



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION I  
475 ALLENDALE ROAD  
KING OF PRUSSIA, PA 19406-1415

September 27, 2010

Mr. Joseph E. Pollock  
Site Vice President  
Entergy Nuclear Operations, Inc.  
Indian Point Energy Center  
450 Broadway, GSB  
P.O. Box 249  
Buchanan, NY 10511-0249

SUBJECT: INDIAN POINT NUCLEAR GENERATING STATION, UNIT 2 - NRC  
EXAMINATION REPORT 05000247/2010301

Dear Mr. Pollock:

On July 22, 2010, the U.S. Nuclear Regulatory Commission (NRC) completed an initial operator licensing examination at Indian Point Nuclear Generating Station, Unit 2. The enclosed report documents the examination findings, which were discussed on September 2, 2010, with Mr. Steve Davis of your staff.

The examination included the evaluation of five applicants for reactor operator licenses and four applicants for senior reactor operator licenses. The written and operating examinations were developed using NUREG-1021, "Operator Licensing Examination Standards for Power Reactors," Revision 9, Supplement 1. The license examiners determined that eight of the nine applicants satisfied the requirements of 10 CFR Part 55, and the appropriate licenses were issued on September 2, 2010. In addition, two of the four applicants for instant senior operator licenses passed their exams but their licenses are being held as explained in paragraph D.3.c of Examination Standard (ES) 501 in NUREG-1021 until the one reactor operator applicant who failed the examination has had an opportunity to appeal his license denial.

No findings of significance were identified during this examination.

In accordance with 10 CFR 2.390 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/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,

A handwritten signature in black ink, appearing to read "Samuel L. Hansell", is written over a horizontal line.

Samuel L. Hansell, Chief  
Operations Branch  
Division of Reactor Safety

Docket No: 50-247  
License No: DPR-26

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Sincerely,

/RA/

Samuel L. Hansell, Chief  
Operations Branch  
Division of Reactor Safety

Docket No: 50-247  
License No: DPR-26

SUNSI Review Complete: SLH (Reviewer's Initials)

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OFFICE	RI/DRS/OB	RI/DRS/OB						
NAME	JCaruso	SHansell						
DATE	09/24/10	09/21/10						

OFFICIAL RECORD COPY

J. Pollock

2

Enclosure: NRC Examination Report 05000247/2010301  
w/Attachment: Supplemental Information

cc w/encl:  
Distribution via ListServ

Distribution w/encl: (via E-mail)

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DRS Master Exam File (C. Bixler) (w/concurrences)

DRS File

U.S. NUCLEAR REGULATORY COMMISSION

REGION I

Docket No.: 50-247

License No.: DPR-26

Report No.: 05000247/2010301

Licensee: Entergy Nuclear Northeast (Entergy)

Facility: Indian Point Nuclear Generating Station, Unit 2

Location: 450 Broadway, GSB  
Buchanan, NY 10511-0249

Dates: July 12-15, 2010 (Operating Test Administration)  
July 22, 2010 (Written Examination Administration)  
August 17, 2010 (Licensee Submitted Post Exam Package)  
July 16 - September 2, 2010 (NRC Examination Grading)  
September 2, 2010 (Licenses Issued)

Examiners: J. Caruso, Chief Examiner, Operations Branch  
D. Silk, Senior Operations Engineer  
J. Tomlinson, Operations Engineer

Approved by: Samuel L. Hansell, Chief  
Operations Branch  
Division of Reactor Safety

## SUMMARY OF FINDINGS

ER 05000247/2010301; July 12 - 22, 2010; Indian Point Nuclear Generating Unit 2; Initial Operator Licensing Examination Report. The license examiners determined that eight of the nine applicants satisfied the requirements of 10 CFR Part 55, and the appropriate licenses were issued on September 2, 2010. In addition, two of the four applicants for instant senior operator licenses passed their exams but their licenses are being held as explained in paragraph D.3.c of Examination Standard (ES) 501 in NUREG-1021 until the one Reactor Operator applicant who failed the examination has had an opportunity to appeal his license denial.

NRC examiners evaluated the competency of five applicants for reactor operator licenses and four applicants for senior reactor operator licenses at Indian Point Nuclear Generating Station, Unit 2. The facility licensee developed the examinations using NUREG-1021, "Operator Licensing Examination Standards for Power Reactors," Revision 9, Supplement 1. The written examination was administered by the facility on July 22, 2010. NRC examiners administered the operating tests on July 12 – 15, 2010. No findings were identified.

A. NRC-Identified and Self-Revealing Findings

None.

B. Licensee-Identified Violations

None.

## REPORT DETAILS

### 1. REACTOR SAFETY

Cornerstone: Mitigating Systems – Reactor Operator (RO) and Senior Reactor Operator (SRO) Initial License Examination

#### .1 License Applications

##### a. Scope

The examiners reviewed all nine license applications submitted by the licensee to ensure the applications reflected that each applicant satisfied relevant license eligibility requirements. The applications were submitted on NRC Form 398, "Personal Qualification Statement," and NRC Form 396, "Certification of Medical Examination by Facility Licensee." The examiners also audited six of the license applications in detail to confirm that they accurately reflected the subject applicant's qualifications. This audit focused on the applicant's experience and on-the-job training, including control manipulations that provided significant reactivity changes.

##### b. Findings

No findings of significance were identified.

#### .2 Operator Knowledge and Performance

##### a. Examination Scope

On July 22, 2010, the licensee proctored the administration of the written examinations to all nine applicants. The licensee staff graded the written examinations in parallel with the NRC, analyzed the results, and presented their analysis to the NRC on August 17, 2010.

The NRC examination team administered the various portions of the operating examination to all nine applicants July 12 – 15, 2010. The five applicants for reactor operator licenses participated in two to three dynamic simulator scenarios, in a control room and facilities walkthrough test consisting of 11 system tasks, and an administrative test consisting of four administrative tasks. The four applicants seeking an instant senior operator license participated in two to three dynamic simulator scenarios, a control room and facilities walkthrough test consisting of ten system tasks, and an administrative test consisting of five administrative tasks.

b. Findings

All nine applicants passed all parts of the operating test. One reactor operator applicant failed the written examination. For the written examinations, the reactor operator applicants' average score was 82.39 percent and ranged from 74.66 to 85.33 percent, the senior operator applicants' average score was 85.00 percent and ranged from 80.00 to 92.00 percent. The overall written examination average was 83.55 percent. The text of the examination questions, the licensee's examination analysis, and the licensee's post-examination comments may be accessed in the ADAMS system under the accession numbers noted in the attachment. The licensee submitted three post written examination comments (i.e., for questions 28, 35, and 86) for consideration in the final NRC grading of the written examination. In summary, the NRC concluded: 1) Question 28 both "B" and "C" are correct answers to this question and choices "A" and "D" remain incorrect; 2) Question 35 the key answer "B" is correct and all other choices are incorrect; and 3) Question 86 both "B" and "C" are correct answers to this question and choices "A" and "D" remain incorrect.

Chapter ES-403 and Form ES-403-1 of NUREG 1021 require the licensee to analyze the validity of any written examination questions that were missed by half or more of the applicants. The licensee conducted this performance analysis for ten questions that met these criteria and submitted the analysis to the chief examiner. This analysis concluded that seven of the ten questions were valid as written.

.3 Initial Licensing Examination Development

a. Examination Scope

The facility licensee developed the examinations in accordance with NUREG-1021, Revision 9, Supplement 1. All licensee facility training and operations staff involved in examination preparation, validation, and administration were listed on a security agreement. The facility licensee submitted both the written and operating examination outlines on April 12, 2010, to the NRC to review for applicability. The chief examiner reviewed the outlines against the requirements of NUREG-1021, Revision 9, Supplement 1, and provided comments to the licensee. The facility licensee submitted the draft examination package on May 13, 2010. The chief examiner reviewed the draft examination package against the requirements of NUREG-1021, Revision 9, Supplement 1, and provided comments to the licensee on the examination on May 28, 2010. The NRC conducted an onsite validation of the operating examinations and provided further comments during the week of June 14, 2010. The licensee satisfactorily completed comment resolution on July 6, 2010, for the operating test and on July 9, 2010, for the written examination.

b. Findings

The NRC approved the initial examination outline and advised the licensee to proceed with the operating examination development.

The examiners determined that the written and operating examinations initially submitted by the licensee were within the range of acceptability expected for a proposed examination.



No findings of significance were identified.

.4 Simulation Facility Performance

a. Examination Scope

The examiners observed simulator performance with regard to plant fidelity during the examination validation and administration.

b. Findings

No findings of significance were identified.

.5 Examination Security

a. Examination Scope

The examiners reviewed examination security efforts for the examination during both the onsite preparation week and examination administration week for compliance with NUREG-1021 requirements. Plans for simulator security and applicant control were reviewed and discussed with licensee personnel.

b. Findings

A potential compromise occurred for the Reactor Operator (RO) and Senior Reactor Operator (SRO) "draft" administrative Job Performance Measures (JPMs) topics during examination development. The potential compromise occurred when a member of the licensee's examination development team transmitted the RO and SRO "draft" administrative JPM Outlines over the internet in a non-password protected email. Replacement administrative JPM topics were selected and replacement JPMs were developed in order to ensure a valid examination.

4OA6 Meetings, Including Exit

The chief examiner presented preliminary examination observations to Mr. J. Ferrick, Training Manager, and other members of the licensee's management staff on July 15, 2010. Final examination comments, examination results, and license numbers were provided by a telephone exit with Mr. S. Davis, Training Superintendent, on September 2, 2010. License numbers were provided for six of the eight applicants who passed all portions of the examination. Two applicants passed the written portion of the examination with scores less than 82 percent. These applicants will have their licenses held for review until the one individual who failed the written portion of the examination has had an opportunity to appeal his proposed denial (as explained in NUREG-1021, "Operator Licensing Examination Standards for Power Reactors", Revision 9, paragraph D.3.c of Examination Standard ES-501).

The licensee did not identify any information or materials used during the examination as proprietary.

ATTACHMENT: SUPPLEMENTAL INFORMATION

Enclosure

**ATTACHMENT**  
**SUPPLEMENTAL INFORMATION**  
**KEY POINTS OF CONTACT**

Licensee Personnel

J. Ferrick, Training Manager  
S. Davis, Training Superintendent  
T. Jenkins, Training Instructor  
C. Kocsis, Training Instructor

NRC Personnel

J. Caruso, Chief Examiner  
D. Silk, Senior Operations Engineer  
J. Tomlinson, Operations Engineer

**ITEMS OPENED, CLOSED, AND DISCUSSED**

Opened/Closed/Discussed

NONE

**ADAMS DOCUMENTS REFERENCED**

Accession No. ML102640579 – FINAL-Written Exam  
Accession No. ML102640597 – FINAL-Operating Exam (Sections A, B, and C)  
Accession No. ML102640438 – FINAL-Post Exam Comments