



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

August 18, 2015

Mr. Steven D. Capps
Vice President
McGuire Nuclear Station
Duke Energy Carolinas, LLC
12700 Hagers Ferry Road
Huntersville, NC 28078-8985

SUBJECT: MCGUIRE NUCLEAR STATION, UNITS 1 AND 2: REQUEST FOR
ADDITIONAL INFORMATION REGARDING LICENSE AMENDMENT
REQUEST TO IMPLEMENT A RISK-INFORMED, PERFORMANCE-BASED
FIRE PROTECTION PROGRAM (TAC NOS. MF2934 AND MF2935)

Dear Mr. Capps:

By letter dated September 26, 2013 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML13276A126), Duke Energy Carolinas, LLC (Duke) submitted a license amendment request to change its fire protection program to one based on the National Fire Protection Association (NFPA) Standard-805, "Performance-Based Standard for Fire Protection for Light Water Reactor Electric Generating Plants," 2001 Edition. The U.S. Nuclear Regulatory Commission (NRC) staff is continuing its review and has determined that additional information is needed as stated below.

Safe Shutdown Analysis (SSA) RAI 08

Regulatory Position C.2.4 in Regulatory Guide (RG) 1.205, "Risk-Informed, Performance Based Fire Protection for Existing Light-Water Nuclear Power Plants" states that there are two cases where operator actions taken outside the main control room may be considered as taking place at a primary control station. These two cases involve dedicated shutdown or alternative shutdown controls, which have been reviewed and approved by the NRC.


On Monday, July 27, 2015, the licensee verbally informed the NRC staff that of all the fire areas that credit the Standby Shutdown Facility (SSF) as the success path to meet the nuclear safety performance criteria (NSPC) in the McGuire Nuclear Safety Capability Analysis (NSCA), the use of the SSF to meet the safe shutdown requirements in one fire area had not been previously reviewed and approved by the NRC in the deterministic licensing basis.

Utilization of the Alternative/Dedicated Shutdown strategy in a fire area that had not been previously approved by the NRC staff is a modification to the previously approved strategy.

- a) Provide a detailed description of the modification to the dedicated or alternative shutdown strategy sufficient for the NRC staff to verify that the strategy meets the attributes provided in RG 1.205 Section C.2.4 (electrical independence, command and control, instrumentation, actions necessary to enable (if required), etc.).

- b) In addition, provide sufficient design information to provide assurance that connections/interconnections with safety-related plant systems will not cause a reduction in the capability, redundancy, diversity, or design margin for those systems.
- c) Since the proposed change involves the use of the previously reviewed and approved SSF, verify that the use of the SSF for the fire area in question will not invalidate any of the previously approved attributes of the alternative/dedicated shutdown strategy (electrical independence, command and control, instrumentation, actions necessary to enable, etc.).
- d) Verify that upon successful startup and enabling of the SSF, the credited success path is physically and electrically independent of the fire area resulting in the SSF strategy meeting the deterministic requirements of NFPA 805 Section 4.2.3.

Sincerely,


Bob Martin, Senior Project Manager
Plant Licensing Branch II-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-369 and 50-370

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S. Capps

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- b) In addition, provide sufficient design information to provide assurance that connections/interconnections with safety-related plant systems will not cause a reduction in the capability, redundancy, diversity, or design margin for those systems.
- c) Since the proposed change involves the use of the previously reviewed and approved SSF, verify that the use of the SSF for the fire area in question will not invalidate any of the previously approved attributes of the alternative/dedicated shutdown strategy (electrical independence, command and control, instrumentation, actions necessary to enable, etc.).
- d) Verify that upon successful startup and enabling of the SSF, the credited success path is physically and electrically independent of the fire area resulting in the SSF strategy meeting the deterministic requirements of NFPA 805 Section 4.2.3.

Sincerely,

/RA/

Bob Martin, Senior Project Manager
Plant Licensing Branch II-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-369 and 50-370

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