



November 27, 1992

Mr. A. Bert Davis  
Regional Administrator, Region III  
U. S. Nuclear Regulatory Commission  
799 Roosevelt Road  
Glen Ellyn, Illinois 60137

ULNRC-2727

Dear Mr. Davis:

DOCKET NUMBER 50-483  
CALLAWAY PLANT UNIT 1  
REQUEST FOR REGIONAL TEMPORARY  
WAIVER OF COMPLIANCE

This letter is to confirm the results of a teleconference between Union Electric and the NRC Region III Staff on November 27, 1992, in which Union Electric requested a Regional Temporary Waiver of Compliance from 1746 CST November 27, 1992, until 1746 CST November 28, 1992, from the Technical Specification Limiting Conditions of Operation (LCO) for the inoperability of NN14 (Safety-Related AC Instrumentation Power Inverter). This would allow completion of repairs to the inverter. Currently, the Callaway Plant is in Mode 1, 100 percent power.

The basis for this request is provided below:

BACKGROUND:

On November 26, 1992, at 1746 CST, inverter NN14 tripped, resulting in a loss of instrument bus NNO4. Licensed reactor operators selected all controlling channels away from the failed bus. Engineering personnel began troubleshooting for the root cause of the inverter failure.

REQUIREMENTS FOR WHICH THE WAIVER IS REQUESTED

Technical Specification (T/S) 3.8.3.1 requires 120-Volt A.C. Vital Bus #NNO4 to be energized from its associated inverter connected to D.C. Bus #NKO4.

Page 2  
ULNRC-2727

With NN14 inoperable, the plant entered action b, which requires the plant to: (1) re-energize the A.C. vital bus within two hours or be in at least HOT STANDBY within the next six hours and in COLD SHUTDOWN within the following 30 hours, and (2) re-energize the A.C. vital bus from its associated inverter connected to its associated D.C. bus within 24 hours or be in at least HOT STANDBY within the next six hours and in COLD SHUTDOWN within the following 30 hours.

Action b (1) was met when the operators, per procedure OTN-NN-00001, 120V Vital AC Instrument Power-Class IE (NN), transferred the NNO4 protective channels to XNN06. Troubleshooting was begun to determine root cause of the inverter failure. Because additional time is necessary to retest and restore the inverter, an additional 24 hours is being requested for T/S 3.8.3.1 action b (2). The most probable cause of failure of the NN14 inverter has been determined to be a faulty ferroresonant transformer and/or wave shaping capacitors which have been replaced.

#### CIRCUMSTANCES/NEED FOR PROMPT ACTION/WHY SITUATION COULD NOT HAVE BEEN AVOIDED

Technical Specification requirements will necessitate a plant shutdown beginning at 1746 CST on November 27, 1992. Extension of the 24 hour allowed outage time limit is needed to permit inverter testing and restoration and avoid a shutdown and cooldown transient that would be imposed on the plant by an unnecessary shutdown to Mode 5 conditions. Since the failure of NN14 could not have been reasonably predicted, this situation could not have been avoided.

#### COMPENSATORY ACTIONS

During the time frame this temporary waiver of compliance would be in effect, the following compensatory actions have been or will be taken:

Licensed utility reactor operators selected all controlling channels away from failed bus NNO4. At 1800 CST, November 26, 1992, instrument bus NNO4 was re-energized using backup transformer XNN06, per plant procedure OTN-NN-00001. Utility Nuclear Engineering personnel will verify the proper load, voltage and temperature every two hours during the period of time bus NNO4 is energized from bus XNN06. Licensed plant operators have been briefed and are aware of actions that would be required to be taken in the event of the failure of XNN06 and subsequent loss of NNO4. No unnecessary work or surveillance activities associated with the NNO4 bus or the XNN06 voltage regulating transformer will be performed while this temporary waiver is in effect.

Page 3  
ULNRC-2727

#### SAFETY SIGNIFICANCE AND POTENTIAL CONSEQUENCES OF PROPOSED REQUEST

This is a one-time request for approval of an allowed outage time of 48 hours with one Instrument AC power inverter inoperable. This request would extend the existing Technical Specification allowed outage time by 24 hours to permit completion of the maintenance and necessary tests to the NN14 inverter.

The attachment to this letter presents the configuration of the power supplies to the NN04 bus and identifies major loads supplied. The XNN06 transformer is a safety-related transformer which is supplied from vital power supply source NG02. This back-up power source is considered highly reliable.

A failure of XNN06 would not prevent the various Engineered Safety Feature systems and reactor protection systems from performing their intended safety functions. The impact on plant protection from XNN06, voltage regulating transformer, has been evaluated and XNN06 failure would not result in the initiation of a plant transient or a challenge to any safety systems.

Maintenance and testing activities which would place coincident reactor protection output channels in a trip condition will be deferred until NN14 is aligned to the NN04 bus.

#### DURATION JUSTIFICATION

The proposed temporary waiver of compliance is for a one-time approval of plant operation for up to 48 hours with one Instrument AC power inverter inoperable. The additional time will provide sufficient time to repair and retest the inverter and restore the NN04 loads (see attached drawing) to normal power. Should NN14 fail for any other reason, the licensee will meet the Technical Specification shutdown action statement requirements of T/S 3.8.3.1 if the duration of this temporary waiver of compliance is exceeded.

#### BASIS FOR NO SIGNIFICANT HAZARDS CONSIDERATION

Union Electric has concluded that the requested temporary waiver of compliance does not involve a significant hazard in that it would not increase the probability of an accident previously evaluated, nor create the possibility of a new or different kind of accident, nor involve a significant reduction in any margin of safety.

Page 4  
ULNRC-2727

Loads normally powered by NN04 have been switched to back-up power (XNN06) per T/S 3.8.3.1 action b (1). In addition, the operators selected all controlling channels away from NN04 to NN01 (refer to FSAR Figure 8.3.6). Assuming single failure criteria, a failure of XNN06 would not prevent the various Engineered Safety Features systems from performing their intended safety functions.

BASIS FOR NO IRREVERSIBLE ENVIRONMENTAL CONSEQUENCES

The proposed temporary waiver of compliance to continue power operation for an additional 24 hours with one Instrument AC power inverter inoperable to perform corrective maintenance has no environmental impact.

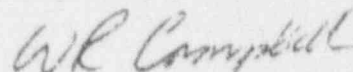
SUMMARY

The Callaway Plant On-Site Review Committee has approved this request for a temporary waiver of compliance and concurs with the above determinations.

This proposed request for a temporary waiver of compliance involves no undue safety risk nor irreversible environmental consequences.

When Technical Specification statement 3.8.3.1 action b (2) is exited, we will inform the Site Resident Inspector.

Very truly yours,



W. R. Campbell  
Manager, Callaway Plant

WRC/MKD/lrj

cc's distribution attached

cc distribution for ULNRC-2727

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