



Scott L. Batson  
Vice President  
Oconee Nuclear Station

**Duke Energy**  
ON01VP | 7800 Rochester Hwy  
Seneca, SC 29672

ONS-2015-075

10 CFR 50.90

o: 864.873.3274  
f: 864.873.4208  
Scott.Batson@duke-energy.com

July 17, 2015

ATTN: Document Control Desk  
US Nuclear Regulatory Commission  
11555 Rockville Pike  
Rockville, MD 20852

Duke Energy Carolinas, LLC (Duke Energy)

Oconee Nuclear Station (ONS), Units 1, 2 and 3  
Docket Nos. 50-269, 50-270, and 50-287  
Renewed License Nos. DPR-38, DPR-47, and DPR-55

Subject: License Amendment Request (LAR) to Correct Usage Problem with Recently Issued  
Amendment to Technical Specification 3.8.1  
License Amendment Request No. 2014-04

In accordance with the provisions of Section 50.90 of Title 10 of the Code of Federal Regulations (10 CFR), Duke Energy is submitting a request for an amendment to the Technical Specifications (TS) for ONS, Units 1, 2, and 3. The proposed amendment corrects a usage problem identified subsequent to the issuance of Amendment Nos. 382, 384, and 383 that precludes TS 3.8.1 Condition H from being used as planned.

The enclosure to this letter provides an evaluation of the proposed TS change. A regulatory evaluation (including the significant hazards consideration) and environmental considerations are provided in Sections 5 and 6 of this enclosure, respectively. Attachments 1 and 2 provide marked-up TS and TS Bases pages, respectively. Attachments 3 and 4 provide retyped (clean) TS and TS Bases pages, respectively. The TS Bases pages are provided for information only.

In accordance with Duke Energy administrative procedures that implement the Quality Assurance Program Topical Report, these proposed changes have been reviewed and approved by the Plant Operations Review Committee. A copy of this LAR is being sent to the State of South Carolina in accordance with 10 CFR 50.91 requirements.

Duke Energy requests approval of the proposed LAR by July 17, 2016, effective immediately upon issuance with implementation within 60 days. Duke Energy will also update applicable sections of the ONS Updated Final Safety Analysis Report (UFSAR), as necessary, and submit these per 10 CFR 50.71(e). There are no regulatory commitments being made as a result of the proposed change.

www.duke-energy.com

DESIGNATED AS ORIGINAL  
BY PM JAH

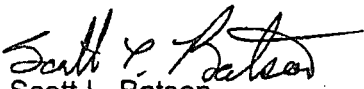
A001  
NRR

U. S. Nuclear Regulatory Commission  
July 17, 2015  
Page 2

Inquiries on this proposed amendment request should be directed to Boyd Shingleton, ONS Regulatory Affairs, at (864) 873-4716.

I declare under penalty of perjury that the foregoing is true and correct. Executed on the 17th day of July, 2015.

Sincerely,

  
Scott L. Batson  
Vice President  
Oconee Nuclear Station

Enclosure: Evaluation of Proposed Changes

Attachments:

- 1 Marked-Up Technical Specifications Pages
- 2 Marked-Up Technical Specification Bases Pages
- 3 Retyped Technical Specifications Pages
- 4 Retyped Technical Specification Bases Pages

U. S. Nuclear Regulatory Commission  
July 17, 2015  
Page 3

cc w/enclosure and attachments:

Mr. Victor McCree  
Administrator Region II  
U.S. Nuclear Regulatory Commission  
Marquis One Tower  
245 Peachtree Center Ave., NE, Suite 1200  
Atlanta, Georgia 30303-1257

Mr. James R. Hall  
Senior Project Manager  
(by electronic mail only)  
Office of Nuclear Reactor Regulation  
U.S. Nuclear Regulatory Commission  
11555 Rockville Pike  
Mail Stop O-8 G9A  
Rockville, Maryland 20852

Mr. Jeffrey A. Whited  
Project Manager  
(by electronic mail only)  
Office of Nuclear Reactor Regulation  
U.S. Nuclear Regulatory Commission  
11555 Rockville Pike  
Mail Stop O-8 B1A  
Rockville, Maryland 20852

Mr. Eddy Crowe  
NRC Senior Resident Inspector  
Oconee Nuclear Station

Ms. Susan E. Jenkins, Manager, Infectious and Radioactive Waste Management  
Bureau of Land and Waste Management  
Department of Health & Environmental Control  
2600 Bull Street  
Columbia, SC 29201

**ENCLOSURE**  
**EVALUATION OF PROPOSED CHANGES**  
**LICENSE AMENDMENT REQUEST NO. 2014-04**

Subject: License Amendment Request (LAR) to Correct Usage Problem with Recently Issued Amendment to Technical Specification 3.8.1

- 1 SUMMARY DESCRIPTION
- 2 BACKGROUND
- 3 DETAILED DESCRIPTION OF PROPOSED CHANGES
- 4 TECHNICAL EVALUATION
- 5 REGULATORY EVALUATION
- 6 ENVIRONMENTAL CONSIDERATION

## **1 SUMMARY DESCRIPTION**

The proposed amendment corrects a usage problem with recently issued Amendment Nos. 382, 384, and 383 that precludes Oconee Nuclear Station (ONS) Technical Specification (TS) 3.8.1 Condition H from being used as planned. The proposed change revises the note to TS 3.8.1 Required Action L.1, L.2, and L.3 to remove the 12 hour time limitation when the second KHU is made inoperable for the purpose of restoring the KHU undergoing maintenance to OPERABLE status. Removal of the 12 hour time limitation allows use of the full 60 hour Completion Time of Required Action H.2 when the unit(s) have been in Condition C for > 72 hours and both units are made inoperable for purposes of restoring the KHU undergoing maintenance to OPERABLE status.

An evaluation of the proposed TS change is provided in Sections 3 and 4 of this enclosure. A regulatory evaluation (including the significant hazards consideration) and environmental considerations are provided in Sections 5 and 6 of this enclosure, respectively. Attachments 1 and 2 provide marked-up TS and TS Bases pages, respectively. Attachments 3 and 4 provide retyped (clean) TS and TS Bases pages, respectively. The TS Bases pages are provided for information only.

In accordance with Duke Energy administrative procedures that implement the Quality Assurance Program Topical Report, these proposed changes have been reviewed and approved by the Plant Operations Review Committee. A copy of this LAR is being sent to the State of South Carolina in accordance with 10 CFR 50.91 requirements.

Duke Energy requests approval of the proposed LAR by July 17, 2016, effective immediately upon issuance with implementation within 60 days. Duke Energy will also update applicable sections of the ONS Updated Final Safety Analysis Report (UFSAR), as necessary, and submit these per 10 CFR 50.71(e). There are no regulatory commitments being made as a result of the proposed change.

## **2 BACKGROUND**

### **2.1 AC Power System**

The ONS AC Power System consists of the offsite power sources (preferred power) and the onsite standby power sources, Keowee Hydro Units (KHUs). This system is designed to supply the required Engineered Safeguards (ES) loads of one unit and safe shutdown loads of the other two units and is so arranged that no single failure can disable enough loads to jeopardize plant safety. The design of the AC Power System provides independence and redundancy to ensure an available source of power to the ES systems.

The Keowee Hydro Station contains two units rated 87,500 kVA each, which generate at 13.8 kV. The KHU turbine generators are powered through a common intake (penstock) by water taken from Lake Keowee. Upon loss of power from the Oconee generating unit and 230 kV switchyard, power is supplied from both KHUs through two separate and independent routes. The underground emergency power path is from one KHU through the

underground feeder circuit, transformer CT-4, the CT-4 incoming breakers (SK breakers), standby bus and the standby breakers (S breakers). The overhead emergency power path is from the other KHU through the startup transformer and the startup incoming breakers (E breakers).

The standby buses can also receive power from either one of two combustion turbine generators at the Lee Steam Station through a dedicated 100 kV transmission line, transformer CT-5, and both CT-5 incoming breakers (SL breakers). The 100 kV transmission line can be supplied from a Lee combustion turbine (LCT) and electrically separated from the system grid and offsite loads. The limiting capacity available from any of the multiple sources of AC power is 22.4 MVA (limited by either CT-4 or CT-5 transformer capacities).

As mentioned above, the two KHUs are powered through a common intake by water taken from Lake Keowee. When one KHU is being removed from service to perform certain types of turbine or generator maintenance, it may be necessary to make the other KHU inoperable due to the sharing of the intake structure and the common intake. For some generator work, in order to hydraulically isolate one KHU from the other, it is necessary to close the intake gate and drain the common intake which makes both KHUs inoperable. After the inlet to the KHU undergoing maintenance is sealed and/or a shaft locking device is installed, the intake is flooded and the other KHU is restored to operable status. When restoring the inoperable KHU to service from a maintenance outage, it is necessary to perform the same dewatering evolution again to remove the intake seal and/or shaft locking device.

## **2.2 Keowee Licensing History**

The initial TS for Keowee only required Duke Energy to notify the NRC when one or both KHUs became inoperable for 24 hours and provide an estimated time to restore to operation. With both inoperable, a safety evaluation was to be submitted within five days justifying the safest course of action. These TSs were modified in 1977 to require restoration of an inoperable KHU within 72 hours unless specific restrictions were implemented then a 45 day restoration period was allowed. The 1977 change provided a 72-hour allowed outage time (AOT) when both KHUs were inoperable for planned reasons or 24-hour AOT for unplanned reasons. At this point, Duke Energy had recognized and identified the time period (72 hours) required to isolate one KHU from the other to perform some KHU turbine generator maintenance due to the common intake for the KHUs. The NRC noted in the SE for the TS change that the scheduled 45 day period could only be used once in a three year period for each KHU without the NRC's approval.

By letter dated March 11, 1993, Duke Energy proposed a complete rewrite of the electrical power system TSs using an improved technical specification (ITS) format. This change proposed allowing the 45-day Completion Time to be used more than once in a three year period provided that total outage time remained below 45 days. Subsequently, Duke Energy resubmitted the electrical TS rewrite on September 3, 1997, removing the request to use the 45-day Completion Time cumulatively, as originally proposed, and specifying it could only be used once in a 3 year period for each KHU. The TS rewrite proposed combining the AOT for two KHUs inoperable for planned (72 hours) and unplanned (24 hours) reasons into one

60 hour AOT and added a new requirement to verify by administrative means the operability status of the remaining KHU and the underground emergency power path prior to using the 45 day completion time. The TS rewrite also imposed the more restrictive requirement of Condition L, when in Condition C for greater than 72 hours, to restore the inoperable KHU within 4 hours of discovery unless the operable KHU is made inoperable for the purpose of restoring the other KHU to operable status in which case an additional 12 hours was allowed. The 12 hours was based on a planned modification to allow the intake for each KHU to be isolated and unisolated for maintenance within that time period.

On September 4, 1998, Amendment Nos. 232, 232, and 231 were issued allowing a 45 day AOT once every 3 years and adding a note that allowed the remaining operable KHU to be made inoperable for 12 hours beyond the 4 hours (for a total of 16 hours) allowed if required to restore both KHUs to operable status. The modification to allow the intake for each KHU to be isolated and unisolated for maintenance within that time period was later determined to not be feasible and was not performed. Amendment Nos. 232, 232, 231 were implemented concurrent with ITS Amendment Nos. 300, 300, 300, which carried over the same requirements with minor formatting changes. The ITS amendment was issued on December 16, 1998.

Subsequently, knowing that a total of 16 hours was an inadequate time period when both KHUs are made inoperable to isolate and restore a KHU to perform turbine blade weld repairs, Duke Energy requested and received a temporary TS change that made the 4 hour Completion Time not applicable to the remaining KHU and its required underground emergency power path when in Condition H to perform Keowee Refurbishment Upgrades (Amendment Nos. 339, 341, and 340 issued on August 5, 2004). In doing this, the restoration time was limited by TS 3.8.1 Required Action H.2. Entry into Condition H is required when two KHUs are inoperable for planned reasons.

### **2.3 Recent Keowee Licensing History**

Duke Energy submitted a LAR on October 30, 2012, supplemented by letters dated July 16, 2013, and July 26, 2013, that requested a change to TS 3.8.1 to allow the 45-day Completion Time of Required Action C.2.2.5 to be a cumulative over 3 years rather than once every 3 years. As part of the change, the TSs were revised to restrict the duration of dual KHU outages associated with the 45-day outage period to be less than or equal to a cumulative 240 hours over the previous 3 years. NRC issued Amendment Nos. 382, 384, and 383 on August 23, 2013, approving the proposed change.

During approximately the same time period that the October 30, 2012, LAR was under NRC review, Duke Energy had submitted and the NRC was reviewing a temporary TS change that allowed each KHU to be inoperable for up to 62 days for rotor pole replacement. This TS change was submitted on June 27, 2012, and approved on January 8, 2014 (Amendment Nos. 383, 385, and 384). While the focus of this amendment was on the one-time 62 day Completion Time, the proposed LAR included a change to TS 3.8.1 that made Condition L not applicable when both KHUs were made inoperable for planned maintenance, thus allowing the 60 hour Completion time of Condition H to be used.

Otherwise, when in Condition C for greater than 72 hours, Condition L would require the remaining KHU and its required emergency power path to be restored to OPERABLE status within 16 hours or require a three ONS unit shutdown.

The October 30, 2012, LAR for TS 3.8.1 should have included a proposed change that allowed the 60 hour completion Time of Condition H to be used rather than being restricted by the shorter time allowed by Condition L. This was apparently overlooked due to the focus of October 30, 2012, LAR being to allow the 45 day extended Completion Time to be used cumulatively over a 3-year period. As a result, the ONS TSs continue to require at least one KHU to be restored to operable status in 16 hours rather than the 60 hours intended when in Condition C for greater than 72 hours. A typical Keowee outage schedule/TS entry is described below:

For a typical Keowee maintenance evolution requiring use of the 45-day Completion Time of TS 3.8.1 Required Action C.2.2.5,

- The first dual KHU outage (requiring entry into Condition H which provides a 60 hour Completion Time) is completed within the 72 hour time limit of TS 3.8.1 Required Action C.2.1.
- Prior to exceeding 72 hours in Condition C, Required Action C.2.2.3 requires verification by administrative means that the remaining KHU and its required emergency power path are OPERABLE.
- TS 3.8.1 Condition L applies when an AC source (KHU) is inoperable or LCO is not met, as stated in RA C.2.2.3 when in Condition C for > 72 hours.
- As a result, since the 2nd dewatering outage to restore the KHU undergoing maintenance occurs after 72 hours, Condition L also applies which limits the restoration time to 16 hours (The Note to TS 3.8.1 Required Action L.1 indicates that RA L.1 is not required when a KHU or its required emergency path is made inoperable for  $\leq 12$  hours for the purpose of restoring the other KHU to OPERABLE status and the Completion Time for L.1 is 4 hours adding up to a total of 16 hours).
- Due to this technicality, the license amendment cannot be used as intended since the Note and Required Action Completion Time of TS 3.8.1 Required Action L.1 limits the time both KHUs can be inoperable to 16 hours when in Condition C for > 72 hours.

A review of licensing correspondence supports a common Duke Energy/NRC understanding of a 60 hour allowance. The following excerpts demonstrate that during the NRC review period that Duke Energy and the NRC Staff both thought TS 3.8.1 allowed the dual KHU outage to be entered to dewater the penstock at the beginning and end of an extended single KHU outage for up to 60 hours each entry:

- NRC expressed concern that allowing the 45-day Completion Time to be cumulative over 3 years rather than once in 3 years may result in an increase in dual KHU outage time, where both KHUs are inoperable simultaneously. (Reference NRC letter dated June 17, 2013 (RAI 8))



- NRC staff expressed concern that the dual KHU outage added significant risk and perhaps should be limited in TS. An option would be to allow 45 days cumulative over 3 years as long as the dual KHU outage time does not exceed X hours over the previous 3-year period, where X hours limits the risk due to dual KHU outages. (Reference NRC email from John Boska to Boyd Shingleton dated June 18, 2013)
- During the review, the NRC expressed concern that the cumulative 45-day Completion Time could result in more dual KHU outage time since most KHU maintenance performed during an extended outage requires the penstock to be dewatered at the beginning and end of the extended outage which could add up to 120 hours per KHU over a 3-year period. (Reference NRC SE dated August 23, 2013)
- NRC recommended that Duke Energy calculate the Incremental Conditional Core Damage Probability by assuming two cases (Reference NRC email from John Boska to Boyd Shingleton dated July 10, 2013):
  - The first case would be two 45-day KHU outages, back to back, with no dual outages. In effect, one KHU would be inoperable for 90 days. Calculate ICCDP and ICLERP.
  - The 2nd case would be two 45-day KHU outages, back to back, with 60 hours of dual KHU outages at the start and end of each KHU outage. This would be 240 hours of dual KHU outages and 90 days of one KHU inoperable. Calculate ICCDP and ICLERP. The change from the first case would show us the effect of the dual KHU outages.
- As a result, Duke Energy proposed and the NRC approved the cumulative 240 hours of allowed outage time in a 3-year period based on a qualitative risk analysis that indicated an insignificant impact on average annual plant risks. (Reference Duke Energy letter dated July 26, 2013.)

From the above discussion, it is clear that during the NRC review, NRC Staff evaluated entry into a dual KHU outage for 120 hours during a 45-day cumulative time period for each KHU and that this license amendment was intended to allow the dual KHU outage to be entered to dewater the penstock at the beginning and end of an extended single KHU outage for up to 60 hours each entry. However, as written, TS 3.8.1 Action L does not allow entry for greater than 16 hours after one KHU has been inoperable for greater than 72 hours.

### **3 DETAILED DESCRIPTION OF PROPOSED CHANGES**

Duke Energy proposes to modify the TS and TS Bases (for information only). The proposed changes to ONS TS 3.8.1 will allow the TS change approved by Amendment Nos. 382, 384, and 383 to work as intended by Duke Energy and as reviewed and approved by the NRC. The proposed changes are listed below and identified in Attachment 1:

TS 3.8.1 Note to Required Actions L.1, L.2, and L.3

Current:

“Not required when a KHU or its required emergency power path are made inoperable for ≤ 12 hours for the purposes of restoring the other KHU to OPERABLE status.”

Proposed:

“Not required when a KHU or its required emergency power path are made inoperable for the purposes of restoring the other KHU to OPERABLE status.”

TS Bases B 3.8.1 Actions L.1, L.2, and L.3

Current:

The Required Action is modified by a Note that allows the remaining OPERABLE KHU and its required emergency power path to be made inoperable for up to 12 hours if required to restore both KHUs and their required emergency power paths to OPERABLE status.

Proposed:

The Required Action is modified by a Note that allows the remaining OPERABLE KHU and its required emergency power path to be made inoperable if required to restore both KHUs and their required emergency power paths to OPERABLE status.

#### **4 TECHNICAL EVALUATION**

The proposed change revises the note to TS 3.8.1 Required Action L.1, L.2, and L.3 to remove the 12 hour time limitation when the 2nd KHU is made inoperable for the purpose of restoring the KHU undergoing maintenance to OPERABLE status. A planned dual KHU outage also requires entry into TS 3.8.1 Condition H which limits the amount of time that both KHUs can be inoperable to 60 hours and 240 hours cumulative over a 3-year period. Therefore, removal of the 12 hour time limitation in the note to RAs L.1, L.2, and L.3 results in allowing use of the full 60 hour Completion Time when the unit(s) have been in Condition C for > 72 hours.

The shorter 4 hour Completion Times of Required Action L.1 will continue to apply if the second KHU is inoperable for reasons other than restoring the KHU undergoing maintenance.

The proposed change will allow the second Completion Time (240 hours cumulative per 3-year rolling time period) of TS 3.8.1 Required Action H.2 to be applied as proposed by Duke Energy and reviewed and approved by the NRC in Amendment Nos. 382, 384, and 383. The purpose of the Completion Time was to limit the amount of dual KHU outage time over a 3-year period. The basis for the 240 hours was the assumption that one 45-day

single KHU outage would require two dual KHU outages (one to hydraulically isolate the KHU undergoing maintenance and one to restore that KHU). The maximum time allowed in a dual KHU outage was dictated by TS 3.8.1 H.2 Completion Time of 60 hours, resulting in a maximum 120 hours per single KHU outage. Since each KHU was allowed a 45-day Completion time over a 3-year period this would result in a maximum 240 hours of dual KHU outage time.

Duke Energy performed a risk evaluation to support the 240-hour dual KHU outage time as documented in Duke Energy letter dated July 26, 2013. The analysis results determined that a total dual KHU unit outage time of 240 hours (10 days) corresponds to an Incremental Conditional Core Damage Probability (ICCDP) of approximately  $6E-08$ . Approximately half of this risk contribution was due to Loss of Offsite Power (LOOP) initiating events and half from fire-related events. When this unavailability is averaged over a 3-year period, the equivalent ICCDP is  $2E-08$  which represents an insignificant impact on average annual plant risk. NRC staff considered the results of this analysis as documented in the Safety Evaluation for Amendment Nos. 382, 384, and 383 and concluded the proposed TS changes addressed their question about potential increases in total (3-year cumulative) dual KHU outage time.

Based on the above, the proposed TS change is appropriate and is adequately supported by the previous LAR and NRC SE.

## **5 REGULATORY EVALUATION**

### **5.1 Significant Hazards Consideration**

Duke Energy Carolinas, LLC (Duke Energy) has evaluated whether or not a significant hazards consideration is involved with the proposed amendment to Oconee Nuclear Station (ONS) Facility Operating Licenses DPR-38, DPR-47, and DPR-55 by focusing on the three standards set forth in 10 CFR 50.92, "Issuance of Amendment," as discussed below.

1. Does the proposed amendment involve a significant increase in the probability or consequences of an accident previously evaluated?

Response: No.

The proposed amendment revises the note to Technical Specification (TS) 3.8.1 Required Actions L.1, L.2, and L.3 to indicate the Required Actions are not required when the Condition is entered to restore a KHU to OPERABLE status. This change is consistent with Amendment Nos. 382, 384, and 383, which approved a cumulative 240 hours of allowed outage time over a 3-year period when both KHUs are inoperable when in the 45-day Completion Time of TS 3.8.1 Required Action C.2.2.5. The proposed TS change does not modify the reactor coolant system pressure boundary, nor make any physical changes to the facility design, material, or construction standards. The probability of any design basis accident (DBA) is not affected by this change, nor are the consequences of any DBA affected by this change. The proposed change does not

involve changes to any structures, systems, or components (SSCs) that can alter the probability for initiating a LOCA event.

Therefore, the proposed TS changes do not significantly increase the probability or consequences of an accident previously evaluated.

2. Does the proposed amendment create the possibility of a new or different kind of accident from any accident previously evaluated?

Response: No

The proposed TS change revises the note to TS 3.8.1 Required Actions L.1, L.2, and L.3 to indicate the Required Actions are not required when the Condition is entered to restore a KHU to OPERABLE status. Revision of the note allows the 60 hour Completion Time of TS 3.8.1 Condition H to limit the time that both KHUs are inoperable. The changes do not alter the plant configuration (no new or different type of equipment will be installed) or make changes in methods governing normal plant operation. No new failure modes are identified, nor are any SSCs required to be operated outside the design bases. Therefore, the possibility of a new or different kind of accident from any kind of accident previously evaluated is not created.

3. Does the proposed amendment involve a significant reduction in a margin of safety?

Response: No.

The proposed TS change revises the note to TS 3.8.1 Required Actions L.1, L.2, and L.3 to indicate the Required Actions are not required when the Condition is entered to restore a KHU to OPERABLE status. Revision of the note allows the 60 hour Completion Time of TS 3.8.1 Condition H to limit the time that both KHUs are inoperable. The proposed TS change does not involve: 1) a physical alteration of the Oconee Units; 2) the installation of new or different equipment; 3) operating any installed equipment in a new or different manner; 4) a change to any set points for parameters which initiate protective or mitigation action; or 5) any impact on the fission product barriers or safety limits. Therefore, this request does not involve a significant reduction in a margin of safety.

Based on the above, Duke Energy concludes that the proposed amendment presents no significant hazards consideration under the standards set forth in 10 CFR 50.92(c), and, accordingly, a finding of "no significant hazards consideration" is justified.

## 5.2 Applicable Regulatory Requirements/Criteria

10 CFR 50.36, Technical specifications

### 5.3 Precedent

October 30, 2012	License Amendment Request to Clarify the Application of the 45-day Completion Time of Technical Specification 3.8.1 Required Action C.2.2.5
July 6, 2013	Additional Information Regarding License Amendment Request to Clarify the Application of the 45-day Completion Time of Technical Specification 3.8.1 Required Action C.2.2.5
July 26, 2013	Additional Information Regarding License Amendment Request to Clarify the Application of the 45-day Completion Time of Technical Specification 3.8.1 Required Action C.2.2.5
August 23, 2013	Oconee Nuclear Station, Units 1, 2, and 3, Issuance of Amendments Regarding the Technical Specification for Keowee Hydro Units (TAC Nos. ME9880, ME9881, and ME 9882)

### 5.4 Conclusions

In Section 5.1, Duke Energy made the determination that this amendment request involves a No Significant Hazards Consideration by applying the standards established by NRC regulations in 10 CFR 50.92. The regulatory requirements and guidance applicable to this LAR are identified in Section 5.2.

## 6 ENVIRONMENTAL CONSIDERATION

Duke Energy Carolinas, LLC (Duke Energy) has evaluated this License Amendment Request (LAR) against the criteria for identification of licensing and regulatory actions requiring environmental assessment in accordance with 10 CFR 51.21. Duke Energy has determined that this LAR meets the criteria for a categorical exclusion as set forth in 10 CFR 51.22(c)(9). This determination is based on the fact that the amendment meets the following specific criteria:

- The amendment involves no significant hazard consideration as demonstrated in Section 5.1.
- There is no significant change in the types or significant increase in the amounts of any effluent that may be released offsite. The principal barriers to the release of radioactive materials are not modified or affected by this change and no significant increases in the amounts of any effluent that could be released offsite will occur as a result of this change.
- There is no significant increase in individual or cumulative occupational radiation exposure. Because the principal barriers to the release of radioactive materials are not modified or affected by this change, there will be no significant increase in individual or cumulative occupational radiation exposure resulting from this change.

Therefore, no environmental impact statement or environmental assessment need be prepared in connection with the proposed amendment pursuant to 10 CFR 51.22(b).

License Amendment Request No. 2014-04  
July 17, 2015

**ATTACHMENT 1**

**MARKED-UP TECHNICAL SPECIFICATIONS PAGES**

**[1 page follows this cover page]**

**NOTE:** This attachment contains marked-up TS page 3.8.1-12.

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
<p>L. -----NOTE----- Separate Condition entry is permitted for each inoperable AC Source, and LCO or SR not met. -----</p> <p>AC Source inoperable or LCO not met, as stated in Note for Condition H entry.</p> <p><u>OR</u></p> <p>AC Source inoperable or LCO not met, as stated in Required Action C.2.2.3 when in Condition C for &gt; 72 hours.</p> <p><u>OR</u></p> <p>AC Source inoperable or LCO not met, as stated in Required Actions I.2 or J.2 when in Conditions I or J for &gt; 1 hour.</p> <p><u>OR</u></p> <p>SR 3.8.1.16 not met.</p>	<p>-----NOTE----- Not required when a KHU or its required emergency power path are made inoperable <u>for <del>12</del> hours</u> for the purpose of restoring the other KHU to OPERABLE status. -----</p> <p>L.1 Restore inoperable AC Source to OPERABLE status.</p> <p><u>AND</u></p> <p>L.2 Restore compliance with LCO.</p> <p><u>AND</u></p> <p>L.3 Restore compliance with SR 3.8.1.16.</p>	<p>4 hours</p> <p>4 hours</p> <p>4 hours</p>

(continued)

License Amendment Request No. 2014-04  
July 17, 2015

**ATTACHMENT 2**

**MARKED-UP TECHNICAL SPECIFICATION BASES PAGES**

**[1 page follows this cover page]**

**NOTE:** This attachment contains the following marked-up TS Bases page B 3.8.1-19.



## BASES

---

### ACTIONS (continued)

#### L.1, L.2, and L.3

With an AC Source inoperable or LCO not met, as stated in Note for Condition H entry; or with an AC Source inoperable or LCO not met, as stated in Required Action C.2.2.3 when in Condition C for > 72 hours; or with an AC Source inoperable or LCO not met, as stated in Required Action I.2 or J.2 when in Conditions I or J for > 1 hour; or with SR 3.8.1.16 not met, Required Action L.1, L.2 and L.3 requires restoration within four hours. Condition L is modified by a Note indicating that separate Condition entry is permitted for each inoperable AC Source, and LCO or SR not met. The Required Action is modified by a Note that allows the remaining OPERABLE KHU and its required emergency power path to be made inoperable ~~(for up to 12 hours)~~ if required to restore both KHUs and their required emergency power paths to OPERABLE status. This note is necessary since certain actions such as dewatering the penstock may be necessary to restore the inoperable KHU although these actions would also cause both KHUs to be inoperable.

The purpose of this Required Action is to restrict the allowed outage time for an inoperable AC Source or equipment required by an LCO when in Conditions C, H, I or J. For Conditions I and J when the LCOs stated are initially not met, the maximum Completion Time is four hours or the remaining Completion Time allowed by the stated LCO, whichever is shorter.

#### M.1 and M.2

If a Required Action and associated Completion Time for Condition C, F, G, H, I, J, K or L are not met; or if a Required Action and associated Completion Time are not met for Required Action D.1 or D.3, the unit must be brought to a MODE in which the LCO does not apply. To achieve this status, the unit must be brought to at least MODE 3 within 12 hours and to MODE 5 within 84 hours. The allowed Completion Times are reasonable, based on operating experience, to reach the required unit conditions from full power conditions in an orderly manner and without challenging unit systems.

### SURVEILLANCE REQUIREMENTS

#### SR 3.8.1.1

This SR ensures proper circuit continuity for the offsite AC electrical power supply to the onsite distribution network and availability of offsite AC electrical power. The breaker alignment verifies that each breaker is in its correct position to ensure that distribution buses and loads are

License Amendment Request No. 2014-04  
July 17, 2015

**ATTACHMENT 3**

**RETYPE TECHNICAL SPECIFICATIONS PAGES**

**[1 page follows this cover page]**

**NOTE:** This attachment contains retyped TS page 3.8.1-12.

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
<p>L. -----NOTE----- Separate Condition entry is permitted for each inoperable AC Source, and LCO or SR not met.</p> <p>-----</p> <p>AC Source inoperable or LCO not met, as stated in Note for Condition H entry.</p> <p><u>OR</u></p> <p>AC Source inoperable or LCO not met, as stated in Required Action C.2.2.3 when in Condition C for &gt; 72 hours.</p> <p><u>OR</u></p> <p>AC Source inoperable or LCO not met, as stated in Required Actions I.2 or J.2 when in Conditions I or J for &gt; 1 hour.</p> <p><u>OR</u></p> <p>SR 3.8.1.16 not met.</p>	<p>-----NOTE----- Not required when a KHU or its required emergency power path are made inoperable for the purpose of restoring the other KHU to OPERABLE status.</p> <p>-----</p> <p>L.1      Restore inoperable AC Source to OPERABLE status.</p> <p><u>AND</u></p> <p>L.2      Restore compliance with LCO.</p> <p><u>AND</u></p> <p>L.3      Restore compliance with SR 3.8.1.16.</p>	<p></p> <p>4 hours</p> <p></p> <p>4 hours</p> <p></p> <p>4 hours</p>

(continued)

License Amendment Request No. 2014-04  
July 17, 2015

**ATTACHMENT 4**

**RETYPE TECHNICAL SPECIFICATION BASES PAGES**

**[1 page follows this cover page]**

**NOTE:** This attachment contains the following retyped TS Bases page B 3.8.1-19.

**BASES**

---

**ACTIONS**  
(continued)

L.1, L.2, and L.3

With an AC Source inoperable or LCO not met, as stated in Note for Condition H entry; or with an AC Source inoperable or LCO not met, as stated in Required Action C.2.2.3 when in Condition C for > 72 hours; or with an AC Source inoperable or LCO not met, as stated in Required Action I.2 or J.2 when in Conditions I or J for > 1 hour; or with SR 3.8.1.16 not met, Required Action L.1, L.2 and L.3 requires restoration within four hours. Condition L is modified by a Note indicating that separate Condition entry is permitted for each inoperable AC Source, and LCO or SR not met. The Required Action is modified by a Note that allows the remaining OPERABLE KHU and its required emergency power path to be made inoperable if required to restore both KHUs and their required emergency power paths to OPERABLE status. This note is necessary since certain actions such as dewatering the penstock may be necessary to restore the inoperable KHU although these actions would also cause both KHUs to be inoperable.

The purpose of this Required Action is to restrict the allowed outage time for an inoperable AC Source or equipment required by an LCO when in Conditions C, H, I or J. For Conditions I and J when the LCOs stated are initially not met, the maximum Completion Time is four hours or the remaining Completion Time allowed by the stated LCO, whichever is shorter.

M.1 and M.2

If a Required Action and associated Completion Time for Condition C, F, G, H, I, J, K or L are not met; or if a Required Action and associated Completion Time are not met for Required Action D.1 or D.3, the unit must be brought to a MODE in which the LCO does not apply. To achieve this status, the unit must be brought to at least MODE 3 within 12 hours and to MODE 5 within 84 hours. The allowed Completion Times are reasonable, based on operating experience, to reach the required unit conditions from full power conditions in an orderly manner and without challenging unit systems.

**SURVEILLANCE  
REQUIREMENTS**

SR 3.8.1.1

This SR ensures proper circuit continuity for the offsite AC electrical power supply to the onsite distribution network and availability of offsite AC electrical power. The breaker alignment verifies that each breaker is in its correct position to ensure that distribution buses and loads are