UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
SAM NUNN ATLANTA FEDERAL CENTER
61 FORSYTH STREET, SW, SUITE 23T85
ATLANTA, GEORGIA 30303-8931

July 3, 2008

Mr. Bruce H. Hamilton
Vice President
Duke Power Company, LLC d/b/a Duke Energy Carolinas, LLC
McGuire Nuclear Station
12700 Hagers Ferry Road
Huntersville, NC 28078-8985

SUBJECT: MCGUIRE NUCLEAR PLANT- NRC EXAMINATION REPORT 05000369/2008301 AND 05000370/2008301

Dear Mr. Hamilton:

During the period May 12 - 21, 2008, the Nuclear Regulatory Commission (NRC) administered operating tests to employees of your company who had applied for licenses to operate the McGuire Nuclear Plant Units 1 and 2. At the conclusion of the tests, the examiners discussed the tests and preliminary findings with those members of your staff identified in the enclosed report. The written examination was administered by your staff on May 23, 2008.

Nine Senior Reactor Operator (SRO) and three Reactor Operator (RO) applicants passed both the written examination and operating test. There were four post examination comments. The NRC resolutions to these comments are summarized in Enclosure 2.

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). Should you have any questions concerning this letter, please contact me at (404) 562-4550.

Sincerely,

/RA/

Malcolm T. Widmann, Chief
Operations Branch
Division of Reactor Safety

Docket Nos.: 50-369, 50-370
License Nos.: NPF-9, NPF-17

Enclosures: 1. Report Details
2. NRC Resolution to the Facility Comments

cc: See Page 2

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* See previous concurrence

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cc w/encl:
Bruce Hamilton
Vice President
McGuire Nuclear Station
Duke Power Company, LLC d/b/a Duke
Energy Carolinas, LLC
Electronic Mail Distribution

Steven D. Capps
Engineering Manager
Duke Power Company, LLC d/b/a Duke
Energy Carolinas, LLC
Electronic Mail Distribution

Scotty L. Bradshaw
Training Manager
Duke Power Company, LLC d/b/a Duke
Energy Carolinas, LLC
Electronic Mail Distribution

Kenneth L. Ashe
Regulatory Compliance Manager
Duke Power Company, LLC d/b/a Duke
Energy Carolinas, LLC
Electronic Mail Distribution

R. L. Gill, Jr.
Manager
Nuclear Regulatory Issues & Industry Affairs
Duke Power Company, LLC d/b/a Duke
Energy Carolinas, LLC
Electronic Mail Distribution

Lisa F. Vaughn
Associate General Counsel
Duke Energy Corporation
526 South Church Street-EC07H
Charlotte, NC 28202

Kathryn B. Nolan
Senior Counsel
Duke Energy Corporation
526 South Church Street-EC07H
Charlotte, NC 28202

David A. Repka
Winston Strawn LLP
Electronic Mail Distribution

County Manager of Mecklenburg County
720 East Fourth Street
Charlotte, NC 28202

Beverly O. Hall
Chief, Radiation Protection Section
Department of Environmental Health
N.C. Department of Environment and
Natural Resources
Electronic Mail Distribution

Dhiaa M. Jamil
Group Executive and Chief Nuclear Officer
Duke Energy Carolinas, LLC
Electronic Mail Distribution

Senior Resident Inspector
Duke Energy Corporation
William B. McGuire Nuclear Station
U.S. NRC
12700 Hagers Ferry Rd
Huntersville, NC 28078

Duke Energy Corporation
ATTN: Mr. Scotty L. Bradshaw
Training Manager
McGuire Nuclear Station
Maintenance Training Facility
Courier Mail Code MG03MT
12700 Hagers Ferry Road
Huntersville, NC 28078-8985

Letter to Bruce H. Hamilton from Malcolm T. Widmann dated July 3, 2008

SUBJECT: MCGUIRE NUCLEAR PLANT- NRC EXAMINATION REPORT 05000369/2008301 AND 05000370/2008301

Distribution w/encl:
RIDSNRRDIRS
PUBLIC
J. Stang, NRR (PM: CAT, MCG)

NRC Resident Inspector
U.S. Nuclear Regulatory Commission
12700 Hagers Ferry Rd.
Huntersville, NC 28078

U. S. NUCLEAR REGULATORY COMMISSION

REGION II

Docket Nos.:	50-369, 50-370
License Nos.:	NPF-9, NPF-17
Report No.:	05000369/2008301 and 05000370/2008301
Licensee:	Duke power Company (DPC)
Facility:	McGuire Nuclear Plant, Units 1 & 2
Location:	12700 Hagers Ferry Rd. Huntersville, NC 28078
Dates:	Operating Tests - May 12 - 21, 2008 Written Examination - May 23, 2008
Examiners:	R. Aiello, Chief, Senior Operations Engineer R. Baldwin, Senior Operations Engineer S. Rose, Senior Reactor Inspector R. Monk, Senior Resident Inspector
Approved by:	Malcolm T. Widmann, Chief Operations Branch Division of Reactor Safety

SUMMARY OF FINDINGS

ER 05000369/2008301 and 05000370/2008301; 05/12-21/08 & 05/23/08; McGuire Nuclear Plant, Units 1& 2, Licensed Operator Examinations.

The NRC examiners conducted operator licensing initial examinations in accordance with the guidance in NUREG-1021, "Operator Licensing Examination Standards for Power Reactors," Revision 9, Supplement 1. This examination implemented the operator licensing requirements of 10 CFR §55.41, §55.43, and §55.45.

The NRC administered the operating tests during the period of May 12 - 21, 2008. Members of the McGuire training staff administered the written examination on May 23, 2008. The written examination and the operating test was developed by the McGuire Training Department.

Nine Senior Reactor Operator (SRO) and three Reactor Operator (RO) applicants passed both the written examination and operating test. There were four post examination comments. The NRC resolutions to these comments are summarized in Enclosure 2.

No findings of significance were identified.

Report Details

4. OTHER ACTIVITIES

4OA5 Operator Licensing Initial Examinations

a. Inspection Scope

The facility developed both the operating test and the written examination in accordance with NUREG-1021,"Operator Licensing Examination Standards for Power Reactors," Revision 9, Supplement 1. The NRC reviewed the proposed written examination and operating test. Examination changes agreed upon between the NRC and the licensee were made according to NUREG-1021 and incorporated into the final version of the test materials.

The examiners reviewed the licensee's examination and test security measures while preparing and administering the examinations and tests to ensure examination and test security and integrity complied with 10 CFR 55.49, "Integrity of examinations and tests."

The examiners evaluated three RO and nine SRO applicants who were being assessed under the guidelines specified in NUREG-1021. The examiners administered the operating tests during the period of May 12 - 21, 2008. The written examination was administered by the McGuire training staff on May 23, 2008. The evaluations of the applicants and review of documentation were performed to determine if the applicants, who applied for licenses to operate the McGuire Nuclear Plant, met requirements specified in 10 CFR 55, "Operators' Licenses."

b. Findings

No findings of significance were identified.

The licensee and the NRC reviewed the final version of the written examination and operating test, and indicated that these exams were within the range of acceptability expected for the proposed examination and test, respectively. Nine Senior Reactor Operator (SRO) and three Reactor Operator (RO) applicants passed both the written examination and operating test.

The combined RO and SRO written examinations with knowledge and abilities (K/As) question references/answers and examination references may be accessed in the ADAMS system (ADAMS Accession Numbers, ML081770368, ML 081770373, ML081770443 and ML081770463.)

4OA2 Problem Identification and Resolution

Annual Sample Review

Inspection Scope

The inspectors selected Problem Identification Process (PIP) M-08-03242 and M-08-03260 for a detailed review. PIP M-08-03242 was initiated because AP-14, Rod Control Malfunction, Enclosure 1, Step 3 Response Not Obtained (RNO) needed clarification to ensure consistency of plant direction if a load rejection occurs coincident with a rod control malfunction. PIP M-08-03260 was initiated to document the lessons learned from the 2008 NRC initial examination for Hot License Prep (HLP) class 24. These issues were identified during the NRC examination that was administered during the period of May 12 - 21, 2008. The inspectors checked that these issues had been completely and accurately identified in the licensee's Corrective Action Program (CAP) and that safety concerns were properly classified, prioritized for resolution, and the scope of the apparent cause determinations were sufficient. Corrective actions include a review to determine the impacts on future initial and continuing training classes.

4OA6 Meetings

Exit Meeting Summary

On May 21, 2008, the examination team discussed generic issues with Mr. Bruce Hamilton, Site Vice President, and members of his staff. The examiners asked the licensee whether any materials examined during the examination should be considered proprietary. No proprietary information was identified.

PARTIAL LIST OF PERSONS CONTACTED

Licensee personnel

K. Ashe, Regulatory Compliance Manager
S. Bradshaw, Training Manager
S. Capps, Engineering Manager
K. Crane, Regulatory Compliance
L. Gabbert, Operations Instructor
B. Hamilton, Site Vice president
S. Helms Operations Training Supervisor
F. Kirk, Operations Shift Supervisor
J. Jenkins, Independent Nuclear Oversight Manager
R. Repko, Station Manager
T. Simril, Operations Superintendent
R. Pope, Operations Training manager

NRC personnel

J. Brady, Senior Resident inspector

NRC Resolution to the Facility Comment

A complete text of the licensee's post examination comments can be found in ADAMS under Accession Number ML 081770470 and ML081770473.

RO QUESTION # 53

LICENSEE COMMENT:
In summary, the licensee requested that this question be deleted from the exam due to not having a correct answer. The original post exam comments submitted by the licensee can be viewed in ADAMS under the above referenced ML numbers.

The original correct answer stated that the reactor would first trip due to a turbine trip on a loss of both main feedwater pumps. According to the licensee's post exam analysis, the reactor will not trip due to a turbine trip; rather the reactor will trip due to low steam generator level. The licensee argues that the conditions presented in the stem, namely the loss of station air (VI), would cause the Feedwater Regulating Valves (FRVs) to drift closed. The slow closure of the FRVs would cause an increase in dP across the FRVs, which would cause the feedwater control system to lower the speed of the feedwater pumps. The lowering feedwater pump speed would maintain the FRV dP below the setpoint that would cause a direct feedwater pump trip due to that dP, thus delaying a turbine trip. However, due to the slow closure of the FRVs and the lowering main feedwater pump speed, the reactor would first receive a trip signal due to low steam generator level.

The licensee supplied simulator and actual plant data that supports the reactor receiving a trip signal due to low steam generator level. The licensee contends that all VI failures, except a catastrophic failure of the VI header, would result in a reactor trip signal being generated due to low steam generator level. The licensee contends that the conditions in the stem are not representative of a catastrophic VI header failure.

NRC DISCUSSION:
The NRC reviewed the simulator data and documentation from the actual plant event. The NRC agrees that in all cases, except for a catastrophic VI header failure, the reactor will first receive a trip signal generated due to low steam generator level. Therefore, the original correct answer is NOT a correct answer choice. Since none of the answer choices state that the reactor will first trip due to low steam generator level, there is no correct answer for this question.

NRC RESOLUTION
In accordance with NUREG-1021, ES-403, Section D.1.c, the question was deleted due to not having a correct answer.

SRO QUESTION # 77

LICENSEE COMMENT:
In summary, the licensee requested that this question be graded with two correct answers. The original post exam comments submitted by the licensee can be viewed in ADAMS under the above referenced ML numbers.

The licensee states that the second part of both answer choices "C" and "D" are correct; with the first part of those answer choices being the same. The licensee states that NUREG-1021, Appendix E, instructs the applicants not to make assumptions with respect to operator actions that are not stated in the question. Therefore, the applicant should rightfully not assume that nuclear service water makeup was aligned to the component cooling water (KC) surge tank. With no nuclear service water aligned to the KC surge tank, the level in the tank would continue to drop. The level drop described in the stem is greater than 0.10 ft/min, thereby requiring the operators to isolate the "A" KC train from the "B" KC train in accordance with AP-21, Loss of KC or KC System Leakage, Step 20 (Answer Choice "D"). The KC surge tank level would continue to decrease to 2 ft, which would then meet the Foldout Page requirement which requires isolation of KC non-essential headers in accordance with AP-21, Enclosure 2 (Answer Choice "D").

NRC DISCUSSION:
The NRC agrees that the applicants rightfully were not permitted to assume that nuclear service water makeup was aligned to the KC surge tank in accordance with NUREG-1021, Appendix E guidance. The NRC also agrees that with no nuclear service water makeup aligned to the KC surge tank, the level in the tank would continue to decrease until the criteria for AP-21, Step 20 was met and continue to decrease until the Foldout Page criteria was met. Therefore, the NRC agrees that both answer choices "C" and "D" are correct answers.

NRC RESOLUTION
In accordance with NUREG-1021, ES-403, Section D.1.c, the question was graded with answer choices "C" and "D" as correct answers.

SRO QUESTION # 84

LICENSEE COMMENT:
In summary, the licensee requested that this question be graded with two correct answers. The original post exam comments submitted by the licensee can be viewed in ADAMS under the above referenced ML numbers.

The licensee contends that answer choices "A" and "D" are both correct answers. "A" was the correct choice per the original answer key and "D" was originally thought to be an incorrect response. The licensee contends that "D" provides correct dose limits as stated in their Site Licensing Commitment (SLC); therefore, making "D" an alternate correct answer.

NRC DISCUSSION:
The NRC disagrees with the licensee's assessment of the correct answers. The question specifically asks the applicants to state the requirements of 10CFR50. 10CFR50 does not contain any quarterly limits, such as those stated in the SLC. Therefore, the only correct answer is "D", which states the correct annual dose limits from 10CFR50. Answer choice "A" is an incorrect answer choice because it contains quarterly dose limits.

NRC RESOLUTION
In accordance with NUREG-1021, ES-403, Section D.1.b, the question was graded with "D" being the correct answer and "A" not being a correct answer.

SRO QUESTION # 87

LICENSEE COMMENT:
In summary, the licensee requested that this question be deleted from the exam due to having two correct answers containing conflicting information. The original post exam comments submitted by the licensee can be viewed in ADAMS under the above referenced ML numbers.

The licensee contends that the second part of answer choices "A" and "B" are both correct"; with the first part of those answer choices being identical. The licensee contends that the second part of answer choice "A", the original correct answer, remains correct because Step 8 of FR-Z.1 allows the rest of the procedure to be treated as a Yellow Path when a faulted steam generator exists. Thus, the applicant could consider this to be an early transition out of the procedure. The licensee also contends that the second part of answer choice "B" is correct because the transition out of the procedure as defined in answer choice "A", can be interpreted as a structured exit from the procedure. In this instance, an early transition out of FR-Z.1 would only occur if a higher priority yellow or orange path existed. Therefore, the licensee contends that both "A" and "B" are correct answer choices.

NRC DISCUSSION:
The NRC agrees with the licensee's contention that two answer choices are correct. "Early transition" out of a procedure is not a defined term in the licensee's administrative procedures; therefore, it is left to the applicants to determine what this is intended to mean. The applicant was forced to either assume that an "early transition" out of FR-Z.1 meant that the question was asking for a "non-structured" exit OR that the question was asking for a transition out of the procedure prior to completing all of the applicable steps in that procedure. Depending on the assumption made by the applicant, either answer choice "A" or "B" could be considered a correct answer.

The NRC disagrees with the licensee's contention that the two correct answer choices contain conflicting information. The answer choices are not diametrically opposed, as detailed in the examples in NUREG-1021, ES-403, Section D.1.c. The answer choices contain two different and independent reasons for exiting FR-Z.1; therefore, the question was not deleted.

NRC RESOLUTION
In accordance with NUREG-1021, ES-403, Section D.1.c, the question was graded with answer choices "A" and "B" as correct answers due to the answer choices not containing conflicting information.