



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**

REGION III
2443 WARRENVILLE ROAD, SUITE 210
LISLE, IL 60532-4352

November 12, 2009

Mr. Christopher R. Costanzo
Vice President
Duane Arnold Energy Center
3277 DAEC Road
Palo, IA 52324-9785

SUBJECT: DUANE ARNOLD ENERGY CENTER
NRC INITIAL LICENSE EXAMINATION REPORT 05000331/2009301(DRS)

Dear Mr. Costanzo:

On October 7, 2009, U. S. Nuclear Regulatory Commission (NRC) examiners completed initial operator licensing examinations at the Duane Arnold Energy Center. The enclosed report documents the results of the examination. An exit meeting was conducted by telephone on October 7, 2009, between Mr. Ron Minear and other members of your staff, and Mr. David Reeser, Operations Engineer, to review the proposed final grading of the written examination for the license applicants and to acknowledge that the facility had no post examination comments that would alter the grading of the examination.

The NRC examiners administered an initial license examination operating test during the week of September 21, 2009. The written examination was administered by Duane Arnold Energy Center training department personnel on September 29, 2009. Six Senior Reactor Operator applicants and one Reactor Operator applicant were administered license examinations. One of the Senior Reactor Operator applicants was a previously licensed Reactor Operator at the Duane Arnold Energy Center. The results of the examinations were finalized on October 28, 2009. All applicants passed all sections of their respective examinations and six were issued senior operator licenses and one was issued an operator license.

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), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

C. Costanzo

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

Sincerely,

/RA/

Hironori Peterson, Chief
Operations Branch
Division of Reactor Safety

Docket Nos. 50-331
License No. DPR-49

Enclosures: 1. Operator Licensing Examination Report 05000331/2009301(DRS)
w/Attachment: Supplemental Information
2. Simulation Facility Report
3. Written Examinations and Answer Keys (RO/SRO)

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U. S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket No: 50-331

License No: DPR-49

Report No: 05000331/2009301(DRS)

Licensee: FPL Energy Duane Arnold, LLC

Facility: Duane Arnold Energy Center

Location: Palo, IA

Dates: September 21 through October 7, 2009

Examiners: David Reeser, Operations Engineer – Chief Examiner
Nicholas Valos, Senior Operations Engineer – Examiner
Carl Moore, Operations Engineer – Examiner

Approved by: Hironori Peterson, Chief
Operations Branch
Division of Reactor Safety

Enclosure

SUMMARY OF FINDINGS

ER 05000331/2009301(DRS); 09/21/2009 – 10/07/2009; Duane Arnold Energy Center.
Initial License Examination Report.

The announced initial operator licensing examination was conducted by regional U. S. Nuclear Regulatory Commission examiners in accordance with the guidance of NUREG-1021, "Operator Licensing Examination Standards for Power Reactors," Revision 9, Supplement 1.

Examination Summary:

- Seven of seven applicants passed all sections of their respective examinations. Six applicants were issued senior operator licenses and one applicant was issued an operator license. (Section 4OA5.1).

REPORT DETAILS

4. OTHER ACTIVITIES (OA)

4OA5 Other

.1 Initial Licensing Examinations

a. Examination Scope

The NRC examiners conducted an announced operator licensing initial examination during the weeks of September 21, 2009 and September 28, 2009. The NRC examiners and members of the facility licensee's training staff used the guidance prescribed in NUREG-1021, "Operator Licensing Examination Standards for Power Reactors," Revision 9, Supplement 1, to develop, validate, administer, and grade the written examination and operating test. Members of the facility licensee's staff prepared the outline and developed the written examination and operating test. The NRC examiners validated the proposed examination during the week of August 24, 2009, with the assistance of members of the facility licensee's staff. During the on-site validation week, the examiners audited two license applications for accuracy. The NRC examiners administered the operating test, consisting of job performance measures and dynamic simulator scenarios, during the week of September 24, 2009. The facility licensee administered the written examination on September 29, 2009.

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.

All changes made to the submitted examination, were made in accordance with NUREG-1021, "Operator Licensing Examination Standards for Power Reactors," and documented on Form ES-401-9, "Written Examination Review Worksheet."

The licensee submitted no post-examination comments to be considered by the NRC examiners during the review and approval of the final grading of the written examination. The NRC examiners completed the final grading of the written examination on October 9, 2009, and conducted a review of each missed question to determine the accuracy and validity of the examination questions.

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. All changes made to the submitted examination, were made and documented in accordance with NUREG-1021, "Operator Licensing Examination Standards for Power Reactors." Changes were documented in a document titled, "Operating Test Comments." The NRC examiners completed the operating test grading on October 23, 2009.

Examination Results

Six applicants at the Senior Reactor Operator (SRO) level and one applicant at the Reactor Operator (RO) level were administered written and operating tests. One of the SRO applicants was previously licensed as a RO at the facility. All applicants passed all sections of their examinations resulting in the issuance of six SRO and one RO licenses.

.2 Examination Security

a. Scope

The NRC examiners briefed the facility contact on the NRC's requirements and guidelines related to examination physical security (e.g., access restrictions and simulator considerations) and integrity in accordance with 10 CFR 55.49, "Integrity of Examinations and Tests," and NUREG-1021, "Operator Licensing Examination Standard for Power Reactors." The examiners reviewed and observed the facility licensee's implementation and controls of examination security and integrity measures (e.g., security agreements) throughout the examination process.

b. Findings

The chief examiner was notified of three separate potential exam security issues which were determined to not have compromised the examination. The first event occurred very early in the examination development process and involved discovery of a computer terminal within the simulator envelop that was found displaying data that was related to development of an examination scenario. Access for this terminal is normally controlled for exam security. This event occurred early in the exam development phase such that the potentially compromised material was replaced or significantly modified with minimal impact on the exam material.

The second event, occurred when a licensed operator, who was on the examination security list and had knowledge of the license examination, was asked to review a periodic examination to be administered to the applicants as part of their training program. Per the facility licensee's administrative procedures and NUREG-1021, personnel who have detailed knowledge of any portion of the NRC licensing examination are prohibited from preparing, reviewing, grading, and evaluating periodic quizzes, examinations, and simulator exercises. The licensed operator was stopped by another individual, who was on the security agreement, before he had a chance to view any portion of the periodic examination.

The third event, occurred during a late night shift turnover between two Shift Managers; the on-coming shift manager was on the examination security agreement, but the off-going shift manager was not. During the shift turnover, a discussion of the license class performance came up and discussion about a specific question on a recent periodic examination occurred. Another individual in the room, who was on examination security, stopped the discussion before there was any compromise of the examination and pointed out that the off-going shift manager needed to be placed on the examination security agreement.

The off-going shift manager was placed on the examination security agreement the following day after verifying that he had not had any related discussions with anyone between the time that he was relieved and the time that he signed the examination security agreement.

All three of the above events were entered into the facility licensee's corrective action program and actions were initiated to prevent reoccurrence.

40A6 Meetings

Debrief

The chief examiner presented the examination team's preliminary observations and findings on September 25, 2009, to Mr. C. Dieckmann and other members of the Duane Arnold Energy Center Operations and Training Department staff.

Exit Meeting

The chief examiner conducted an exit meeting, by telephone, on October 7, 2009, with Mr. Ron Minear, Duane Arnold Energy Center Training Manager, and other members of Duane Arnold Energy Center staff. The NRC acknowledged that the facility had no post examination comments that would alter the final grading of the written examination and preliminary written examination results were confirmed. The examiners asked the licensee whether any of the material used to develop or administer the examination should be considered proprietary. No proprietary or sensitive information was identified during the examination or debrief/exit meetings.

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee

R. Minear, Training Manager
C. Dieckmann, Operations Manager
T. Lewis, ILT Supervisor
S. Vick, ILT Instructor
B. Murrell, Regulatory Affairs

NRC

D. Reeser, Operations Engineer – Chief Examiner
C. Moore, Operations Engineer – Examiner
N. Valos, Senior Operations Engineer – Examiner

ITEMS OPENED, CLOSED, AND DISCUSSED

Opened, Closed, and Discussed

None

LIST OF ACRONYMS USED

ADAMS	Agency-Wide Document Access and Management System
DRS	Division of Reactor Safety
NRC	U. S. Nuclear Regulatory Commission
RO	Reactor Operator
SRO	Senior Reactor Operator

SIMULATION FACILITY REPORT

Facility Licensee: Duane Arnold Energy Center

Facility Docket No: 50-331

Operating Tests Administered: Week of September 21, 2009

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
1	During administration of an Administrative JPM in the simulator, a process computer point used during the JPM failed to update. Verbal cues were used to provide the correct information until the problem was resolved. The cause for the problem was traced to the manner in which the simulator was shutdown for the previous weekend and subsequently started back up on Monday morning. This resulted in invalid PPC data being stored the simulator's temporary circular data files until the invalid data was all purged as new data was stored in the data files. The administration of the exam was minimally impacted and the facility licensee initiated corrective action to prevent reoccurrence (Simulator Work Order SWO 774 and Condition Report CAP 069884).
2	During administration of the Administrative and Simulator JPMs several alarm lights were illuminated and would not extinguish. This condition had no impact on the administration of this portion of the examination and the cause of the condition was identified and corrected before the administration of the dynamic scenarios on the following day (SWO 773).

WRITTEN EXAMINATIONS AND ANSWER KEYS (RO/SRO)

RO/SRO Initial Examination ADAMS Accession # ML093100548

C. Costanzo

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Sincerely,

/RA/

Hironori Peterson, Chief
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