Duke Energy

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10 CFR 50.90

U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Attention: Document Control Desk

Subject: Duke Energy Carolinas, LLC (Duke Energy)
McGuire Nuclear Station, Units 1 and 2
Docket Numbers 50-369 and 50-370

Response to Request for Additional Information Related to License Amendment, Confirmation of the Completion of Unit 1 Pipe Support Re-Qualification, and Replacement Technical Specification Pages

References: License Amendment Request for Emergency Core Cooling System (ECCS) Water Management Initiative (TAC Nos ME4051 and ME4052), and Electronic Mail from NRC to Duke Energy, dated April 15, 2011

On May 28, 2010, Duke Energy submitted a license amendment request (LAR) for the Renewed Facility Operating Licenses (FOL) and Technical Specifications (TS) for McGuire Nuclear Station Units 1 and 2 to allow the manual operation of the Containment Spray System (CSS) in lieu of automatic actuation, and revise the minimum volume and low level setpoint on the Refueling Water Storage Tank (ML101600256).

In response to the NRC's Request for Additional Information (RAI) of January 31, 2011, as amended on February 28, 2011, Duke Energy's response of March 23, 2011 (ML110840443) committed to providing a letter informing the NRC of the completion of the re-qualification of all affected Unit 1 pipe supports by May 2, 2011. Please be advised that the re-qualification of those pipe supports has been completed. The re-qualification effort did not identify any additional supports requiring modification other than that stated in Duke Energy's letter of March 23, 2011.

On April 15, 2011, the NRC electronically transmitted an RAI. Duke Energy's response to this RAI is contained in Attachment 1 to this letter.

In addition, replacement Technical Specification pages 3.5.4-2, 3.6.6-1 and 3.6.6-2 are enclosed as Attachment 2 to this letter. These pages were changed by Amendments 261/241, approved by the NRC Safety Evaluation of March 29, 2011 (ML110680357) for the relocation of specific surveillance frequencies to a licensee controlled program (TSTF-425). The replacement pages do not contain any changes in addition to those requested by Duke Energy's May 28, 2010 submittal.

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There are no Regulatory Commitments contained in this letter.

The information contained in this letter did not result in any impact to the original No Significant Hazards Consideration or the Environmental Consideration contained in the May 28, 2010 submittal.

Pursuant to 10 CFR 50.91, a copy of this letter is being sent to the designated official of the State of North Carolina.

If you have any questions or require additional information, please contact K. L. Ashe at (980) 875-4535.

Very truly yours,

R. T. Repko

Attachments

xc (with attachments):

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Regis T. Repko 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.

Regis T. Repko, Vice President, McGuire Nuclear Station

Subscribed and sworn to me: May 2, 2011
Date

, Notary Public

My commission expires: July 1, 2012
Date

SEAL

Attachment 1
Response to NRC Request for Additional Information

REQUEST FOR ADDITIONAL INFORMATION BY THE OFFICE OF NUCLEART REACTOR REGULATION REGARDING LICENSE AMENDMENT REQUEST RELATED TO EMERGENCY CORE COOLING SYSTEM (ECCS) WATER MANAGEMENT INITIATIVE

McGUIRE NUCLEAR STATION, UNITS 1 AND 2

In Attachment 2 to the LAR, Technical Specification (TS) Table 3.3.2-1, insert 1, implies that the requirements of Function 2a are not applicable following implementation of the modifications associated with the LAR.

The NRC staff requests the following information:

1. Justify deletion of the proposed Function 2a from TS Table 3.3.2-1

2. Describe all the surveillance tests performed in Function 2a that are proposed to be deleted

3. Describe the TS related controls and instrumentation functions associated with the manual operation of the containment spray system that are required to be surveillance tested and describe according to which TS these will be tested.

Duke Response:

The requirements of Function 2 of Technical Specification (TS) Table 3.3.2-1, including Function 2a, are no longer applicable following approval of the LAR and implementation of the associated modifications. Table 3.3.2-1 lists Engineered Safety Features Actuation System (ESFAS) functions. At McGuire, ESFAS functions are performed by the Westinghouse Solid State Protection System (SSPS) using bistable and switch inputs from the W7300 process control system, field instruments and Main Control Board (MCB) manual switches.

Following implementation of the associated modifications, circuitry controlling the containment spray pumps and related motor valves will no longer go through the SSPS. Actuation and interlock circuitry will remain safety-related, but will be implemented instead in auxiliary relay cabinets.

Therefore, this circuitry will no longer be considered ESFAS at McGuire, and all Function 2 functions, including 2a, are being deleted from TS Table 3.3.2-1. This is identical to the TS change approved previously for Catawba Nuclear Station on June 28, 2010 as amendments 257/252 (ML092530088).

TS Table 3.3.2-1, Function 2a presently requires the completion of Surveillance Requirement (SR) 3.3.2.7, Trip Actuating Device Operational Test (TADOT) every 18 months. The TADOT for a manual function consists of operating the actuating device and verifying the operability of the alarm, interlock, and trip functions. The current implementing procedure is PT/1(2)/A/4200/009A & B, which is the integrated testing of the entire ESFAS for train A and B, respectively. The procedure currently satisfies TS Table 3.3.2-1 surveillance requirement for Function 2a by manual operation of the "Initiate Phase B & Cont Spray Train A" pushbutton.

Following LAR implementation, this procedure step will be revised to test only the Phase B

Containment Isolation function, which uses the same existing (but relabeled) switch, and is retained in Table 3.3.2-1 as ESFAS Function 3b. Surveillance will continue as part of ESF testing under procedure PT/1(2)/A/4200/009A & B.

The current Containment Spray system component surveillance requirements are listed in the procedure by reference to SR 3.6.6.3 and SR 3.6.6.4 "*Containment Spray System*". Following implementation of the modifications associated with ECCS Water Management on the respective Unit, the requirements of SR 3.6.6.3 and SR 3.6.6.4 shall no longer be applicable. However, the manual spray pump actuation will be done using the pump start/stop pushbuttons on the MCB.

Manual containment spray pump operation will continue to be tested periodically as required by SR 3.6.6.2 for verification of the spray pump developed head in accordance with the Technical Specification 5.5.8 Inservice Testing Program (quarterly minflow and 18 month full flow testing, PT/1&2/A/4208/001A & B, PT/1&2/A/4208/021A & 021B). In addition, the manual start/stop push-buttons must be used in order to test the Containment Pressure Control System (CPCS), which is verified at 18 month intervals by SR 3.6.6.5.

The procedure implementing SR 3.6.6.5 (CPCS functions for Containment Spray Pump) is PT/1(2)/A/4150/020, "*NS Train CPCS Interlock Verification*". This procedure exercises the pump "START" pushbutton and the acceptance criteria are given in the procedure step. The acceptance criteria are that the Containment Spray Pump start is inhibited when the simulated containment pressure signal is below the setpoint, and is permitted when it is above the setpoint. There are no other instrumentation and control functions associated with pump "START" pushbutton.

In conclusion, the surveillance test of the containment spray manual actuation switch in ESFAS Table 3.3.2-1, Function 2a is no longer applicable. The new functionality is implemented using the pump start/stop pushbutton on the MCB. Equivalent surveillance of this switch is already included elsewhere in the Technical Specifications. No new surveillance is required.

Attachment 2
Replacement Technical Specification Pages

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.5.4.1	Verify RWST borated water temperature is ≥ 70°F and ≤ 100°F.	In accordance with the Surveillance Frequency Control Program
SR 3.5.4.2	Verify RWST borated water volume is ≥ 372,100 gallons. *	In accordance with the Surveillance Frequency Control Program
SR 3.5.4.3	Verify RWST boron concentration is within the limits specified in the COLR.	In accordance with the Surveillance Frequency Control Program

INSERT 3

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. AND B.2 Be in MODE 5.	6 hours 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.	In accordance with the Surveillance Frequency Control Program

(continued)

INSERT 4

SURVEILLANCE		FREQUENCY
SR 3.6.6.2	Verify each containment spray pump's developed head at the flow test point is greater than or equal to the required developed head.	In accordance with the Inservice Testing Program
SR 3.6.6.3 *	Verify each automatic containment spray valve in the flow path that is not locked, sealed, or otherwise secured in position, actuates to the correct position on an actual or simulated actuation signal.	In accordance with the Surveillance Frequency Control Program
SR 3.6.6.4 *	Verify each containment spray pump starts automatically on an actual or simulated actuation signal.	In accordance with the Surveillance Frequency Control Program
SR 3.6.6.5 **	Verify that each spray pump is de-energized and prevented from starting upon receipt of a terminate signal and is allowed to start upon receipt of a start permissive from the Containment Pressure Control System (CPCS).	In accordance with the Surveillance Frequency Control Program
SR 3.6.6.6 ***	Verify that each spray pump discharge valve closes or is prevented from opening upon receipt of a terminate signal and is allowed to open upon receipt of a start permissive from the Containment Pressure Control System (CPCS).	In accordance with the Surveillance Frequency Control Program
SR 3.6.6.7	Verify each spray nozzle is unobstructed.	Following activities which could result in nozzle blockage

* INSERT NOTE 5

** INSERT NOTE 6

*** INSERT NOTE 7