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LaSalle Generating Station  
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May 31, 2000

United States Nuclear Regulatory Commission  
Attention: Document Control Desk  
Washington, D.C. 20555

LaSalle County Station, Units 1 and 2  
Facility Operating License Nos. NPF-11 and NPF-18  
NRC Docket Nos. 50-373 and 50-374

Subject: Application for Amendment to Appendix A, Technical Specifications, 3/4.3.1, "Reactor Protection System Instrumentation," 3/4.3.7.6, "Source Range Monitors," 3/4.9.2, "Refueling Operations Instrumentation" and 3/4.10.3, "Shutdown Margin Demonstrations"

In accordance with 10 CFR 50.90, "Application for amendment of license or construction permit," Commonwealth Edison (ComEd) Company proposes changes to Appendix A, Technical Specifications (TS), of Facility Operating License Nos. NPF-11 and NPF-18. Specifically, we propose changes to delete the requirement to remove the Reactor Protection System (RPS) circuitry shorting links from TS Sections 3/4.3.1, "Reactor Protection System Instrumentation," 3/4.9.2, "Refueling Operations Instrumentation," and 3/4.10.3, "Shutdown Margin Demonstrations," and to increase the required signal-to-noise ratio for the source range monitor (SRM) in TS Sections 3/4.3.7.6, "Source Range Monitors," and 3/4.9.2.

TS Sections 3/4.3.1, 3/4.9.2, and 3/4.10.3 require that the shorting links be removed from the RPS circuitry prior to and during specified plant conditions. The proposed changes will remove these requirements from the TS and relocate the description and function of the RPS circuitry shorting links to the Updated Final Safety Analysis Report (UFSAR). The use of the RPS circuitry shorting links will then be controlled in accordance with the requirements of 10 CFR 50.59, "Changes, tests and experiments."

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In addition, TS Sections 3/4.3.7.6 and 3/4.9.2 require that when the SRM count rate is greater than or equal to ( $\geq$ ) 0.7 counts per second (cps) and less than ( $<$ ) 3 cps, the SRM have a minimum signal-to-noise ratio of  $\geq$  2:1. The proposed changes will increase the minimum SRM signal-to-noise ratio to  $\geq$  20:1.

The information supporting the proposed changes is subdivided as follows:

1. Attachment A gives a description and safety analysis of the proposed change.
2. Attachment B includes the marked-up TS pages with the proposed changes indicated.
3. Attachment C describes our evaluation performed in accordance with 10 CFR 50.92(c), which provides information supporting a finding of no significant hazards consideration.
4. Attachment D provides information supporting an Environmental Assessment.

The proposed changes have been reviewed by the LaSalle County Station Plant Operations Review Committee (PORC) and approved by the Nuclear Safety Review Board (NSRB) in accordance with the Quality Assurance Program.

ComEd is notifying the State of Illinois of this application for amendment by transmitting a copy of this letter and its attachments to the designated State Official.

Should you have any questions concerning this letter, please contact Mr. Frank A. Spangenberg, III, Regulatory Assurance Manager, at (815) 357-6761, extension 2383.

Respectfully,



Charles G. Pardee  
Site Vice President  
LaSalle County Station

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Attachments:

- Attachment A. Description and Safety Analysis for the Proposed TS Changes
- Attachment B. Marked-up TS Pages for the Proposed Changes
- Attachment C. Information Supporting a Finding of No Significant Hazards Consideration
- Attachment D. Information Supporting an Environmental Assessment

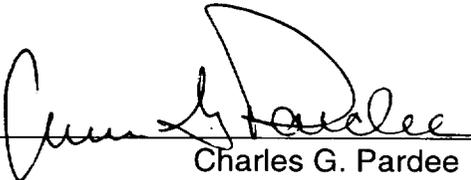
cc: Regional Administrator – NRC Region III  
NRC Senior Resident Inspector – LaSalle County Station  
Office of Nuclear Facility Safety – Illinois Department of Nuclear Safety

STATE OF ILLINOIS )  
IN THE MATTER OF )  
COMMONWEALTH EDISON COMPANY ) Docket Nos.  
LASALLE COUNTY STATION - UNIT 1 and UNIT 2 ) 50-373 and 50-374

Subject: Application for Amendment to Appendix A, Technical Specifications, 3/4.3.1, "Reactor Protection System Instrumentation," 3/4.3.7.6, "Source Range Monitors," 3/4.9.2, "Refueling Operations Instrumentation" and 3/4.10.3, "Shutdown Margin Demonstrations"

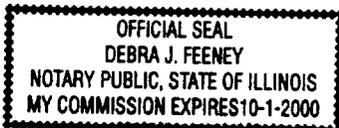
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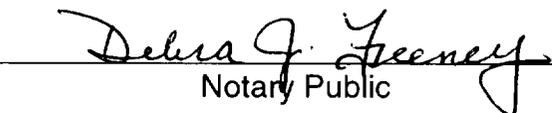
I affirm that the content of this transmittal is true and correct to the best of my knowledge, information and belief.



Charles G. Pardee  
Site Vice President  
LaSalle County Station

Subscribed and sworn to before me, a Notary Public in and for the State above named, this 31<sup>st</sup> day of May, 2000.  
My Commission expires on 10-1, 00.



  
Notary Public

**ATTACHMENT A**  
**Proposed Technical Specification Changes for**  
**LaSalle County Station Units 1 and 2**  
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**DESCRIPTION AND SAFETY ANALYSIS**  
**FOR PROPOSED TECHNICAL SPECIFICATION CHANGES**

**A. SUMMARY OF PROPOSED CHANGES**

In accordance with 10 CFR 50.90, "Application for amendment of license or construction permit," Commonwealth Edison (ComEd) Company proposes changes to Appendix A, Technical Specifications (TS), of Facility Operating License Nos. NPF-11 and NPF-18. Specifically, we propose changes to delete the requirement to remove the Reactor Protection System (RPS) circuitry shorting links from TS Sections 3/4.3.1, "Reactor Protection System Instrumentation," 3/4.9.2, "Refueling Operations Instrumentation" and 3/4.10.3, "Shutdown Margin Demonstrations," and to increase the required signal-to-noise ratio for the source range monitor (SRM) in TS Sections 3/4.3.7.6, "Source Range Monitors," and 3/4.9.2.

TS Sections 3/4.3.1, 3/4.9.2 and 3/4.10.3 require that the shorting links be removed from the RPS circuitry prior to and during specified plant conditions. The proposed changes will remove these requirements from the TS and relocate the description and function of the RPS circuitry shorting links to the Updated Final Safety Analysis Report (UFSAR). The use of the RPS circuitry shorting links will then be controlled in accordance with the requirements of 10 CFR 50.59, "Changes, tests and experiments."

In addition, TS Sections 3/4.3.7.6 and 3/4.9.2 require that when the SRM count rate is greater than or equal to ( $\geq$ ) 0.7 counts per second (cps) and less than ( $<$ ) 3 cps, the SRM have a minimum signal-to-noise ratio of  $\geq 2:1$ . The proposed changes will increase the minimum SRM signal-to-noise ratio to  $\geq 20:1$ .

The proposed changes are described in Section E of this Attachment. The marked up TS pages are shown in Attachment B.

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**B. DESCRIPTION OF THE CURRENT REQUIREMENTS**

TS Sections 3/4.3.1, 3/4.9.2 and 3/4.10.3 require during Operational Condition 5, "Refueling," that the shorting links be removed from the RPS circuitry prior to and during the time any control rod is withdrawn and during shutdown margin demonstrations. However, the shorting links are not required to be removed when control rods are removed in accordance with TS Sections 3/4.9.10.1, "Single Control Rod Removal" and 3/4.9.10.2, "Multiple Control Rod Removal."

TS Sections 3/4.3.7.6 and 3/4.9.2 require that when the SRM count rate is greater than or equal to 0.7 cps and less than 3 cps, the SRM have a minimum signal-to-noise ratio of  $\geq 2:1$ .

**C. BASES FOR THE CURRENT REQUIREMENT**

The intermediate range monitors (IRMs) and average power range monitors (APRMs) with the shorting links installed, provide a one-out-of-two taken twice full scram logic. The removal of the RPS circuitry shorting links modifies the RPS as follows.

- The full scram logic for the IRMs and APRMs are reconfigured to non-coincident, and
- The SRM non-coincident high flux full scram is enabled.

Thus, with the RPS shorting links removed, a single trip of any neutron monitoring instrument channel (i.e., SRM, IRM or APRM) will cause a full scram.

The TS requirement for a minimum SRM count rate of 0.7 cps was based on the low neutron flux level that occurs during a refuel outage. An SRM signal-to-noise ratio of  $\geq 2:1$  provides a level of confidence that the indicated signal is accurate.

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**D. NEED FOR REVISION OF THE REQUIREMENT**

Control Rod Drive (CRD) testing and exercising is performed in Operational Condition 5, after completion of a given set of fuel movements and the appropriate reactor core verification. The testing and exercising of a CRD is in accordance with TS Section 3/4.9.3, "Control Rod Position," does not occur when fuel is being moved in the RPV and all other control rods are fully inserted. Additionally, the control rod being moved is under the control of the reactor mode switch Refuel position one-rod-out interlock. TS Sections 3/4.3.1, 3/4.9.2 and 3/4.10.3 require that the RPS circuitry shorting links to be removed for this CRD testing and exercising.

With the RPS shorting links removed, a single trip of any neutron monitoring instrument channel (i.e., SRM, IRM or APRM) will cause a full scram.

Additionally, during this Operational Condition 5 period, work is performed under the reactor pressure vessel (RPV) which could cause a single spurious neutron monitoring channel trip to occur. Although a spurious neutron monitoring instrument channel trip is infrequent and would generally cause a half scram, with the RPS circuitry shorting links removed, a single spurious channel trip will cause a full scram. A full scram causes high pressure water to be forced through the seals in the CRDs with the potential for premature degradation of CRD seals. The increased frequency of damage to the CRD seals would result in unnecessary radiation dose to plant personnel due to more frequent maintenance. The proposed changes would prevent a single spurious channel trip from causing a full scram by deleting the TS requirement to remove the RPS circuitry shorting links.

General Electric Company (GE) Service Information Letter (SIL) 478, "SRM Minimum Count Rate," identified that a SRM signal-to-noise ratio of  $\geq 2:1$  provides a statistical neutron monitoring confidence of 95% that the indicated signal is correct with a minimum count rate of 3 cps. GE performed a study which concluded that a SRM signal-to-noise ratio of  $\geq 20:1$  is required to provide a statistical neutron monitoring confidence of 95% that the indicated signal is correct at 0.7 cps. The proposed changes incorporate the results of the GE study into TS of LaSalle County Station, Units 1 and 2.

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**E. DESCRIPTION OF THE PROPOSED CHANGES**

The proposed changes to TS Table 3.3.1-1 relocate Note (b) to the UFSAR and ATRs.

Since Note (b) has the only reference to footnote \*, the footnote is proposed to be relocated with the RPS shorting links.

Change footnote # of TS SRs 4.3.7.6.c and 4.9.2.c to correct the required SRM count rate signal-to-noise ratio. The signal-to-noise ratio is required to be  $\geq 20$  for a count rate of at least 0.7 counts per second (cps), otherwise the count rate must be  $\geq 3$  cps. In addition, typographical errors in footnote # of TS 3.3.7.6 of Unit 1 and 2 TS are being corrected as shown on the marked-up pages in Attachment B.

Relocate TS Limiting Condition for Operation (LCO) 3.9.2.c and TS SR 4.9.2.d from TS to the Updated Final Safety Analysis Report (UFSAR) and the Administrative Technical Requirements (ATRs).

TS Section 3/4.9.2, Footnote ##, which exempts control rods removed in accordance with TS Sections 3.9.10.1 or 3.9.10.2 from this requirement for both TS 3.9.2.c and 4.9.2.d, is also being relocated, as it applies only to the RPS circuitry shorting links requirements and surveillances.

Relocate TS LCO 3.10.3.a requirement to remove the RPS circuitry "shorting links" to the UFSAR and the ATRs.

Attachment B contains the marked-up TS pages showing the changes as proposed.

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**F. SAFETY ANALYSIS OF THE PROPOSED CHANGES**

LaSalle County Station, Units 1 and 2, are each equipped with SRMs, IRMs and APRMs that provide the following, when the RPS circuitry shorting links are installed in Operational Condition 5.

- The SRMs provide non-coincident control rod withdrawal blocks under certain conditions, and indication to the control room.
- The IRMs provide a one-out-of-two taken twice full scram logic, as well as non-coincident control rod withdrawal blocks and control room indication.
- The APRMs provide a one-out-of-two taken twice full scram signal logic, as well as non-coincident control rod withdrawal blocks and control room indication.

TS Sections 3/4.3.1, 3/4.9.2 and 3/4.10.3 require that the shorting links be removed from the RPS circuitry in Operational Condition 5, prior to and during the time, any control rod is withdrawn, and during shutdown margin demonstrations. However, the shorting links are not required to be removed when control rods are removed in accordance with TS Sections 3/4.9.10.1 and 3/4.9.10.2. The removal of the RPS circuitry shorting links modifies the RPS as follows.

- The full scram logic for the IRMs and APRMs is reconfigured to non-coincident, and
- The SRM non-coincident high flux full scram is enabled.

The proposed changes to relocate from the TS, the requirements to remove the RPS circuitry shorting links in Operational Condition 5, are acceptable based on the following.

- Removal of the RPS circuitry shorting links is not assumed in any design basis accident (DBA) for the LaSalle County Station.
- The SRM non-coincident high flux full scram logic is not credited in any DBA.

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- The IRM and APRM one-out-of-two taken twice full scram logic provides the credited protection with respect to safety analysis.
- The SRM, IRM and APRM control rod withdrawal block interlocks are not affected by the removal or installation of the RPS circuitry shorting links.
- Refueling interlocks and shutdown margin requirements ensure that the reactor is maintained in a subcritical condition in Operational Condition 5. The refueling interlocks are required to be operable by TS Section 3/4.9.1, "Reactor Mode Switch." Although shutdown margin may not yet have been demonstrated in Operational Condition 5, shutdown margin calculations performed prior to altering the reactor core, along with procedural compliance for any Core Alterations, provides indication that shutdown margin is available.

The proposed changes to relocate the description and function of the RPS circuitry shorting links to the UFSAR and be controlled in accordance with the requirements of 10 CFR 50.59, are consistent with the requirements of 10 CFR 50.36, "Technical Specifications." The existing TS requirements to remove the RPS circuitry shorting links do not satisfy any of the four criteria of 10 CFR 50.36 for inclusion of a requirement into the TS. In accordance with NRC guidance, existing TS requirements that do not satisfy the criteria of 10 CFR 50.36 can be removed from the TS and relocated to other controlled documents, such as the UFSAR. Changes to the LaSalle County Station UFSAR are controlled in accordance with the requirements of 10 CFR 50.59.

Additionally, the proposed changes to remove the TS requirements to remove the RPS circuitry shorting links and to relocate the description and function of the RPS circuitry shorting links to the UFSAR are consistent with NUREG 1434, Revision 1, "Standard Technical Specifications General Electric Plants, BWR/6," (ISTS).

The proposed changes to TS Sections 3/4.3.7.6 and 3/4.9.2 will increase the minimum SRM signal-to-noise ratio from  $\geq 2:1$  to  $\geq 20:1$  when the SRM count rate is  $\geq 0.7$  cps and  $< 3$  cps. The proposed changes are acceptable as the SRMs in the range from  $\geq 0.7$  cps to  $< 3$  cps, will have a greater statistical neutron monitoring confidence that the indicated signal is correct.

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**G. IMPACT ON PREVIOUS SUBMITTALS**

We have reviewed the proposed changes regarding impact on any previous submittals, and have determined that there is no impact on any outstanding previous submittals.

**H. SCHEDULE REQUIREMENTS**

We request approval of this submittal by October 2, 2000, to support the LaSalle County Station, Unit 2, upcoming refueling outage, currently scheduled for early November 2000.

**ATTACHMENT B**  
**Proposed Technical Specification Changes**

**MARKED-UP TECHNICAL SPECIFICATION PAGES**  
**FOR THE PROPOSED CHANGES**

<u>NPF-11</u>	<u>NPF-18</u>
3/4 3-2	3/4 3-2
3/4 3-3*	3/4 3-3*
3/4 3-4*	3/4 3-4*
3/4 3-5	3/4 3-5
3/4 3-72	3/4 3-72
3/4 9-3	3/4 9-3
3/4 9-4	3/4 9-4
3/4 10-3	3/4 10-3

\*This page is provided for information only, no changes.

TABLE 3.3.1-1

REACTOR PROTECTION SYSTEM INSTRUMENTATION

<u>FUNCTIONAL UNIT</u>	<u>APPLICABLE OPERATIONAL CONDITIONS</u>	<u>MINIMUM OPERABLE CHANNELS PER TRIP SYSTEM (a)</u>	<u>ACTION</u>
1. Intermediate Range Monitors:			
a. Neutron Flux - High	2 3 4 5 (b) <i>e</i>	3 2 3	1 2 3
b. Inoperative	2 3, 4 5	3 2 3	1 2 3
2. Average Power Range Monitor: <sup>(c)</sup>			
a. Neutron Flux - High, Setdown	2 3 4 5 (b) <i>e</i>	2 2 2	1 2 3
b. Flow Biased Simulated Thermal Power-Upscale	1	2	4
c. Fixed Neutron Flux-High	1	2	4
d. Inoperative	1, 2 3 5	2 2 2	1 2 3
3. Reactor Vessel Steam Dome Pressure - High	1, 2 <sup>(d)</sup>	2	1
4. Reactor Vessel Water Level - Low, Level 3	1, 2	2	1
5. Main Steam Line Isolation Valve - Closure	1 <sup>(e)</sup>	4	4
6. DELETED			

TABLE 3.3.1-1 (Continued)

REACTOR PROTECTION SYSTEM INSTRUMENTATION

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No changes

<u>FUNCTIONAL UNIT</u>	<u>APPLICABLE OPERATIONAL CONDITIONS</u>	<u>MINIMUM OPERABLE CHANNELS PER TRIP SYSTEM (a)</u>	<u>ACTION</u>
7. Primary Containment Pressure - High	1, 2 <sup>(f)</sup>	2 <sup>(g)</sup>	1
8. Scram Discharge Volume Water Level - High	1 <sub>5</sub> (h) <sup>2</sup>	2 2	1 3
9. Turbine Stop Valve - Closure	1 <sup>(i)</sup>	4 <sup>(j)</sup>	6
10. Turbine Control Valve Fast Closure, Valve Trip System Oil Pressure - Low	1 <sup>(i)</sup>	2 <sup>(j)</sup>	6
11. Reactor Mode Switch Shutdown Position	1, 2 3, 4 5	1 1 1	1 7 3
12. Manual Scram	1, 2 3, 4 5	1 1 1	1 8 9
13. Control Rod Drive			
a. Charging Water Header Pressure - Low	2 5 <sup>(h)</sup>	2 2	1 3
b. Delay Timer	2 5 <sup>(h)</sup>	2 2	1 3

TABLE 3.3.1-1 (Continued)

REACTOR PROTECTION SYSTEM INSTRUMENTATION

ACTION

- ACTION 1 - Be in at least HOT SHUTDOWN within 12 hours.
- ACTION 2 - Verify all insertable control rods to be inserted in the core and lock the reactor mode switch in the Shutdown position within one hour.
- ACTION 3 - Suspend all operations involving CORE ALTERATIONS and insert all insertable control rods within one hour.
- ACTION 4 - Be in at least STARTUP within 6 hours.
- ACTION 5 - Deleted
- ACTION 6 - Initiate a reduction in THERMAL POWER within 15 minutes and reduce THERMAL POWER to less than 25% of RATED THERMAL POWER, within 2 hours.
- ACTION 7 - Verify all insertable control rods to be inserted within 1 hour.
- ACTION 8 - Lock the reactor mode switch in the Shutdown position within 1 hour.
- ACTION 9 - Suspend all operations involving CORE ALTERATIONS, and insert all insertable control rods and lock the reactor mode switch in the SHUTDOWN position within 1 hour.

This page is provided for  
Information only, No changes

TABLE 3.3.1-1 (Continued)

REACTOR PROTECTION SYSTEM INSTRUMENTATION

TABLE NOTATIONS

Deleted.

- (a) A channel may be placed in an inoperable status for up to 6 hours for required surveillance without placing the channel in the tripped condition provided at least one OPERABLE channel in the same trip system is monitoring that parameter.
- (b) The "shorting links" shall be removed from the RPS circuitry prior to and during the time any control rod is withdrawn and during shutdown margin demonstrations performed per Specification 3.10.3.
- (c) An APRM channel is inoperable if there are less than 2 LPRM inputs per level or less than 14 LPRM inputs to an APRM channel.
- (d) This function is not required to be OPERABLE when the reactor pressure vessel head is unbolted or removed per Specification 3.10.1.
- (e) This function shall be automatically bypassed when the reactor mode switch is not in the Run position.
- (f) This function is not required to be OPERABLE when PRIMARY CONTAINMENT INTEGRITY is not required.
- (g) Also actuates the standby gas treatment system.
- (h) With any control rod withdrawn. Not applicable to control rods removed per Specification 3.9.10.1 or 3.9.10.2.
- (i) This function shall not be automatically bypassed when THERMAL POWER is greater than or equal to 25% of RATED THERMAL POWER.
- (j) Also actuates the EOC-RPT system.

Not required for control rods removed per Specifications 3.9.10.1 or 3.9.10.2.

INSTRUMENTATION

SOURCE RANGE MONITORS

LIMITING CONDITION FOR OPERATION

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3.3.7.6 At least three source range monitor channels shall be OPERABLE.

APPLICABILITY: OPERATIONAL CONDITIONS 2\*, 3, and 4.

ACTION:

- a. In OPERATIONAL CONDITION 2\* with one of the above required source range monitor channels inoperable, restore at least three source range monitor channels to OPERABLE status within 4 hours or be in at least HOT SHUTDOWN within the next 12 hours.
- b. In OPERATIONAL CONDITION 3 or 4 with two or more of the above required source range monitor channels inoperable, verify all insertable control rods to be inserted in the core and lock the reactor mode switch in the Shutdown position within 1 hour.

SURVEILLANCE REQUIREMENTS

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4.3.7.6 Each of the above required source range monitor channels shall be demonstrated OPERABLE by:

- a. Performance of a:
  1. CHANNEL CHECK at least once per:
    - a) 12 hours in CONDITION 2\*, and
    - b) 24 hours in CONDITION 3 or 4.
  2. CHANNEL CALIBRATION\*\* at least once per 18 months.
- b. Performance of a CHANNEL FUNCTIONAL TEST:
  1. Within 24 hours prior to moving the reactor mode switch from the Shutdown position, if not performed within the previous 7 days, and
  2. At least once per 31 days.
- c. Verifying, prior to withdrawal of control rods, that the SRM count rate is at least 0.7 cps# with the detector fully inserted.

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\*With IRM's on range 2 or below.

\*\*Neutron detectors may be excluded from CHANNEL CALIBRATION.

#Provided signal-to-noise ratio is  $\geq 2$ . Otherwise, 3 cps.

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## REFUELING OPERATIONS

### 3/4.9.2 INSTRUMENTATION

#### LIMITING CONDITION FOR OPERATION

3.9.2 At least 2 source range monitor\* (SRM) channels shall be OPERABLE<sup>#</sup> and inserted to the normal operating level with:

- a. Continuous visual indication in the control room, ← *and*
- b. One of the required SRM detectors located in the quadrant where CORE ALTERATIONS are being performed and the other required SRM detector located in an adjacent quadrant, *and*.
- c. The "shorting links" removed from the RPS circuitry prior to and during the time any control rod is withdrawn<sup>##</sup> and shutdown margin demonstrations.

APPLICABILITY: OPERATIONAL CONDITION 5, unless the following conditions are met:

- a. No more than four (4) fuel assemblies are present in each core quadrant associated with an SRM;
- b. While in core, these four fuel assemblies are in locations adjacent to the SRM; and
- c. In the case of movable detectors, detector location shall be selected such that each group of fuel assemblies is separated by at least two (2) fuel cell locations from any other fuel assemblies.

#### ACTION:

With the requirements of the above specification not satisfied, immediately suspend all operations involving CORE ALTERATIONS and insert all insertable control rods.

#### SURVEILLANCE REQUIREMENTS

4.9.2 Each of the above required SRM channels shall be demonstrated OPERABLE by:

- a. At least once per 12 hours:
  1. Performance of a CHANNEL CHECK,
  2. Verifying the detectors are inserted to the normal operating level, and
  3. During CORE ALTERATIONS, verifying that the detector of an OPERABLE SRM channel is located in the core quadrant where CORE ALTERATIONS are being performed and another is located in an adjacent quadrant.

\*The use of special movable detectors during CORE ALTERATIONS in place of the normal SRM nuclear detectors is permissible as long as these special detectors are connected to the normal SRM circuits.

#The normal or emergency power source may be inoperable.

##Not required for control rods removed per Specification 3.9.10.1 or 3.9.10.2.

REFUELING OPERATIONS

SURVEILLANCE REQUIREMENTS (Continued)

- b. Performance of a CHANNEL FUNCTIONAL TEST:
1. Within 24 hours prior to the start of CORE ALTERATIONS, and
  2. At least once per 7 days.
- c. Verifying that the channel count rate is at least 0.7 cps<sup>#</sup>:
1. Prior to control rod withdrawal,
  2. Prior to and at least once per 12 hours during CORE ALTERATIONS, and
  3. At least once per 24 hours.
- d. Verifying that the RPS circuitry "shorting links" have been removed within 8 hours prior to and at least once per 12 hours during:
1. The time any control rod is withdrawn,<sup>##</sup> or
  2. Shutdown margin demonstrations.

<sup>#</sup> Provided signal-to-noise ratio is  $\geq 2$ . Otherwise, 3 cps.

<sup>##</sup> Not required for control rods removed per Specification 3.9.10.1 or 3.9.10.2.

## SPECIAL TEST EXCEPTIONS

### 3/4.10.3 SHUTDOWN MARGIN DEMONSTRATIONS

#### LIMITING CONDITION FOR OPERATION

3.10.3 The provisions of Specification 3.9.1, Specification 3.9.3 and Table 1.2 may be suspended to permit the reactor mode switch to be in the Startup position and to allow more than one control rod to be withdrawn for shutdown margin demonstration, provided that at least the following requirements are satisfied.

- a. The source range monitors are OPERABLE with the RPS circuitry "shorting links" removed per Specification 3.9.2.
- b. The rod worth minimizer is OPERABLE per Specification 3.1.4.1 and is programmed for the shutdown margin demonstration, or conformance with the shutdown margin demonstration procedure is verified by a second licensed operator or other technically qualified member of the unit technical staff.
- c. The "rod-out-notch-override" control shall not be used during out-of-sequence movement of the control rods.
- d. No other CORE ALTERATIONS are in progress.

APPLICABILITY: OPERATIONAL CONDITION 5, during shutdown margin demonstrations.

#### ACTION:

With the requirements of the above specification not satisfied, immediately place the reactor mode switch in the Shutdown or Refuel position.

#### SURVEILLANCE REQUIREMENTS

4.10.3 Within 30 minutes prior to and at least once per 12 hours during the performance of a shutdown margin demonstration, verify that;

- a. The source range monitors are OPERABLE per Specification 3.9.2,
- b. The rod worth minimizer is OPERABLE with the required program per Specification 3.1.4.1 or a second licensed operator or other technically qualified member of the unit technical staff is present and verifies compliance with the shutdown demonstration procedures, and
- c. No other CORE ALTERATIONS are in progress.

TABLE 3.3.1-1

REACTOR PROTECTION SYSTEM INSTRUMENTATION

<u>FUNCTIONAL UNIT</u>	<u>APPLICABLE OPERATIONAL CONDITIONS</u>	<u>MINIMUM OPERABLE CHANNELS PER TRIP SYSTEM (a)</u>	<u>ACTION</u>
1. Intermediate Range Monitors:			
a. Neutron Flux - High	2 3 4 5 (b) <i>el</i>	3 2 3	1 2 3
b. Inoperative	2 3, 4 5	3 2 3	1 2 3
2. Average Power Range Monitor: <sup>(c)</sup>			
a. Neutron Flux - High, Setdown	2 3 4 5 (b) <i>el</i>	2 2 2	1 2 3
b. Flow Biased Simulated Thermal Power-Upscale	1	2	4
c. Fixed Neutron Flux-High	1	2	4
d. Inoperative	1, 2 3 5	2 2 2	1 2 3
3. Reactor Vessel Steam Dome Pressure - High	1, 2 <sup>(d)</sup>	2	1
4. Reactor Vessel Water Level - Low, Level 3	1, 2	2	1
5. Main Steam Line Isolation Valve - Closure	1 <sup>(e)</sup>	4	4
6. DELETED			

**TABLE 3.3.1-1 (Continued)**  
**REACTOR PROTECTION SYSTEM INSTRUMENTATION**

**TABLE 3.3.1-1 (Continued)**

**REACTOR PROTECTION SYSTEM INSTRUMENTATION**

*This page is provided  
 for information only,  
 No changes*

<u>FUNCTIONAL UNIT</u>	<u>APPLICABLE OPERATIONAL CONDITIONS</u>	<u>MINIMUM OPERABLE CHANNELS PER TRIP SYSTEM (a)</u>	<u>ACTION</u>
7. Primary Containment Pressure - High	1, 2 <sup>(f)</sup>	2 <sup>(g)</sup>	1
8. Scram Discharge Volume Water Level - High	1, 5 <sup>(h)</sup>	2	1
		2	3
9. Turbine Stop Valve - Closure	1 <sup>(i)</sup>	4 <sup>(j)</sup>	6
10. Turbine Control Valve Fast Closure, Valve Trip System Oil Pressure - Low	1 <sup>(i)</sup>	2 <sup>(j)</sup>	6
11. Reactor Mode Switch Shutdown Position	1, 2 3, 4 5	1	1
		1	7
		1	3
12. Manual Scram	1, 2 3, 4 5	1	1
		1	8
		1	9
13. Control Rod Drive			
a. Charging Water Header Pressure - Low	2, 5 <sup>(h)</sup>	2 2	1 3
b. Delay Timer	2, 5 <sup>(h)</sup>	2	1
		2	3

TABLE 3.3.1-1 (Continued)

REACTOR PROTECTION SYSTEM INSTRUMENTATION

ACTION STATEMENTS

- ACTION 1 - Be in at least HOT SHUTDOWN within 12 hours.
- ACTION 2 - Verify all insertable control rods to be inserted in the core and lock the reactor mode switch in the Shutdown position within 1 hour.
- ACTION 3 - Suspend all operations involving CORE ALTERATIONS and insert all insertable control rods within one hour.
- ACTION 4 - Be in at least STARTUP within 6 hours.
- ACTION 5 - DELETED
- ACTION 6 - Initiate a reduction in THERMAL POWER within 15 minutes and reduce THERMAL POWER to less than 25% of RATED THERMAL POWER, within 2 hours.
- ACTION 7 - Verify all insertable control rods to be inserted within 1 hour.
- ACTION 8 - Lock the reactor mode switch in the Shutdown position within 1 hour.
- ACTION 9 - Suspend all operations involving CORE ALTERATIONS, and insert all insertable control rods and lock the reactor mode switch in the SHUTDOWN position within 1 hour.

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Information only, No changes*

TABLE 3.3.1-1 (Continued)

REACTOR PROTECTION SYSTEM INSTRUMENTATION

TABLE NOTATIONS

Deleted.

- (a) A channel may be placed in an inoperable status for up to 6 hours for required surveillance without placing the channel in the tripped condition provided at least one OPERABLE channel in the same trip system is monitoring that parameter.
- (b) The "shorting links" shall be removed from the RPS circuitry prior to and during the time any control rod is withdrawn\* and during shutdown margin demonstrations performed per Specification 3.10.3.
- (c) An APRM channel is inoperable if there are less than 2 LPRM inputs per level or less than 14 LPRM inputs to an APRM channel.
- (d) This function is not required to be OPERABLE when the reactor pressure vessel head is unbolted or removed per Specification 3.10.1.
- (e) This function shall be automatically bypassed when the reactor mode switch is not in the Run position.
- (f) This function is not required to be OPERABLE when PRIMARY CONTAINMENT INTEGRITY is not required.
- (g) Also actuates the standby gas treatment system.
- (h) With any control rod withdrawn. Not applicable to control rods removed per Specification 3.9.10.1 or 3.9.10.2.
- (i) This function shall not be automatically bypassed when THERMAL POWER is greater than or equal to 25% of RATED THERMAL POWER.
- (j) Also actuates the EOC-RPT system.

\*Not required for control rods removed per Specification 3.9.10.1 or 3.9.10.2.

## INSTRUMENTATION

### SOURCE RANGE MONITORS

#### LIMITING CONDITION FOR OPERATION

3.3.7.6 At least three source range monitor channels shall be OPERABLE.

APPLICABILITY: OPERATIONAL CONDITIONS 2<sup>nd</sup>, 3, and 4.

#### ACTION:

- a. In OPERATIONAL CONDITION 2<sup>nd</sup> with one of the above required source range monitor channels inoperable, restore at least three source range monitor channels to OPERABLE status within 4 hours or be in at least HOT SHUTDOWN within the next 12 hours.
- b. In OPERATIONAL CONDITION 3 or 4 with two or more of the above required source range monitor channels inoperable, verify all insertable control rods to be inserted in the core and lock the reactor mode switch in the Shutdown position within 1 hour.

#### SURVEILLANCE REQUIREMENTS

4.3.7.6 Each of the above required source range monitor channels shall be demonstrated OPERABLE by:

- a. Performance of a:
  1. CHANNEL CHECK at least once per:
    - a) 12 hours in CONDITION 2<sup>nd</sup>, and
    - b) 24 hours in CONDITION 3 or 4.
  2. CHANNEL CALIBRATION<sup>\*\*\*</sup> at least once per 18 months.
- b. Performance of a CHANNEL FUNCTIONAL TEST:
  1. Within 24 hours prior to moving the reactor mode switch from the Shutdown position, if not performed within the previous 7 days, and
  2. At least once per 31 days.
- c. Verifying, prior to withdrawal of control rods, that the SRM count rate is at least 0.7 cps<sup>#</sup> with the detector fully inserted.

<sup>\*\*</sup>With IRM's on range 2 or below.

<sup>\*\*\*</sup>Neutron detectors may be excluded from CHANNEL CALIBRATION.

<sup>#</sup>Provided signal-to-noise ratio is  $\geq 2$ ; Otherwise, 3 cps.

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## REFUELING OPERATIONS

### 3/4.9.2 INSTRUMENTATION

#### LIMITING CONDITION FOR OPERATION

3.9.2 At least 2 source range monitor\* (SRM) channels shall be OPERABLE\* and inserted to the normal operating level with:

- a. Continuous visual indication in the control room, *and*
- b. One of the required SRM detectors located in the quadrant where CORE ALTERATIONS are being performed and the other required SRM detector located in an adjacent quadrant, *and*
- c. The "shorting links" removed from the RPS circuitry prior to and during the time any control rod is withdrawn\*\* and shutdown margin demonstrations.

APPLICABILITY: OPERATIONAL CONDITION 5, unless the following conditions are met:

- a. No more than four (4) fuel assemblies are present in each core quadrant associated with an SRM;
- b. While in core, these four fuel assemblies are in locations adjacent to the SRM; and
- c. In the case of movable detectors, detector location shall be selected such that each group of fuel assemblies is separated by at least two (2) fuel cell locations from any other fuel assemblies.

#### ACTION:

With the requirements of the above specification not satisfied, immediately suspend all operations involving CORE ALTERATIONS and insert all insertable control rods.

#### SURVEILLANCE REQUIREMENTS

4.9.2 Each of the above required SRM channels shall be demonstrated OPERABLE by:

- a. At least once per 12 hours:
  1. Performance of a CHANNEL CHECK,
  2. Verifying the detectors are inserted to the normal operating level, and
  3. During CORE ALTERATIONS, verifying that the detector of an OPERABLE SRM channel is located in the core quadrant where CORE ALTERATIONS are being performed and another is located in an adjacent quadrant.

\*The use of special movable detectors during CORE ALTERATIONS in place of the normal SRM nuclear detectors is permissible as long as these special detectors are connected to the normal SRM circuits.

#The normal or emergency power source may be inoperable.

##Not required for control rods removed per Specification 3.9.10.1 or 3.9.10.2.

REFUELING OPERATIONS

SURVEILLANCE REQUIREMENTS (Continued)

- b. Performance of a CHANNEL FUNCTIONAL TEST:
  - 1. Within 24 hours prior to the start of CORE ALTERATIONS, and
  - 2. At least once per 7 days.
- c. Verifying that the channel count rate is at least 0.7 cps#:
  - 1. Prior to control rod withdrawal,
  - 2. Prior to and at least once per 12 hours during CORE ALTERATIONS, and
  - 3. At least once per 24 hours.
- d. Verifying that the RPS circuitry "shorting links" have been removed within 8 hours prior to and at least once per 12 hours during:
  - 1. The time any control rod is withdrawn,## or
  - 2. Shutdown margin demonstrations.

#Provided signal-to-noise ratio is  $> 2$ . Otherwise, 3 cps.  
##Not required for control rods removed per Specification 3.9.10.1 or 3.9.10.2.

## SPECIAL TEST EXCEPTIONS

### 3/4.10.3 SHUTDOWN MARGIN DEMONSTRATIONS

#### LIMITING CONDITION FOR OPERATION

3.10.3 The provisions of Specification 3.9.1, Specification 3.9.3 and Table 1.2 may be suspended to permit the reactor mode switch to be in the Startup position and to allow more than one control rod to be withdrawn for shutdown margin demonstration, provided that at least the following requirements are satisfied.

- a. The source range monitors are OPERABLE with the RPS circuitry "shorting links" removed per Specification 3.9.2.
- b. The rod worth minimizer is OPERABLE per Specification 3.1.4.1 and is programmed for the shutdown margin demonstration, or conformance with the shutdown margin demonstration procedure is verified by a second licensed operator or other technically qualified member of the unit technical staff.
- c. The "rod-out-notch-override" control shall not be used during out-of-sequence movement of the control rods.
- d. No other CORE ALTERATIONS are in progress.

APPLICABILITY: OPERATIONAL CONDITION 5, during shutdown margin demonstrations.

#### ACTION:

With the requirements of the above specification not satisfied, immediately place the reactor mode switch in the Shutdown or Refuel position.

#### SURVEILLANCE REQUIREMENTS

4.10.3 Within 30 minutes prior to and at least once per 12 hours during the performance of a shutdown margin demonstration, verify that;

- a. The source range monitors are OPERABLE per Specification 3.9.2.
- b. The rod worth minimizer is OPERABLE with the required program per Specification 3.1.4.1 or a second licensed operator or other technically qualified member of the unit technical staff is present and verifies compliance with the shutdown demonstration procedures, and
- c. No other CORE ALTERATIONS are in progress.

**ATTACHMENT C**  
**Proposed Technical Specification Changes**  
**Page 1 of 4**

**INFORMATION SUPPORTING A FINDING OF NO SIGNIFICANT HAZARDS  
CONSIDERATION**

Commonwealth Edison (ComEd) Company has evaluated the proposed changes to the Technical Specifications (TS) for LaSalle County Station, Units 1 and 2, and has determined that the proposed changes do not involve a significant hazards consideration and is providing the following information to support a finding of 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 proposed amendment would not:

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

Create the possibility of a new or different kind of accident from any previously analyzed; or

Involve a significant reduction in a margin of safety.

The proposed changes to TS Sections 3/4.3.1, "Reactor Protection System Instrumentation," 3/4.9.2, "Refueling Operations Instrumentation" and 3/4.10.3, "Shutdown Margin Demonstrations," will remove the requirement that the shorting links be removed from the Reactor Protection System (RPS) circuitry prior to and during specified plant conditions. The description and function of the RPS circuitry shorting links will be relocated to the Updated Final Safety Analysis Report (UFSAR). The use of the RPS circuitry shorting links will then be controlled in accordance with the requirements of 10 CFR 50.59, "Changes, tests and experiments."

In addition, changes are proposed to TS Sections 3/4.3.7.6, "Source Range Monitors," and 3/4.9.2 to increase the minimum source range monitor (SRM) signal-to-noise ratio from greater than or equal to ( $\geq$ ) 2:1 to  $\geq$  20:1 when the SRM count rate is  $\geq$  0.7 counts per second (cps) and less than ( $<$ ) 3 cps.

The information supporting the determination that the criteria set forth in 10 CFR 50.92 are met for these proposed changes is provided below.

**ATTACHMENT C**  
**Proposed Technical Specification Changes**  
**Page 2 of 4**

**Does the change involve a significant increase in the probability of occurrence or consequences of an accident previously evaluated?**

The proposed changes to TS Sections 3/4.3.1, 3/4.9.2 and 3/4.10.3 will relocate the requirement that the shorting links be removed from the RPS circuitry prior to and during specified plant conditions. The removal or installation of the RPS circuitry shorting links does not have an effect on the probability of any accident previously evaluated. The proposed changes to TS Sections 3/4.3.7.6 and 3/4.9.2 will increase the minimum SRM signal-to-noise ratio from  $\geq 2:1$  to  $\geq 20:1$ , when the SRM count rate is greater than or equal to 0.7 counts per second (cps) and less than 3 cps.

The operation of the SRM does not have an effect on the probability of any accident previously evaluated. Thus, the probability of any accident previously evaluated is not increased.

The proposed changes do not affect the integrity of the fuel cladding, reactor coolant system or secondary containment, because no credit is taken in the current accident analyses for removal of the RPS circuitry shorting links. Thus, the radiological consequences of any accident previously evaluated are not increased.

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

**Does the change create the possibility of a new or different kind of accident from any accident previously evaluated?**

The proposed changes do not affect the assumed accident performance of any LaSalle County Station structure, system or component previously evaluated because accidents previously evaluated assumed that the RPS circuitry shorting links were installed and did not credit SRM operation. The proposed changes do not introduce any new modes of system operation or failure mechanisms.

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

**ATTACHMENT C**  
**Proposed Technical Specification Changes**  
**Page 3 of 4**

**Does the change involve a significant reduction in a margin of safety?**

The proposed changes to TS Sections 3/4.3.1, 3/4.9.2 and 3/4.10.3 will relocate the requirement that the shorting links be removed from the RPS circuitry prior to and during specified plant conditions. The removal of the RPS circuitry shorting links in Operational Condition 5, "Refueling," modifies the RPS by reconfiguring the scram signal for the intermediate range monitors (IRMs) and average power range monitors (APRMs) to non-coincidental and enabling the SRM non-coincidental high flux scram signal. However, the SRM non-coincidental high flux scram signal is not credited in any Design Basis Accident (DBA) and the IRM and APRM one-out-of-two taken twice full scram provides the credited protection with respect to safety analysis.

Refueling interlocks and shutdown margin requirements ensure that the reactor is maintained in a subcritical condition in Operational Condition 5. The refueling interlocks are required to be operable by TS Section 3/4.9.1, "Reactor Mode Switch." The SRM, IRM and APRM control rod withdrawal block interlocks are not affected by the removal or installation of the RPS circuitry shorting links. Although shutdown margin may not yet have been demonstrated in Operational Condition 5, shutdown margin calculations performed prior to altering the reactor core, along with procedural compliance for any Core Alterations, provides indication that shutdown margin is available.

The proposed changes to relocate the description and function of the RPS circuitry shorting links to the UFSAR and be controlled in accordance with the requirements of 10 CFR 50.59, are consistent with the requirements of 10 CFR 50.36, "Technical Specifications." The existing TS requirements to remove the RPS circuitry shorting links do not satisfy any of the four criteria of 10 CFR 50.36 for inclusion of a requirement into the TS. In accordance with NRC guidance, existing TS requirements that do not satisfy the criteria of 10 CFR 50.36 can be removed from the TS and relocated to other controlled documents, such as the UFSAR. Changes to the LaSalle County Station UFSAR are controlled in accordance with the requirements of 10 CFR 50.59.

The proposed changes to TS Sections 3/4.3.7.6 and 3/4.9.2 will increase the statistical neutron monitoring confidence that the indicated signal is correct when the SRMs indicate in the range from 0.7 cps to 3 cps. A SRM signal-to-noise ratio of  $\geq 2:1$  provides a statistical neutron monitoring confidence of 95% that the indicated signal is correct with a minimum

**ATTACHMENT C**  
**Proposed Technical Specification Changes**  
**Page 4 of 4**

count rate of 3 cps. A study was performed which concluded that a SRM signal-to-noise ratio of  $\geq 20:1$  is required to provide a statistical neutron monitoring confidence of 95% that the indicated signal is correct at 0.7 cps.

Thus, the proposed changes do not involve a significant reduction in a margin of safety.

Therefore, based upon the above evaluation, ComEd has concluded that these changes involve no significant hazards considerations.

**ATTACHMENT D**  
**Proposed Changes to License Conditions for**  
**LaSalle County Station, Units 1 and 2**

**INFORMATION SUPPORTING AN ENVIRONMENTAL ASSESSMENT**

ComEd has evaluated these proposed changes against the criteria for identification of licensing and regulatory actions requiring environmental assessment in accordance with 10 CFR 51.21. ComEd has determined that these proposed changes meet the criteria for a categorical exclusion set forth in 10 CFR 51.22(c)(9) and as such, has determined that no irreversible consequences exist in accordance with 10 CFR 50.92(b). This determination is based on the fact that these changes are being proposed as an amendment to a license issued pursuant to 10 CFR 50, that the proposed changes are to a requirement with respect to installation or use of a facility component located within the restricted area, as defined in 10 CFR 20, or that changes are proposed to an inspection or a surveillance requirement, and the amendment meets the following specific criteria:

- (i) The proposed changes involve no significant hazards consideration.

As demonstrated in Attachment C, these proposed changes do not involve any significant hazards consideration.

- (ii) There is no significant change in the types or significant increase in the amounts of any effluent that may be released offsite.

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

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

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 these proposed changes.