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10 CFR 50.90

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June 27, 2012

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

Subject: Duke Energy Carolinas, LLC
Oconee Nuclear Station (ONS), Units 1, 2, and 3
Docket Numbers 50-269, 50-270, and 50-287
License Amendment Request for Temporary Technical Specification Change to
Add a Required Action Completion Time for One Keowee Hydro Unit Inoperable
for Generator Field Pole Rewinds
License Amendment Request (LAR) No. 2012-01

In accordance with 10 CFR 50.90, Duke Energy Carolinas, LLC (Duke Energy) proposes to amend Renewed Facility Operating License Nos. DPR-38, DPR-47, and DPR-55 for ONS Units 1, 2, and 3. This LAR proposes to add a temporary Completion Time to Technical Specification (TS) 3.8.1 Required Action (RA) C.2.2.5 to allow time to perform major maintenance on a Keowee Hydro Unit (KHU).

The Keowee hydroelectric station has been in service since 1971, with the last major overhaul performed in 2004 for KHU-1 and 2005 for KHU-2. During this overhaul, the major focus areas were replacing the excitation system and governor system and performing turbine runner maintenance. A March 2009 generator inspection identified the need for major refurbishment work within the generator, including generator field pole rewinds. Duke Energy currently plans to perform the generator field pole rewinds starting in April 2013 and July 2013, for each KHU.

Currently, TS 3.8.1 RA C.2.2.5 requires the KHU and its required overhead emergency power path to be restored to operable status within 45 days of discovery of an initial inoperability when Condition C is entered due to an inoperable KHU if not used for that KHU in the previous 3 years. This 45-day time period is not sufficient to allow the KHU generator field pole rewinds to be performed. As such, Duke Energy proposes to add a temporary Completion Time to RA C.2.2.5 that would allow 75 days to restore an inoperable KHU due to generator field pole rewinds to be used once for each KHU.

This work will be controlled by a critical activity plan, which requires Plant Operations Review Committee approval. The work will be categorized as a planned overhaul activity relative to reporting unavailable Performance Indicator hours in accordance with Nuclear Energy Institute (NEI) 99-02, Revision 6.

ADD
NRC

An evaluation of the proposed temporary change is provided in the Enclosure. A No Significant Hazards Consideration Evaluation and the Environmental Impact Analysis are also included in the Enclosure. The marked up and revised Technical Specification pages are provided in Attachment 1 and 2, respectively. The marked up and revised TS Bases pages are provided in Attachments 3 and 4, respectively.


In accordance with Duke Energy administrative procedures and the Quality Assurance Program Topical Report, the proposed TS changes have been reviewed and approved by the Plant Operations Review Committee. Additionally, 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 March 1, 2013, to allow the planned maintenance activities described above to be performed beginning in April 2013. Implementation of these changes will not result in an undue risk to the health and safety of the public. The Oconee Updated Final Safety Analysis Report has been reviewed and no changes are necessary to support this LAR.

If there are any additional questions, please contact Boyd Shingleton, ONS Regulatory Compliance, at (864) 873-4716.

I declare under penalty of perjury that the foregoing is true and correct. Executed on June 27, 2012.

Sincerely,



T. Preston Gillespie, Jr., Vice President
Oconee Nuclear Station

Enclosure:
Evaluation of Proposed Change

Attachments

1. Attachment 1 – Marked up TS Pages
2. Attachment 2 – Revised TS Pages
3. Attachment 3 – Marked up TS Base Pages
4. Attachment 4 – Revised TS Bases Pages

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cc w/Enclosure and Attachments:

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ENCLOSURE

EVALUATION OF PROPOSED CHANGE

Subject: License Amendment Request for Temporary Technical Specification Change to
Add a Required Action Completion Time for One Keowee Hydro Unit Inoperable
for Generator Field Pole Rewinds

1. SUMMARY DESCRIPTION
2. DETAILED DESCRIPTION
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4. RISK INSIGHTS
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1.0 SUMMARY DESCRIPTION

This License Amendment Request (LAR) proposes to add a temporary Completion Time to Technical Specification (TS) 3.8.1 Required Action (RA) C.2.2.5 to allow time to perform generator field pole rewinds on each Keowee Hydro Unit (KHU).

The Keowee hydroelectric station has been in service since 1971, with the last major overhaul performed in 2004 for KHU-1 and 2005 for KHU-2. During this overhaul, the major focus areas were replacing the excitation system and governor system and performing turbine runner maintenance. A March 2009 generator inspection identified the need for major refurbishment work within the generator, including generator field pole rewinds. Duke Energy currently plans to perform this work in April 2013 and July 2013, for each KHU.

Currently, TS 3.8.1 RA C.2.2.5 requires the KHU and its required overhead emergency power path to be restored to operable status within 45 days of discovery of an initial inoperability when Condition C is entered due to an inoperable KHU if not used for that KHU in the previous 3 years. This 45-day time period is not sufficient to allow the KHU generator field pole rewinds to be performed. As such, Duke Energy proposes to add a temporary Completion Time to RA C.2.2.5 that would allow 75 days to restore an inoperable KHU due to a generator field pole rewind. The 75-day Completion Time is modified by three notes. The first note states that no discretionary maintenance or testing is allowed on the Standby Shutdown Facility (SSF), Emergency Feedwater (EFW) System, and essential Alternating Current (AC) power systems while using the 75-day Completion Time. The second note states that the 75-day Completion Time can only be used once for each KHU to perform a KHU generator field pole rewind. The third note requires that the SSF and EFW Systems be verified OPERABLE prior to exceeding the 72-hour Completion Time of Required Action C.2.1 (i.e., prior to entering the extended Completion Time).

An evaluation of the safety impact of the proposed 75-day Completion Time is provided in Section 3.0, Technical Evaluation, below.

This work will be controlled by a critical activity plan, which requires Plant Operations Review Committee approval. The work will be categorized as a planned overhaul activity relative to reporting unavailable Performance Indicator hours in accordance with Nuclear Energy Institute (NEI) 99-02, Revision 6.

Duke Energy requests approval of the proposed LAR by March 1, 2013, to allow the planned maintenance described above to be performed beginning in April 2013.

2.0 DETAILED DESCRIPTION

2.1 System Descriptions

2.1.1 AC Power System

The Oconee Nuclear Station (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 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).

2.1.2 Emergency Feedwater System

The EFW system automatically supplies feedwater to the steam generators to remove decay heat from the Reactor Coolant System (RCS) upon the loss of normal feedwater supply. The EFW pumps take suction through suction lines from the upper surge tank (UST) and condenser hotwell and pump to the steam generator secondary side through the EFW nozzles. The steam generators function as a heat sink for core decay heat. The heat load is dissipated by releasing steam to the atmosphere from the steam generators via the main steam relief valves (MSRVs) or atmospheric dump valves (ADVs). If the main condenser is available, steam may be released via the Turbine Bypass System and recirculated to the condenser hotwell.

2.1.3 Standby Shutdown Facility

The SSF is designed as a standby system for use under certain emergency conditions. The SSF includes a dedicated power system. The SSF provides additional defense-in-depth protection for the health and safety of the public by serving as a backup to existing safety systems. The SSF is provided as an alternate means to achieve and maintain the unit in MODE 3 with average RCS temperature $\geq 525^{\circ}\text{F}$ (unless the initiating event causes the unit to be driven to a lower temperature) following fire, sabotage, turbine building flood, station blackout (SBO) and tornado missile events, and is designed in accordance with criteria associated with these events. Failures

in the SSF systems will not cause failures or inadvertent operations in other plant systems. The SSF requires manual activation and can be activated if emergency systems are not available.

The SSF is designed to maintain the reactor in a safe shutdown condition for a period of 72 hours following a fire, turbine building flood, sabotage, SBO, or tornado missile events. This is accomplished by re-establishing and maintaining Reactor Coolant Pump Seal cooling; assuring natural circulation and core cooling by maintaining the primary coolant system filled to a sufficient level in the pressurizer while maintaining sufficient secondary side cooling water; and maintaining the reactor subcritical by isolating all sources of Reactor Coolant System (RCS) addition except for the Reactor Coolant Makeup System which supplies makeup of a sufficient boron concentration.

2.2 Planned Major Maintenance Activities

The Keowee hydroelectric station has been in service since 1971, with the last major overhaul performed in 2004 for KHU-1 and 2005 for KHU-2. During this overhaul, the major focus areas were replacing the excitation system and governor system and performing turbine runner maintenance. A March 2009 generator inspection identified the need for major refurbishment work within the generator, including generator field pole rewinds. Duke Energy currently plans to perform the generator field pole rewinds in April 2013 and July 2013, for each KHU.

The schedule for the 75 day maintenance outage is derived as follows. For the generator field pole rewind work scheduled for April 2013 and July 2013, a dual unit outage (< 60 hours) will be necessary to dewater the common intake, disassemble a KHU and install a shaft locking device allowing the common intake to be watered allowing for operation of the other KHU. The current TS 3.8.1 Required Action H.2 Completion Time of 60 hours is adequate to perform this task. Removal of all 56 field poles, asbestos abatement, complete rewind and reassembly on the disassembled unit is estimated to take 35 days. For contingency, 15 days is added to the schedule to perform this work. Following completion of the work on the disassembled unit, another dual unit outage (< 60 hours) will then be required to reassemble the refurbished KHU and return it to a functional condition. A balance run (24 hours) for data acquisition is planned followed by a 24 hour dual unit outage to install the calculated balance shot. A second balance run (24 hours) is planned followed by a second 24 hour dual unit outage for installation of a second balance shot. A final balance run (48 hours) is necessary to collect data throughout the thermal curve and validate generator parameters. Additional balance runs and corresponding balance shots may be required to minimize mechanical vibration and maximize future machine reliability. After completion of the final balance run, post modification testing (2 days), and commissioning run (2 days), the refurbished KHU will be declared operable. Ten days contingency is added for the balance runs and balance shots, post modification testing, and the commissioning run.

This work will be controlled by a critical activity plan, which requires Plant Operations Review Committee approval. The work will be categorized as a planned overhaul activity relative to reporting unavailable Performance Indicator hours in accordance with NEI 99-02, Revision 6.

2.3 Technical Specification Change Description

Duke Energy proposes to add a temporary 75-day Completion Time for TS 3.8.1 RA C.2.2.5 when the inoperable Condition is due to a KHU made inoperable to perform planned KHU generator field pole rewind work. The Completion Time proposed is as follows:

AND

-----NOTE-----

1. No discretionary maintenance or testing allowed on SSF, EFW and essential AC Power Systems.
2. Only applicable one time for each KHU due to generator field pole rewind work.
3. Only applicable if the SSF and EFW are administratively verified OPERABLE prior to entering the extended Completion Time.

75 days from initial inoperability when Condition due to an inoperable KHU if entered to perform generator field pole rewind work.

Required Action C.2.2.3 will be modified to add the following Note:

-----NOTE-----

Not applicable to remaining KHU and its required underground emergency power path or LCO 3.3.21 when in Condition H to perform generator field pole rewind work.

This note is need to allow entry into the 60 hour dual unit outage to reassemble the refurbished KHU and return it to functional condition, as well as perform balance runs and shots, post

modification testing and a commission run prior to declaring the refurbished KHU operable. Without this note, entry into Condition L would be required and only 4 hours would be allowed to restore the KHU and its required underground path or restore compliance with LCO 3.3.21.

Delete the following note from the second Completion Time of TS 3.8.1 Required Action C.2.2.5 since it is no longer applicable:

-----NOTE-----

An additional 30 days
is allowed prior to
November 3, 2006 at
1029 hours

And replace with:

-----NOTE-----

Not applicable during
generator field pole rewind
work or until 1 year after KHU
declared OPERABLE
following rewind work.

This note is added to avoid using up the 45 day Completion Time concurrent with the new 75 day Completion Time and will provide some time to allow Duke Energy to perform emergent maintenance work should the need arise after a one year waiting period.

The following administrative changes are proposed:

Delete the following note from the TS 3.8.1, C.2.1, Required Action Completion Time since it is no longer applicable:

-----NOTE-----

An additional 96 hours
can be added to the
following completion
times. This expires on
August 27, 2005 @1058
hours

3.0 TECHNICAL EVALUATION

The following is required by existing TS 3.8.1 Action C prior to exceeding the 72 hour Completion Time of Required Action C.2.1:

- 1) Energize both standby buses using a Lee Combustion Turbine.
- 2) Suspend KHU generation to the grid except for testing.
- 3) Verify by administrative means that the remaining KHU and its required underground emergency power path and both required offsite sources are OPERABLE.
- 4) Verify by administrative means that other electrical TS Limiting Conditions for Operation (LCOs) (3.8.3, 3.8.6, 3.8.8) and instrumentation TS LCOs (3.3.17, 3.3.18, 3.3.19, and 3.3.21) are fully met.
- 5) Verify alternate power source capability by performing SR 3.8.1.16.

With both standby buses energized from an LCT via an isolated power path, a high degree of reliability for the emergency power system is provided. In this configuration, the LCT is serving as an emergency power source. Suspending KHU generation reduces the number of possible failures which could cause loss of the underground emergency power path. Verifying that the remaining KHU and its required underground emergency power path and both required offsite sources are OPERABLE provides additional assurance that offsite power will be available and that the KHU and its required underground emergency power path are available. Verifying the other electrical power system LCOs and emergency power switching logic (EPSL) LCOs are met increases the probability, even in the unlikely event of an additional failures, that the DC power system and the 120 VAC Vital Instrumentation power panelboards will function as required to support EPSL, power will not be lost to ES equipment, and the EPSL will function as required. Verifying alternate power source capability by performing SR 3.8.1.16 confirms that entry into Condition C is due only to an inoperable main step-up transformer or an inoperable KHU, as applicable.

The proposed TS change will also require that TS LCOs 3.7.5, "Emergency Feedwater System," and 3.10.1, "Standby Shutdown Facility," be administratively verified as met prior to exceeding the 72-hour Completion Time of Required Action C.2.1. This increases the probability, even in the unlikely event of an additional failure that these risk significant systems will function as required to support their safety function. The proposed 75-day Completion Time is modified by three notes. The first note states no discretionary maintenance or testing is permitted on EFW, SSF and essential AC power systems. The second note states that the 75-day Completion Time is only applicable one time for each KHU due to generator field pole rewind work. The third note states that the CT is only applicable if the SSF and EFW are verified OPERABLE prior to entering the extended Completion Time. By limiting the performance of discretionary maintenance or testing there is improved defense-in-depth. Discretionary is optional, therefore, only required preventative maintenance to ensure equipment reliability and required TS or Selected Licensee Commitment (SLC) surveillance testing will be planned on EFW, SSF, and AC Power Systems during the extended Completion Time. In addition, no discretionary maintenance or testing will be planned on 230 kV switchyard equipment where human error could contribute to the likelihood of a Loss of Offsite Power (LOOP). Any emergent maintenance or testing identified as required for these systems during the extended Completion Time will be appropriately reviewed to ensure that their performance will not add undue risk. In accordance with System Operations Management Procedure 02-02, "Operations Roles in the Risk Management Process," selected plant equipment will be posted as "protected" to ensure that no persons inadvertently enter the area of the equipment. This equipment includes, but is not limited to, the 230 kV switchyard and main

transformer yards, the essential switchgear rooms, the EFW, SSF, and AC Power Systems. Station personnel will verify once per shift that the above compensatory measures remain in place.

The EFW System automatically supplies feedwater to the steam generators to remove decay heat from the Reactor Coolant System (RCS) upon the loss of normal feedwater supply. ONS also takes credit for recovery actions of EFW (cross connect from another unit) to avoid using the SSF. The SSF Auxiliary Service Water System is designed to provide a backup supply of water to the steam generators in the event of a total loss of all main and emergency feedwater. The SSF emergency procedure has entry conditions for the SSF on unavailability of EFW.

4.0 Risk Insights

The justification for the TS Completion Time extension is based on the deterministic evaluation in section 3.0. To supplement this evaluation and to gain insights concerning the proposed plant configuration, Duke Energy performed a risk assessment. The findings of the risk assessment confirm that the risk impact with adding an additional Completion Time of 75 days to restore an inoperable KHU due to generator pole rewind work is insignificant. The relevant criteria are Core Damage Frequency (CDF) and Large Early Release Frequency (LERF). The increase in either of these metrics resulting from the addition of a new 75-day Completion Time to restore an inoperable KHU due to major maintenance is estimated to be insignificant.

The quantitative analysis included the following specific conditions:

- No discretionary maintenance or testing will be performed on the Standby Shutdown Facility (SSF).
- No discretionary maintenance or testing will be performed on the Emergency Feedwater (EFW) System.
- No discretionary maintenance or testing will be performed on the Alternating Current (AC) Power System.

Duke Energy reviewed the Probabilistic Risk Assessment (PRA) to gain additional insights concerning the configuration of ONS with one KHU. The results of the risk analysis show a risk improvement if no maintenance is performed on the SSF, EFW System and AC Power System. The results of the risk analysis show a small risk increase using the average nominal maintenance unavailability values for the SSF, EFW System and AC Power System. By limiting maintenance, the risk results are expected to be between these two extremes (i.e., small risk impact).

Based on the PRA review, the following compensatory measures will be implemented during the period of non-compliance with the TS LCO when one KHU is inoperable. They include:

- During the total maintenance period, no discretionary maintenance or testing on the offsite power system (230 kV switchyard) will be performed. Furthermore, operability of required offsite circuits should be maintained at all times. Limiting the performance of maintenance

or testing on the offsite power system and maintaining offsite circuits operable reduces the likelihood of losing offsite power and represents a reduction in risk.

- Remaining at power to avert the risk associated with entry into and operation of shutdown cooling as it involves significant plant manipulations and evolutions on both primary and secondary side by Operations personnel.
- Remaining at power because the impact of a station blackout is deemed to be as severe at shutdown conditions as it is for at power conditions. The risk is neutral for remaining at power.

The insights from this risk analysis support the deterministic analysis showing that there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner of this license amendment request.

5.0 REGULATORY EVALUATION

5.1 Significant Hazards Consideration

Duke Energy Carolinas, LLC, has evaluated whether or not a significant hazards consideration is involved with the proposed amendment 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?

No. This change involves the temporary addition of a 75-day Completion Time for Technical Specification (TS) 3.8.1 Required Action C.2.2.5 associated with restoring compliance with TS Limiting Condition for Operation (LCO) 3.8.1.C. During the time that one Keowee Hydroelectric Unit (KHU) is inoperable for > 72 hours, a Lee Combustion Turbine (LCT) will be energizing both standby buses, two offsite power sources will be maintained available, and maintenance on electrical distribution systems will not be performed unless necessary. In addition, risk significant systems (Emergency Feedwater System and Standby Shutdown Facility) will be verified operable prior to entry into the 75-day Completion Time. The temporary 75-day Completion Time will decrease the likelihood of an unplanned forced shutdown of all three Oconee Units and the potential safety consequences and operational risks associated with that action. Avoiding this risk offsets the risks associated with having a design basis event during the temporary 75-day completion time for having one KHU inoperable.

The temporary addition of the 75-day Completion Time does not involve: 1) a physical alteration to the Oconee Units; 2) the installation of new or different equipment; 3) operating any installed equipment in a new or different manner; or 4) a change to any set points for parameters which initiate protective or mitigation action.

There is no adverse impact on containment integrity, radiological release pathways, fuel design, filtration systems, main steam relief valve set points, or radwaste systems. No new radiological release pathways are created.

The consequences of an event occurring during the temporary 75-day Completion Time are the same as those that would occur during the existing Completion Time. Duke Energy reviewed the Probabilistic Risk Assessment (PRA) to gain additional insights concerning the configuration of ONS with one KHU. The results of the risk analysis show a risk improvement if no maintenance is performed on the SSF, EFW System and AC Power System. The results of the risk analysis show a small risk increase using the average nominal maintenance unavailability values for the SSF, EFW System and AC Power System. By limiting maintenance, the risk results are expected to be between these two extremes (i.e., small risk impact).

Therefore, the probability or consequences of an accident previously evaluated is not significantly increased.

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

No. This change involves the temporary addition of a 75-day Completion Time for TS 3.8.1 Required Action C.2.2.5 associated with restoring compliance with TS LCO 3.8.1.C. During the time period that one KHU is inoperable, the redundancy requirement for the emergency power source will be fulfilled by an LCT. Compensatory measures previously specified will be in place to minimize electrical power system vulnerabilities.

The temporary 75-day Completion Time does not involve a physical effect on the Oconee Units, nor is there any increased risk of an Oconee Unit trip or reactivity excursion. No new failure modes or credible accident scenarios are postulated from this activity.

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?

No. This change involves the temporary addition of a 75-day Completion Time for TS 3.8.1 Required Action C.2.2.5 associated with restoring compliance with TS LCO 3.8.1.C. During the time period that one KHU is inoperable, the redundancy requirement for the emergency power source will be fulfilled by an LCT. Compensatory measures previously specified will be in place to minimize electrical power system vulnerabilities.

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.

5.2 Applicable Regulatory Requirements/Criteria

10 CFR 50.36

5.3 Oconee Precedence

August 22, 2002	License Amendment Request for Temporary Extensions to the Completion Times for One or Two Keowee Hydro Units Inoperable (TSC 2002-05)
August 6, 2004	Oconee Nuclear Station, Units 1, 2 and 3 Re: Issuance of Amendments 339, 341, and 340
August 22, 2005	Supplement to License Amendment Request (LAR) for Temporary Extension to Technical Specification 3.8.1, AC Sources –Operating Technical Specification Change (TSC) 2005-07
August 23, 2005	Oconee Nuclear Station, Units 1, 2 and 3 Re: Issuance of Amendments 347, 349, and 348
September 27, 2006	License Amendment Request Applicable to Technical Specification 3.8.1, AC Sources – Operating (LAR 2006-16)
October 3, 2006	Oconee Nuclear Station, Units 1, 2 and 3 Re: Issuance of Amendments 354, 356, and 355

5.4 Conclusions

In conclusion, based on the considerations discussed above, (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be adverse to the common defense and security or to the health and safety of the public.

6.0 ENVIRONMENTAL CONSIDERATION

Duke Energy Carolinas, LLC, has evaluated this license amendment request against the criteria for identification of licensing and regulatory actions requiring environmental assessment in accordance with 10 CFR 51.21. Duke Energy Carolinas, LLC has determined that this license amendment request meets the criteria for a categorical exclusion set forth in 10 CFR 51.22(c)(9). This determination is based on the fact that this change is being proposed as an amendment to a license issued pursuant to 10 CFR 50 that changes a requirement with respect to installation or use of a facility component located within the restricted area, as defined in 10 CFR 20, or that changes an inspection or a surveillance requirement, and the amendment meets the following specific criteria:

- (i) The amendment involves no significant hazards consideration.

As demonstrated in Section 5.1, adding a 3rd Completion Time to TS 3.8.1 Required Action C.2.2.5 does not involve significant hazards consideration.

- (ii) There is no significant change in the types or significant increase in the amounts of any effluent that may be released offsite.

This LAR will not change the types or amounts of any effluents that may be released offsite.

- (iii) There is no significant increase in individual or cumulative occupational radiation exposure.

This LAR will not increase the individual or cumulative occupational radiation exposure.

7.0 REFERENCES

None

License Amendment Request No. 2012-01
June 27, 2012

ATTACHMENT 1
TECHNICAL SPECIFICATION
MARK UPS

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
C. KHU or its required overhead emergency power path inoperable due to reasons other than Condition A.	C.1 Perform SR 3.8.1.3 for OPERABLE KHU.	1 hour if not performed in previous 12 hours <u>AND</u> Once per 7 days thereafter
	<u>AND</u>	
	C.2.1 Restore the KHU and its required overhead emergency power path to OPERABLE status.	<div style="border: 1px solid black; padding: 5px; margin: 5px 0;"> <p><u>NOTE</u> An additional 96 hours can be added to the following completion times. This expires on August 27, 2005 @ 1058 hours</p> </div> 72 hours
	<u>OR</u>	<u>AND</u> 72 hours from discovery of inoperable KHU
	C.2.2.1 Energize both standby buses from LCT via isolated power path.	72 hours <u>AND</u> 1 hour from subsequent discovery of deenergized standby bus
	<u>AND</u>	
	C.2.2.2 Suspend KHU generation to grid except for testing.	72 hours
	<u>AND</u>	
		(continued)

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
C. (continued)	<p>C.2.2.3 Verify by administrative means that the remaining KHU and its required underground emergency power path and both required offsite sources are OPERABLE and the requirements of LCO 3.8.3, "DC Sources-Operating," LCO 3.8.6, "Vital Inverters-Operating," LCO 3.8.8, "Distribution Systems-Operating," LCO 3.3.17, "EPSL Automatic Transfer Function," LCO 3.3.18, "EPSL Voltage Sensing Circuits," LCO 3.3.19, "EPSL 230 kV Switchyard DGVP," and LCO 3.3.21, "EPSL Keowee Emergency Start Function" are met.</p> <p><u>AND</u></p>	72 hours

(continued)

-----NOTE-----
Not applicable to remaining KHU and its required underground emergency power path or LCO 3.3.21 when in Condition H to perform generator field pole rewind work.

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
C. (continued)	<p>C.2.2.4 Verify alternate power source capability by performing SR 3.8.1.16.</p> <p><u>AND</u></p>	<p>72 hours</p> <p><u>AND</u></p> <p>Every 31 days thereafter</p>
	<p>C.2.2.5 Restore KHU and its required overhead emergency power path to OPERABLE status.</p> <div data-bbox="662 808 993 1045" style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p>Not applicable during generator field pole rewind work or until 1 year after KHU declared OPERABLE following rewind work.</p> </div> <p><u>AND</u></p> <div data-bbox="604 1071 1019 1969" style="border: 1px solid black; padding: 10px;"> <p>-----NOTE-----</p> <ol style="list-style-type: none"> 1. No discretionary maintenance or testing allowed on SSF, EFW and essential AC Power Systems 2. Only applicable one time for each KHU due to generator field pole rewind work. 3. Only applicable if the SSF and EFW are administratively verified OPERABLE prior to entering the extended Completion Time. <p>-----</p> <p>75 days from initial inoperability when Condition due to an inoperable KHU to perform generator field pole rewind work</p> </div>	<p>28 days when Condition due to an inoperable Keowee main step-up transformer</p> <p><u>AND</u></p> <div data-bbox="1052 898 1377 1071" style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p>NOTE An additional 30 days is allowed prior to November 3, 2006/at 1029 hours</p> </div> <p>45 days from discovery of initial inoperability when Condition due to an inoperable KHU if not used for that KHU in the previous 3 years</p>

(continued)

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ATTACHMENT 2
TECHNICAL SPECIFICATION
RETYPE

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
C. KHU or its required overhead emergency power path inoperable due to reasons other than Condition A.	C.1 Perform SR 3.8.1.3 for OPERABLE KHU.	1 hour if not performed in previous 12 hours <u>AND</u> Once per 7 days thereafter
	<u>AND</u>	
	C.2.1 Restore the KHU and its required overhead emergency power path to OPERABLE status.	72 hours <u>AND</u> 72 hours from discovery of inoperable KHU
	<u>OR</u>	
	C.2.2.1 Energize both standby buses from LCT via isolated power path.	72 hours <u>AND</u> 1 hour from subsequent discovery of deenergized standby bus
	<u>AND</u>	
	C.2.2.2 Suspend KHU generation to grid except for testing.	72 hours
	<u>AND</u>	
		(continued)

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
C. (continued)	<p>C.2.2.3 -----NOTE----- Not applicable to remaining KHU and its required underground emergency power path or LCO 3.3.21 when in Condition H to perform generator field pole rewind work.</p> <p>-----</p> <p>Verify by administrative means that the remaining KHU and its required underground emergency power path and both required offsite sources are OPERABLE and the requirements of LCO 3.8.3, "DC Sources-Operating," LCO 3.8.6, "Vital Inverters-Operating," LCO 3.8.8, "Distribution Systems-Operating," LCO 3.3.17, "EPSL Automatic Transfer Function," LCO 3.3.18, "EPSL Voltage Sensing Circuits," LCO 3.3.19, "EPSL 230 kV Switchyard DGVP," and LCO 3.3.21, "EPSL Keowee Emergency Start Function" are met.</p> <p><u>AND</u></p>	72 hours
	<p>C.2.2.4 Verify alternate power source capability by performing SR 3.8.1.16.</p> <p><u>AND</u></p>	72 hours <u>AND</u> Every 31 days thereafter
		(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
C. (continued)	C.2.2.5 Restore KHU and its required overhead emergency power path to OPERABLE status.	<p>28 days when Condition due to an inoperable Keowee main step-up transformer</p> <p><u>AND</u></p> <p>-----NOTE----- Not applicable during generator field pole rewind work or until 1 year after KHU declared OPERABLE following rewind work. -----</p> <p>45 days from discovery of initial inoperability when Condition due to an inoperable KHU if not used for that KHU in the previous 3 years</p> <p><u>AND</u></p> <p>-----NOTE----- 1. No discretionary maintenance or testing allowed on SSF, EFW and essential AC Power Systems. 2. Only applicable one time for each KHU due to generator field pole rewind work. 3. Only applicable if the SSF and EFW are administratively verified OPERABLE prior to entering the extended Completion Time. -----</p> <p>75 days from initial inoperability when Condition due to an inoperable KHU to perform generator field pole rewind work</p>

(continued)

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ATTACHMENT 3
TECHNICAL SPECIFICATION BASES
MARK UPS

BASES

ACTIONS

C.1, C.2.1, C.2.2.1, C.2.2.2, C.2.2.3, C.2.2.4, and C.2.2.5 (continued)

If the inoperable KHU or its required overhead emergency power path are not restored to OPERABLE status within 72 hours as required by Required Action C.2.1, a controlled shutdown must be initiated as required by the Required Actions for Condition M unless the extended Completion Times of Required Action C.2.2.5 are applicable. The second Completion Time for Required Action C.2.1 establishes a limit on the maximum time allowed for a KHU to be inoperable during any single contiguous occurrence of having a KHU inoperable. If Condition C is entered as a result of switching an inoperable KHU from the underground to the overhead emergency power path, it may have been inoperable for up to 72 hours. This could lead to a total of 144 hours since the initial failure of the KHU. The second Completion Time allows for an exception to the normal "time zero" for beginning the allowed time "clock." This will result in establishing the "time zero" at the time the KHU become inoperable, instead of at the time Condition C was entered.

or a KHU made inoperable to perform generator field pole rewind work

The extended Completion Times of Required Action C.2.2.5 apply when the KHU or its required overhead emergency power path is inoperable due to an inoperable Keowee main step-up transformer or an inoperable KHU (if not used for that KHU in the previous 3 years). In order to use the extended Completion Times, within 72 hours of entering Condition C both standby buses must be energized from an LCT (Required Action C.2.2.1), KHU generation to the grid except for testing must be suspended (Required Action C.2.2.2), the remaining KHU and its required underground emergency power path and both required offsite sources must be verified OPERABLE, the LCOs indicated in Required Action C.2.2.3 must be verified to be met, and alternate power source capability must be verified by performing SR 3.8.1.16.

Required Action C.2.2.5 permits maintenance and repair of a Keowee main step-up transformer which requires longer than 72 hours. Transformer replacement is rare but is time extensive. A 28 day Completion Time is permitted by Required Action C.2.2.5 to restore the KHU and its overhead power path to OPERABLE status when inoperable due to an inoperable Keowee main step-up transformer. This allows a reasonable period of time for transformer replacement.

Required Action C.2.2.5 also permits maintenance and repair of a KHU which requires longer than 72 hours. The primary long term maintenance items are expected to be hydro turbine runner and discharge ring welding

BASES

ACTIONS

C.1, C.2.1, C.2.2.1, C.2.2.2, C.2.2.3, C.2.2.4, and C.2.2.5 (continued)

The temporary 75 day restoration time of Required Action C.2.2.5 is allowed for each KHU to perform generator field pole rewind work. The 75 day Completion Time is modified by three notes that provide conditions for using the extended outage. Note 1 indicates that no discretionary maintenance or testing is allowed on Standby Shutdown Facility (SSF), Emergency Feedwater (EFW), and essential alternating current (AC) Power Systems. Note 2 indicates that the 75 day Completion Time is only applicable one time for each KHU due to generator field pole rewind work. Note 3 indicates that it is only applicable if the SSF and EFW are administratively verified OPERABLE prior to entering the extended Completion Time. This increases the probability even in the unlikely event of an additional failure that the risk significant systems will function as required to support their safety function.

repairs which are estimated to be necessary every six to eight years. Also, generator thrust and guide bearing replacements are necessary. Other items which manifest as failures are expected to be rare and may be performed during the permitted maintenance periods. As such, the 45 day restoration time of Required Action C.2.2.5 is allowed only once in a three year period for each KHU. This Completion Time is 45 days from discovery of initial inoperability of the KHU. This effectively limits the time the KHU can be inoperable to 45 days from discovery of initial inoperability rather than 45 days from entry into Condition C and precludes any additional time that may be gained as a result of switching an inoperable KHU from the underground to the overhead emergency power path. ~~The Completion Time is modified by a note indicating an additional 30 days is allowed when entering Condition C prior to November 3, 2006 at 1029 hours.~~

Required Actions C.2.2.1, C.2.2.2, C.2.2.3, and C.2.2.4 must be met in order to allow the longer restoration times of Required Action C.2.2.5. Required Action C.2.2.1 requires that both standby buses be energized using an LCT through the 100 kV transmission circuit. With this arrangement (100 kV transmission circuit electrically separated from the system grid and all offsite loads), a high degree of reliability for the emergency power system is provided. In this configuration, the LCT is serving as a second emergency power source, however, since the 100 kV transmission circuit is vulnerable to severe weather a time limit is imposed. The second Completion Time of Required Action C.2.2.1 permits the standby buses to be re-energized by an LCT within 1 hour in the event this source is subsequently lost. Required Action C.2.2.2 requires suspension of KHU generation to the grid except for testing. The restriction reduces the number of possible failures which could cause loss of the underground emergency power path. Required Action C.2.2.3 requires verifying by administrative means that the remaining KHU and its required underground emergency power path and both required offsite sources are OPERABLE. This provides additional assurance that offsite power will be available. In addition, this assures that the KHU and its required underground emergency power path are available.

Required Action C.2.2.3 also requires verifying by administrative means that the requirements of the following LCOs are met:

The 45 day Completion Time is modified by a Note indicating that it is not applicable during generator field pole rewind work or until 1 year after KHU declared OPERABLE following rewind work. This note is added to avoid using up the 45 day Completion Time concurrent with the 75 day Completion Time and preserves some time to perform emergent maintenance work should the need arise after a one year waiting period.

BASES

ACTIONS C.1, C.2.1, C.2.2.1, C.2.2.2, C.2.2.3, C.2.2.4, and C.2.2.5 (continued)

LCO 3.8.3, "DC Sources – Operating;"

LCO 3.8.6, "Vital Inverters – Operating;"

LCO 3.8.8, "Distribution Systems – Operating;"

LCO 3.3.17, "EPSL Automatic Transfer Function;"

LCO 3.3.18, "EPSL Voltage Sensing Circuits;"

LCO 3.3.19, "EPSL 230 kV Switchyard DGVP;" and

LCO 3.3.21, "EPSL Keowee Emergency Start Function."

Required Action C.2.2.3 is modified by a note indicating that it is not applicable to remaining KHU and its required underground emergency power path or LCO 3.3.21 when in Condition H to perform generator field pole rewind work. This note is need to allow entry into the 60 hour dual unit outage to reassemble the refurbished KHU and return it to functional condition, as well as perform balance runs and shots, post modification testing and a commission run prior to declaring the refurbished KHU operable. Without this note, entry into Condition L would be required and only 4 hours would be allowed to restore the KHU and its required underground path or restore compliance with LCO 3.3.21.

This increases the probability, even in the unlikely event of an additional failure, that the DC power system and the 120 VAC Vital Instrumentation power panelboards will function as required to support EPSL, power will not be lost to ES equipment, and EPSL will function as required.

Verifying by administrative means allows a check of logs or other information to determine the OPERABILITY status of required equipment in place of requiring unique performance of Surveillance Requirements. If the AC Source is subsequently determined inoperable, or an LCO stated in Required Action C.2.2.3 is subsequently determined not met, continued operation up to a maximum of four hours is allowed by ACTION L.

Required Action C.2.2.4 requires verifying alternate power source capability by performing SR 3.8.1.16. This confirms that entry into Condition C is due only to an inoperable main step-up transformer or an inoperable KHU, as applicable. If SR 3.8.1.16 is subsequently determined not met, continued operation up to a maximum of four hours is allowed by ACTION L.

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ATTACHMENT 4
TECHNICAL SPECIFICATION BASES
RETYPE

BASES

ACTIONS (continued)

B.1 and B.2

When a unit is designated to be shutdown due to sharing a unit startup transformer per Required Action A.3.2, the unit must be brought to a MODE in which the LCO does not apply, since the shared unit startup transformer's capacity could be challenged under certain DBA conditions. To achieve this status, the unit must be brought to at least MODE 3 within 12 hours and to MODE 5 within 36 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.

C.1, C.2.1, C.2.2.1, C.2.2.2, C.2.2.3, C.2.2.4, and C.2.2.5

With the KHU or its required overhead emergency power path inoperable due to reasons other than an inoperable startup transformer (Condition A), sufficient AC power sources remain available to ensure safe shutdown of the unit in the event of a transient or accident. Operation may continue if the OPERABILITY of the remaining KHU and its required underground emergency power path is determined by performing SR 3.8.1.3 within 1 hour if not performed in the previous 12 hours and once every 7 days thereafter. This demonstration assures the remaining emergency power path is not inoperable due to a common cause or other failure. Testing on a 7 day Frequency is acceptable since both standby buses must be energized from an LCT via an isolated power path when in Condition C for > 72 hours. When the standby buses are energized by an LCT via an isolated power path, the likelihood that the OPERABLE KHU and its required underground emergency power path will be required is decreased. Since Required Action C.1 only specifies "perform," a failure of SR 3.8.1.3 acceptance criteria does not result in a Required Action not met. SR 3.8.1.3 is only required to be performed when the KHU associated with the underground emergency power path is OPERABLE.

If the KHU and its required underground emergency path fails SR 3.8.1.3, both KHUs and their required emergency power paths are inoperable, and Condition I (Both KHUs or their required emergency power paths inoperable for reasons other than Condition G or H) is entered concurrent with Condition C.

If the inoperable KHU or its required overhead emergency power path are not restored to OPERABLE status within 72 hours as required by Required Action C.2.1, a controlled shutdown must be initiated as required by the Required Actions for Condition M unless the extended Completion Times of Required Action C.2.2.5 are applicable. The

BASES

ACTIONS

C.1, C.2.1, C.2.2.1, C.2.2.2, C.2.2.3, C.2.2.4, and C.2.2.5 (continued)

second Completion Time for Required Action C.2.1 establishes a limit on the maximum time allowed for a KHU to be inoperable during any single contiguous occurrence of having a KHU inoperable. If Condition C is entered as a result of switching an inoperable KHU from the underground to the overhead emergency power path, it may have been inoperable for up to 72 hours. This could lead to a total of 144 hours since the initial failure of the KHU. The second Completion Time allows for an exception to the normal "time zero" for beginning the allowed time "clock." This will result in establishing the "time zero" at the time the KHU become inoperable, instead of at the time Condition C was entered.

The extended Completion Times of Required Action C.2.2.5 apply when the KHU or its required overhead emergency power path is inoperable due to an inoperable Keowee main step-up transformer or an inoperable KHU (if not used for that KHU in the previous 3 years) or a KHU made inoperable to perform generator field pole rewind work. In order to use the extended Completion Times, within 72 hours of entering Condition C both standby buses must be energized from an LCT (Required Action C.2.2.1), KHU generation to the grid except for testing must be suspended (Required Action C.2.2.2), the remaining KHU and its required underground emergency power path and both required offsite sources must be verified OPERABLE, the LCOs indicated in Required Action C.2.2.3 must be verified to be met, and alternate power source capability must be verified by performing SR 3.8.1.16.

Required Action C.2.2.5 permits maintenance and repair of a Keowee main step-up transformer which requires longer than 72 hours. Transformer replacement is rare but is time extensive. A 28 day Completion Time is permitted by Required Action C.2.2.5 to restore the KHU and its overhead power path to OPERABLE status when inoperable due to an inoperable Keowee main step-up transformer. This allows a reasonable period of time for transformer replacement.

Required Action C.2.2.5 also permits maintenance and repair of a KHU which requires longer than 72 hours. The primary long term maintenance items are expected to be hydro turbine runner and discharge ring welding repairs which are estimated to be necessary every six to eight years. Also, generator thrust and guide bearing replacements are necessary. Other items which manifest as failures are expected to be rare and may be performed during the permitted maintenance periods. As such, the 45 day restoration time of Required Action C.2.2.5 is allowed only once in a three year period for each KHU. This Completion Time is 45 days from discovery of initial inoperability of the KHU. This effectively limits the time

BASES

ACTIONS

C.1, C.2.1, C.2.2.1, C.2.2.2, C.2.2.3, C.2.2.4, and C.2.2.5 (continued)

the KHU can be inoperable to 45 days from discovery of initial inoperability rather than 45 days from entry into Condition C and precludes any additional time that may be gained as a result of switching an inoperable KHU from the underground to the overhead emergency power path. The 45 day Completion Time is modified by a Note indicating that it is not applicable during generator field pole rewind work or until 1 year after KHU declared OPERABLE following rewind work. This note is added to avoid using up the 45 day Completion Time concurrent with the 75 day Completion Time and preserves some time to perform emergent maintenance work should the need arise after a one year waiting period.

The temporary 75 day restoration time of Required Action C.2.2.5 is allowed for each KHU to perform generator field pole rewind work. The 75 day Completion Time is modified by three notes that provide conditions for using the extended outage. Note 1 indicates that no discretionary maintenance or testing is allowed on Standby Shutdown Facility (SSF), Emergency Feedwater (EFW), and essential alternating current (AC) Power Systems. Note 2 indicates that the 75 day Completion Time is only applicable one time for each KHU due to generator field pole rewind work. Note 3 indicates that it is only applicable if the SSF and EFW are administratively verified OPERABLE prior to entering the extended Completion Time. This increases the probability even in the unlikely event of an additional failure that the risk significant systems will function as required to support their safety function.

Required Actions C.2.2.1, C.2.2.2, C.2.2.3, and C.2.2.4 must be met in order to allow the longer restoration times of Required Action C.2.2.5. Required Action C.2.2.1 requires that both standby buses be energized using an LCT through the 100 kV transmission circuit. With this arrangement (100 kV transmission circuit electrically separated from the system grid and all offsite loads), a high degree of reliability for the emergency power system is provided. In this configuration, the LCT is serving as a second emergency power source, however, since the 100 kV transmission circuit is vulnerable to severe weather a time limit is imposed. The second Completion Time of Required Action C.2.2.1 permits the standby buses to be re-energized by an LCT within 1 hour in the event this source is subsequently lost. Required Action C.2.2.2 requires suspension of KHU generation to the grid except for testing. The restriction reduces the number of possible failures which could cause loss of the underground emergency power path. Required Action C.2.2.3 requires verifying by administrative means that the remaining KHU and its required underground emergency power path and both required offsite

BASES

ACTIONS C.1, C.2.1, C.2.2.1, C.2.2.2, C.2.2.3, C.2.2.4, and C.2.2.5 (continued)

sources are OPERABLE. This provides additional assurance that offsite power will be available. In addition, this assures that the KHU and its required underground emergency power path are available.

Required Action C.2.2.3 also requires verifying by administrative means that the requirements of the following LCOs are met:

LCO 3.8.3, "DC Sources – Operating;"

LCO 3.8.6, "Vital Inverters – Operating;"

LCO 3.8.8, "Distribution Systems – Operating;"

LCO 3.3.17, "EPSL Automatic Transfer Function;"

LCO 3.3.18, "EPSL Voltage Sensing Circuits;"

LCO 3.3.19, "EPSL 230 kV Switchyard DGVP;" and

LCO 3.3.21, "EPSL Keowee Emergency Start Function."

This increases the probability, even in the unlikely event of an additional failure, that the DC power system and the 120 VAC Vital Instrumentation power panelboards will function as required to support EPSL, power will not be lost to ES equipment, and EPSL will function as required.

Required Action C.2.2.3 is modified by a note indicating that it is not applicable to remaining KHU and its required underground emergency power path or LCO 3.3.21 when in Condition H to perform generator field pole rewind work. This note is need to allow entry into the 60 hour dual unit outage to reassemble the refurbished KHU and return it to functional condition, as well as perform balance runs and shots, post modification testing and a commission run prior to declaring the refurbished KHU operable. Without this note, entry into Condition L would be required and only 4 hours would be allowed to restore the KHU and its required underground path or restore compliance with LCO 3.3.21.

Verifying by administrative means allows a check of logs or other information to determine the OPERABILITY status of required equipment in place of requiring unique performance of Surveillance Requirements. If the AC Source is subsequently determined inoperable, or an LCO stated in Required Action C.2.2.3 is subsequently determined not met, continued operation up to a maximum of four hours is allowed by ACTION L.

BASES

ACTIONS

C.1, C.2.1, C.2.2.1, C.2.2.2, C.2.2.3, C.2.2.4, and C.2.2.5 (continued)

Required Action C.2.2.4 requires verifying alternate power source capability by performing SR 3.8.1.16. This confirms that entry into Condition C is due only to an inoperable main step-up transformer or an inoperable KHU, as applicable. If SR 3.8.1.16 is subsequently determined not met, continued operation up to a maximum of four hours is allowed by ACTION L.

D.1, D.2 and D.3

With the KHU or its required underground emergency power path inoperable, sufficient AC power sources remain available to ensure safe shutdown of the unit in the event of a transient or accident. Operation may continue for 72 hours if the remaining KHU and its required overhead emergency power path are tested using SR 3.8.1.4 within one hour if not performed in the previous 12 hours. SR 3.8.1.4 is only required to be performed when the KHU associated with the overhead emergency power path is OPERABLE. This Required Action provides assurance that no undetected failures have occurred in the overhead emergency power path. Since Required Action D.1 only specifies "perform," a failure of SR 3.8.1.4 acceptance criteria does not result in a Required Action not met. However, if the KHU and its required overhead emergency path fails SR 3.8.1.4, both KHUs and their required emergency power paths are inoperable, and Condition I for both KHUs and their emergency power paths inoperable for reasons other than Condition G or H is entered concurrent with Condition D. This demonstration is to assure that the remaining emergency power path is not inoperable due to a common cause or due to an undetected failure. For outages of the KHU and its required underground emergency power path in excess of 24 hours, an LCT (using the 100 kV transmission circuit electrically separated from the grid and offsite loads) must energize a standby bus prior to the outage exceeding 24 hours. This ensures the availability of a power source on the standby buses when the KHU and its required underground emergency power path are out of service in excess of 24 hours. The second Completion Time of Required Action D.2 permits the standby buses to be re-energized by an LCT within 1 hour in the event this source is subsequently lost.

The second Completion Time for Required Action D.3 establishes a limit on the maximum time allowed for a KHU to be inoperable during any single contiguous occurrence of having a KHU inoperable. If Condition D is entered as a result of switching an inoperable KHU from the overhead to the underground emergency power path, it may have been inoperable for up to 72 hours. This could lead to a total of 144 hours since the initial

BASES

ACTIONS

D.1, D.2 and D.3 (continued)

failure of the KHU. The second Completion Time allows for an exception to the normal "time zero" for beginning the allowed time "clock." This will result in establishing the "time zero" at the time the KHU become inoperable, instead of at the time Condition D was entered.

E.1 and E.2

If the Required Action and associated Completion Time for Required Action D.2 are not met, 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 for one Oconee unit and 24 hours for other Oconee unit(s) 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 plant systems.

F.1 and F.2

With the zone overlap protection circuitry inoperable when the overhead electrical disconnects for the KHU associated with the underground power path are closed, the zone overlap protection circuitry must be restored to OPERABLE status or the overhead electrical disconnects must be opened within 72 hours. In this Condition, both KHUs and their required emergency power paths are OPERABLE, however a single failure could result in the loss of both KHUs.

G.1

With both emergency power paths inoperable due to an E breaker and S breaker inoperable on the same main feeder bus, one breaker must be restored to OPERABLE status. In this Condition, both emergency power paths can still provide power to the remaining main feeder bus.