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November 19, 2007

U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, D. C. 20555-0001

Subject: Duke Power Company LLC d/b/a Duke Energy Carolinas, LLC
Oconee Nuclear Site, Units 1, 2, and 3
Docket Numbers 50-269, 50-270, and 50-287
Revised License Amendment Request for Removal of Gaseous Radioactivity Monitor
from Technical Specifications (TSC 2006-03 Rev. 1)

On January 4, 2007, Duke Power Company LLC d/b/a Duke Energy Carolinas, LLC (Duke) submitted a license amendment request (LAR) for the Oconee Nuclear Station (ONS) Renewed Facility Operating License (FOL) and Technical Specifications (TS) pursuant to 10 CFR 50.90. That request proposed to remove gaseous radioactivity monitoring from the Technical Specifications as an acceptable option for reactor coolant leakage detection.

On October 9, 2007, NRC notified ONS that NRR technical reviewers for this submittal are not in agreement with wording in the TS bases describing conditions for operability of remaining reactor coolant system leak detection instrumentation. The reviewers felt that this wording was inconsistent with the NRC accepted definition of operability. The requested change would remove all such statements from the TS bases change. ONS agrees that these statements, as written, provide an insufficient basis to establish operability for these components.

This revision to the LAR revises the Bases section to reflect discussions between Duke and NRC personnel. Specifically, this revision deletes a statement in the LCO section of the Bases which discussed condition for operability. A revised TS Bases mark-up and re-write are forwarded herewith. Affected pages of Enclosure 2 from the original submittal are also attached. The attached pages of the original submittal have been modified to reflect the October 9, 2007 discussions.

A copy of this license amendment request is being sent to the State of South Carolina in accordance with 10 CFR 50.91 requirements.

A001

NRR

There are no commitments being made as a result of this amendment. Duke requests approval of this amendment by December 31, 2007. A 60 day implementation window is requested.

Inquiries on this proposed amendment request should be directed to Russ Oakley of the Oconee Regulatory Compliance Group at (864) 885-3829.

Sincerely,



B. H. Hamilton, Vice President
Oconee Nuclear Site

Enclosures:

1. Oath and Affirmation
2. Evaluation of Proposed Change (Revised Pages Only)

Attachments:

3. Technical Specifications Bases – Mark Up (Revised Page Only)
4. Technical Specifications Bases – Retype (Revised Page Only)

Nuclear Regulatory Commission
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cc w/enclosure and attachments:

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U. S. Nuclear Regulatory Commission - Region II
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Atlanta, Georgia 30303

Mr. L. N. Olshan, Project Manager
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Mr. D. W. Rich
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Oconee Nuclear Site

S. E. Jenkins
Division of Waste Management
Bureau of Land and Waste Management
South Carolina Department of Health & Environmental Control
2600 Bull Street
Columbia, SC 29201

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bcc w/enclosures and attachments:

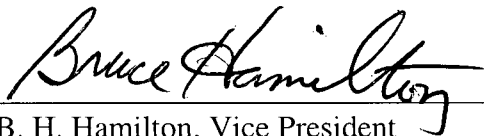
B. G. Davenport (ONO3RC)
R. V. Gambrell (ONO3RC)
L. F. Vaughn (ECO7H)
C. A. Curry (ONO3MS)
J. E. Burchfield (ONO1ES)
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R. D. Hart – CNS (CNO1RC)
K. L. Ashe - MNS (MGO1RC)
NSRB, EC05N
ELL, ECO50
File - T.S. Working
ONS Document Management

ENCLOSURE 1

AFFIDAVIT

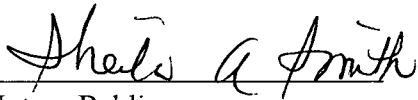
AFFIDAVIT

Bruce H. Hamilton, being duly sworn, states that he is Vice President, Oconee Nuclear Site, Duke Power Company LLC d/b/a Duke Energy Carolinas, LLC, that he is authorized on the part of said Company to sign and file with the U. S. Nuclear Regulatory Commission this revision to the Renewed Facility Operating License Nos. DPR-38, DPR-47, and DPR-55; and that all statements and matters set forth herein are true and correct to the best of his knowledge.



B. H. Hamilton, Vice President
Oconee Nuclear Site

Subscribed and sworn to before me this 19 day of November, 2007



Notary Public

My Commission Expires:

6-12-2013

Date

SEAL

ENCLOSURE 2
EVALUATION OF PROPOSED CHANGE
(Revised Pages Only)

The LCO section of the Bases will be revised to remove all references to gaseous radioactivity monitoring. Operability requirements for the RCS leak detection instrumentation will be clarified in this section as well. The second paragraph will read as follows:

“The LCO requirements are satisfied when instruments of diverse measurement means are operable. Thus, the containment normal sump level indication, in combination with a particulate (RIA-47) radioactivity monitor, provides an acceptable minimum.”

The ACTIONS section of the Bases will be revised to remove all references to gaseous radioactivity monitoring. The second sentence in the first paragraph of this section will read as follows:

“As a result, a MODE change is allowed when the normal sump level indication and the required radiation monitor are inoperable.”

Under the subheading B.1.1, B.1.2, and B.2 in the Bases, the first paragraph will be reworded as follows:

“With the particulate containment atmosphere radioactivity monitoring instrumentation channel inoperable, alternative action is required. Either grab samples of the containment atmosphere must be taken and analyzed or water inventory balances, in accordance with SR 3.4.13.1, must be performed to provide alternate periodic information. With a sample obtained and analyzed or a water inventory balance performed every 24 hours, the reactor may be operated for up to 30 days to allow restoration of the radioactivity monitor (RIA-47).”

The SURVEILLANCE REQUIREMENTS of the Bases will be revised to reflect the presence of a single containment atmosphere radioactivity monitor. The wording in the second sentence under the subheading SR 3.4.15.1 will be changed as follows:

“The check gives reasonable confidence that the channel is operating properly.”

hand, a clean RCS contains several corrosion products, including Co-58, Co-60, Na-24, Mn-56, and the activation product Fluorine - 18. F-18 accounts for most of the activity that the particulate monitor will see. Its concentration in the RCS is about two orders of magnitude higher than the highest concentration of corrosion products, and has similar beta energy, making it well within the detection capability of the particulate monitor.

Alarm response times are dependent on various factors, such as initial sump level and background radioactivity level in the reactor building. Control room alarms for the sump level instruments will actuate within 3 hours, and RIA-47 will alarm within several hours depending upon the setpoint. These alarm response times are sufficient to support LBB analyses, as flaw growth rates are slow, with growth time between leakage flaw size and critical flaw size typically measured in months or years.

The number of required channels of instrumentation presently required by Technical Specifications is not reduced by this proposed change. For this and other reasons discussed above, it is concluded that the proposed change will not increase the risk to the health and safety of the public.

5.0 REGULATORY SAFETY ANALYSIS

5.1 No Significant Hazards Consideration

Pursuant to 10 CFR 50.91, Duke has made the determination that this amendment request does not involve a significant hazards consideration by applying the standards established by the NRC regulations in 10 CFR 50.92. This ensures that operation of the facility in accordance with the proposed amendment would not:

- 1) Involve a significant increase in the probability or consequences of an accident previously evaluated.

The removal of the gaseous containment atmosphere radioactivity monitor from TS as an acceptable alternative to the particulate containment atmosphere radioactivity monitor will not reduce the number of operable leak detection channels which the Technical Specification LCO currently provides.

ATTACHMENT 3

TECHNICAL SPECIFICATION BASES – MARK-UP

(Revised Page Only)

BASES (continued)

APPLICABLE SAFETY ANALYSES The need to evaluate the severity of an alarm or an indication is important to the operators, and the ability to compare and verify with indications from other systems is necessary.

The safety significance of RCS LEAKAGE varies widely depending on its source, rate, and duration. Therefore, detecting and monitoring reactor coolant LEAKAGE into the containment area are necessary. Separating the identified LEAKAGE from the unidentified LEAKAGE provides quantitative information to the operators, allowing them to take corrective action should a leak occur detrimental to the safety of the unit and the public.

RCS leakage detection instrumentation satisfies Criterion 1 of 10 CFR 50.36 (Ref. 2).

LCO One method of protecting against large RCS LEAKAGE derives from the ability of instruments to rapidly detect small leaks. This LCO requires instruments of diverse monitoring principles to be OPERABLE to provide a high degree of confidence that small leaks are detected in time to allow actions to place the unit in a safe condition when RCS LEAKAGE indicates possible RCPB degradation.

The LCO requirements are satisfied when instruments of diverse measurement means are ~~available~~ ^{OPERABLE}. Thus, the containment normal sump level indication, in combination with a particulate (RIA-47) ~~or gaseous~~ radioactivity monitor (~~RIA-49~~), provides an acceptable minimum.

APPLICABILITY Because of elevated RCS temperature and pressure in MODES 1, 2, 3, and 4, RCS leakage detection instrumentation is required to be OPERABLE.

In MODE 5 or 6, the temperature is $\leq 200^{\circ}\text{F}$ and pressure is maintained low or at atmospheric pressure. Since the temperatures and pressures are far lower than those for MODES 1, 2, 3, and 4, the likelihood of leakage and crack propagation is much smaller. Therefore, the requirements of this LCO are not applicable in MODES 5 and 6.

ATTACHMENT 4

TECHNICAL SPECIFICATIONS BASES - RETYPE

(Revised Page Only)

Remove Page

B 3.4.15-2

Insert Page

B 3.4.15-2

BASES (continued)

APPLICABLE SAFETY ANALYSES The need to evaluate the severity of an alarm or an indication is important to the operators, and the ability to compare and verify with indications from other systems is necessary.

The safety significance of RCS LEAKAGE varies widely depending on its source, rate, and duration. Therefore, detecting and monitoring reactor coolant LEAKAGE into the containment area are necessary. Separating the identified LEAKAGE from the unidentified LEAKAGE provides quantitative information to the operators, allowing them to take corrective action should a leak occur detrimental to the safety of the unit and the public.

RCS leakage detection instrumentation satisfies Criterion 1 of 10 CFR 50.36 (Ref. 2).

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The LCO requirements are satisfied when instruments of diverse measurement means are OPERABLE. Thus, the containment normal sump level indication, in combination with a particulate (RIA-47) radioactivity monitor, provides an acceptable minimum.

APPLICABILITY Because of elevated RCS temperature and pressure in MODES 1, 2, 3, and 4, RCS leakage detection instrumentation is required to be OPERABLE.

In MODE 5 or 6, the temperature is $\leq 200^{\circ}\text{F}$ and pressure is maintained low or at atmospheric pressure. Since the temperatures and pressures are far lower than those for MODES 1, 2, 3, and 4, the likelihood of leakage and crack propagation is much smaller. Therefore, the requirements of this LCO are not applicable in MODES 5 and 6.
