ATTACHMENT B

**MARKED UP PAGE FOR
PROPOSED CHANGES TO APPENDIX A
TECHNICAL SPECIFICATIONS OF
FACILITY OPERATING LICENSES
NPF-37 and NPF-66**

REVISED PAGES:

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The asterisk(*) page is not being revised and is included for convenience.

REMOTE SHUTDOWN INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.3.5 The remote shutdown monitoring instrumentation channels given in Table 3.3-9 shall be OPERABLE with readouts displayed external to the control room.

APPLICABILITY: MODES 1, 2, and 3.

ACTION:

a. With the number of OPERABLE remote shutdown monitoring channels less than the Minimum Channels OPERABLE as required by Table 3.3-9, restore the inoperable channel(s) to OPERABLE status within 7 days, or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.

b. The provisions of Specification 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.3.3.5 Each remote shutdown monitoring instrumentation channel shall be demonstrated OPERABLE by performance of the CHANNEL CHECK and CHANNEL CALIBRATION operations at the frequencies given in Table 4.3-6.

TABLE 3.3-9

REMOTE SHUTDOWN MONITORING INSTRUMENTATION

INSTRUMENT	READOUT LOCATION	TOTAL NO. OF CHANNELS	MINIMUM CHANNELS OPERABLE
1. Intermediate Range Neutron Flux	PL06J	2	1
2. Source Range Neutron Flux	PL06J	2	1
3. Reactor Coolant Temperature - Wide Range			
a. Hot Leg	PL05J	1/loop*	1/loop*
b. Cold Leg	PL05J	1/loop	1/loop
4. Pressurizer Pressure	PL06J	1	1
5. Pressurizer Level	PL06J	2	1
6. Steam Generator Pressure	PL04J/PL05J	1/stm gen	1/stm gen
7. Steam Generator Level	PL04J	1/stm gen	1/stm gen
8. RHR Temperature	LOCAL	2	1
9. Auxiliary Feedwater Flow Rate	PL04J/PL05J	2/stm gen	1/stm gen

* None required for Unit 1 loop B through the end of cycle 6 (i.e. prior to entry into Mode 3 for cycle 7) or until any unscheduled Unit 1 shutdown (entry into Mode 3 on the return to power operation) prior to the end of cycle 6.

ATTACHMENT C

EVALUATION OF SIGNIFICANT HAZARDS CONSIDERATIONS FOR PROPOSED CHANGES TO APPENDIX A TECHNICAL SPECIFICATIONS OF FACILITY OPERATING LICENSES NPF-37 and NPF-66

Commonwealth Edison (ComEd) has evaluated the proposed amendment and determined that it involves no significant hazards consideration. According to 10 CFR 50.92(c), a proposed amendment to an operating license involves no significant hazards if operation of the facility in accordance with the proposed amendment would not:

(1) Involve a significant increase in the probability or consequences of an accident previously evaluated; or

(2) Create the possibility of a new or different kind of accident from any accident previously evaluated; or

(3) Involve a significant reduction in a margin of safety.

A. INTRODUCTION

Commonwealth Edison Company (ComEd) requests an emergency Technical Specification (TS) change to TS 3.3.3.5, "Remote Shutdown Instrumentation", for the Unit 1B wide range (WR) Hot Leg resistance temperature detector (RTD). The proposed Technical Specification change will allow Byron Unit 1 to continue operation with less than the minimum number of operable channels required by the "Remote Shutdown Monitoring Instrumentation", Table 3.3.9. Specifically, the Reactor Coolant Temperature indication for loop B will not have an operable WR hot leg channel throughout the requested period applicable to the emergency TS. The RTD is currently operating within the allowable specifications, but its indication has been erratic under certain containment cooling fan configurations. The 7 day allowable outage time per TS action statement 3.3.3.5 expired on Monday, August 1, 1994 at 0920 (CDT). To avoid placing Byron Unit 1 in an unnecessary shutdown from its current coastdown operations, ComEd has requested and has been granted enforcement discretion from Technical Specification 3.3.3.5 until approval of this emergency technical specification amendment.

The amendment will give Byron Unit 1 an emergency technical specification change to allow the 1B WR RTD to be inoperable until completion of the current fuel cycle and remain in effect until entry into a Hot Standby (Mode 3) condition. If the unit enters Mode 3 due to an unforeseen event prior to the upcoming scheduled refueling outage on September 9,1994, a repair will be made to correct the terminal connection inside containment identified as the probable root cause of the erratic condition.

B. 10 CFR 50.92 ANALYSIS

1. The proposed changes do not involve a significant increase in the probability or consequences of an accident previously evaluated.

ComEd is requesting an emergency technical specification amendment for TS 3.3.3.5, "Remote Shutdown Instrumentation". This specification requires that with the number of operable channels less than the minimum, restore the inoperable channel to the operable status within 7 days, or be in at least Hot Standby within the next 6 hours and in Hot Shutdown within the following 6 hours.

Availability of the Reactor Coolant wide range hot leg temperature instrumentation is not considered a precursor for any of the accidents evaluated in the UFSAR. Therefore, permitting Unit 1 operation with an inoperable loop B wide range hot leg temperature RTD until the upcoming refueling outage will not result in a significant increase in the probability of an accident previously evaluated.

The operability of the remote shutdown instrumentation ensures that sufficient information is available to permit a plant shutdown and provide the capability to maintain the plant in a Hot Standby (Mode 3) condition from locations outside of the control room. This capability is required in the event control room habitability is lost. A review of the 10 CFR 50 Appendix R requirements and the Byron Unit 1 Fire Protection Report identified the assumptions made in performing the safe shutdown analysis for a control room fire. It is assumed that a control room fire does not occur simultaneously with other accidents, events, or phenomena, except for a single unit loss of offsite power.

For a fire in the control room, it is assumed that the operators will evacuate the control room. A Byron procedure provides the guidance to establish control from the Remote Shutdown Panel (RSDP) and to place and maintain the unit in a safe shutdown condition. When at the RSDP, the procedure provides direction to use the indications available at the Fire Hazards Panel if indications are unavailable at the RSDP. Redundant wide range temperature indication for each loop's hot and cold legs is available at the Fire Hazards Panel. The Fire Hazards Panel is powered from a safety related power source although the wide range hot leg temperature indications are not safety related.

The erratic behavior of the 1B wide range temperature indication appears to have been induced by localized temperatures or vibration. Since the event resulting in control room inaccessibility is unlikely to create the environment to induce the erratic behavior, the wide range temperature indications are expected to be available to the RSDP operator.

The proposed time allowed to operate with one wide range hot leg RTD inoperable, prior to requiring a shutdown, is acceptable based on the availability of redundant indication on the Fire Hazards Panel and on the small probability of a failure of the remaining indications concurrent with an event requiring the use of the Remote Shutdown Panels. The probability of a fire in the a dual unit control room has been calculated at 9.5 E-03 per reactor year using the EPRI FIVE methodology. For Byron, with a dual unit control room, the probability of a fire in the control room requiring use of the Remote Shutdown Panels is 2.08 E-03 per reactor year during the time the 1B RTD will be removed from service. This probability does not take credit for any other factors available, such as the control room being manned around the clock and the ability of the operators to combat the fire. The Core damage frequency for a fire in the control room has not been determined in the Individual Plant Evaluation program and is to be address in the Individual Plant External Events Evaluation to be done at a later time. Therefore, the probability of an analyzed accident occurring due to the inoperability of the loop 1B WR RTD has not been increased by this event.

Procedures for natural circulation and a small break LOCA are also impacted by the loss of the wide range hot leg temperature indication. The event specific natural circulation procedure requires the use of the wide range hot leg RTDs or Core Exit Thermocouples to verify cooldown is occurring. The Post LOCA Cooldown and Depressurization procedure directs the use of the wide range hot leg RTDs as one of five conditions which support or indicate natural circulation. The procedure also uses wide range hot leg indication during the Safety Injection flow reduction sequence, as backup indication to determine if adequate subcooling is indicated, and to determine if the need exist for Residual Heat Removal pump restart. Unavailability of a single loop's indication would not impact the operator's ability to correctly determine if the pump should be restarted.

During the period that the wide range temperature indication is not required, the calculated probability of a small break LOCA occurring for Unit 1 is a frequency of 6.7 E-04 per reactor year. This calculation was completed with an initiating frequency not accounting for the failure of the primary instrumentation (CETCs) identified for use as the recommended indication of RCS subcooling by the emergency procedures. The probability of core damage due to a small break LOCA is 7.64 E-07 per reactor year. During the period that the 1B wide range temperature indication is not required the probability of an occurrence is at 8.37 E-08 per reactor year and is not effected by the loss of the RTD and this instrumentation was not considered in the initial assumptions of the IPE.

Therefore, since the subject instrumentation does not contribute to the probability of the occurrence of an accident and backup indication is available and identified to an operator in the event of an accident, this amendment request will have no effect on the probability or consequences of any accident previously evaluated for power operation.

2. **The proposed changes do not create the possibility of a new or different type of accident from any accident previously evaluated.**

   The proposed change does not create the possibility of a new or different kind of accident from any previously analyzed. The proposed amendment to the remote shutdown panel indication to remove the 1B RTD from the Technical Specification does not result in plant operations or configurations that could create a new or different type of accident. The compensatory measures which have been implemented have been evaluated to ensure they do not result in any component or system being placed in an unanalyzed configuration.

Therefore, the inoperability of the 1B RTD will not increase the consequences or possibility of a malfunction of equipment important to safety previously evaluated in the UFSAR.

3. **The proposed changes do not involve a significant reduction in a margin of safety.**

   The proposed change does not involve a significant reduction in a margin of safety. The proposed time allowed to operate with one wide range hot leg RTD inoperable, prior to requiring a shutdown, is acceptable based on the availability of redundant indication on the Fire Hazards Panel and on the small probability of a failure of the remaining indications concurrent with an event requiring the use of the Remote Shutdown Panels. The exposure of the unit to an event requiring use of the Remote Shutdown Panels during the increased time period is insignificant and offset by the benefit of avoiding an unnecessary plant transient or personnel exposure. Therefore, this change does not involve a significant reduction in a margin of safety.

Therefore, based on the above evaluation, Commonwealth Edison has concluded that this emergency Technical Specification request does not involve any significant hazards consideration.

ATTACHMENT D

ENVIRONMENTAL ASSESSMENT FOR PROPOSED CHANGES TO APPENDIX A TECHNICAL SPECIFICATIONS OF FACILITY OPERATING LICENSES NPF-37 and NPF-66

Commonwealth Edison has evaluated the proposed request against the criteria for identification of licensing and regulatory actions requiring environmental assessment in accordance with 10CFR51.21. It has determined that the proposed request meets the criteria for categorical exclusion as provided for in 10CFR51.22(c). This determination is based on the fact that this request is being proposed as relief to a license issued pursuant to 10 CFR 50, and the proposed time that the 1B RTD is removed the from Technical Specification represents a change in a requirement with respect to the availability of a facility instrumentation located within the restricted area, and the change involves no significant hazards considerations. In addition, there is no change in the amount or type of releases made offsite, and there is no significant increase in individual or cumulative radiation exposure.

Commonwealth Edison has evaluated the proposed amendment against the criteria and found the changes meet the categorical exclusion permitted by 10CFR51.22(c)(9).