

July 29, 1997

Ms. Irene Johnson, Act' g Manager  
Nuclear Regulatory Ser es  
Commonwealth Edison Company  
Executive Towers West III  
1400 Opus Place, Suite 500  
Downers Grove, IL 60515

SUBJECT: ISSUANCE OF AMENDMENTS (TAC NOS. M98399 AND M98400)

Dear Ms. Johnson:

The U.S. Nuclear Regulatory Commission (Commission) has issued the enclosed Amendment No. 119 to Facility Operating License No. NPF-11 and Amendment No. 104 to Facility Operating License No. NPF-18 for the LaSalle County Station, Units 1 and 2, respectively. The amendments are in response to your application dated April 14, 1997.

The amendments revise Technical Specification (TS) 3/4.3.8, "Feedwater/Main Turbine Trip System Actuation Instrumentation" by changing the minimum channels required from three to four. This change reflects a modification that is being installed to add an auxiliary contact to the trip system logic. In addition, the amendments revise the TS action statement for inoperable channels to be consistent with the Improved Standard Technical Specifications and to account for the additional channel.

A copy of the Safety Evaluation is also enclosed. The Notice of Issuance will be included in the Commission's biweekly Federal Register notice.

Sincerely,

ORIGINAL SIGNED BY:

Donna M. Skay, Project Manager  
Project Directorate III-2  
Division of Reactor Projects - III/IV  
Office of Nuclear Reactor Regulation

Docket Nos. 50-373, 50-374

- Enclosures: 1. Amendment No. 119 to NPF-11
- 2. Amendment No. 104 to NPF-18
- 3. Safety Evaluation

cc w/encl: see next page

DISTRIBUTION:

Docket File	PUBLIC	PDIII-2 r/f
J. Roe, JWR	E. Adensam	J. Wermiel
R. Capra	C. Moore	D. Skay
OGC, 015B18	ACRS, T2E26	M. Dapas, RIII
W. Beckner, 013H15	G. Hill (4), T5C3	

*D fol*  
*1/1*

DOCUMENT NAME: LA98399.AMD

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OFFICE	PM:PDIII-2 <i>le</i>	LA:PDIII-2 <i>2</i>	HICB <i>W</i>	E	OGC	D:PDIII-2 <i>E</i>
NAME	DSKAY <i>DSKAY</i>	CMOORE <i>CMOORE</i>	JWERMIAL <i>JWERMIAL</i>		<i>C. Moore</i>	RCAPRA <i>RCAPRA</i>
DATE	07/8/97	07/8/97	07/11/97		07/22/97	07/24/97

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Sincerely,

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Donna M. Skay, Project Manager  
Project Directorate III-2  
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Docket Nos. 50-373, 50-374

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OFFICE	PM:PDIII-2 <i>le</i>	LA:PDIII-2 <i>e</i>	HICB <i>W</i>	E	OGC	D:PDIII-2 <i>e</i>
NAME	DSKAY <i>DMS</i>	C MOORE	JWERMIEL		<i>C Moore</i>	RCAPRA <i>RC</i>
DATE	07/28/97	07/28/97	07/11/97		07/22/97	07/24/97

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UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

July 29, 1997

Ms. Irene Johnson, Acting Manager  
Nuclear Regulatory Services  
Commonwealth Edison Company  
Executive Towers West III  
1400 Opus Place, Suite 500  
Downers Grove, IL 60515

SUBJECT: ISSUANCE OF AMENDMENTS (TAC NOS. M98399 AND M98400)

Dear Ms. Johnson:

The U.S. Nuclear Regulatory Commission (Commission) has issued the enclosed Amendment No. 119 to Facility Operating License No. NPF-11 and Amendment No. 104 to Facility Operating License No. NPF-18 for the LaSalle County Station, Units 1 and 2, respectively. The amendments are in response to your application dated April 14, 1997.

The amendments revise Technical Specification (TS) 3/4.3.8, "Feedwater/Main Turbine Trip System Actuation Instrumentation" by changing the minimum channels required from three to four. This change reflects a modification that is being installed to add an auxiliary contact to the trip system logic. In addition, the amendments revise the TS action statement for inoperable channels to be consistent with the Improved Standard Technical Specifications and to account for the additional channel.

A copy of the Safety Evaluation is also enclosed. The Notice of Issuance will be included in the Commission's biweekly Federal Register notice.

Sincerely,

Donna M. Skay, Project Manager  
Project Directorate III-2  
Division of Reactor Projects - III/IV  
Office of Nuclear Reactor Regulation

Docket Nos. 50-373, 50-374

Enclosures: 1. Amendment No. 119 to NPF-11  
2. Amendment No. 104 to NPF-18  
3. Safety Evaluation

cc w/encl: see next page

LaSalle County Station  
Unit Nos. 1 and 2

cc:

Ms. I. Johnson  
Acting Manager, Nuclear Regulatory Services  
Commonwealth Edison Company  
Executive Towers West III  
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Illinois Department of Nuclear Safety  
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Springfield, Illinois 62704

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UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

COMMONWEALTH EDISON COMPANY

DOCKET NO. 50-373

LASALLE COUNTY STATION, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 119  
License No. NPF-11

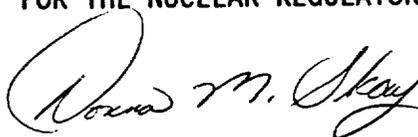
1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment filed by the Commonwealth Edison Company (the licensee), dated April 14, 1997, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's regulations set forth in 10 CFR Chapter I;
  - B. The facility will operate in conformity with the application, the provisions of the Act, and the regulations of the Commission;
  - C. There is reasonable assurance: (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations set forth in 10 CFR Chapter I;
  - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
  - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the enclosure to this license amendment and paragraph 2.C.(2) of the Facility Operating License No. NPF-11 is hereby amended to read as follows:

(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, as revised through Amendment No. 119, and the Environmental Protection Plan contained in Appendix B, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This license amendment is effective as of the date of its issuance and shall be implemented within 60 days.

FOR THE NUCLEAR REGULATORY COMMISSION



Donna M. Skay, Project Manager  
Project Directorate III-2  
Division of Reactor Projects - III/IV  
Office of Nuclear Reactor Regulation

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: July 29, 1997

ATTACHMENT TO LICENSE AMENDMENT NO. 119

FACILITY OPERATING LICENSE NO. NPF-11

DOCKET NO. 50-373

Replace the following pages of the Appendix "A" Technical Specifications with the enclosed pages. The revised pages are identified by amendment number and contain a vertical line indicating the area of change.

REMOVE

3/4 3-86  
3/4 3-87  
B 3/4 3-4  
B 3/4 3-4a  
B 3/4 3-6  
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INSERT

3/4 3-86  
3/4 3-87  
B 3/4 3-4  
B 3/4 3-4a  
B 3/4 3-6  
B 3/4 3-6a

## INSTRUMENTATION

### 3/4.3.8 FEEDWATER/MAIN TURBINE TRIP SYSTEM ACTUATION INSTRUMENTATION

#### LIMITING CONDITION FOR OPERATION

3.3.8 The feedwater/main turbine trip system actuation instrumentation channels shown in Table 3.3.8-1 shall be OPERABLE with their trip setpoints set consistent with the values shown in the Trip Setpoint column of Table 3.3.8-2.

APPLICABILITY: OPERATIONAL CONDITION 1.

#### ACTION:

- a. With a feedwater/main turbine trip system actuation instrumentation channel trip setpoint less conservative than the value shown in the Allowable Values column of Table 3.3.8-2, declare the channel inoperable until the channel is restored to OPERABLE status with its trip setpoint adjusted consistent with the Trip Setpoint value.
- b. With one or more channels required by Table 3.3.8-1 inoperable:
  1. Within 2 hours, verify sufficient channels remain OPERABLE or tripped\* to maintain trip capability, and
  2. Within 7 days, either place the inoperable channel(s) in the trip system in the tripped\* condition or restore the inoperable channel(s) to OPERABLE status.
- c. Otherwise, be in at least STARTUP within 6 hours.

#### SURVEILLANCE REQUIREMENTS

4.3.8.1 Each feedwater/main turbine trip system actuation instrumentation channel shall be demonstrated OPERABLE by the performance of the CHANNEL CHECK, CHANNEL FUNCTIONAL TEST and CHANNEL CALIBRATION operations at the frequencies shown in Table 4.3.8.1-1.

4.3.8.2 LOGIC SYSTEM FUNCTIONAL TESTS and simulated automatic operation of all channels shall be performed at least once per 18 months.

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\*An inoperable channel need not be placed in the tripped condition where this would cause the Trip Function to occur.

TABLE 3.3.8-1

FEEDWATER/MAIN TURBINE TRIP SYSTEM ACTUATION INSTRUMENTATION

<u>TRIP FUNCTION</u>	<u>MINIMUM OPERABLE CHANNELS PER TRIP SYSTEM</u>
a. Reactor Vessel Water Level-High, Level 8	4*

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\*A channel may be placed in an inoperable status for up to 6 hours for required surveillance testing without placing the Trip System in the tripped condition.

## INSTRUMENTATION

### BASES

#### 3/4.3.5 REACTOR CORE ISOLATION COOLING SYSTEM ACTUATION INSTRUMENTATION

The reactor core isolation cooling system actuation instrumentation is provided to initiate actions to assure adequate core cooling in the event of reactor isolation from its primary heat sink and the loss of feedwater flow to the reactor vessel without providing actuation of any of the emergency core cooling equipment.

Specified surveillance intervals and surveillance and maintenance outage times have been determined in accordance with GENE-770-06-2-A, "Addendum To Bases for Changes to Surveillance Test Intervals and Allowed Out-of-Service Times for Selected Instrumentation Technical Specifications (BWR RCIC Instrumentation)," December 1992. When a channel is placed in an inoperable status solely for performance of required surveillances, entry into LCO and required ACTIONS may be delayed, provided the associated function maintains RCIC initiation capability.

An auxiliary relay contact of Channel A of the RCIC Reactor Vessel Water Level - High, Level 8 instrumentation channel is used as an input to trip Channel C of the Feedwater/Main Turbine Trip System Actuation Instrumentation. Therefore, the Limiting Condition for Operation and Surveillance Requirements of both TS 3/4.3.5 and 3/4.3.8 are applicable to the RCIC level 8 channel A instrumentation channel.

#### 3/4.3.6 CONTROL ROD WITHDRAWAL BLOCK INSTRUMENTATION

The control rod block functions are provided consistent with the requirements of the specifications in Section 3/4.1.4, Control Rod Program Controls. The trip logic is arranged so that a trip in any one of the inputs will result in a control rod block.

Specified surveillance intervals and surveillance and maintenance outage times have been determined in accordance with NEDC-30851P-A, Supplement 1, "Technical Specification Improvement Analysis for BWR Control Rod Block Instrumentation," October 1988, and GENE-770-06-1-A, "Bases for Changes to Surveillance Test Intervals and Allowed Out-Of-Service Times for Selected Instrumentation Technical Specifications," December 1992. When a channel is placed in an inoperable status solely for performance of required surveillances, entry into LCO and required ACTIONS may be delayed, provided the associated function maintains Control Rod Block capability.

#### 3/4.3.7 MONITORING INSTRUMENTATION

##### 3/4.3.7.1 RADIATION MONITORING INSTRUMENTATION

The OPERABILITY of the radiation monitoring instrumentation ensures that: (1) the radiation levels are continually measured in the areas served by the individual channels, and (2) the alarm or automatic action is initiated when the radiation level trip setpoint is exceeded.

## INSTRUMENTATION

### BASES

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#### 3/4.3.7.1 RADIATION MONITORING INSTRUMENTATION (Continued)

Specified surveillance intervals and surveillance and maintenance outage times have been determined in accordance with GENE-770-06-1-A, "Bases for Changes to Surveillance Test Intervals and Allowed Out-Of-Service Times for Selected Instrumentation Technical Specifications," December 1992. When a channel is placed in an inoperable status solely for performance of required surveillances, entry into LCO and required ACTIONS may be delayed, provided the associated function maintains initiation capability.

#### 3.4.3.7.2 DELETED

#### 3/4.3.7.3 METEOROLOGICAL MONITORING INSTRUMENTATION

The OPERABILITY of the meteorological monitoring instrumentation ensures that sufficient meteorological data is available for estimating potential radiation doses to the public as a result of routine or accidental release of radioactive materials to the atmosphere. This capability is required to evaluate the need for initiating protective measures to protect the health and safety of the public. This instrumentation is consistent with the recommendations of Regulatory Guide 1.23, "Onsite Meteorological Programs," February 1972.

#### 3/4.3.7.4 REMOTE SHUTDOWN MONITORING INSTRUMENTATION

The OPERABILITY of the remote shutdown monitoring instrumentation ensures that sufficient capability is available to permit shutdown and maintenance of HOT SHUTDOWN of the unit from locations outside of the control room. This capability is required in the event control room habitability is lost and is consistent with General Design Criteria 19 of 10 CFR 50.

# INSTRUMENTATION

## BASES

### 3/4.3.7.10 DELETED

### 3/4.3.7.11 EXPLOSIVE GAS MONITORING INSTRUMENTATION

This instrumentation provides for monitoring (and controlling) the concentrations of potentially explosive gas mixtures in the waste gas holdup system.

### 3/4.3.7.12 LOOSE-PART DETECTION SYSTEM

The OPERABILITY of the loose-part detection system ensures that sufficient capability is available to detect loose metallic parts in the primary system and avoid or mitigate damage to primary system components. The allowable out-of-service times and surveillance requirements are consistent with the recommendations of Regulatory Guide 1.133, "Loose-Part Detection Program for the Primary System of Light-Water-Cooled Reactors."

### 3/4.3.8 FEEDWATER/MAIN TURBINE TRIP SYSTEM ACTUATION INSTRUMENTATION

The feedwater/main turbine trip system actuation instrumentation is provided to initiate the feedwater system/main turbine trip system in the event of reactor vessel water level equal to or greater than the level 8 setpoint associated with a feedwater controller failure, to prevent overfilling the reactor vessel which may result in high pressure liquid discharge through the safety/relief valve discharge lines. Specified surveillance intervals and surveillance and maintenance outage times have been determined in accordance with GENE-770-06-1-A, "Bases for Changes to Surveillance Test Intervals and Allowed Out-Of-Service Times for Selected Instrumentation Technical Specifications," December 1992. When a channel is placed in an inoperable status solely for performance of required surveillances, entry into LCO and required ACTIONS may be delayed, provided the associated function maintains Feedwater System/Main Turbine Trip System actuation capability.

The four instrument channels are arranged to make a two out of three trip logic. In order to eliminate the loss of the reactor vessel water level eight trip due to the loss of either variable leg instrument line for narrow range level instrumentation, trip channel C of the level 8 trip logic contains two reactor vessel water level 8 sensor trip relay contacts. Therefore, trip channel C contains two channels, providing the redundancy needed to prevent a failure to trip of the feedwater pumps/main turbine due to an instrument line failure. One of the four channels (one of the two channels in trip channel C) is from the Channel A, RCIC reactor vessel water level 8 trip relay, which is associated with TS 3.3.5, Reactor Core Isolation Cooling System Actuation Instrumentation.

Actions b.1 and b.2 are modified by a Note that states that an inoperable channel need not be placed in the tripped condition where this would cause the Trip Function to occur. This note acknowledges that an orderly shutdown per Action c is preferred to the transient that will occur if the trip were actuated.

## INSTRUMENTATION

### BASES

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#### 3/4.3.8 FEEDWATER/MAIN TURBINE TRIP SYSTEM ACTUATION INSTRUMENTATION (Continued)

Action b.1 assures that whatever combination of channels are inoperable, that automatic trip capability either exists or is restored within 2 hours, which is sufficient for the operator to take corrective action and takes into account the likelihood of an event requiring actuation of this Trip Function. This will require a minimum of two channels Operable or one channel Operable with one channel in the tripped condition in order to satisfy Action b.1. If Action b.1 is satisfied, then Action b.2 is entered. If Action b.1 is not satisfied, then Action c must be entered.

Action b.2 assures that each inoperable channel is placed in the tripped condition within 7 days. If each inoperable channel is in the tripped condition or declared Operable within 7 days, then continued unit operation is allowed, due to the remaining redundancy for single instrument failure. If one or more channels are inoperable, and cannot be placed in the tripped condition or declared Operable within 7 days, then Action c must be entered.

An auxiliary relay contact of Channel A of the RCIC Reactor Vessel Water Level - High, Level 8 instrumentation channel is used as an input to trip Channel C of the Feedwater/Main Turbine Trip System Actuation Instrumentation. Therefore, the Limiting Condition for Operation and Surveillance Requirements of both TS 3/4.3.5 and 3/4.3.8 are applicable to the RCIC level 8 channel A instrumentation channel.



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

COMMONWEALTH EDISON COMPANY

DOCKET NO. 50-374

LASALLE COUNTY STATION, UNIT 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 104  
License No. NPF-18

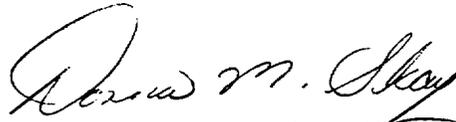
1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment filed by the Commonwealth Edison Company (the licensee), dated April 14, 1997, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's regulations set forth in 10 CFR Chapter I;
  - B. The facility will operate in conformity with the application, the provisions of the Act, and the regulations of the Commission;
  - C. There is reasonable assurance: (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations set forth in 10 CFR Chapter I;
  - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
  - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the enclosure to this license amendment and paragraph 2.C.(2) of the Facility Operating License No. NPF-18 is hereby amended to read as follows:

(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, as revised through Amendment No. 104 , and the Environmental Protection Plan contained in Appendix B, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This license amendment is effective as of the date of its issuance and shall be implemented within 60 days.

FOR THE NUCLEAR REGULATORY COMMISSION



Donna M. Skay, Project Manager  
Project Directorate III-2  
Division of Reactor Projects - III/IV  
Office of Nuclear Reactor Regulation

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: July 29, 1997

ATTACHMENT TO LICENSE AMENDMENT NO. 104

FACILITY OPERATING LICENSE NO. NPF-18

DOCKET NO. 50-374

Replace the following pages of the Appendix "A" Technical Specifications with the enclosed pages. The revised pages are identified by amendment number and contain a vertical line indicating the area of change.

REMOVE

3/4 3-86  
3/4 3-87  
B 3/4 3-4  
B 3/4 3-4a  
B 3/4 3-6  
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INSERT

3/4 3-86  
3/4 3-87  
B 3/4 3-4  
B 3/4 3-4a  
B 3/4 3-6  
B 3/4 3-6a

## INSTRUMENTATION

### 3/4.3.8 FEEDWATER/MAIN TURBINE TRIP SYSTEM ACTUATION INSTRUMENTATION

#### LIMITING CONDITION FOR OPERATION

3.3.8 The feedwater/main turbine trip system actuation instrumentation channels shown in Table 3.3.8-1 shall be OPERABLE with their trip setpoints set consistent with the values shown in the Trip Setpoint column of Table 3.3.8-2.

APPLICABILITY: OPERATIONAL CONDITION 1.

#### ACTION:

- a. With a feedwater/main turbine trip system actuation instrumentation channel trip setpoint less conservative than the value shown in the Allowable Values column of Table 3.3.8-2, declare the channel inoperable until the channel is restored to OPERABLE status with its trip setpoint adjusted consistent with the Trip Setpoint value.
- b. With one or more channels required by Table 3.3.8-1 inoperable:
  1. Within 2 hours, verify sufficient channels remain OPERABLE or tripped\* to maintain trip capability, and
  2. Within 7 days, either place the inoperable channel(s) in the trip system in the tripped\* condition or restore the inoperable channel(s) to OPERABLE status.
- c. Otherwise, be in at least STARTUP within 6 hours.

#### SURVEILLANCE REQUIREMENTS

4.3.8.1 Each feedwater/main turbine trip system actuation instrumentation channel shall be demonstrated OPERABLE by the performance of the CHANNEL CHECK, CHANNEL FUNCTIONAL TEST and CHANNEL CALIBRATION operations at the frequencies shown in Table 4.3.8.1-1.

4.3.8.2 LOGIC SYSTEM FUNCTIONAL TESTS and simulated automatic operation of all channels shall be performed at least once per 18 months.

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\*An inoperable channel need not be placed in the tripped condition where this would cause the Trip Function to occur.

TABLE 3.3.8-1

FEEDWATER/MAIN TURBINE TRIP SYSTEM ACTUATION INSTRUMENTATION

<u>TRIP FUNCTION</u>	<u>MINIMUM OPERABLE CHANNELS PER TRIP SYSTEM</u>
a. Reactor Vessel Water Level-High, Level 8	4*

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\*A channel may be placed in an inoperable status for up to 6 hours for required surveillance testing without placing the Trip System in the tripped condition.

## INSTRUMENTATION

### BASES

#### 3/4.3.5 REACTOR CORE ISOLATION COOLING SYSTEM ACTUATION INSTRUMENTATION

The reactor core isolation cooling system actuation instrumentation is provided to initiate actions to assure adequate core cooling in the event of reactor isolation from its primary heat sink and the loss of feedwater flow to the reactor vessel without providing actuation of any of the emergency core cooling equipment.

Specified surveillance intervals and surveillance and maintenance outage times have been determined in accordance with GENE-770-06-2-A, "Addendum To Bases for Changes to Surveillance Test Intervals and Allowed Out-of-Service Times for Selected Instrumentation Technical Specifications (BWR RCIC Instrumentation)," December 1992. When a channel is placed in an inoperable status solely for performance of required surveillances, entry into LCO and required ACTIONS may be delayed, provided the associated function maintains RCIC initiation capability.

An auxiliary relay contact of Channel A of the RCIC Reactor Vessel Water Level - High, Level 8 instrumentation channel is used as an input to trip Channel C of the Feedwater/Main Turbine Trip System Actuation Instrumentation. Therefore, the Limiting Condition for Operation and Surveillance Requirements of both TS 3/4.3.5 and 3/4.3.8 are applicable to the RCIC level 8 channel A instrumentation channel.

#### 3/4.3.6 CONTROL ROD WITHDRAWAL BLOCK INSTRUMENTATION

The control rod block functions are provided consistent with the requirements of the specifications in Section 3/4.1.4, Control Rod Program Controls. The trip logic is arranged so that a trip in any one of the inputs will result in a control rod block.

Specified surveillance intervals and surveillance and maintenance outage times have been determined in accordance with NEDC-30851P-A, Supplement 1, "Technical Specification Improvement Analysis for BWR Control Rod Block Instrumentation," October 1988, and GENE-770-06-1-A, "Bases for Changes to Surveillance Test Intervals and Allowed Out-of-Service Times for Selected Instrumentation Technical Specifications," December 1992. When a channel is placed in an inoperable status solely for performance of required surveillances, entry into LCO and required ACTIONS may be delayed, provided the associated function maintains Control Rod Block capability.

#### 3/4.3.7 MONITORING INSTRUMENTATION

##### 3/4.3.7.1 RADIATION MONITORING INSTRUMENTATION

The OPERABILITY of the radiation monitoring instrumentation ensures that: (1) the radiation levels are continually measured in the areas served by the individual channels, and (2) the alarm or automatic action is initiated when the radiation level trip setpoint is exceeded.

## INSTRUMENTATION

### BASES

---

#### 3/4.3.7.1 RADIATION MONITORING INSTRUMENTATION (Continued)

Specified surveillance intervals and surveillance and maintenance outage times have been determined in accordance with GENE-770-06-1-A, "Bases for Changes to Surveillance Test Intervals and Allowed Out-Of-Service Times for Selected Instrumentation Technical Specifications," December 1992. When a channel is placed in an inoperable status solely for performance of required surveillances, entry into LCO and required ACTIONS may be delayed, provided the associated function maintains initiation capability.

#### 3.4.3.7.2 DELETED

#### 3/4.3.7.3 METEOROLOGICAL MONITORING INSTRUMENTATION

The OPERABILITY of the meteorological monitoring instrumentation ensures that sufficient meteorological data is available for estimating potential radiation doses to the public as a result of routine or accidental release of radioactive materials to the atmosphere. This capability is required to evaluate the need for initiating protective measures to protect the health and safety of the public. This instrumentation is consistent with the recommendations of Regulatory Guide 1.23, "Onsite Meteorological Programs," February 1972.

#### 3/4.3.7.4 REMOTE SHUTDOWN MONITORING INSTRUMENTATION

The OPERABILITY of the remote shutdown monitoring instrumentation ensures that sufficient capability is available to permit shutdown and maintenance of HOT SHUTDOWN of the unit from locations outside of the control room. This capability is required in the event control room habitability is lost and is consistent with General Design Criteria 19 of 10 CFR 50.

## INSTRUMENTATION

### BASES

#### 3/4.3.7.11 EXPLOSIVE GAS MONITORING INSTRUMENTATION

This instrumentation provides for monitoring (and controlling) the concentrations of potentially explosive gas mixtures in the waste gas holdup system.

#### 3/4.3.7.12 LOOSE-PART DETECTION SYSTEM

The OPERABILITY of the loose-part detection system ensures that sufficient capability is available to detect loose metallic parts in the primary system and avoid or mitigate damage to primary system components. The allowable out-of-service times and surveillance requirements are consistent with the recommendations of Regulatory Guide 1.133, "Loose-Part Detection Program for the Primary System of Light-Water-Cooled Reactors."

#### 3/4.3.8 FEEDWATER/MAIN TURBINE TRIP SYSTEM ACTUATION INSTRUMENTATION

The feedwater/main turbine trip system actuation instrumentation is provided to initiate the feedwater system/main turbine trip system in the event of reactor vessel water level equal to or greater than the level 8 setpoint associated with a feedwater controller failure, to prevent overflowing the reactor vessel which may result in high pressure liquid discharge through the safety/relief valve discharge lines. Specified surveillance intervals and surveillance and maintenance outage times have been determined in accordance with GENE-770-06-1-A, "Bases for Changes to Surveillance Test Intervals and Allowed Out-Of-Service Times for Selected Instrumentation Technical Specifications," December 1992. When a channel is placed in an inoperable status solely for performance of required surveillances, entry into LCO and required ACTIONS may be delayed, provided the associated function maintains Feedwater System/Main Turbine Trip System actuation capability.

The four instrument channels are arranged to make a two out of three trip logic. In order to eliminate the loss of the reactor vessel water level eight trip due to the loss of either variable leg instrument line for narrow range level instrumentation, trip channel C of the level 8 trip logic contains two reactor vessel water level 8 sensor trip relay contacts. Therefore, trip channel C contains two channels, providing the redundancy needed to prevent a failure to trip of the feedwater pumps/main turbine due to an instrument line failure. One of the four channels (one of the two channels in trip channel C) is from the Channel A, RCIC reactor vessel water level 8 trip relay, which is associated with TS 3.3.5, Reactor Core Isolation Cooling System Actuation Instrumentation.

Actions b.1 and b.2 are modified by a Note that states that an inoperable channel need not be placed in the tripped condition where this would cause the Trip Function to occur. This note acknowledges that an orderly shutdown per Action c is preferred to the transient that will occur if the trip were actuated.

## INSTRUMENTATION

### BASES

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#### 3/4.3.8 FEEDWATER/MAIN TURBINE TRIP SYSTEM ACTUATION INSTRUMENTATION (Continued)

Action b.1 assures that whatever combination of channels are inoperable, that automatic trip capability either exists or is restored within 2 hours, which is sufficient for the operator to take corrective action and takes into account the likelihood of an event requiring actuation of this Trip Function. This will require a minimum of two channels Operable or one channel Operable with one channel in the tripped condition in order to satisfy Action b.1. If Action b.1 is satisfied, then Action b.2 is entered. If Action b.1 is not satisfied, then Action c must be entered.

Action b.2 assures that each inoperable channel is placed in the tripped condition within 7 days. If each inoperable channel is in the tripped condition or declared Operable within 7 days, then continued unit operation is allowed, due to the remaining redundancy for single instrument failure. If one or more channels are inoperable, and cannot be placed in the tripped condition or declared Operable within 7 days, then Action c must be entered.

An auxiliary relay contact of Channel A of the RCIC Reactor Vessel Water Level - High, Level 8 instrumentation channel is used as an input to trip Channel C of the Feedwater/Main Turbine Trip System Actuation Instrumentation. Therefore, the Limiting Condition for Operation and Surveillance Requirements of both TS 3/4.3.5 and 3/4.3.8 are applicable to the RCIC level 8 channel A instrumentation channel.



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NO. 119 TO FACILITY OPERATING LICENSE NO. NPF-11 AND  
AMENDMENT NO. 104 TO FACILITY OPERATING LICENSE NO. NPF-18  
COMMONWEALTH EDISON COMPANY  
LASALLE COUNTY STATION, UNITS 1 AND 2  
DOCKET NOS. 50-373 AND 50-374

1.0 INTRODUCTION

By letter dated April 14, 1997, Commonwealth Edison Company (ComEd, the licensee) proposed changes to Technical Specification (TS) 3/4.3.8, "Feedwater/Main Turbine Trip System Actuation Instrumentation." The proposed limiting condition for operation (LCO) would require an additional instrument channel to be operable based on a modification which will add an instrument channel to the actuation logic. The licensee proposes to revise the action statement for inoperable instrument channels to be more appropriate for the modified design and consistent with Improved Standard Technical Specifications.

The Feedwater/Main Turbine Trip System is designed to trip the feedwater pumps and the main turbine when high water level, indicative of a feedwater controller failure, is sensed in the reactor vessel. This action prevents overfilling the reactor vessel which may result in a high pressure liquid discharge through the safety/relief valve discharge lines.

The Feedwater/Main Turbine Trip System consists of three instruments with auxiliary relay contacts arranged in a two-out-of-three trip logic. Two of the instruments (associated with trip channels B and C) are located on one narrow range variable water leg. Therefore, failure of this water leg instrument line would result in the loss of the trip function due to two level transmitters failing downscale. The licensee has decided to perform a design change to add an additional high level trip signal from a separate sensor to the Feedwater/Main Turbine trip logic. The additional sensor will be added to trip channel C, thereby maintaining three trip channels. The two-out-of-three actuation logic will be maintained. However, because another instrument channel is required to prevent a single failure of the system, the TS must be revised to require four channels operable as opposed to the current value of three.

## 2.0 EVALUATION

TS Table 3.3.8-1 requires three operable channels per trip system. The licensee proposes to change this number to four to account for the additional sensor that will be added. The addition of the sensor is a conservative action that eliminates a potential single failure of the trip and is acceptable.

Current TS 3.3.8, Action b, requires that with one feedwater/main turbine trip system instrument channel inoperable, the inoperable channel must be placed in the tripped condition or restored to operable within 7 days. With two channels inoperable, at least one inoperable channel must be placed in the tripped condition within 2 hours and either inoperable channel must be restored within 72 hours. These actions ensure that automatic trip capability is maintained except for a maximum of 2 hours and redundancy is maintained except for a maximum of 7 days.

The licensee proposes to revise the action statements to make them more appropriate for the modified design. The revised action statement would require that with one or more channels inoperable, within 2 hours, the licensee must verify that sufficient channels remain operable or tripped to maintain trip capability. Trip capability will be maintained with a minimum of one channel operable and one channel tripped. Therefore, similar to the current TS, automatic trip capability will be maintained except for a maximum of 2 hours. The proposed action statement will also require that the inoperable channels be placed in the tripped condition or restored to operable within 7 days. Therefore, redundancy is maintained except for a maximum of seven days, consistent with the current TS. The proposed TS differs from the current TS in that it does not require a channel to be restored within 72 hours. Under the proposed TS, the licensee may have up to three instrument channels inoperable for up to 7 days provided that two trip channels are available (operable or tripped) to maintain trip capability. This will not affect the functioning of the trip system. The proposed action statement and AOT are consistent with TS 3.3.2.2, "Feedwater and Main Turbine High Water Level Trip Instrumentation" of NUREG-1433, "Standard Technical Specifications for General Electric Plants, BWR4."

The current TS action statement for two inoperable channels would be unnecessarily restrictive in the proposed configuration for the case in which both instrument channels of trip channel C are inoperable. The current TS would require one of the channels to be restored to operable within 72 hours or the plant would be required to be in Startup within 6 hours. This action would be unnecessarily restrictive because two trip channels (A and B) would still exist to provide automatic trip capability.

This trip system is not required to meet single failure criteria. This is a non-safety and non-divisional trip actuation which is required in the run mode so that high integrity is maintained. The trip system is not designed to any applicable Institute of Electrical and Electronics Engineers (IEEE) standards, Regulatory Guides, or 10 CFR Part 50, Appendix A, General Design Criteria.

Based on the above, the revised action statements for TS 3.3.8 are acceptable.

### 3.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Illinois State official was notified of the proposed issuance of the amendments. The State official had no comments.

### 4.0 ENVIRONMENTAL CONSIDERATION

The amendments change a requirement with respect to the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The NRC staff has determined that the amendments involve no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendments involve no significant hazards consideration, and there has been no public comment on such finding (62 FR 33120). Accordingly, the amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendments.

### 5.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendments will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: D. Skay

Date: July 29, 1997