ATTACHMENT B-1

PROPOSED CHANGES TO
APPENDIX A, TECHNICAL SPECIFICATIONS,
OF FACILITY OPERATING LICENSES NPF-37 AND NPF-66,
BYRON NUCLEAR POWER STATION, UNITS 1 & 2

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LIMITING CONDITION FOR OPERATION

ACTION (Continued)

c) A power distribution map is obtained from the movable incore detectors and $F_Q(Z)$ and $F^N_{\Delta H}$ are verified to be within their limits within 72 hours; and

d) A reevaluation of each accident analysis of Table 3.1-1 is performed within 5 days; this reevaluation shall confirm that the previously analyzed results of these accidents remain valid for the duration of operation under these conditions;

c. With more than one full-length rod trippable but inoperable due to causes other than addressed by ACTION a. above, or misaligned from its group step counter demand height by more than ± 12 steps (indicated position), POWER OPERATION may continue provided that:

1. Within 1 hour, the remainder of the rods in the group(s) with the inoperable rods are aligned to within ± 12 steps of the inoperable rods while maintaining the rod sequence and insertion limits of Figure 3.1-1. The THERMAL POWER level shall be restricted pursuant to Specification 3.1.3.6 during subsequent operation, and

2. The inoperable rods shall be restored to OPERABLE status within 72 hours.

Otherwise, be in HOT STANDBY within 6 hours.

SURVEILLANCE REQUIREMENTS

4.1.3.1.1 The position of each full-length rod shall be determined to be within the group demand limit by verifying the individual rod positions at least once per 12 hours except during time intervals when the rod position deviation monitor is inoperable, then verify the group positions at least once per 4 hours.

4.1.3.1.2 Each full-length rod not fully inserted in the core shall be determined OPERABLE by movement of at least 10 steps in any one direction at least once per 92 days.

TABLE 4.3-3

RADIATION MONITORING INSTRUMENTATION FOR PLANT OPERATIONS SURVEILLANCE REQUIREMENTS

FUNCTIONAL UNIT	CHANNEL CHECK	CHANNEL CALIBRATION	DIGITAL CHANNEL OPERATIONAL TEST	MODES FOR WHICH SURVEILLANCE IS REQUIRED
1. Fuel Building Isolation-Radioactivity-High and Criticality (ORE-AR055/56)	S	R	M Q	*
2. Containment Isolation-Containment Radioactivity-High				
a) Unit 1 (1RE-AR011/12)	S	R	M Q	All
b) Unit 2 (2RE-AR011/12)	S	R	M Q	All
3. Gaseous Radioactivity-RCS Leakage Detection				
a) Unit 1 (1RE-PR011B)	S	R	M Q	1, 2, 3, 4
b) Unit 2 (2RE-PR011B)	S	R	M Q	1, 2, 3, 4
4. Particulate Radioactivity-RCS Leakage Detection				
a) Unit 1 (1RE-PR011A)	S	R	M Q	1, 2, 3, 4
b) Unit 2 (2RE-PR011A)	S	R	M Q	1, 2, 3, 4
5. Main Control Room Isolation-Outside Air Intake-Gaseous Radioactivity-High				
a) Train A (ORE-PR031B/32B)	S	R	M Q	All
b) Train B (ORE-PR033B/34B)	S	R	M Q	All

*With new fuel or irradiated fuel in the fuel storage areas or fuel building.

3/4.4.3 PRESSURIZER

LIMITING CONDITION FOR OPERATION

3.4.3 The pressurizer shall be OPERABLE with at least two groups of pressurizer heaters each having a capacity of at least 150 kW and a water level of less than or equal to 92%.

APPLICABILITY: MODES 1, 2, and 3.

ACTION:

a. With less than two groups of pressurizer heaters OPERABLE, restore at least two groups of pressurizer heaters to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.

b. With the pressurizer otherwise inoperable, be in at least HOT STANDBY with the Reactor trip breakers open within 6 hours and in HOT SHUTDOWN within the following 6 hours.

SURVEILLANCE REQUIREMENTS

4.4.3.1 The pressurizer water level shall be determined to be within its limit at least once per 12 hours.

4.4.3.2 The capacity of each of the above required groups of pressurizer heaters shall be verified by energizing the heaters and measuring circuit current at least once ~~per 92 days.~~ each refueling interval.

4.4.3.3 The cross-tie for the pressurizer heaters to the ESF power supply shall be demonstrated OPERABLE at least once per 18 months by energizing the heaters.

SURVEILLANCE REQUIREMENTS

4.4.6.2.1 Reactor Coolant System leakages shall be demonstrated to be within each of the above limits by:

a. Monitoring the containment atmosphere gaseous and particulate radioactivity monitor at least once per 12 hours;

b. Monitoring the reactor cavity sump discharge, and the containment floor drain sump discharge and inventory at least once per 12 hours;

c. Measurement of the CONTROLLED LEAKAGE ~~from~~ the reactor coolant pump seals when the Reactor Coolant System pressure is 2235 ± 20 psig at least once per 31 days with the modulating valve fully open. The provisions of Specification 4.0.4 are not applicable for entry into MODE 3 or 4; 1

d. Performance of a Reactor Coolant System water inventory balance at least once per 72 hours; and

e. Monitoring the Reactor Head Flange Leakoff System at least once per 24 hours.

4.4.6.2.2 Each Reactor Coolant System Pressure Isolation Valve specified in Table 3.4-1 shall be demonstrated OPERABLE by verifying leakage to be within its limit:

a. At least once per ~~18 months~~ 9 months,

b. Prior to entering MODE 2 whenever the plant has been in COLD SHUTDOWN for ~~72 hours~~ or more and if leakage testing has not been performed in the previous 9 months, 1

c. Prior to returning the valve to service following maintenance, repair or replacement work on the valve, and

d. Within 24 hours following valve actuation due to automatic or manual action or flow through the valve except for valves RH 8701 A and B and RH 8702 A and B.

The provisions of Specification 4.0.4 are not applicable for entry into MODE 3 or 4.

SURVEILLANCE REQUIREMENTS (Continued)

b. At least once per 31 days and within 6 hours after each solution volume increase of greater than or equal to 70 gallons by verifying the boron concentration of the accumulator solution ~~and~~ 1

c. At least once per 31 days when the RCS pressure is above 1000 psig by verifying that the MCC compartment is open and tagged out of service. for each accumulator isolation valve

4.5.1.2 Each accumulator water level and pressure channel shall be demonstrated OPERABLE at least once per 18 months# by the performance of a CHANNEL CALIBRATION. 5

This surveillance is not required when the volume increase makeup source is the RWST and the RWST has not been diluted since verifying that the RWST is within the accumulator boron concentration, and

~~#The specified 18 month interval may be extended to 32 months for Cycle 1 only.~~ 1

3/4.6.2 DEPRESSURIZATION AND COOLING SYSTEMS

CONTAINMENT SPRAY SYSTEM

LIMITING CONDITION FOR OPERATION

3.6.2.1 Two independent Containment Spray Systems shall be OPERABLE with each Spray System capable of taking suction from the RWST and transferring suction to the containment sump.

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

ACTION:

With one Containment Spray System inoperable, restore the inoperable Spray System to OPERABLE status within 7 days or be in at least HOT STANDBY within the next 6 hours; restore the inoperable Spray System to OPERABLE status within the next 48 hours or be in COLD SHUTDOWN within the following 30 hours.

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SURVEILLANCE REQUIREMENTS

4.6.2.1 Each Containment Spray System shall be demonstrated OPERABLE:

a. At least once per 31 days by verifying that each valve (manual, power-operated, or automatic) in the flow path that is not locked, sealed, or otherwise secured in position, is in its correct position;

b. By verifying, that on recirculation flow, each pump develops a discharge pressure of greater than or equal to 265 psig when tested pursuant to Specification 4.0.5;

c. At least once per 18 months during shutdown, by:

1) Verifying that each automatic valve in the flow path actuates to its correct position on a Containment Spray Actuation test signal, and

2) Verifying that each spray pump starts automatically on a Containment Spray Actuation test signal.

d. At least once per 10 years by performing an air or smoke flow test through each spray header and verifying each spray nozzle is unobstructed.

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3/4.6.4 COMBUSTIBLE GAS CONTROL

HYDROGEN MONITORS

LIMITING CONDITION FOR OPERATION

3.6.4.1 Two independent containment hydrogen monitors shall be OPERABLE.*

APPLICABILITY: MODES 1 and 2.

ACTION:

a. With one hydrogen monitor inoperable, restore the inoperable monitor to OPERABLE status within 30 days or be in at least HOT STANDBY within the next 6 hours.

b. With both hydrogen monitors inoperable, restore at least one monitor to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours.

SURVEILLANCE REQUIREMENTS

4.6.4.1 Each hydrogen monitor shall be demonstrated OPERABLE by the performance of a CHANNEL CHECK and a check that the monitor is in standby mode at least once per 12 hours, an ANALOG CHANNEL OPERATIONAL TEST at least once per 31 days, and at least once ~~per 92 days~~ by performing a CHANNEL CALIBRATION using five gas samples which shall cover the range from zero volume percent hydrogen (100% N_2) to greater than 20 volume percent hydrogen, balance nitrogen. (92)

each refueling interval

*The monitors must be in standby mode to meet the requirement in NUREG-0737, Item II.F.1.6.

ELECTRIC HYDROGEN RECOMBINERS

LIMITING CONDITION FOR OPERATION

3.6.4.2 Two independent Hydrogen Recombiner Systems shall be OPERABLE.

APPLICABILITY: MODES 1 and 2

ACTION:

With one Hydrogen Recombiner System inoperable, restore the inoperable system to OPERABLE status within 30 days or be in at least HOT STANDBY within the next 6 hours.

SURVEILLANCE REQUIREMENTS

4.6.4.2 Each Hydrogen ~~Recombiner System shall~~ be demonstrated OPERABLE:

each refueling interval

a. At least once ~~per 6 months by verifying~~, during a Recombiner System functional test that the minimum heater sheath temperature increases to greater than or equal to 1200°F within 90 minutes. Upon reaching 1200°F, increase the temperature controller to maximum setting for 2 minutes and verify that the power is greater than or equal to 38 kW, and

b. At least once per 18 months by:

1) Performing a CHANNEL CALIBRATION of all recombiner instrumentation and control circuits,

2) Verifying through a visual examination that there is no evidence of abnormal conditions within the recombiners enclosure (i.e., loose wiring or structural connections, deposits of foreign materials, etc.), and

3) Verifying the integrity of all heater electrical circuits by performing a resistance to ground test following the above required functional test. The resistance to ground for any heater phase shall be greater than or equal to 10,000 ohms.

PLANT SYSTEMS

AUXILIARY FEEDWATER SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.1.2 At least two independent steam generator auxiliary feedwater pumps and associated flow paths shall be OPERABLE with:

a. One motor-driven auxiliary feedwater pump capable of being powered from an ESF Bus, and

b. One direct-driven diesel auxiliary feedwater pump capable of being powered from a direct-drive diesel engine and an OPERABLE Diesel Fuel Supply System consisting of a day tank containing a minimum of 420 gallons of fuel.

APPLICABILITY: MODES 1, 2, and 3.

ACTION:

a. With one auxiliary feedwater pump inoperable, restore the required auxiliary feedwater pumps to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.

b. With both auxiliary feedwater pumps inoperable, be in at least HOT STANDBY within 6 hours and in HOT SHUTDOWN within the following 6 hours.

SURVEILLANCE REQUIREMENTS

4.7.1.2.1 Each auxiliary feedwater pump shall be demonstrated OPERABLE:

b. At least once per 31 (12) days on a STAGGERED TEST BASIS by:

1) Verifying that the pump develops a differential pressure of greater than or equal to 1825 psid at a flow of greater than or equal to 85 gpm on the recirculation flow when tested pursuant to Specification 4.0.5;

c. At least once per 31 days by:

1) Verifying that each valve (manual, power-operated, or automatic) in the flow path that is not locked, sealed, or otherwise secured in position, is in its correct position.

SURVEILLANCE REQUIREMENTS (Continued)

~~2) Verifying by flow or position check that each valve (manual, power-operated, or automatic) valve in the flow path that is not locked, sealed, or otherwise secured in position is in its correct position.~~

c. At least once per 18 months during shutdown by:

1) Verifying that each automatic valve in the flow path actuates to its correct position upon receipt of an Auxiliary Feedwater Actuation test signal, and

2) Verifying that the motor-driven pump and the direct-driven diesel pump start automatically upon receipt of each of the following test signals:

a) SI or

b) Steam Generator Water Level Low-Low from one steam generator, or

c) Undervoltage on Reactor Coolant Pump 6.9 kV Buses (2/4), or

d) ESF Bus 141 for Unit 1 (Bus 241 for Unit 2) Undervoltage (motor-driven pump only).

4.7.1.2.2 An auxiliary feedwater flow path to each steam generator shall be demonstrated OPERABLE following each COLD SHUTDOWN of greater than 30 days prior to entering MODE 2 by verifying normal flow to each steam generator.

4.7.1.2.3 The auxiliary feedwater pump diesel shall be demonstrated OPERABLE:

a. At least once per 31 days by verifying the fuel level in its day tank;

b. At least once per 92 days by verifying that a drain sample of diesel fuel from its day tank, obtained in accordance with ASTM-D4057-1981 is within the acceptable limits specified in Table 1 of ASTM-D975-1977 when checked for viscosity, water, and sediment; and

c. At least once per 18 months, during shutdown, by subjecting the diesel to an inspection in accordance with its manufacturer's recommendations for this class of service.

GAS DECAY TANKS

LIMITING CONDITION FOR OPERATION

3.11.2.6 The quantity of radioactivity contained in each gas decay tank shall be limited to less than or equal to 5×10^4 Curies of noble gases (considered as Xe-133 equivalent).

APPLICABILITY: At all times.

ACTION:

a. With the quantity of radioactive material in any gas decay tank exceeding the above limit, immediately suspend all additions of radioactive material to the tank and, within 48 hours, reduce the tank contents to within the limit, and describe the events leading to this condition in the next Radioactive Effluent Release Report, pursuant to Specification 6.9.1.7.

b. The provisions of Specification 3.0.3 are not applicable.

SURVEILLANCE REQUIREMENTS

4.11.2.6 The quantity of radioactive material contained in each gas ~~decay tank~~ shall be determined to be within the above limit at least once per ~~24 hours~~ 7 days when radioactive materials are being added to the tank, and at least once per 24 hours during primary coolant system degassing operation.

ATTACHMENT B-2

PROPOSED CHANGES TO
APPENDIX A, TECHNICAL SPECIFICATIONS,
OF FACILITY OPERATING LICENSES NPF-72 AND NPF-77,
BRAIDWOOD NUCLEAR POWER STATION, UNITS 1 & 2

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LIMITING CONDITION FOR OPERATION

ACTION (Continued)

c) A power distribution map is obtained from the movable incore detectors and $F_Q(Z)$ and $F^N_{\Delta H}$ are verified to be within their limits within 72 hours; and

d) A reevaluation of each accident analysis of Table 3.1-1 is performed within 5 days; this reevaluation shall confirm that the previously analyzed results of these accidents remain valid for the duration of operation under these conditions;

c. With more than one full-length rod trippable but inoperable due to causes other than addressed by ACTION a. above, or misaligned from its group step counter demand height by more than ± 12 steps (indicated position), POWER OPERATION may continue provided that:

1. Within 1 hour, the remainder of the rods in the group(s) with the inoperable rods are aligned to within ± 12 steps of the inoperable rods while maintaining the rod sequence and insertion limits of Figure 3.1-1. The THERMAL POWER level shall be restricted pursuant to Specification 3.1.3.6 during subsequent operation, and

2. The inoperable rods shall be restored to OPERABLE status within 72 hours.

Otherwise, be in HOT STANDBY within 6 hours.

SURVEILLANCE REQUIREMENTS

4.1.3.1.1 The position of each full-length rod shall be determined to be within the group demand limit by verifying the individual rod positions at least once per 12 hours except during time intervals when the rod position deviation monitor is inoperable, then verify the group positions at least once per 4 hours.

4.1.3.1.2 Each full-length rod not fully inserted in the core shall be determined OPERABLE by movement of at least 10 steps in any one direction at least once per ~~31~~ 92 days.

TABLE 4.3-3

RADIATION MONITORING INSTRUMENTATION FOR PLANT OPERATIONS SURVEILLANCE REQUIREMENTS

FUNCTIONAL UNIT	CHANNEL CHECK	CHANNEL CALIBRATION	DIGITAL CHANNEL OPERATIONAL TEST	MODES FOR WHICH SURVEILLANCE IS REQUIRED
1. Fuel Building Isolation-Radioactivity-High and Criticality (ORE-AR055/56)	S	R	M Q	*
2. Containment Isolation-Containment Radioactivity-High				
a) Unit 1 (1RE-AR011/12)	S	R	M Q	All
b) Unit 2 (2RE-AR011/12)	S	R	M Q	All
3. Gaseous Radioactivity-RCS Leakage Detection				
a) Unit 1 (1RE-PR011B)	S	R	M Q	1, 2, 3, 4
b) Unit 2 (2RE-PR011B)	S	R	M Q	1, 2, 3, 4
4. Particulate Radioactivity-RCS Leakage Detection				
a) Unit 1 (1RE-PR011A)	S	R	M Q	1, 2, 3, 4
b) Unit 2 (2RE-PR011A)	S	R	M Q	1, 2, 3, 4
5. Main Control Room Isolation-Outside Air Intake-Gaseous Radioactivity-High				
a) Train A (ORE-PR031B/32B)	S	R	M Q	All
b) Train B (ORE-PR033B/34B)	S	R	M Q	All

*With new fuel or irradiated fuel in the fuel storage areas or fuel building.

3/4.4.3 PRESSURIZER

LIMITING CONDITION FOR OPERATION

3.4.3 The pressurizer shall be OPERABLE with at least two groups of pressurizer heaters each having a capacity of at least 150 kW and a water level of less than or equal to 92%.

APPLICABILITY: MODES 1, 2, and 3.

ACTION:

a. With less than two groups of pressurizer heaters OPERABLE, restore at least two groups of pressurizer heaters to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.

b. With the pressurizer otherwise inoperable, be in at least HOT STANDBY with the Reactor trip breakers open within 6 hours and in HOT SHUTDOWN within the following 6 hours.

SURVEILLANCE REQUIREMENTS

4.4.3.1 The pressurizer water level shall be determined to be within its limit at least once per 12 hours.

4.4.3.2 The capacity of each of the above required groups of pressurizer heaters shall be verified by energizing the heaters and measuring circuit current at least once ~~per 92 days~~ each refueling interval.

4.4.3.3 The cross-tie for the pressurizer heaters to the ESF power supply shall be demonstrated OPERABLE at least once per 18 months by energizing the heaters.

SURVEILLANCE REQUIREMENTS

4.4.6.2.1 Reactor Coolant System leakages shall be demonstrated to be within each of the above limits by:

a. Monitoring the containment atmosphere gaseous and particulate radioactivity monitor at least once per 12 hours;

b. Monitoring the reactor cavity sump discharge, and the containment floor drain sump discharge and inventory at least once per 12 hours;

c. Measurement of the CONTROLLED LEAKAGE ~~from~~ to the reactor coolant pump seals when the Reactor Coolant System pressure is 2235 ± 20 psig at least once per 31 days with the modulating valve fully open. The provisions of Specification 4.0.4 are not applicable for entry into MODE 3 or 4;

d. Performance of a Reactor Coolant System water inventory balance at least once per 72 hours; and

e. Monitoring the Reactor Head Flange Leakoff System at least once per 24 hours.

4.4.6.2.2 Each Reactor Coolant System Pressure Isolation Valve specified in Table 3.4-1 shall be demonstrated OPERABLE by verifying leakage to be within its limit:

a. At least once per 18 months,

b. Prior to entering MODE 2 (7 days) whenever the plant has been in COLD SHUTDOWN for ~~72 hours~~ or more and if leakage testing has not been performed in the previous 9 months,

c. Prior to returning the valve to service following maintenance, repair or replacement work on the valve, and

d. Within 24 hours following valve actuation due to automatic or manual action or flow through the valve except for valves RH 8701 A and B and RH 8702 A and B.

The provisions of Specification 4.0.4 are not applicable for entry into MODE 3 or 4.

SURVEILLANCE REQUIREMENTS (Continued)

b. At least once per 31 days and within 6 hours after each solution volume increase of greater than or equal to 70 gallons by verifying the boron concentration of the accumulator solution, and

c. At least once per 31 days when the RCS pressure is above 1000 psig by verifying that the MCC compartment is open and tagged out of service.

for each accumulator isolation valve

4.5.1.2 Each accumulator water level and pressure channel shall be demonstrated OPERABLE at least once per 18 months# by the performance of a CHANNEL CALIBRATION.

This surveillance is not required when the volume increase makeup source is the RWST and the RWST has not been diluted since verifying that the RWST boron concentration is within the accumulator boron concentration limit.

~~#The specified 18 month interval may be extended to 32 months for cycle 1 only.~~

3/4.6.2 DEPRESSURIZATION AND COOLING SYSTEMS

CONTAINMENT SPRAY SYSTEM

LIMITING CONDITION FOR OPERATION

3.6.2.1 Two independent Containment Spray Systems shall be OPERABLE with each Spray System capable of taking suction from the RWST and transferring suction to the containment sump.

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

ACTION:

With one Containment Spray System inoperable, restore the inoperable Spray System to OPERABLE status within 7 days or be in at least HOT STANDBY within the next 6 hours; restore the inoperable Spray System to OPERABLE status within the next 48 hours or be in COLD SHUTDOWN within the following 30 hours. 4

SURVEILLANCE REQUIREMENTS

4.6.2.1 Each Containment Spray System shall be demonstrated OPERABLE:

a. At least once per 31 days by verifying that each valve (manual, power-operated, or automatic) in the flow path that is not locked, sealed, or otherwise secured in position, is in its correct position;

b. By verifying, that on recirculation flow, each pump develops a discharge pressure of greater than or equal to 265 psig when tested pursuant to Specification 4.0.5;

c. At least once per 18 months during shutdown, by:

   1) Verifying that each automatic valve in the flow path actuates to its correct position on a Containment Spray Actuation test signal, and

   2) Verifying that each spray pump starts automatically on a Containment Spray Actuation test signal.

d. At least once per ~~5~~ 10 years by performing an air or smoke flow test through each spray header and verifying each spray nozzle is unobstructed.

CONTAINMENT SYSTEMS

3/4.6.4 COMBUSTIBLE GAS CONTROL

HYDROGEN MONITORS

LIMITING CONDITION FOR OPERATION

3.6.4.1 Two independent containment hydrogen monitors shall be OPERABLE.*

APPLICABILITY: MODES 1 and 2.

ACTION:

a. With one hydrogen monitor inoperable, restore the inoperable monitor to OPERABLE status within 30 days or be in at least HOT STANDBY within the next 6 hours.

b. With both hydrogen monitors inoperable, restore at least one monitor to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours.

SURVEILLANCE REQUIREMENTS

4.6.4.1 Each hydrogen monitor shall be demonstrated OPERABLE by the performance of a CHANNEL CHECK and a check that the monitor is in standby mode at least once per 12 hours, an ANALOG CHANNEL OPERATIONAL TEST at least once per ~~31~~ 92 days, and at least once ~~per 92 days~~ each refueling interval by performing a CHANNEL CALIBRATION using five gas samples which shall cover the range from zero volume percent hydrogen (100% N_2) to greater than 20 volume percent hydrogen, balance nitrogen.

*The monitors must be in standby mode to meet the requirement in NUREG-0737, Item II.F.1.6.

CONTAINMENT SYSTEMS

ELECTRIC HYDROGEN RECOMBINERS

LIMITING CONDITION FOR OPERATION

3.6.4.2 Two independent Hydrogen Recombiner Systems shall be OPERABLE.

APPLICABILITY: MODES 1 and 2.

ACTION:

With one Hydrogen Recombiner System inoperable, restore the inoperable system to OPERABLE status within 30 days or be in at least HOT STANDBY within the next 6 hours.

SURVEILLANCE REQUIREMENTS

4.6.4.2 Each Hydrogen Recombiner System shall be demonstrated OPERABLE:

a. At least once ~~per 6 months~~ each refueling interval by verifying, during a Recombiner System functional test that the minimum heater sheath temperature increases to greater than or equal to 1200°F within 90 minutes. Upon reaching 1200°F, increase the temperature controller to maximum setting for 2 minutes and verify that the power is greater than or equal to 38 kW, and

b. At least once per 18 months by:

1) Performing a CHANNEL CALIBRATION of all recombiner instrumentation and control circuits,

2) Verifying through a visual examination that there is no evidence of abnormal conditions within the recombiners enclosure (i.e., loose wiring or structural connections, deposits of foreign materials, etc.), and

3) Verifying the integrity of all heater electrical circuits by performing a resistance to ground test following the above required functional test. The resistance to ground for any heater phase shall be greater than or equal to 10,000 ohms.

AUXILIARY FEEDWATER SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.1.2 At least two independent steam generator auxiliary feedwater pumps and associated flow paths shall be OPERABLE with:

a. One motor-driven auxiliary feedwater pump capable of being powered from an ESF Bus, and

b. One direct-driven diesel auxiliary feedwater pump capable of being powered from a direct-drive diesel engine and an OPERABLE Diesel Fuel Supply System consisting of a day tank containing a minimum of 420 gallons of fuel.

APPLICABILITY: MODES 1, 2, and 3.

ACTION:

a. With one auxiliary feedwater pump inoperable, restore the required auxiliary feedwater pumps to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.

b. With both auxiliary feedwater pumps inoperable, be in at least HOT STANDBY within 6 hours and in HOT SHUTDOWN within the following 6 hours.

SURVEILLANCE REQUIREMENTS

4.7.1.2.1 Each auxiliary feedwater pump shall be demonstrated OPERABLE:

b.a. At least once per ~~31~~ 92 days on a STAGGERED TEST BASIS by:

1) Verifying that the pump develops a differential pressure of greater than or equal to 1825 psid at a flow of greater than or equal to 85 gpm on the recirculation flow when tested pursuant to Specification 4.0.5;

insert

a. At least once per 31 days by:
1) Verifying that each valve (manual, power-operated or automatic) in the flow path that is not locked, sealed, or otherwise secured in position, is in its correct position.

~~2) Verifying by flow or position check that each valve (manual, power-operated, or automatic) valve in the flow path that is not locked, sealed, or otherwise secured in position is in its correct position.~~

c ~~b~~. At least once per 18 months during shutdown by:

1) Verifying that each automatic valve in the flow path actuates to its correct position upon receipt of an Auxiliary Feedwater Actuation test signal, and

2) Verifying that the motor-driven pump and the direct-driven diesel pump start automatically upon receipt of each of the following test signals:

a) SI or

b) Steam Generator Water Level Low-Low from one steam generator, or

c) Undervoltage on Reactor Coolant Pump 6.9 kV Buses (2/4), or

d) ESF Bus 141 for Unit 1 (Bus 241 for Unit 2) Undervoltage (motor-driven pump only).

4.7.1.2.2 An auxiliary feedwater flow path to each steam generator shall be demonstrated OPERABLE following each COLD SHUTDOWN of greater than 30 days prior to entering MODE 2 by verifying normal flow to each steam generator.

4.7.1.2.3 The auxiliary feedwater pump diesel shall be demonstrated OPERABLE:

a. At least once per 31 days by verifying the fuel level in its day tank;

b. At least once per 92 days by verifying that a drain sample of diesel fuel from its day tank, obtained in accordance with ASTM-D4057-1981 is within the acceptable limits specified in Table 1 of ASTM-D975-1977 when checked for viscosity, water, and sediment; and

c. At least once per 18 months, during shutdown, by subjecting the diesel to an inspection in accordance with its manufacturer's recommendations for this class of service.

RADIOACTIVE EFFLUENTS

GAS DECAY TANKS

LIMITING CONDITION FOR OPERATION

3.11.2.6 The quantity of radioactivity contained in each gas decay tank shall be limited to less than or equal to 5×10^4 Curies of noble gases (considered as Xe-133 equivalent).

APPLICABILITY: At all times.

ACTION:

a. With the quantity of radioactive material in any gas decay tank exceeding the above limit, immediately suspend all additions of radioactive material to the tank and, within 48 hours, reduce the tank contents to within the limit, and describe the events leading to this condition in the next Radioactive Effluent Release Report, pursuant to Specification 6.9.1.7.

b. The provisions of Specification 3.0.3 are not applicable.

SURVEILLANCE REQUIREMENTS

4.11.2.6 The quantity of radioactive material contained in each gas decay tank shall be determined to be within the above limit at least once per ~~24 hours~~ 7 days when radioactive materials are being added to the tank, and at least once per 24 hours during primary coolant system degassing operation.

ATTACHMENT C

EVALUATION OF SIGNIFICANT HAZARDS CONSIDERATIONS

Commonwealth Edison Company (ComEd) has evaluated this proposed amendment and determined that it involves no significant hazards considerations. According to Title 10, Code of Federal Regulations, Part 50, Section 92, Paragraph c [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.

ComEd proposes to implement 10 of the line item technical specification improvements recommended by Generic Letter (GL) 93-05, "Line-Item Technical Specification Improvements to Reduce Surveillance Requirements for Testing during Power Operation," dated September 27, 1993, for Byron Nuclear Power Station, Units 1 and 2 (Byron), and Braidwood Nuclear Power Station, Units 1 and 2 (Braidwood). Most of the proposed changes revise the allowable time intervals for performing certain technical specification surveillance requirements (TSSRs) on plant components during power operation, delete the TSSR entirely, or delete the TSSR under specified conditions. Editorial changes are also proposed on the affected pages.

The NRC has completed a comprehensive examination of surveillance requirements in the technical specifications that require testing at power. The evaluation is documented in NUREG-1366, "Improvements to Technical Specification Surveillance Requirements," dated December 1992. The NRC staff found that, while the majority of testing at power is important, safety can be improved, equipment degradation decreased, and an unnecessary burden on personnel resources eliminated by reducing the amount of testing at power that is required by the Technical Specifications. Based on the results of the evaluations documented in NUREG-1366, the NRC issued GL 93-05.

The specific GL 93-05 changes being proposed for Byron and Braidwood are as follows:

(1) TSSR 4.1.3.1.2 is revised to increase the allowable interval between tests to demonstrate the operability of any partially or fully withdrawn control rod from 31 days to 92 days.

(2) Table 4.3-3 is revised to increase the frequency for the allowable interval between digital channel operational tests used to demonstrate operability of the radiation monitors from monthly to quarterly.

(3) TSSR 4.4.3.2 is revised to increase the allowable interval between tests to verify pressurizer heater capacity from 92 days to once each refueling outage.

(4) TSSR 4.4.6.2.2.b is revised to increase the time the plant may be in cold shutdown before pressure isolation valve (PIV) testing is required prior to entering Mode 2 from 72 hours to 7 days.

(5) TSSR 4.5.1.1.b is revised to eliminate the need to perform the surveillance when the volume increase makeup source to the accumulators is the refueling water storage tank (RWST) and the RWST has not been diluted since verifying that the RWST boron concentration is within the accumulator boron concentration limits.

(6) TSSR 4.6.2.1 is revised to increase the allowable interval between tests to verify that each containment spray nozzle is unobstructed from 5 years to 10 years.

(7) TSSR 4.6.4.1 is revised to increase the frequency for the allowable interval between analog channel operational tests used to demonstrate operability of the containment hydrogen monitors from 31 days to 92 days. The frequency for the channel calibration is revised from 92 days to once each refueling outage.

(8) TSSR 4.6.4.2.a is revised to increase the allowable interval between tests to demonstrate operability of each hydrogen recombiner system from 6 months to once each refueling outage.

(9) TSSR 4.7.1.2.1.a is revised to increase the allowable interval between tests of the auxiliary feedwater pumps from 31 days to 92 days on a staggered test basis.

(10) TSSR 4.11.2.6 is revised to increase the surveillance interval for determining the quantity of radioactivity contained in each gas decay tank from 24 hours to 7 days when radioactive materials are being added to the tank. The 24 hour frequency is maintained during primary coolant degassing operation.

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

The changes are consistent with GL 93-05 and NUREG-1366. The changes eliminate testing that is likely to cause transients or excessive wear of equipment. An evaluation of these changes indicates that there will be a benefit to plant safety. The evaluation, documented in NUREG-1366, considered (1) unavailability of safety equipment due to testing, (2) initiation of significant transients due to testing, (3) actuation of engineered safety features that unnecessarily cycle safety equipment, (4) importance to safety of that system or component, (5) failure rate of that system or component, and (6) effectiveness of the test in discovering the failure.

As a result of the decrease in the testing frequencies, the risk of testing causing a transient and equipment degradation will be decreased, and the reliability of the equipment will not be significantly decreased.

The initial conditions and methodologies used in the accident analyses remain unchanged. The proposed changes do not change or alter the design assumptions for the systems or components used to mitigate the consequences of an accident. Therefore, accident analyses results are not impacted. Appropriate testing will continue to assure that equipment and systems will be capable of performing the intended function.

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

B. The proposed changes do not create the possibility of a new or different kind of accident from any accident previously evaluated.

The proposed changes either modify allowable intervals between certain surveillance tests, delete surveillance requirements, or alter an action statement with regard to the required testing. The proposed changes do not affect the design or operation of any system, structure, or component in the plant. The safety functions of the related structures, systems, or components are not changed in any manner, nor is the reliability of any structure, system, or component reduced by the revised surveillance or testing requirements.

Appropriate testing will continue to assure that the system is capable of performing its intended function. The changes do not affect the manner by which the facility is operated and do not change any facility design feature, structure, system, or component. No new or different type of equipment will be installed. Since there is no change to the facility or operating procedures, and the safety functions and reliability of structures, systems, or components are not affected, the proposed changes do not create the possibility of a new or different kind of accident from any accident previously evaluated.

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

All of the proposed technical specification changes are compatible with plant operating experience and are consistent with the guidance provided in GL 93-05 and NUREG-1366. The changes eliminate unnecessary testing that increases the risk of transients and equipment degradation. There is no impact on safety limits or limiting safety system settings.

The remaining proposed changes are administrative in nature and have no impact on the margin of safety of any technical specification. They do not affect any plant safety parameters or setpoints.

Therefore, based on the above evaluation, ComEd has concluded that these changes do not involve significant hazards considerations.

ATTACHMENT D

ENVIRONMENTAL ASSESSMENT

Commonwealth Edison Company (ComEd) has evaluated the proposed amendment against the criteria for identification of licensing and regulatory actions requiring environmental assessment in accordance with Title 10, Code of Federal Regulations, Part 50, Section 51 (10 CFR 51.21). It has been determined that the proposed change meets the criteria for a categorical exclusion as provided for under 10 CFR 51.22(c)(9). This determination is based on the fact that this change is being proposed as an amendment to a license issued pursuant to 10 CFR 50 that changes a surveillance requirement, and the amendment meets the following specific criteria:

(i) the amendment involves no significant hazards considerations,

As demonstrated in Attachment C, this proposed amendment does not involve any significant hazards considerations.

(ii) there is no significant change in the types or significant increase in the amounts of any effluents that may be released offsite, and

As documented in Attachment A, there will be no change in the types or significant increase in the amounts of any effluents released offsite.

(iii) there is no significant increase in individual or cumulative occupational radiation exposure.

The proposed change will not result in changes in the operation or configuration of the facility. Core design will continue to meet all core design criteria, and reactor operation will not be impacted. There will be no change in the level of controls or methodology used for processing of radioactive effluents or handling of solid radioactive waste, nor will the proposal result in any change in the normal radiation levels within the plant. Therefore there will be no increase in individual or cumulative occupational radiation exposure resulting from this change.