

ATTACHMENT A

PROPOSED CHANGES TO APPENDIX A,  
TECHNICAL SPECIFICATIONS, FACILITY OPERATING LICENSES  
NPF-37, NPF-66, NPF-72, and NPF-75

Revised Pages:

Byron

3/4 6-11  
3/4 6-12  
B3/4 6-3

Braidwood

3/4 6-11  
3/4 6-12  
B3/4 6-3

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## CONTAINMENT SYSTEMS

### CONTAINMENT PURGE VENTILATION SYSTEM

#### LIMITING CONDITION FOR OPERATION

3.6.1.7 Each containment purge supply and exhaust isolation valves shall be OPERABLE and:

- a. Each 48-inch containment shutdown purge supply and exhaust isolation valve shall be closed and power removed, and
- b. The 8-inch containment purge supply and exhaust isolation valve(s) ~~may be open for up to 1000 hours during a calendar year provided no more than one line is open at one time.~~ \*Insert 1, attached.

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

#### ACTION:

- a. With a 48-inch containment purge supply and/or exhaust isolation valve open and/or powered, close and remove power to isolate the penetration(s) within 4 hours, otherwise be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.  
reasons other than given in Specification 3.6.1.7b above.
- b. With the 8-inch containment/purge supply and/or exhaust isolation valve(s) open for ~~more than 1000 hours during a calendar year~~, close the open 8-inch valve(s) or isolate the penetration(s) within 4 hours, otherwise be in at least HOT STANDBY within the next 6 hours, and in COLD SHUTDOWN within the following 30 hours.
- c. With a containment purge supply and/or exhaust isolation valve(s) having a measured leakage rate in excess of the limits of Specifications 4.6.1.7.3 and/or 4.6.1.7.4, restore the inoperable valve(s) to OPERABLE status within 24 hours, otherwise be in at least HOT STANDBY within the next 6 hours, and in COLD SHUTDOWN within the following 30 hours.

## CONTAINMENT SYSTEMS

### SURVEILLANCE REQUIREMENTS

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4.6.1.7.1 Each 48-inch containment purge supply and exhaust isolation valve(s) shall be verified closed and power removed at least once per 31 days.

~~4.6.1.7.2 The cumulative time that all 8-inch containment purge supply and/or exhaust isolation valves have been open during a calendar year shall be determined at least once per 7 days.~~ \*Insert 2, attached

4.6.1.7.3 At least once per 6 months on a STAGGERED TEST BASIS, the inboard and outboard valves with resilient material seals in each closed 48-inch containment purge supply and exhaust penetration shall be demonstrated OPERABLE by verifying that the measured leakage rate is less than  $0.05 L_a$  when pressurized to at least  $P_a$ , 44.4 psig.

4.6.1.7.4 At least once per 3 months, each 8-inch containment purge supply and exhaust isolation valve with resilient material seals shall be demonstrated OPERABLE by verifying that the measured leakage rate is less than  $0.01 L_a$  when pressurized to at least  $P_a$ , 44.4 psig.

## CONTAINMENT SYSTEMS

### BASES

#### CONTAINMENT PURGE VENTILATION SYSTEM (Continued)

be exceeded in the event of an accident ~~during containment purging operation.~~  
~~Operation with one line open will be limited to 1000 hours during a calendar~~  
~~year.~~ Insert 3, attached

Leakage integrity tests with a maximum allowable leakage rate for containment purge supply and exhaust supply valves will provide early indication of resilient material seal degradation and will allow opportunity for repair before gross leakage failures could develop. The 0.60 L leakage limit of Specification 3.6.1.2.b. shall not be exceeded when the leakage rates determined by the leakage integrity tests of these valves are added to the previously determined total for all valves and penetrations subject to Type B and C tests.

#### 3/4.6.2 DEPRESSURIZATION AND COOLING SYSTEMS

##### 3/4.6.2.1 CONTAINMENT SPRAY SYSTEM

The OPERABILITY of the Containment Spray System ensures that containment depressurization and cooling capability will be available in the event of a LOCA or steam line break. The pressure reduction and resultant lower containment leakage rate are consistent with the assumptions used in the safety analyses.

The Containment Spray System and the Containment Cooling System are redundant to each other in providing post-accident cooling of the containment atmosphere. However, the Containment Spray System also provides a mechanism for removing iodine from the containment atmosphere and therefore the time requirements for restoring an inoperable Spray System to OPERABLE status have been maintained consistent with that assigned other inoperable ESF equipment.

##### 3/4.6.2.2 SPRAY ADDITIVE SYSTEM

The OPERABILITY of the Spray Additive System ensures that sufficient NaOH is added to the containment spray in the event of a LOCA. The limits on NaOH volume and concentration ensure a pH value of between 8.5 and 11.0 for the solution recirculated within containment after a LOCA. This pH band minimizes the evolution of iodine and minimizes the effect of chloride and caustic stress corrosion on mechanical systems and components. The contained solution volume limit includes an allowance for solution not usable because of tank discharge line location or other physical characteristics. These assumptions are consistent with the iodine removal efficiency assumed in the safety analyses. A spray additive tank level of between 78.6% and 90.3% ensures a volume of greater than or equal to 4000 gallons but less than or equal to 4540 gallons.

## CONTAINMENT SYSTEMS

### CONTAINMENT PURGE VENTILATION SYSTEM

#### LIMITING CONDITION FOR OPERATION

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- a. Each 48-inch containment shutdown purge supply and exhaust isolation valve shall be closed and power removed, and
- b. The 8-inch containment purge supply and exhaust isolation valve(s) ~~may be open for up to 1000 hours during a calendar year provided no more than one line is open at one time.~~ \* Insert 1, attached.

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

#### ACTION:

- a. With a 48-inch containment purge supply and/or exhaust isolation valve open and/or powered, close and remove power to isolate the penetration(s) within 4 hours, otherwise be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
- b. With the 8-inch <sup>reasons other than given in Specification 3.6.1.7b above</sup> containment purge supply and/or exhaust isolation valve(s) open for ~~more than 1000 hours during a calendar year~~, close the open 8-inch valve(s) or isolate the penetration(s) within 4 hours, otherwise be in at least HOT STANDBY within the next 6 hours, and in COLD SHUTDOWN within the following 30 hours.
- c. With a containment purge supply and/or exhaust isolation valve(s) having a measured leakage rate in excess of the limits of Specifications 4.6.1.7.3 and/or 4.6.1.7.4, restore the inoperable valve(s) to OPERABLE status within 24 hours, otherwise be in at least HOT STANDBY within the next 6 hours, and in COLD SHUTDOWN within the following 30 hours.

## CONTAINMENT SYSTEMS

### SURVEILLANCE REQUIREMENTS

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4.6.1.7.3 At least once per 6 months on a STAGGERED TEST BASIS, the inboard and outboard valves with resilient material seals in each closed 48-inch containment purge supply and exhaust penetration shall be demonstrated OPERABLE by verifying that the measured leakage rate is less than  $0.05 L_a$  when pressurized to at least  $P_a$ , 44.4 psig.

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## CONTAINMENT SYSTEMS

### BASES

#### CONTAINMENT PURGE VENTILATION SYSTEM (Continued)

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Leakage integrity tests with a maximum allowable leakage rate for containment purge supply and exhaust supply valves will provide early indication of resilient material seal degradation and will allow opportunity for repair before gross leakage failures could develop. The 0.60 l leakage limit of Specification 3.6.1.2.b. shall not be exceeded when the leakage rates determined by the leakage integrity tests of these valves are added to the previously determined total for all valves and penetrations subject to Type B and C tests.

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##### 3/4.6.2.2 SPRAY ADDITIVE SYSTEM

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Insert 1  
(to 3.6.1.7.b)

... shall be closed, except that these valves may be open for purge system operation for containment pressure control, ALARA and respirable air quality considerations for personnel entry, or surveillance tests that require the valve(s) to be open.

Insert 2  
(to 4.6.1.7.2)

Each 8-inch containment purge supply and exhaust isolation valve shall be verified to be positioned in accordance with Specification 3.6.1.7b at least once per 31 days.

Insert 3  
(Basis)

... during containment PURGING or VENTING operation. Only reasons such as containment pressure control or the reduction of airborne activity to facilitate personnel access for surveillance and maintenance activities should be used to justify the opening of these isolation valves.



## ATTACHMENT B

### BACKGROUND INFORMATION

This amendment revises Technical Specification 3.6.1.7b regarding operation of the 8-inch containment purge system. The existing technical specification contains a cumulative time limit that the 8-inch purge supply and exhaust isolation valves can be open. Additionally, only one line is permitted to be open at a time. The revised technical specification will permit the valves to be opened for special reasons only (e.g., containment pressure control or personnel entry, or surveillances, etc.). The revised amendment also allows the purge supply line and purge exhaust line to be open simultaneously. This will facilitate use of the containment mini-purge fans without adversely affecting containment pressure.

Lifting the restriction that prevented more than one line to be open at a time will allow the containment purge system to be operated as it was designed. This will improve system efficiency, thereby reducing the number of hours the purge system must be operated to create respirable air conditions inside the containment. This should reduce the number of hours the valves must be opened.

## ATTACHMENT C

### EVALUATION OF SIGNIFICANT HAZARDS CONSIDERATION

Commonwealth Edison has evaluated this 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 consideration if operation of the facility in accordance with the 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.

This proposed amendment revises the technical specification governing operation of the 8-inch containment purge supply and exhaust isolation valves. The present technical specification contains a cumulative time limit the valves can be open and only allows one line to be open at a time. The revised technical specification will permit the supply line and exhaust line to be open simultaneously for special reasons only.

The amount of time the containment purge supply and exhaust isolation valves are open, as well as the number of lines open, do not affect the probability of previously evaluated accidents.

Previously evaluated accidents that rely on the containment isolation function do not take into account the amount of time the 8-inch containment purge supply and exhaust isolation valves are open prior to an accident. The accidents which have been previously analyzed are based on the premise that these 8-inch isolation valves will automatically close within 5 seconds following an accident. This design feature is not being changed by the proposed amendment. As a result, the consequences of previously evaluated accidents are not affected by this amendment.

The containment isolation signals which automatically close these 8-inch valves are not being altered by this amendment. As mentioned above, the 5 second closure time for these valves is not being changed. Additionally, the allowable leakage rate for these valves is not being changed. Operation of the 8-inch containment purge system will remain consistent with the original design and no new modes of reactor operation are permitted by this amendment. As a result, facility operation in accordance with this amendment will not create the possibility a new or different kind of accident from any accident previously evaluated.

Since the allowable closure time and leakage rate of these 8-inch containment purge supply and exhaust isolation valves are not affected by this amendment, the overall containment leakage rate will not be changed. As a result, the margin to the site boundary dose guideline values of 10 CFR Part 100 will not be affected in the event of an accident during containment purging operation.

For the reasons stated above, Commonwealth Edison believes this proposed amendment involves no significant hazards consideration.

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