

April 29, 2002

U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Mail Stop P1-137
Washington, DC 20555-0001

ULNRC-04649

Gentlemen:



**DOCKET NUMBER 50-483
CALLAWAY PLANT UNIT 1
UNION ELECTRIC CO.
FACILITY OPERATING LICENSE NPF-30
SPECIAL REPORT 2002-002
Primary Meteorological Tower 10 and 60 Meter Wind Speed Indications
inaccurate due to electrical interference**

This Special Report is submitted in accordance with Final Safety Analysis Report (FSAR) Technical Specification (T/S) 16.3.3.3 which states:

“With one or more required meteorological monitoring channels inoperable for more than 7 days, prepare and submit a Special Report to the Commission within the next 10 days outlining the cause of the malfunction and the plans for restoring the channel(s) to OPERABLE status.”

This Special Report documents the failure of the Primary Meteorological Tower 10 and 60-Meter Wind Speed Transmitters due to electrical interference and the actions taken to return the aforementioned transmitters to OPERABLE status.

Warren A. Witt

Warren A. Witt
Manager, Callaway Plant

WAW/EWH/slk

Enclosure

LE22

ULNRC04649
April 29, 2002
Page 2

cc: Mr. Ellis W. Merschoff
Regional Administrator
U.S. Nuclear Regulatory Commission
Region IV
611 Ryan Plaza Drive, Suite 400
Arlington, TX 76011-8064

Senior Resident Inspector
Callaway Resident Office
U.S. Nuclear Regulatory Commission
8201 NRC Road
Steedman, MO 65077

Mr. Jack N. Donohew (2 copies)
Licensing Project Manager, Callaway Plant
Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Mail Stop 7E1
Washington, DC 20555-2738

Manager, Electric Department
Missouri Public Service Commission
PO Box 360
Jefferson City, MO 65102

Mr. John O'Neill
Shaw, Pittman, Potts & Trowbridge
2300 N. Street N.W.
Washington, DC 20037

Records Center
Institute of Nuclear Power Operations
700 Galleria Parkway
Atlanta, GA 30339

Attachment to:
ULNRC04649
April 29, 2002
Page 1

Description of Event

During a semi-annual review of Callaway's meteorological data, a discrepancy in wind speed data was discovered. The problem appeared as an artificial increase in wind speed during nighttime operation. Initial troubleshooting determined that when the Navigation Obstruction Beacon at the top of the tower shifted to the "Night" mode, an artificial increase in wind speed of approximately 3 meter/second was recorded for the 10, 60, and 90 Meter wind speed circuits. It was further determined that this effect only occurred while in the "Night" mode and that "Daytime" operation did not affect the wind speed circuits. Reviews of historical data from January 1999 until present indicate that this problem was not prevalent prior to October 1999.

Root Cause

Preliminary investigations attribute the artificial elevation in wind speed indication to electrical interference generated by the Navigation Obstruction Beacon circuitry while operating in the "Night" mode.

Corrective Actions

It was determined that the interference is not present when the Navigation Obstruction Beacon is operating in the "Daytime" mode. Based upon this information, the Federal Aviation Administration (FAA) was contacted and advised that Callaway would be operating the Primary Meteorological Tower's Navigation Obstruction Beacon in a continuous "Daytime" mode until the electrical interference problem is identified and corrected. In this mode, the Beacon will be operating with an intensity of 20,000 candelas versus the "Night" mode intensity of 2,000 candelas. FAA officials stated that this would satisfy the Beacon operation requirements.

A work order was initiated to investigate and correct the signal interference generated by the Navigation Obstruction Beacon. Investigations are ongoing and repairs will be effected when the fault is identified.

While operating the Navigation Obstruction Beacon in the "Daytime" mode, all Primary Meteorological Tower wind speed instrumentation is functioning properly and considered Operable.

Attachment to:
ULNRC04649
April 29, 2002
Page 2

Basis for Reportability

On 4/19/02, the System Engineer determined that the wind speed instruments had been inoperable from dusk until dawn for approximately the last 2.5 years. FSAR 16.3.3.3 requires the 10 and 60 meter wind speed instruments to be operable at all times in order to ensure that sufficient meteorological data is available for estimating potential radiation doses to the public as a result of routine or accidental releases of radioactive material to the atmosphere. The Secondary Meteorological Tower 10 Meter wind speed instruments would have been operable during much of this time period, however, Callaway does not have any back-up instruments for the 60 Meter wind speed. This is reportable to the Nuclear Regulatory Commission as a Special Report within 10 days per FSAR 16.3.3.3, even though the instruments routinely became operable again each day at dawn.

This artificial increase in indicated wind speed also affected dose estimates to the public for routine releases and postulated emergency events. Callaway Health Physics will determine the impact on past effluent reports and submit revisions for the previous affected year(s).

A review of the Emergency Preparedness Planning Standard was conducted. The affected wind speed indications were functional and capable of providing information useful in dose projections and protective action recommendations, thus ensuring the ability to respond to a radiological emergency.

If you have any questions or need additional information, contact Mark Reidmeyer, Regional Regulatory Affairs Supervisor at (573) 676-4306.

Sincerely,



Warren A. Witt
Manager, Callaway Plant

WAW/EWH/slk