

ADDENDUM 1 (Page 1 of 2)

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ADDENDUM 1 (Page 2 of 2)

ATTACHMENT B

PROPOSED CHANGES TO APPENDIX A. TECHNICAL SPECIFICATIONS OF FACILITY OPERATING LICENSE NPF-3" NPF-66, NPF-72 AND NPF-77

BYRON

BRAIDWOOD

Revised Pages:	3/4	8-14	3.'4	8-14
	3/4	8-15	3/4	8-15

ELECTRICAL POWER SYSTEMS

3/4.8.3 ONSITE POWER DISTRIBUTION

OPERATING

LIMITING CONDITION FOR OPERATION

3.8.3.1 The following electrical busses shall be energized in the specified manner for the applicable unit:

A.C. ESF Busses consisting of: 8.

UNIT 1

- Division 11
- 4160-Volt Bus 141, 1)
- 480-Voit Bus 131X, and 2)
- 480-Volt Bus 131Z. 3)
- A.C. ESF Busses consisting of: b.

UNIT 1

Division 12

- 1) 4160-Volt Bus 142
- 480-Volt Bus 132X, and 2)
- 3) 480-Volt Bus 1327.

UNIT 2

- Division 21
- 4160-Volt Bus 241 1)
- 2) 480-Volt Bus 231X, and
- 480-Volt Bus 2312. 3)

UNIT 2

Division 22

- 1) 4160-Volt Bus 242
- 480-Volt Bus 232X, and 2) 3)

0

0

- 480-Volt Bus 2322.
- 120-Volt A.C. Instrument Bus 111 for Unit 1 (Bus 211 for Unit 2) C. energized from its associated inverter connected to D.C. Bus 111 for Unit 1 (Bus 211 for Unit 2).
- 120-Volt A.C. Instrument Bus 113 for Unit 1 (Bus 213 for Unit 2) d. energized from its associated inverter connected to D.C. Bus 111 for Unit 1 (Bus 211 for Unit 2).
- 120-Volt A.C. Instrument Bus 112 for Unit 1 (Bus 212 for Unit 2) e. energized from its associated inverter connected to D.C. Bus 112 for Unit 1 (Bus 212 for Unit 2), and
- 120-Volt A.C. Instrument Bus 114 for Unit 1 (Bus 214 for Unit 2) f. energized from its associated inverter connected to D.C. Bus 112 for Unit 1 (Bus 212 for Unit 2).

APPLICABILITY: MODE: 1, 2, 3, and 4.

ACTION:

- a. With one of the required divisions of A.C. ESF busses not fully energized, reenergize the division within 8 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
- With one A.C. instrument bus either not energized from its associated b. inverter, or with the inverter not connected to its associated D.C. bus: 1) reenergize the A.C. instrument bus within 2 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours, and 2) reenergize the A.C. instrument bus from its associated inverter connected to its associated D.C. bus within 24 surs or be in at least HOT STANDBY within the next 6 hours and in COLU SHUTDOWN within the following 30 hours.

BYRON - UNITS 1 & 2

72

I and demonstrate OPERABILITY of the required A.C. Sources within 24 hours and at least once per 19 hours 3/4 8-14 diereafter by performing Specifications 4.8.3.1.2 and 4.8.3.1.3

ELECTRICAL PASSASSTEMS

SURVEILLANCE PEQUIREMENTS

4.8.3.1.1 The specified busses shall be determined energized in the required manner at least once per 7 days by verifying correct breaker alignment and indicated voltage on the ESF busses.

4.8.3.1.2 The 480-volt A.C. ESF bus energizing the affected 120-volt A.C. instrument bus shall be determined energized in the required manner by verifying correct breaker alignment and indicated vo "age on the associated 4160-volt and 480-volt busses.

4.8.3.1.3 The three unaffected 120-with A.C. instrument busses shall be determined emergized from an OPERABLE inverter by rerifying correct breaker alignment and indicated voltage on the associated ESF and 125-Volt D.C. Busses. ELECTRICAL POWER SYSTEMS

3/4.8.3 ONSITE POWER DISTRIBUTION

OPERATING

LIMITING CONDITION FOR OPERATION

3.8.3.1 The following electrical busses shall be energized in the specified manner for the applicable unit:

A.C. ESF Busses consisting of:

UNIT 1

Division 11

- 4160-Volt Bus 141, 1)
- 2) 480-Volt Bus 131X.
- A.C. ESF Busses consisting of: b.

UNIT 1

Division 12

- 1) 4160-Volt Bus 142
- 2) 480-Volt Bus 132%.

UNIT 2

Division 21 1) 4160-Volt Bus 241

2) 480-Volt Bus 231X.

UNIT 2

Division 22

1) 4160-Volt 3us 242

2) 480-Volt Bus 232X.

- 120-Vo!t A.C. Instrument Bus 111 for Unit 1 (Bus 211 for Unit 2) C. energized from its associated inverter connected to D.C. Bus 111 for Unit 1 (Bus 211 for Unit 2).
- d. 120-Volt A.C. Instrument Bus 113 for Unit a (Bus 213 for Unit 2) energized from its associated inverter connected to D.C. Bus 11 for Unit 1 (Bus 211 for Unit 2).
- 120-Volt A.C. Instrument Bus 112 for Unit 1 (Bus 212 for Unit 2) e. energized from its associated inverter connected to D.C. Bus 112 for Unit 1 (Bus 212 for Unit 2), and
- 120-Volt A.C. Instrument Bus 114 for Unit 1 (Bus 214 for Unit 2) ٢. energized from its associated inverter connected to D.C. Bus 112 for Unit 1 (Bus 212 for Unit 2).

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION:

- 4. With one of the required divisions of A.C. ESF busses not fully energized, reenergize the division within 8 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
- With one A.C. instrument bus either not energized from its associated t. inverter, or with the inverter not connected to its associated D.C. bus: 1) reenergize the A.C. instrument bus within 2 hours or be in at least HOT STANDBY within the next E hours and in COLD SHUTDOWN within the following 30 hours, and 2) reenergize the A.C. instrument bus from its associated inverter connected to its associated D.C. bus within \$4 hours or be in at least HOT STANDBY within the next 6 hours and in/COLD SHUTDOWN within the following 30 hours.

Tund demonstrate Operficity of the required A.C. 72 sources within 24 hours and at least once per-8 hours thereafter by performing Specifications 3/4 8-14 4.8.3.1.2 and 4.8.3.1.3.

BRAIDWOOD - UNITS 1 & 2

ELECTRICAL POWER SYSTEMS

SURVEIL ANCE REQUIREMENTS

4.8.3.1.1 The specified busses shall be determ ned energized in the required manner at heart once per 7 days by verifying correct breaker alignment and indicated voltage on the ESF busses.

4.8.3.1.2 The 4:0-with A.C. ESF bus energizing the affected 120-voit A.C. instrument bus shall be determined energized in the required Manner by verifying correct breaker alignment and indicated Voltage on the associated 4160-milt and 480-volt buses.

4.8.3.1.3 The three unified 120-volt A.C. instrument busses shall be determined energized from an OPERABLE inverter by verifying correct breaker alignment and indicated voltage - on the associated ESF and 125-volt. D.C. Busses.

ATTACHMENT C

EVALUATION OF SIGNIFICANT HAZARD CONSIDERATIONS

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

- Involve a significant increase in the probability or consequences of an accident previously evaluated; or
- 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.

The proposed amendment requests a change which involves revising Technical Specification 3/4.8.3.1 to increase the allowed action time from 24 hours to 72 hours for an AC instrument bus to be disconnected from its associated inverter. Two additional surveillance requirements (4.8.3.1.2 and 4.8.3.1.3) are proposed. Surveillance 4.8.3.1.2 will verify that the 480 VAC ESF bus supplying the constant voltage transformer is energized in the required manner within 24 hours and at least once per 8 hours thereafter. Surveillance 4.8.3.1.3 will verify that the other three instrument busses are energized from an OPERABLE inverter within the same time period. This amenument is requested to allow sufficient time to fully troubleshoot and repair failed inverters and to provide sufficient time for preventive maintenance to be performed on operable inverters while in modes 1 through 4.

The proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

Increasing the action time to allow one 120 VAC instrument bus to be energized from its associated constant voltage transformer from 24 hours to 72 hours does not significantly increase the probability of an accident previously evaluated. The loss of a single 120 VAC instrument bus is not in itself an initiating event in any of the accidents presented in Chapter 15 of the FSAR. With one of the instrument busses on its constant voltage transformer instead of its associated inverter there is some loss of redundancy in bus power supplies due to the loss of feed from the inverter to the 125V DC bus. This loss of redundancy may result in an increased probability of a spurious reactor trip and/or safety injection, and loss of one train of ESF output relays. It is felt that this increase is not significant due to the following:

- The 480 VAC ESF bus is a very reliable source of power to the constant voltage transformers. The 480 VAC ESF bus receives power from the 4.16kV ESF hus which in turn is capable of receiving power from the Unit Auxiliary Transformer (UAT), Station Auxiliary Transformer (SAT), the emergency diesel generator and the SAT of the opposite unit.
- 2. The constant voltage transformer is a reliable pince of equipment classified as Safety Category I (Class IE) and is required for safe shutdown. The failure probability of the constant voltage transformer, while not quantified, is considered to be small. This is substantiated by the fact that no failures have occurred on any of the sixteen constant voltage transformers installed on Byron and Braidwood Units 1 and 2. This was determined based on a review of the Nuclear Plant Reliability Data System.
- Two surveillances, 4.8.3.1.2 and 4.8.3.1.3, have been proposed to ensure the reliability of the three unaffected instrument busses and the instrument bus on the constant voltage transformer.

Also, it should be noted that the Allowable Outage Time is only being increased when one redundant power supply to an instrument bus is out-of-service. There are three additional instrument busses (while not totally redundant they have several overlapping capabilities) that would remain operable in accordance with Specification 3.8.3.1.

Increasing the action time to allow one 120 VAC instrument has to be energized from its associated constant voltage transformer from 24 Lours to 72 hours does not significantly increase the consequences of an accident previously evaluated. The current Technical Specifications (3/4.8.3.1) and the FSAR (Section 15.0.1.1) allow operation with the inverter out-of-service for 24 hours. Extending this period to 72 hours will not alter the plant response to a loss of a 120 VAC instrument bus should the constant voltage transformer fail while supplying the instrument bus. Off normal procedures have already been developed and would be used by the operators to address this situation.

The proposed change does not create the possibility of a net or different kind of accident from any accident previously evaluated.

Increasing the action time to allow one 120 VAC instrument bus to be energized from its associated constant voltage transformer from 24 hours to 72 hours will not create any new modes of plant operation beyond those normally performed. The proposed change does not involve a modification to currently installed systems or equipment or require operation in a manho, different from that currently allowed. The constant voltage transformer is designed for continuous operation so the extended action time is within design limitations. The change is administrative in nature and as such it has no impact on the accident analysis from the standpoint of the possibility of creating a new or different kind of accident from any accident previously evaluated.

The proposed change does not involve a significant reduction in a margin of safety.

Previously evaluated accidents demonstrate margins of safety. These accident analyses are based on the availability of a minimum set of safety equipment and do not take into account allowable outage times for equipment. Therefore, there is no margin of safety associated with allowable outage times.

ATTACHMENT D

ENVIRONMENTAL ASSESSMENT

Commonwealth Edison has evaluated the proposed amendment against the criteria for and identification of licensing and regulatory actions requiring environmental assessment in accordance with 10 CFR 51.21. It has been determined that the proposed changes meet the criteria for a categorical exclusion as provided for under 10 CFR 51.22(c)(9) and (10). Following is a discussion of the changes and how they meet the criteria for categorical exclusion.

The change to Specification 3/4.8.3.1 increases the action time allowed for an A.C. instrument bus to be energized from a source other than from the inverter connected to its associated D.C. bus from 24 hours to 72 hours. Two additional surveillances, 4.8.3.1.2 and 4.8.3.1.3, have been added for verification of energization of the affected instrument bus from the 480 VAC bus supplying its constant voltage transfer and verification of energization of the three unaffected busses from their inverters, respectively. This does not involve a change in the use of a facility component located in the restricted area.

The preceding change does not involve a significant hazards consideration as discussed in Attachment C of this letter. Also there is no significant change in the types or significant increase in the amounts of any effluents that may be released offsite since this change does not affect the generation of any radioactive effluents nor does it affect any of the permitted release paths. Finally, the change does not involve a significant increase in individual or cumulative occupational radiation exposure. Therefore, this change meets the categorical exclusion permitted by 10 CFR 51.22(c)(9).