procedure EOP-2.

4OA6 Exit Meeting Summary

On November 18, 2002, the NRC provided conclusions and examination results to a Nine Mile Point Unit 1 management representative via telephone. License numbers for four of nine applicants were also provided during this time. The issuance of one license will be delayed in accordance with NUREG-1021, Section ES-501, paragraph D.3.c, because the individual passed the written examination with a grade of 81 percent or below, until those applicants who failed the examination have had an opportunity to appeal their license denials. Four applicants passed the operating portions but failed the written portion of the initial licensing examination and therefore were denied licenses at this time.

The NRC expressed appreciation for the cooperation and assistance that was provided during the preparation and administration of the examination by the licensee's training staff.

KEY POINTS OF CONTACT

LICENSEE

G. Bobka	Senior Instructor, Operator Training
R. Thurow	Manager, Operator Training

NRC

J. Caruso	Senior Operations Engineer
D. Muller	Senior Operations Engineer
P. Peterson	Senior Operations Engineer
G. Johnson	Operations Engineer (under instruction)

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

ITEM NUMBER	TYPE	DESCRIPTION

NONE

ATTACHMENT 2

LICENSEE COMMENTS

ATTACHMENT 3

NRC RESOLUTION OF LICENSEE COMMENTS

Question: RO 015

Comment: The question asks the effect of flow reduction on the APRM margins to rod blocks and scrams following a malfunction resulting in a lowering speed on all five running Recirculation Pumps given that operator action has been taken to stop the lowering flow and operation remains outside the Restricted Zone on the Power to Flow Map. The question is recommended for deletion since none of the 4 choices correctly answers the question, in its entirety; i.e., how the margins behave during the flow reduction, and how they behave after the flow reduction. All 3 of choices B, C, and D can correctly answer the first part of the question (i.e., the margin response during the flow reduction). This occurred because the question failed to identify the initial flow (or rod line), the flow value at which the transient stopped and did not frame the question stem within a time-line.

NRC Resolution: Recommendation accepted. The question is deleted due to no correct answer. The intended answer assumed regardless of where the recirculation flow reduction stops, power will then slowly rise as the reduced feedwater inlet temperature contributes positive reactivity via the Negative Temperature Coefficient as a result "…margins will become even less." However, if one were to continue to observe the Power to Flow Map relationship for some additional amount of time after the flow transient, power would eventually turn. That is, power would at least stop rising and even begin lowering again (if post-transient Xenon's negative reactivity is sufficient to overcompensate for the feedwater inlet temperature's positive reactivity addition).

Question: RO 090

Comment: The question asks the response of the 13 FW FCV indication during the RPV level transient given that 13 FW FCV is in BAL, RPV level is 73 inches and stable, and then power is reduced from 10% (100% to 90%). The question is recommended for deletion since none of the 4 choices correctly answers the question, in its entirety, since the correct answer should have been "Deviation meter swings to the right and remains there."

NRC Resolution: Recommendation accepted. The question is deleted due to no correct answer. The intended answer assumed the GEMAC controller would null out (balance). However, as the steam flow demand lowers so, too, does feed flow demand and because the GEMAC controller is not capable of automatically changing its internal 'manual' mode signal to remain 'matched' (in size) with the automatic signal coming from the Mater Level Controller (MLC), the DEVIATION meter begins to swing to the right of center. After the flow/level transient, FCV 13 will remain in its new position (more closed than before) as determined by the smaller automatic signal size from the MLC. However, until the operator physically adjusts the GEMAC controller knob to, again, null out ('balance') the two signals, the DEVIATION meter indication will remain to the right of center.

Question: RO 052, SRO 054

Comment: The question assumes a loss of Instrument Air to the CAM and H_2-O_2 Monitors has occurred and asks the response of the sample stream isolation valves, and the required alternate method for monitoring the primary containment atmosphere. The question is recommended for deletion since a lack of stem focus resulted in there being no correct answer to this question. The use of the label 'sample stream isolation valves' in the stem and in the heading for the left-column portion of the choices is inappropriate. No such valves, by this name, exist in either the CAM or H2-02 Analyzer systems; nor does Table 6.1 of N1-SOP-6 allude to any valves by this name. Additionally, an applicant could argue that any one of 3 groups of system-related valves could be interpreted as 'sample stream isolation valves.'

NRC Resolution: Recommendation of licensee's amended submittal (Amendment 1 dated November 1, 2002) accepted. The question is deleted due to no correct answer. The question stem lacked focus, ignored the influence of the System 12 H2-O2 monitoring isolation valves (DC-operated) on the set of answer choices, and used incorrect valve designations. Consequently, none of the 4 choices can be defended as the only correct answer.

Question: RO 059, SRO 062

Comment: The question asks about the response of the FCV 13 valve and the response of its position indication on the "F" Panel assuming a fuse blows in the FCV 13 control circuit (loss of control signal). The Constellation Energy Group recommends acceptance of an additional answer - the valve fails as is and the position indication fails upscale. The recommendation was made based on an argument that references drawing # C-23077-C, Sheet 4 and concludes if the applicant assumed fuse FU-16 was blown then the intended answer would be correct. However, if the applicant assumed fuse FU-18 was blown then the affect would be for the valve to again fail as is but the position indication would fail upscale making a second choice also correct.

NRC Resolution: Recommendation not accepted. As written this was a closed book question with no reference provided. In follow-up conversations with a Constellation Energy Group, it was determined that the applicants were expected to understand the general design and operation of this circuit upon a loss of control signal. However, detailed knowledge of the referenced drawing (# C-23077-C, Sheet 4) from memory was not required. The stem should have been properly focused to avoid applicant confusion. The reliance on detailed circuit knowledge from memory makes this question excessively difficult and therefore this question is deleted.

Question: RO 054

Comment: The question asks what the status of the Reactor Water Cleanup System (RWCU) and Reactor Sample Return lVs (63-04 and 63-05) would be without power to Battery Board 11, with Liquid Poison initiated and with RPV water level intentionally lowered to -41 inches. The Constellation Energy Group recommends acceptance of choice A as the correct answer rather than choice B as originally designated in the answer key. Each air-operated valve (63-04 and 63-05) is equipped with two DC solenoids per valve. One solenoid is powered from Battery Board (BB) 11 and the second solenoid is powered from BB 12. Energizing either solenoid allows air to be supplied to the actuator and the valve to be open. De-energizing both solenoids will block and vent air from the actuator, closing the sample return isolation valve.

NRC Resolution: Recommendation accepted. Change the answer key to reflect choice A as the only correct answer. From the conditions stated in the question stem, BB 11 is de-energized resulting in one of the two solenoids being positioned to block and vent. When RPV water level is lowered below 5 inches to -41 inches, as stated in the question stem, Vessel Isolation Channel 12 Logic will actuate to de-energize the remaining solenoid. Air will be vented from the actuator resulting in 63-04 and 63-05 valve closure as indicated in answer choice A. The answer and justification stated in the key, incorrectly identified choice B as the correct answer.