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RA-20-0116

April 8, 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 2020-02 for the Meteorological Instrumentation Annual Data
Recovery

In accordance with Required Action B.1 of the Catawba Nuclear Station Selected Licensee Commitment (SLC) 16.7-3, "Meteorological Instrumentation," enclosed is Special Report 2020-02. This Special Report is being submitted to report that the annual data recovery rate of 90 percent for dew point temperature will not be met. Data results obtained for the first quarter of 2020 indicate the maximum possible data recovery of a Dew Point Meteorological Instrumentation channel will not be greater than 90 percent.

Catawba SLC 16.7-3, Required Action B.1 states that if one or more required meteorological monitoring channels have less than 90 percent annual data recovery, then prepare and submit a Special Report to the Commission outlining the cause of the deficiency and the plans for restoring the annual data recovery goals within 10 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,

Mandy Hare
Manager, Nuclear Support Services, Catawba Nuclear Station

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BACKGROUND

Catawba Nuclear Station, Units 1 and 2, have a meteorological monitoring system designed to supply weather data for nuclear power plant operation. Site 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, 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 that certain meteorological monitoring instrumentation channels be functional at all times and be maintained to ensure 90% data recovery on an annual basis.

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 also provides for measuring the dew point temperature (i.e. a humidity/moisture parameter). Precipitation is not required by Regulatory Guide 1.23, Revision 0. However, it is monitored since it is used by the model for offsite dose assessment calculations.

The 90 percent data recovery is a statistical analysis of the respective data for the required parameters. This analysis includes out-of-service time resulting from components being in Condition A of this SLC and routine calibration/servicing time.

Catawba SLC 16.7-3 Required Action B.1 states that if one or more required meteorological monitoring channels have less than 90 percent annual data recovery, then prepare and submit a Special Report to the Commission outlining the cause of the deficiency and the plans for restoring the annual data recovery goals within 10 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 dew point monitoring channel was non-functional and was not providing data until the time of repair. Duke Energy Special Report 2020-01, dated February 5, 2020, (Reference 1) was submitted in accordance with Catawba SLC 16.7-3 Required Action A.1.

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CAUSE OF THE NON-FUNCTIONALITY

The cause of non-functionality of the dew point meteorological instrumentation is unknown.

CORRECTIVE ACTIONS

The dew point meteorological instrumentation was repaired on April 7, 2020. The instrumentation is currently collecting data accurately.

The condition described had no impact on the ability to obtain meteorological data for dose assessment purposes because wind speed, wind direction and delta-T indications continue to meet annual data recovery requirements.

REFERENCES

1. Duke Energy letter (CNS), *Special Report 2020-01 for the Meteorological Instrumentation Non-Functional for Greater than 7 Days*, dated February 5, 2020, (ADAMS Accession No. ML20036C598)