

January 18, 2006

U.S. Nuclear Regulatory Commission  
Attention: Document Control Desk  
Washington, D.C. 20555

Subject: Duke Energy Corporation  
Catawba Nuclear Station, Units 1 and 2  
Docket Numbers 50-413 and 50-414  
Proposed Emergency Technical Specification (TS)  
Amendment  
TS 3.5.2, Emergency Core Cooling System; 3.6.6,  
Containment Spray System; 3.6.17, Containment  
Valve Injection Water System; 3.7.5, Auxiliary  
Feedwater System; 3.7.7, Component Cooling Water  
System; 3.7.8, Nuclear Service Water System;  
3.7.10, Control Room Area Ventilation System;  
3.7.12, Auxiliary Building Filtered Ventilation  
Exhaust System; & 3.8.1, AC Sources - Operating

- References:
1. Letters from Duke Energy Corporation to NRC, dated November 16, 2004, May 3, 2005, July 6, 2005, September 13, 2005, October 6, 2005, October 24, 2005, and November 15, 2005
  2. Letter from NRC to Duke Energy Corporation, dated November 17, 2005

The Reference 1 letters collectively comprised Duke Energy Corporation's license amendment request submittal to allow a 14-day Allowed Outage Time (AOT) for the subject systems in order to facilitate refurbishment activities for the Nuclear Service Water System. The NRC approved the Reference 1 submittal via Reference 2. Reference 2 issued Amendments 228 and 223 for Catawba Units 1 and 2, respectively.

AJ001

Pursuant to 10 CFR 50.90 and 10 CFR 50.91(a)(5), Duke Energy Corporation is submitting the attached proposed emergency TS amendment to request an additional 48 hours for Train A of the subject systems. Train A of the subject systems was declared inoperable on January 5, 2006 at 2045 hours in order to begin the refurbishment activities. The original 14-day AOT approved via the NRC in Reference 2 expires on January 19, 2006 at 2045 hours. As a result of circumstances beyond the control of Duke Energy Corporation, it is necessary to request that an additional 48 hours be added to the approved 14-day AOT, for a total AOT of 16 days (384 hours) for Train A of the subject systems. The details of these circumstances are contained in the attached material to this letter. All of the work associated with refurbishment is complete. The additional time is necessary to complete post-refurbishment restoration and testing. Duke Energy Corporation anticipates that the entire 48 hours will not be necessary; however, 48 hours is being requested to provide time to resolve potential additional issues that could arise during restoration and testing. Duke Energy Corporation anticipates that Train A of the subject systems will be functionally available (although not operable per TS requirements) prior to the start of the additional 48 hours being requested.

The existing 14-day AOT expires on January 19, 2006 at 2045 hours; therefore, Duke Energy Corporation requests NRC approval of this emergency request prior to this time so as to avoid an unnecessary shutdown of the Catawba units.

Attachment 1 provides a description of the proposed TS changes (marked-up copies). Attachment 2 is a placeholder for the reprinted TS pages reflecting the proposed changes. The reprinted TS pages will be provided to the NRC Project Manager pending the completion of NRC review of this request. Attachment 3 provides the technical and regulatory analysis in support of the proposed changes.

Catawba commits to performing the regulatory commitments contained in Attachment 3 should the NRC approve this request.

Implementation of this proposed change to the Catawba Facility Operating Licenses and TS will not impact the Catawba Updated Final Safety Analysis Report (UFSAR).

In accordance with Duke Energy Corporation administrative procedures and the Quality Assurance Program Topical Report,

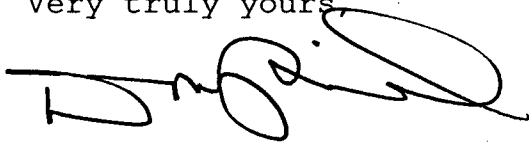
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this proposed amendment has been previously reviewed and approved by the Catawba Plant Operations Review Committee and the Duke Energy Corporation Nuclear Safety Review Board.

Pursuant to 10 CFR 50.91, a copy of this proposed amendment is being sent to the appropriate State of South Carolina official.

Inquiries on this matter should be directed to L.J. Rudy at (803) 831-3084.

Very truly yours,

A handwritten signature in black ink, appearing to read 'D.M. Jamil', with a stylized flourish at the end.

D.M. Jamil

LJR/s

Attachment

D.M. Jamil affirms that he is the person who subscribed his name to the foregoing statement, and that all the matters and facts set forth herein are true and correct to the best of his knowledge.



D.M. Jamil, Vice President

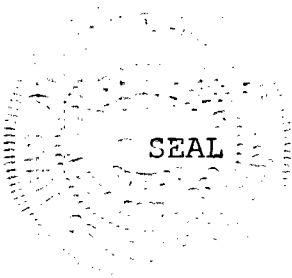
Subscribed and sworn to me: \_\_\_\_\_

1/18/06  
Date

  
Notary Public

My commission expires: \_\_\_\_\_

7/2/2014  
Date



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ATTACHMENT 1  
MARKED-UP TS PAGES

### 3.5 EMERGENCY CORE COOLING SYSTEMS (ECCS)

#### 3.5.2 ECCS — Operating

LCO 3.5.2 Two ECCS trains shall be OPERABLE\*.

APPLICABILITY: MODES 1, 2, and 3.

#### NOTE

In MODE 3, both safety injection (SI) pump flow paths may be isolated by closing the isolation valves for up to 2 hours to perform pressure isolation valve testing per SR 3.4.14.1.

#### ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
<p>A. One or more trains inoperable.</p> <p><u>AND</u></p> <p>At least 100% of the ECCS flow equivalent to a single OPERABLE ECCS train available.</p>	<p>A.1 Restore train(s) to OPERABLE status.</p>	72 hours*
<p>B. Required Action and associated Completion Time not met.</p>	<p>B.1 Be in MODE 3.</p> <p><u>AND</u></p> <p>B.2 Be in MODE 4.</p>	<p>6 hours</p> <p>12 hours</p>

384 hours for Train A and 336 hours for Train B

\*For each Unit, the Completion Time that one ECCS train can be inoperable as specified by Required Action A.1 may be extended beyond the 72 hours up to 336 hours as part of the NSWS system upgrades. System upgrades include maintenance activities associated with cleaning of NSWS piping; weld coating, and necessary repairs and/or replacement. Upon completion of the system upgrades and system restoration, this footnote is no longer applicable and if not used, will expire at midnight on December 31, 2006.

### 3.6 CONTAINMENT SYSTEMS

#### 3.6.6 Containment Spray System

LCO 3.6.6 Two containment spray trains shall be OPERABLE\*.

APPLICABILITY: MODES 1, 2, 3, and 4.

#### ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One containment spray train inoperable.	A.1 Restore containment spray train to OPERABLE status.	72 hours*
B. Required Action and associated Completion Time not met.	B.1 Be in MODE 3.	6 hours
	<u>AND</u> B.2 Be in MODE 5.	84 hours

#### SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
SR 3.6.6.1 Verify each containment spray manual, power operated, and automatic valve in the flow path that is not locked, sealed, or otherwise secured in position is in the correct position.	31 days

(continued)

384 hours for Train A and 336 hours for Train B

\*For each Unit, the Completion Time that one Containment Spray System train can be inoperable as specified by Required Action A.1 may be extended beyond the 72 hours up to 336 hours as part of the NSWS system upgrades. System upgrades include maintenance activities associated with cleaning of NSWS piping; weld coating, and necessary repairs and/or replacement. Upon completion of the system upgrades and system restoration, this footnote is no longer applicable and if not used, will expire at midnight on December 31, 2006.



### 3.6 CONTAINMENT SYSTEMS

#### 3.6.17 Containment Valve Injection Water System (CVIWS)

LCO 3.6.17 Two CVIWS trains shall be OPERABLE\*.

APPLICABILITY: MODES 1, 2, 3, and 4.

#### ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One CVIWS train inoperable.	A.1 Restore CVIWS train to OPERABLE status.	7 days*
B. Required Action and associated Completion Time not met.	B.1 Be in MODE 3.	6 hours
	<u>AND</u> B.2 Be in MODE 5.	36 hours

#### SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
SR 3.6.17.1 Verify system surge tanks pressure is $\geq 36.4$ psig.	31 days
SR 3.6.17.2 Verify valve injection flow rate is $< 1.29$ gpm (Unit 1) $< 1.21$ gpm (Unit 2) for Train A and $< 1.16$ gpm for Train B with a surge tank pressure $\geq 36.4$ psig.	18 months
SR 3.6.17.3 Verify each automatic valve actuates to its correct position on an actual or simulated actuation signal. <i>(336 hours for Train A and 336 hours for Train B)</i>	18 months

\*For each Unit, the Completion Time that one CVIWS train can be inoperable as specified by Required Action A.1 may be extended beyond the 168 hours up to 336 hours as part of the NSWS system upgrades. System upgrades include maintenance activities associated with cleaning of NSWS piping; weld coating, and necessary repairs and/or replacement. Upon completion of the system upgrades and system restoration, this footnote is no longer applicable and if not used, will expire at midnight on December 31, 2006.

### 3.7 PLANT SYSTEMS

#### 3.7.5 Auxiliary Feedwater (AFW) System

LCO 3.7.5 Three AFW trains shall be OPERABLE\*.

NOTE

Only one AFW train, which includes a motor driven pump, is required to be OPERABLE in MODE 4.

APPLICABILITY: MODES 1, 2, and 3,  
MODE 4 when steam generator is relied upon for heat removal.

#### ACTIONS

NOTE

LCO 3.0.4.b is not applicable when entering MODE 1.

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One steam supply to turbine driven AFW pump inoperable.	A.1 Restore steam supply to OPERABLE status.	7 days  <u>AND</u>  10 days from discovery of failure to meet the LCO
B. One AFW train inoperable in MODE 1, 2 or 3 for reasons other than Condition A.	B.1 Restore AFW train to OPERABLE status.	72 hours*  <u>AND</u>  10 days* from discovery of failure to meet the LCO

384 hours for Train A and 336 hours for Train B

(continued)

\*For each Unit, the Completion Time that one AFW train can be inoperable as specified by Required Action B.1 may be extended beyond the "72 hours and 10 days from discovery of failure to meet the LCO" up to 336 hours as part of the NSW system upgrades. System upgrades include maintenance activities associated with cleaning of NSW piping; weld coating, and necessary repairs and/or replacement. Upon completion of the system upgrades and system restoration, this footnote is no longer applicable and if not used, will expire at midnight on December 31, 2006.

### 3.7 PLANT SYSTEMS

#### 3.7.7 Component Cooling Water (CCW) System

LCO 3.7.7 Two CCW trains shall be OPERABLE\*.

APPLICABILITY: MODES 1, 2, 3, and 4.

#### ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One CCW train inoperable.	<p>A.1 -----NOTE----- Enter applicable Conditions and Required Actions of LCO 3.4.6, "RCS Loops—MODE 4," for residual heat removal loops made inoperable by CCW.</p> <p>Restore CCW train to OPERABLE status.</p>	72 hours*
B. Required Action and associated Completion Time of Condition A not met.	<p>B.1 Be in MODE 3.</p> <p><u>AND</u></p> <p>B.2 Be in MODE 5.</p>	<p>6 hours</p> <p>36 hours</p>

(384 hours for train A and 336 hours for train B)

\*For each Unit, the Completion Time that one CCW train can be inoperable as specified by Required Action A.1 may be extended beyond the 72 hours up to 336 hours as part of the NSWS system upgrades. System upgrades include maintenance activities associated with cleaning of NSWS piping; weld coating, and necessary repairs and/or replacement. Upon completion of the system upgrades and system restoration, this footnote is no longer applicable and if not used, will expire at midnight on December 31, 2006.

### 3.7 PLANT SYSTEMS

#### 3.7.8 Nuclear Service Water System (NSWS)

LCO 3.7.8 Two NSWS trains shall be OPERABLE\*.

APPLICABILITY: MODES 1, 2, 3, and 4.

#### ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One NSWS train inoperable.	<p>A.1 -----NOTES-----</p> <ol style="list-style-type: none"> <li>1. Enter applicable Conditions and Required Actions of LCO 3.8.1, "AC Sources—Operating," for emergency diesel generator made inoperable by NSWS.</li> <li>2. Enter applicable Conditions and Required Actions of LCO 3.4.6, "RCS Loops—MODE 4," for residual heat removal loops made inoperable by NSWS.</li> </ol> <p>Restore NSWS train to OPERABLE status.</p>	72 hours*

384 hours for Train A and 336 hours for Train B (continued)

\*For each Unit, the Completion Time that one NSWS train can be inoperable as specified by Required Action A.1 may be extended beyond the 72 hours up to 336 hours as part of the NSWS system upgrades. System upgrades include maintenance activities associated with cleaning of NSWS piping; weld coating, and necessary repairs and/or replacement. Upon completion of the system upgrades and system restoration, this footnote is no longer applicable and if not used, will expire at midnight on December 31, 2006.

### 3.7 PLANT SYSTEMS

#### 3.7.10 Control Room Area Ventilation System (CRAVS)

LCO 3.7.10 Two CRAVS trains shall be OPERABLE\*.

-----NOTE-----

The control room pressure boundary may be opened intermittently under administrative controls.

APPLICABILITY: MODES 1, 2, 3, 4, 5, and 6,  
During movement of irradiated fuel assemblies.

#### ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One CRAVS train inoperable in MODES 1,2,3,4,5, and 6.	A.1 Restore CRAVS train to OPERABLE status.	7 days*
B. Two CRAVS trains inoperable due to inoperable control room pressure boundary in MODES 1, 2, 3, or 4.	B.1 Restore control room pressure boundary to OPERABLE status.	24 hours
C. Required Action and associated Completion Time of Condition A or B not met in MODE 1, 2, 3, or 4.	C.1 Be in MODE 3. <u>AND</u>	6 hours
	C.2 Be in MODE 5.	36 hours

(continued)

336 hours for Train A and 336 hours for Train B

\*For each CRAVS train, the Completion Time that one CRAVS train can be inoperable as specified by Required Action A.1 may be extended beyond the 168 hours up to 336 hours as part of the NSWS system upgrades. System upgrades include maintenance activities associated with cleaning of NSWS piping; weld coating, and necessary repairs and/or replacement. Upon completion of the system upgrades and system restoration, this footnote is no longer applicable and if not used, will expire at midnight on December 31, 2006.

### 3.7 PLANT SYSTEMS

#### 3.7.12 Auxiliary Building Filtered Ventilation Exhaust System (ABFVES)

LCO 3.7.12 Two ABFVES trains shall be OPERABLE\*.

-----NOTE-----  
The ECCS pump rooms pressure boundary may be opened intermittently under administrative controls.  
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APPLICABILITY: MODES 1, 2, 3, and 4.

#### ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One ABFVES train inoperable.	A.1 Restore ABFVES train to OPERABLE status.	7 days*
B. Two ABFVES trains inoperable due to inoperable ECCS pump rooms pressure boundary.	B.1 Restore ECCS pump rooms pressure boundary to OPERABLE status.	24 hours
C. Required Action and associated Completion Time of Condition A or B not met.	C.1 Be in MODE 3.	6 hours
	<u>AND</u> C.2 Be in MODE 5.	36 hours
D. One or more ABFVES train(s) heater inoperable.	D.1 Restore ABFVES train(s) heater to OPERABLE status.	7 days
	<u>OR</u> D.2 Initiate action in accordance with Specification 5.6.6.	7 days

284 hours for Train A and  
336 hours for Train B

\*For each Unit, the Completion Time that one ABFVES train can be inoperable as specified by Required Action A.1 may be extended beyond the 168 hours up to 336 hours as part of the NSW system upgrades. System upgrades include maintenance activities associated with cleaning of NSW piping; weld coating, and necessary repairs and/or replacement. Upon completion of the system upgrades and system restoration, this footnote is no longer applicable and if not used, will expire at midnight on December 31, 2006.

### 3.8 ELECTRICAL POWER SYSTEMS

#### 3.8.1 AC Sources—Operating

LCO 3.8.1 The following AC electrical sources shall be OPERABLE\*:

- a. Two qualified circuits between the offsite transmission network and the Onsite Essential Auxiliary Power System; and
- b. Two diesel generators (DGs) capable of supplying the Onsite Essential Auxiliary Power Systems;

AND

The automatic load sequencers for Train A and Train B shall be OPERABLE.

APPLICABILITY: MODES 1, 2, 3, and 4.

#### ACTIONS

-----NOTE-----

LCO 3.0.4.b is not applicable to DGs.

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One offsite circuit inoperable.	A.1 Perform SR 3.8.1.1 for OPERABLE offsite circuit.	1 hour
	<u>AND</u>	<u>AND</u> Once per 8 hours thereafter
	A.2 Declare required feature(s) with no offsite power available inoperable when its redundant required feature(s) is inoperable.	24 hours from discovery of no offsite power to one train concurrent with inoperability of redundant required feature(s)
	<u>AND</u>	(continued)

384 hours for Train A and  
236 hours for Train B

\*For each Unit, the Completion Time that one EDG can be inoperable as specified by Required Action B.4 may be extended beyond the "72 hours and 6 days from discovery of failure to meet the LCO" up to 336 hours as part of the NSWS system upgrades. System upgrades include maintenance activities associated with cleaning of NSWS piping; weld coating, and necessary repairs and/or replacement. Upon completion of the system upgrades and system restoration, this footnote is no longer applicable and if not used, will expire at midnight on December 31, 2006.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
B. (continued)	B.4 Restore DG to OPERABLE status.	72 hours*  <u>AND</u> 6 days* from discovery of failure to meet LCO
C. Two offsite circuits inoperable.	C.1 Declare required feature(s) inoperable when its redundant required feature(s) is inoperable.  <u>AND</u> C.2 Restore one offsite circuit to OPERABLE status.	12 hours from discovery of Condition C concurrent with inoperability of redundant required features  24 hours

(continued)

*384 hours for Train A and 336 hours for Train B*

\*For each Unit, the Completion Time that one EDG can be inoperable as specified by Required Action B.4 may be extended beyond the "72 hours and 6 days from discovery of failure to meet the LCO" up to 336 hours as part of the NSWS system upgrades. System upgrades include maintenance activities associated with cleaning of NSWS piping; weld coating, and necessary repairs and/or replacement. Upon completion of the system upgrades and system restoration, this footnote is no longer applicable and if not used, will expire at midnight on December 31, 2006.



ATTACHMENT 2

REPRINTED TS PAGES  
(TO BE PROVIDED TO NRC PROJECT MANAGER)

ATTACHMENT 3

TECHNICAL AND REGULATORY ANALYSIS

Note: A list of acronyms is provided on the last page of this attachment.

### Technical Justification

This amendment request constitutes an addition of 48 hours to the 14-day AOT previously approved by the NRC via Amendments 228 and 223 for Catawba Units 1 and 2, respectively. This amendment request is only applicable to Train A of the NSWS and its supported systems. The AOTs for Train A will be increased from 14 days to 16 days to facilitate completion of the restoration and testing activities for this train. Because this amendment submittal requests a one-time addition of 48 hours for the Train A AOTs, all of the technical justification presented in the license amendment request documentation for Amendments 228 and 223 will continue to be applicable to this emergency request.

The emergency circumstances beyond the control of Duke Energy Corporation associated with this request are as follows:

- Three sequential piping sections were identified during the engineering inspection of the Train A supply header with areas of significant degradation along their 20-foot longitudinal seam welds. This required extensive evaluation and subsequent weld repairs of over 50% of these three 20-foot long piping sections. While the degradation showed no signs of being through-wall either during the initial engineering inspections or during the subsequent grinding activities as part of the required weld repairs, the degradation did not meet the engineering acceptance criteria for long-term (3-year) system reliability in the specific areas where subsequent weld repairs were performed. Previous weld degradation had been observed to be dispersed throughout the NSWS piping. The actual degradation found was concentrated in the described three consecutive 20-foot sections of the total 2500 feet of piping. The concentration of weld repairs significantly increased the amount of time to implement the repairs. This was caused by two factors: 1) spatial requirements limited the number of individuals that could actually work on the welds; and 2) the minimum air flow requirements per person in the piping section conflicted with the maximum allowed air flow for the welding process, further restricting personnel access.

- Duke Energy Corporation chose this particular time of the year to implement the refurbishment activity in part due to the low probability of severe weather. Nevertheless, on January 13, 2006 at 1820 hours, a tornado watch was initiated at Catawba. The tornado watch was suspended on January 13, 2006 at 2303 hours. The duration of the tornado watch was therefore 4 hours and 43 minutes. During this time period, personnel had to be evacuated from the NSWS piping and tornado barriers had to be secured. The tornado watch resulted in the interruption of planned activities for several hours.

The combination of the above two circumstances resulted in the loss of much of the schedule margin associated with Train A of the refurbishment project. The schedule margin was intended to account for circumstances that might be encountered during the restoration and testing portion of the refurbishment. During restoration and testing activities associated with Train A of the NSWS, leakage was observed from the following sources: a piping flange in the Unit 2 Train A diesel generator room; a gasket associated with NSWS valve 2RN-29; and leakby associated with valve 2RN-48B. The cumulative effect of these circumstances was that the remainder of the restoration and testing of Train A may not be completed prior to the expiration of the 14-day AOT. Duke Energy Corporation is therefore requesting that the NRC grant an additional 48 hours to accommodate the remaining restoration and testing activities. This will prevent an unnecessary shutdown of both Catawba units for this short period and will preclude transient cycles on the units. Duke Energy Corporation anticipates that Train A of the NSWS will be functionally available (although not operable per TS requirements) prior to the start of the additional 48 hours being requested.

Duke Energy Corporation has used a risk-informed approach to determine the risk significance of taking a loop of the NSWS out of service beyond the 72-hour TS limit. The acceptance guidelines given in the EPRI PSA Applications Guide were used as a gauge to determine the significance of the short-term risk increase for an 11-day outage extension, as well as an additional outage extension of 2 days. For a 2-day period, the increase in the Incremental Conditional Core Damage Probability (ICCDP) is  $1.2\text{E-}06$  and the increase in the Incremental Conditional Large Early Release Probability (ICLERP) is  $3.4\text{E-}08$ .

As stated in our May 4, 2005 letter, the baseline Core Damage Frequency (CDF) is  $3.68\text{E-}05/\text{yr}$  (at a truncation limit

of  $5\text{E-}10$ ) and the Large Early Release Frequency (LERF) is  $2.70\text{E-}06/\text{yr}$  (at a truncation limit of  $5\text{E-}11$ ). For a 2-day period, the baseline Core Damage Probability (CDP) becomes  $2.2\text{E-}07$  and the Large Early Release Probability (LERP) is  $1.6\text{E-}08$ .

During the year in which the NSWs train outages are conducted, the increases in CDF and LERF due to each NSW train outage are equal to the ICCDP and ICLERP. The CDF remains less than  $1\text{E-}4$  per year, and LERF remains less than  $1\text{E-}5$  per year, and so the calculated risk increases are within the Region II ("small") area of the acceptance guidelines applicable to permanent changes to TS as delineated in Regulatory Guide 1.174, "An Approach for Using Probabilistic Risk Assessment in Risk Informed Decisions on Plant-Specific Changes to the Licensing Basis."

For the duration of the additional 48 hours applicable to the Train A AOT, Catawba commits (except as annotated below) to maintain in effect all contingency actions previously committed to in our November 15, 2005 letter to the NRC which are of a continuous or ongoing nature. These continuous or ongoing contingency actions are as follows:

- During the 16-day period when operating with only one operable NSW header, no major maintenance or testing will be planned on the remaining operable NSW header. In addition, during the 16-day period, no major maintenance or testing will be planned on the operable equipment that relies upon NSW as a support system. To the maximum extent practicable, routine tests (e.g., quarterly pump tests) and preventive maintenance work (e.g., motor checks) will be scheduled following the 16-day period. Certain tests may have to be performed during the 16-day period.
- Diesel Generator Jacket Water Heat Exchanger - A temporary Engineering Change was installed on the Train A EDGs on both units to maintain the technically inoperable EDG capable of being manually started while the normal NSW supply piping is out of service. This was accomplished by using water from the fire protection system. (Note that this temporary change will have been removed prior to the start of the additional 48 hours being requested.)
- Diesel Generator Starting Air - An Engineering Change was installed on the Train A EDGs on both units to maintain the cooling water to the EDG starting air

system aftercoolers while the normal NSWS supply piping is out of service. This was accomplished by using drinking water to supply the aftercooler. This cooling water flow rate is adequate to maintain the non-safety related function of the starting air compressors. (Note that this change will have been removed prior to the start of the additional 48 hours being requested.)

- No major maintenance or testing will be planned on the operable offsite power sources during the 16-day period. Switchyard activities will be coordinated to ensure that the operable offsite power supply and main transformer on both units are protected to the maximum extent practicable.
- Appropriate training was provided to Operations personnel on Amendments 228 and 223, contingency measures to be implemented during each AOT, and actions to be taken in the event of flooding in the turbine building. Also, Operations reviewed the loss of NSWS and loss of CCW procedures as will continue to perform extra rounds on the CCW system.
- During the 16-day period, no major maintenance or testing will be planned on the SSF. To the maximum extent practicable, routine tests and preventive maintenance work for the SSF will be scheduled following the 16-day period.
- During the 16-day period, no major maintenance or testing will be planned on the operable trains of ECCS, CSS, CVIWS, AFW, CCW, CRAVS, ABFVES, and EDG. Routine tests and preventive maintenance work for these systems will be scheduled following the 16-day period. These items are being done to ensure the operable train is protected to the maximum extent practicable.
- During the 16-day period that the Train A NSWS header is out of service, the operable train remaining in service will be considered a protected train. Operations will maintain their increased routine monitoring of this train to help ensure its operability. This increased routine monitoring will also continue to include the turbine building to ensure no flooding in this area.
- Plant procedures will continue to be used to maintain the cross tie of selected CCW system loads during the

time period a CCW heat exchanger will be out of service during the NSWS header outage.

- Catawba has installed permanent flood protection barriers in the turbine building to mitigate turbine building flooding. In addition, to help reduce any potential flooding issues, no major maintenance or testing will be planned on the Condenser Circulating Water System. Operators reviewed actions to be taken in the event of flooding in the turbine building.
- An action taken by Catawba to reduce the likelihood of an operator failing to get to the SSF and performing the required actions is to station an individual in the SSF continuously. This individual is trained on how to operate the SSF diesel generator and the standby makeup pump to establish an alternate method of reactor coolant pump seal injection. This will provide additional assurance that the SSF will be available during the NSWS header outage.
- To mitigate the risk of a potential core damage event, two separate operator actions have been identified that were incorporated into existing plant procedures. The first involves dispatching operators to throttle key AFW valves to supply the flow to the steam generators prior to the depletion of the vital batteries, thereby preventing steam generator overfill and thus protecting the steam supplies to the AFW turbine driven pump. The second involves the CCW system in cross-train alignment, where if the operable 4160 VAC bus is lost, operators would be instructed to align the available CCW pumps in the maintenance train through the CCW heat exchanger corresponding to the train without power. This will provide cooling to a CCW essential header.
- No major maintenance or testing will be planned on the portions of the fire protection system and drinking water system that are relied upon to provide backup cooling to the EDGs and the "A" charging pumps.
- Catawba will continue to monitor the National Weather Service reports throughout the NSWS outage to ensure, to the maximum extent practicable, that any potential outbreaks of severe weather are factored into the schedule, and if severe weather should occur, that appropriate personnel are notified and appropriate actions are taken.

- Also, as stated on Page 1-11 of our September 13, 2005 letter, Catawba does not plan to perform any discretionary maintenance on the following electrical systems for the protected train and the equipment that will receive CCW cooling when the CCW system is in cross-train alignment:
  - 4160 volt safety-related electrical buses
  - 600 volt safety-related load centers
  - 600 volt safety-related motor control centers
  - 125 volt vital DC busses, batteries, and battery chargers
  - 120 volt vital instrument busses and associated vital inverters

In addition to the above listed commitments, Duke Energy Corporation is making the following additional commitments and requests via this submittal:

- For the utilized portion of the additional 48-hour period being requested for Train A, Catawba will provide a dedicated operator in the control room to ensure the reactor coolant pumps are tripped in the event of a loss of seal cooling, will station a Senior Reactor Operator in the SSF, and will provide a dedicated operator in the Auxiliary Building to perform the drinking water alignment to the required Train A centrifugal charging pump.
- Catawba will revise the following Selected Licensee Commitment (SLC) Manual sections as necessary to reflect NRC approval of this emergency TS change request: SLC 16.7-6, RN Discharge Instrumentation; SLC 16.9-8, Boration Systems Flow Paths - Operating; and SLC 16.9-10, Boration Systems Charging Pumps - Operating
- The additional 48 hours being requested via this emergency amendment request results from circumstances encountered during the restoration and testing phase of the refurbishment project. Duke Energy Corporation commits that the use of this additional 48 hours will be limited to typical circumstances discovered during restoration and testing. If circumstances are discovered that are not associated with restoration and testing (e.g., an unrelated pump failure), then the additional 48 hours will not be utilized. In such a situation, Catawba will follow the provisions of the TS and shut down the units as necessary. In addition, if



any circumstances are discovered which cause the risk assessment results as presented in this submittal to become invalidated, the additional 48 hours will not be utilized. Catawba will follow the provisions of the TS and shut down the units as necessary. Note that in the event that a dual-unit shutdown is required per the provisions of the TS, Catawba may elect to utilize up to 4 hours of the 48-hour allowance in order to coordinate a staggered shutdown of the two units. This will allow Operations to initiate and continue the shutdowns in an orderly manner.

- Prior to taking Train B of the NSWS out of service for refurbishment, Duke Energy Corporation will incorporate into the Train B refurbishment plan those lessons learned associated with the Train A refurbishment that resulted in the need for this emergency TS amendment.

#### No Significant Hazards Consideration Determination

Catawba is in the midst of an NRC-approved 14-day AOT to refurbish Train A of the NSWS piping for both units. This is necessary to maintain the long-term reliability of the system. The purpose of this submittal is to request an additional 48 hours above and beyond the 14-day AOT that the NRC previously approved to support this refurbishment. This request for an additional 48 hours is only applicable to Train A of the system.

NRC approval of this submittal will permit completion of an orderly and efficient project implementation for Train A of the system during power operation on both units.

The following discussion is a summary of the evaluation of the changes contained in this proposed amendment against the 10 CFR 50.92(c) requirements to demonstrate that all three standards are satisfied. A no significant hazards consideration is indicated if operation of the facility in accordance with the proposed amendment would not:

1. Involve a significant increase in the probability or consequences of an accident previously evaluated, or
2. Create the possibility of a new or different kind of accident from any accident previously evaluated, or
3. Involve a significant reduction in a margin of safety.

### First Standard

*Does operation of the facility in accordance with the proposed amendment involve a significant increase in the probability or consequences of an accident previously evaluated?*

Response: No.

The pipe repair project for the NSWS and proposed TS changes have been evaluated to assess their impact on normal operation of the systems affected and to ensure that the design basis safety functions are preserved. During the remainder of the pipe repair the Train B of the affected systems will continue to remain operable and no major maintenance or testing will be done on the operable train. The operable train will continue to be protected to help ensure it will be available if called upon.

This pipe repair project will enhance the long term structural integrity of the NSWS. This will ensure that the system headers maintain their integrity to ensure their ability to comply with design basis requirements and increase the overall reliability of the system for many years.

The increased Train A unavailability of the NSWS and its supported systems as a result of the implementation of this amendment does involve a one-time increase in the probability or consequences of an accident previously evaluated during the time frame the Train A header is out of service for pipe repair. Considering this small increased time frame for the Train A outage with the increased reliability and the decrease in unavailability of the system in the future because of this project, the overall probability or consequences of an accident previously evaluated will decrease.

Therefore, because this is a temporary and not a permanent change, the time averaged risk increase is acceptable. The increase in the overall reliability of the NSWS, along with the decreased unavailability in the future because of the pipe repair project will result in an overall increase in the safety of both Catawba units. Therefore, the consequences of an accident previously evaluated remains unaffected and there will be minimal impact on any accident consequences.

## Second Standard

*Does operation of the facility in accordance with the proposed amendment create the possibility of a new or different kind of accident from any accident previously evaluated?*

Response: No.

Implementation of this amendment would not create the possibility of a new or different kind of accident from any accident previously evaluated. The proposed temporary TS changes do not affect the basic operation of the NSWS or any of its supported systems. The only change is increasing the required AOT from 14 days to 16 days. The train not undergoing maintenance (Train B) will be operable and capable of meeting its design requirements. Therefore, only the redundancy of the above systems is affected by the extension of the AOT from 14 days to 16 days. During the remainder of the Train A portion of this project, contingency measures will remain in place to provide additional assurance that the affected systems will be able to complete their design functions.

No new accident causal mechanisms are created as a result of NRC approval of this amendment request. No changes are being made to the plant which will introduce any new accident causal mechanisms.

## Third Standard

*Does operation of the facility in accordance with the proposed amendment involve a significant reduction in the margin of safety?*

Response: No.

Implementation of this amendment would not involve a significant reduction in a margin of safety. Margin of safety is related to the confidence in the ability of the fission product barriers to perform their design functions during and following an accident situation. These barriers include the fuel cladding, the reactor coolant system, and the containment system. The performance of these fission product barriers will not be impacted by implementation of this proposed temporary TS amendment. During the remainder of the Train A outage, the affected systems will still be capable of performing their required functions and contingency measures will remain in place to provide additional assurance that the affected systems will be

maintained in a condition to be able to complete their design functions. No safety margins will be impacted.

The probabilistic risk analysis conducted for this proposed amendment demonstrated that the CDP associated with the additional outage extension is judged to be acceptable for a one-time or rare evolution. Therefore, there is not a significant reduction in the margin of safety.

Based upon the preceding discussion, Duke Energy Corporation has concluded that the proposed amendment for a temporary TS change does not involve a significant hazards consideration.

### Environmental Analysis

Pursuant to 10 CFR 51.22(b), an evaluation of this license amendment request has been performed to determine whether or not it meets the criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9) of the regulations.

Implementation of this amendment will have no adverse impact upon the Catawba units; neither will it contribute to any additional quantity or type of effluent being available for adverse environmental impact or personnel exposure.

It has been determined there is:

1. No significant hazards consideration,
2. No significant change in the types, or significant increase in the amounts, of any effluents that may be released offsite, and
3. No significant increase in individual or cumulative occupational radiation exposures involved.

Therefore, this amendment to the Catawba TS meets the criteria of 10 CFR 51.22(c)(9) for categorical exclusion from an environmental impact statement.

List of acronyms:

NSWS	Nuclear Service Water System
EDG	Emergency Diesel Generator
CCW	Component Cooling Water
SSF	Standby Shutdown Facility
ECCS	Emergency Core Cooling System
CSS	Containment Spray System
CVIWS	Containment Valve Injection Water System
AFW	Auxiliary Feedwater
CRAVS	Control Room Area Ventilation System
ABFVES	Auxiliary Building Filtered Ventilation Exhaust System