



**Tom Simril**  
Vice President  
Catawba Nuclear Station

**Duke Energy**  
CN01VP | 4800 Concord Road  
York, SC 29745  
o: 803.701.3340  
f: 803.701.3221  
Tom.Simril@duke-energy.com

RA-20-0042

February 5, 2020

U.S. Nuclear Regulatory Commission  
Attention: Document Control Desk  
Washington, D.C. 20555-0001

Subject: Duke Energy Carolinas, LLC (Duke Energy)  
Catawba Nuclear Station, Units 1 and 2  
Docket Numbers: 50-413 and 50-414  
Special Report 2020-01 for the Meteorological Instrumentation Non-Functional  
for Greater than 7 Days

In accordance with Required Action A.2 of the Catawba Nuclear Station Selected Licensee Commitment (SLC) 16.7-3, "Meteorological Instrumentation," enclosed is Special Report 2020-01 concerning a Dew Point Meteorological Instrumentation channel which was non-functional for a period of greater than 7 days. SLC 16.7-3 states that if one or more required meteorological monitoring channels are non-functional for greater than 7 days, then prepare and submit a Special Report to the Commission outlining the cause of the malfunction and the plans for restoring the channel(s) to FUNCTIONAL status within 17 days.

This occurrence is considered to be of no significance with respect to the health and safety of the public. There are no new regulatory commitments contained in this letter.

Questions on this special report should be directed to Sherry Andrews, Regulatory Affairs, Catawba Nuclear Station, at 803-701-3424.

Sincerely,

A handwritten signature in blue ink that reads "Tom Simril". The signature is fluid and cursive, with the first name "Tom" and last name "Simril" clearly distinguishable.

Tom Simril  
Vice President, Catawba Nuclear Station

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xc:

Laura Dudes  
Regional Administrator  
U.S. Nuclear Regulatory Commission - Region II  
Marquis One Tower  
245 Peachtree Center Ave., NE Suite 1200  
Atlanta, GA 30303-1257

Joseph D. Austin  
Senior Resident Inspector (Catawba)  
U.S. Nuclear Regulatory Commission  
Catawba Nuclear Station

Michael Mahoney (addressee only)  
NRC Project Manager (Catawba)  
U.S. Nuclear Regulatory Commission  
One White Flint North, Mail Stop O-8B1A  
11555 Rockville Pike  
Rockville, MD 20852-2738

Lynne Garner, Manager  
S.C. DEHEC  
Radioactive & Infectious Waste Management  
garnerld@dhec.sc.gov

Anuradha Nair-Gimmi, Director  
S.C. DEHEC  
Nuclear Response  
nairgia@dhec.sc.gov

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## BACKGROUND

Catawba Nuclear Station, Units 1 and 2, have a metrological monitoring system designed to supply weather data for nuclear power plant operation. Meteorology is evaluated for use in structural design, in sizing the ultimate heat sink, in assessing the effects of heat dissipation facilities on the atmosphere and in consideration of environmental safeguards for gaseous releases.

A meteorological tower is operational onsite. It is located approximately 1300 feet southwest of the CNS Unit 1 Vent. The tower is instrumented with wind speed, direction and temperature sensors at approximately 10m and 60m heights above ground level. The dew point temperature sensor is located at the 10m level. The rain gauge is near the base of the 60m tall meteorological tower.

Selected Licensee Commitment (SLC) 16.7-3 "Meteorological Instrumentation" requires certain meteorological monitoring instrumentation channels shall be FUNCTIONAL at all times. The FUNCTIONALITY of the meteorological instrumentation ensures that sufficient meteorological data is available for estimating potential radiation doses to the public as a result of routine or accidental release of radioactive materials to the atmosphere. This capability is required to evaluate the need for initiating protective measures to protect the health and safety of the public and is consistent with the recommendations of Regulatory Guide 1.23, "Onsite Meteorological Programs," February 1972, for wind speed, wind direction, and air temperature at two elevations. Since Catawba uses cooling towers, instrumentation has been provided for measuring the dew point (humidity).

SLC Testing Requirement (TR) 16.7-3-2 requires an instrument calibration to be performed every 6 months. The Dew Point Meteorological Tower instrument requires calibration to be performed every 6 months.

Catawba SLC 16.7-3 Required Action A.1 requires that if one or more meteorological monitoring channel(s) is nonfunctional, to restore the channel(s) to FUNCTIONAL status within 7 days. If Required Action A.1 cannot be met, Required Action A.2 states to prepare and submit a Special Report to the Commission outlining the cause of the malfunction and the plans for restoring the channel(s) to FUNCTIONAL status within 17 days.

## DESCRIPTION OF OCCURRENCE

The Dew Point Meteorological Instrumentation was declared non-functional on January 19, 2020, for performance of the semi-annual surveillance testing requirement for instrument calibration. During the calibration of the dew point channel sensor, the expected indication was not obtained. Therefore, one required meteorological monitoring channel is non-functional and has not been repaired at this time.

All other required meteorological monitoring channels completed the surveillance testing requirement satisfactorily.

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CAUSE OF THE NON-FUNCTIONALITY

The cause of non-functionality of the dew point meteorological instrumentation is not known at this time.

CORRECTIVE ACTIONS

Work Request 20164309 is addressing the repair of the dew point meteorological instrumentation. Options are being pursued expeditiously with the vendor regarding the replacement and/or repair of the electronics and/or sensor(s) of the instrumentation.