ATTACHMENT B

PROPOSED CHANGES TO APPENDIX A,
TECHNICAL SPECIFICATIONS
OF FACILITY OPERATING LICENSES NPF-37, NPF 66, NPF-72 AND NPF-77

BYRON STATION		BRAIDWOOD STATION	
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TABLE 2.2-1 (Continued)

REACTOR TRIP SYSTEM INSTRUMENTATION TRIP SETPOINTS

FUNCTIONAL UNIT	TOTAL ALLOWANCE (TA)	Z	SENSOR ERROR (SE)	TRIP SETPOINT	ALLOWABLE VALUE
12. Reactor Coolant Flow-Low	2.5	1.77	0.6	≥90% of loop minimum measured flow*	≥89.2% of loop minimum measured flow*
13. Steam Generator Water Level Low-Low					
a. Unit 1	21.1 ~~27.1~~	18.28	1.5	34.8 ≥~~40.8%~~ of narrow range instrument span	33.1 ≥~~39.1%~~ of narrow range instrument span
b. Unit 2	17.0	14.78	1.5	≥17% of narrow range instrument span	≥15.3% of narrow range instrument span
14. Undervoltage - Reactor Coolant Pumps	12.0	0.7	0	≥5268 volts - each bus	≥4728 volts - each bus
15. Underfrequency - Reactor Coolant Pumps	14.4	13.3	0	≥57.0 Hz	≥56.5 Hz
16. Turbine Trip					
a. Emergency Trip Header Pressure	N.A.	N.A.	N.A.	≥540 psig	≥520 psig
b. Turbine Throttle Valve Closure	N.A.	N.A.	N.A.	≥1% open	≥1% open
17. Safety Injection Input from ESF	N.A.	N.A.	N.A.	N.A.	N.A.
18. Reactor Coolant Pump Breaker Position Trip	N.A.	N.A.	N.A.	N.A.	N.A.

*Minimum measured flow = 97,600 gpm

TABLE 3.3-4 (Continued)

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION TRIP SETPOINTS

FUNCTIONAL UNIT	TOTAL ALLOWANCE (TA)	Z	SENSOR ERROR (SE)	TRIP SETPOINT	ALLOWABLE VALUE
5. Turbine Trip and Feedwater Isolation (continued)					
c. Safety Injection	See Item 1. above for all Safety Injection Trip Setpoints and Allowable Values.				
6. Auxiliary Feedwater					
a. Manual Initiation	N.A.	N.A.	N.A.	N.A.	N.A.
b. Automatic Actuation Logic and Actuation Relays	N.A.	N.A.	N.A.	N.A.	N.A.
c. Steam Generator Water Level-Low-Low-Start Motor-Driven Pump and Diesel-Driven Pump					
1) Unit 1	21.1 ~~27.1~~	18.28	1.5	34.8 ≥~~40.8%~~ of narrow range instrument span	33.1 ≥~~39.1%~~ of narrow range instrument span
2) Unit 2	17.0	14.78	1.5	≥17% of narrow range instrument span	≥15.3% of narrow range instrument span
d. Undervoltage-RCP Bus-Start Motor Driven Pump and Diesel-Driven Pump	N.A.	N.A.	N.A.	≥5268 volts	≥4728 volts
e. Safety Injection-Start Motor-Driven Pump and Diesel-Driven Pump	See Item 1. above for all Safety Injection Trip Setpoints and Allowable Values.				

TABLE 2.2-1 (Continued)

REACTOR TRIP SYSTEM INSTRUMENTATION TRIP SETPOINTS

FUNCTIONAL UNIT	TOTAL ALLOWANCE (TA)	Z	SENSOR ERROR (SE)	TRIP SETPOINT	ALLOWABLE VALUE
12. Reactor Coolant Flow-Low	2.5	1.77	0.6	≥90% of loop minimum measured flow*	≥89.2% of loop minimum measured flow*
13. Steam Generator Water Level Low-Low					
a. Unit 1	21.1 ~~27.1~~	18.28	1.5	34.8 ~~≥40.8%~~ of narrow range instrument span	33.1 ~~≥39.1%~~ of narrow range instrument span
b. Unit 2	17.0	14.78	1.5	≥17% of narrow range instrument span	≥15.3% of narrow range instrument span
14. Undervoltage - Reactor Coolant Pumps	12.0	0.7	0	≥5268 volts - each bus	≥4728 volts - each bus
15. Underfrequency - Reactor Coolant Pumps	14.4	13.3	0	≥57.0 Hz	≥56.5 Hz
16. Turbine Trip					
a. Emergency Trip Header Pressure	N.A.	N.A.	N.A.	≥540 psig	≥520 psig
b. Turbine Throttle Valve Closure	N.A.	N.A.	N.A.	≥1% open	≥1% open
17. Safety Injection Input from ESF	N.A.	N.A.	N.A.	N.A.	N.A.
18. Reactor Coolant Pump Breaker Position Trip	N.A.	N.A.	N.A.	N.A.	N.A.

*Minimum measured flow = 97,600 gpm

TABLE 3.3-4 (Continued)

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION TRIP SETPOINTS

FUNCTIONAL UNIT	TOTAL ALLOWANCE (TA)	Z	SENSOR ERROR (SE)	TRIP SETPOINT	ALLOWABLE VALUE
5. Turbine Trip and Feedwater Isolation (continued)					
c. Safety Injection	See Item 1. above for all Safety Injection Trip Setpoints and Allowable Values.				
6. Auxiliary Feedwater					
a. Manual Initiation	N.A.	N.A.	N.A.	N.A.	N.A.
b. Automatic Actuation Logic and Actuation Relays	N.A.	N.A.	N.A.	N.A.	N.A.
c. Steam Generator Water Level-Low-Low-Start Motor-Driven Pump and Diesel-Driven Pump					
1) Unit 1	21.1 ~~27.1~~	18.28	1.5	34.8 ≥~~40.8~~% of narrow range instrument span	33.1 ≥~~39.1~~% of narrow range instrument span
2) Unit 2	17.0	14.78	1.5	≥17% of narrow range instrument span	≥15.3% of narrow range instrument span
d. Undervoltage-RCP Bus-Start Motor Driven Pump and Diesel-Driven Pump	N.A.	N.A.	N.A.	≥5268 volts	≥4728 volts
e. Safety Injection-Start Motor-Driven Pump and Diesel-Driven Pump	See Item 1. above for all Safety Injection Trip Setpoints and Allowable Values.				

ATTACHMENT C

EVALUATION OF SIGNIFICANT HAZARDS CONSIDERATIONS

Commonwealth Edison has evaluated this proposed amendment and determined that it involves no significant hazards considerations. 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:

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.

The proposed changes have been reviewed by Commonwealth Edison Co. and Westinghouse in accordance with these criteria. The basis for determining that no significant hazards considerations are introduced is presented below.

The steam generator water level instrumentation is a safety grade system designed to actuate a reactor trip due to a loss of heat sink. The basic function of the reactor protection circuits associated with Low-Low Steam Generator Water Level is to preserve the Steam Generator heat sink for removal of long term residual heat. Should a complete loss of feedwater occur, the reactor would be tripped on a Low-Low Steam Generator Water Level. In addition, an auto-start signal is provided at the same setpoint to two redundant auxiliary feedwater pumps to supply feedwater in order to maintain residual heat removal capability after the trip. The reactor trip acts prior to Steam Generator tube uncovery. This reduces the required auxiliary feedwater capacity, increases the time interval before the auxiliary feedwater pumps are required, and minimizes the thermal transient on the Steam Generator and Reactor Coolant System. The auto-start of the auxiliary feedwater pumps at the same setpoint as the trip ensures a secondary heat sink is continually available after a trip coincident with a loss of normal feedwater.

The reactor trip function generated at the Low-Low Steam Generator Water Level trip setpoint is assumed to provide primary protection for the loss of Normal Feedwater/Loss of All Non-Emergency AC Power events, Feedline Break event, Loss of Load/Turbine Trip event and certain cases of the superheated Steam Line Break Mass and Energy Release Calculations outside containment. All of these analyses assume a "Safety Analysis Limit" value for the reactor trip setpoint lower (more conservative) than the nominal Technical Specification trip setpoint value because it must account for all applicable errors and uncertainties associated with the Low-Low Steam Generator Level trip function. The "Safety Analysis Limit" value assumed for these accidents for the Low-Low Steam Generator Water Level Reactor Trip/Auxiliary Feedwater initiation was 13.7% of span and remains at that value for the proposed

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changes. The margin between the original Technical Specification setpoint for Trip/Auxiliary Feedwater Initiation (40.8%) and the "Safety Analysis Limit" value of 13.7% contained an excess margin of 7.8% of span. This excess margin was in excess of that required to account for instrument error and uncertainties identified in the statistical setpoint study. This change will permit reduction of the Unit 1 Low-Low Steam Generator Water Level Reactor Trip/Auxiliary Feedwater Initiation Setpoint from 40.8% to 34.8%, reducing the excess margin from 7.8% of span to 1.8% of span. However, as stated previously, the margin of safety is unaffected since the new Reactor Trip/Auxiliary Feedwater Initiation setpoint is bounded by the original "Safety Analyses Limit" value used in the applicable safety analyses.

The use of a revised Steam Generator nominal Trip/Auxiliary Feedwater Initiation setpoint does not involve a significant increase in the probability or consequences of any accident previously evaluated. The non-LOCA and LOCA accidents were reviewed verifying that the applicable regulatory or design limit was satisfied for each case defined in the UFSAR. The small and large break analyses which calculate peak cladding temperatures presented in the UFSAR remain valid. In addition, the safety analysis limit of 13.7% of span for the steam generator water level low-low trip setpoint remains unchanged.

The use of a revised Steam Generator nominal Trip/Auxiliary Feedwater Initiation setpoint does not create the possibility for a new or different kind of accident from any accident previously evaluated. Since the accident analysis conclusions as presented in Chapters 3, 6 and 15 of the UFSAR are bounding and remain valid, and no new failure mechanism has been identified, the possibility of a different accident being created does not exist.

The effect of the revised Reactor Trip/Auxiliary Feedwater Initiation setpoint does not involve a significant reduction in a margin of safety. The investigation of the affect of these changes on non-LOCA and LOCA transients has verified that plant operation will remain within the bounds of safe, analyzed conditions as defined in the UFSAR. Conclusions presented in the UFSAR remain valid. As such, no reduction in the margin of safety between the UFSAR safety analyses limit and the Technical Specifications safety limits (such as DNBR or pressure) has taken place for operation with the revised Steam Generator nominal Reactor Trip/Auxiliary Feedwater Initiation setpoint.

Based on the above, this change will not increase the probability or consequences of a previously analyzed accident, introduce the possibility of an accident not previously evaluated, or significantly decrease the margin of safety. Therefore, this change does not involve a significant hazards consideration.

ATTACHMENT D

ENVIRONMENTAL ASSESSMENT STATEMENT APPLICABILITY REVIEW

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. The proposed amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9) in that:

1. The proposed amendment involves no significant hazards consideration (See Attachment C).

2. There is no significant change in the types or significant increase in the amount of any effluents that may be released offsite, and

3. There is no significant increase in individual or cumulative occupational radiation exposure.

Pursuant to 10 CFR 51.22(b), no environmental assessment or environmental impact statement is required with the issuance of the proposed amendment.

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