



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

COMMONWEALTH EDISON COMPANY

DOCKET NO. STN 50-454

BYRON STATION, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 17  
License No. NPF-37

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Commonwealth Edison Company (the licensee) dated January 12, 1988, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's rules and 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 rules and 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;
  - 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 Specification as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. NPF-37 is hereby amended to read as follows:

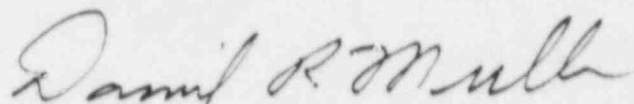
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(2) Technical Specifications

The Technical Specifications contained in Appendix A as revised through Amendment No. 17 and the Environmental Protection Plan contained in Appendix B, both of which are attached hereto, are hereby incorporated into this 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.

FOR THE NUCLEAR REGULATORY COMMISSION



Daniel R. Muller, Director  
Project Directorate III-2  
Division of Reactor Projects - III,  
IV, V and Special Projects

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: April 15, 1988



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

COMMONWEALTH EDISON COMPANY

DOCKET NO. STN 50-455

BYRON STATION, UNIT 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 17  
License No. NPF-66

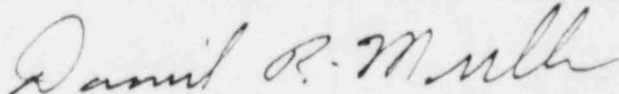
1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Commonwealth Edison Company (the licensee) dated January 12, 1988, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's rules and 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 rules and 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;
  - 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 attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. NPF-66 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A (NUREG-1113), as revised through Amendment No. 17 and revised by Attachment 2 to NPF-60, and the Environmental Protection Plan contained in Appendix B, both of which are attached to License No. NPF-37, dated February 14, 1985, are hereby incorporated into this license. Attachment 2 contains a revision to Appendix A which is hereby incorporated into this 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.

FOR THE NUCLEAR REGULATORY COMMISSION



Daniel R. Muller, Director  
Project Directorate III-2  
Division of Reactor Projects - III,  
IV, V and Special Projects

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: April 15, 1988

ATTACHMENT TO LICENSE AMENDMENT NOS. 17 AND 17  
FACILITY OPERATING LICENSE NOS. NPF-37 AND NPF-66  
DOCKET NOS. STN-50-454 AND STN 50-455

Revise Appendix A as follows:

<u>Remove Pages</u>	<u>Insert Pages</u>
3/4 3-64	3/4 3-64
3/4 3-65	3/4 3-65
3/4 3-68	3/4 3-68
3/4 3-70	3/4 3-70

BYRON - UNITS 1 & 2

3/4 3-64

Amendment No 7

TABLE 3.3-13 (Continued)

RADIOACTIVE GASEOUS EFFLUENT MONITORING INSTRUMENTATION<sup>#</sup>

<u>INSTRUMENT</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>APPLICABILITY</u>	<u>ACTION</u>
3. Gaseous Waste Management System			
a. Hydrogen Analyzer (OAT-GW8000)	1	**	38
b. Oxygen Analyzer (OAT-GW8003)	1	**	38
c. Waste Gas Compressor Discharge Oxygen Analyzer (OAIT-GW004)	1	***	38
4. Gas Decay Tank System			
a. Noble Gas Activity Monitor - Providing Alarm and Automatic Termination of Release (ORE-PR002A and 2B)	2	*	35
5. Containment Purge System			
a. Noble Gas Activity Monitor - Providing Alarm (RE-PR001B)	1	*	37
b. Iodine Sampler (RE-PR001C)	1	*	40
c. Particulate Sampler (RE-PR001A)	1	*	40
6. Radioactivity Monitors Providing Alarm and Automatic Closure of Surge Tank Vent-Component Cooling Water Line (ORE-PR009 and RE-PR009)	2	*	41

TABLE 3.3-13 (Continued)

TABLE NOTATIONS

- \*At all times.
- \*\*During WASTE GAS HOLDUP SYSTEM operation.
- \*\*\*During Waste Gas Compressor Operation.
- #All instruments required for Unit 1 or Unit 2 operation.

ACTION STATEMENTS

- ACTION 35 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, the contents of the tank(s) may be released to the environment for up to 14 days provided that prior to initiating the release:
- a. At least two independent samples of the tank's contents are analyzed, and
  - b. At least two technically qualified members of the facility staff independently verify the release rate calculations and discharge valve lineup.
- Otherwise, suspend release of radioactive effluents via this pathway.
- ACTION 36 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, effluent releases via this pathway may continue for up to 30 days provided the flow rate is estimated at least once per 4 hours.
- ACTION 37 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, immediately suspend PURGING of radioactive effluents via this pathway.
- ACTION 38 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, operation of this system may continue provided grab samples are taken and analyzed at least once per 4 hours during degassing operations and at least once per 24 hours during other operations.
- ACTION 39 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, effluent releases via this pathway may continue for up to 30 days provided grab samples are taken at least once per 12 hours and these samples are analyzed for radioactivity within 24 hours.

BYRON - UNITS 1 &amp; 2

3/4 3-68

Amendment No. 17

TABLE 4.3-9 (Continued)

RADIOACTIVE GASEOUS EFFLUENT MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS<sup>#</sup>

FUNCTIONAL UNIT	CHANNEL CHECK	SOURCE CHECK	CHANNEL CALIBRATION	DIGITAL CHANNEL OPERATIONAL TEST	MODES FOR WHICH SURVEILLANCE IS REQUIRED
2. Plant Vent Monitoring System - Unit Two (continued)					
d. Effluent System Flow Rate Measuring Device (LOOP-VA020)	D	N.A.	R <sup>##</sup>	Q	*
e. Sampler Flow Rate Measuring Device (2FT-PR165)	D	N.A.	R <sup>##</sup>	Q	*
3. Gaseous Waste Management System					
a. Hydrogen Analyzer (OAT-GW8000)	D	N.A.	Q(4)	M	**
b. Oxygen Analyzer (OAT-GW8003)	D	N.A.	Q(5)	M	**
c. Waste Gas Compressor Discharge Oxygen Analyzer (OAIT-GW004)	D	N.A.	Q(5)	M	***
4. Gas Decay Tank System					
a. Noble Gas Activity Monitor - Providing Alarm and Automatic Termination of Release (ORE-PR002A and 2B)	P	P	R(3) <sup>##</sup>	Q(1)	*
5. Containment Purge System					
a. Noble Gas Activity Monitor - Providing Alarm (RE-PR001B)	D	P	R(3) <sup>##</sup>	Q(2)	*
b. Iodine Sampler (RE-PR001C)	P	P	R(3) <sup>##</sup>	N.A.	*
c. Particulate Sampler (RE-PR001A)	P	P	R(3) <sup>##</sup>	N.A.	*



TABLE 4.3-9 (Continued)

TABLE NOTATIONS

\*At all times.

\*\*During WASTE GAS HOLDUP SYSTEM operation.

\*\*\*During Waste Gas Compressor Operation.

#All instruments required for Unit 1 or Unit 2 operation.

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

- (1) The DIGITAL CHANNEL OPERATIONAL TEST shall also demonstrate that automatic isolation of this pathway and control room alarm annunciation occur if any of the following conditions exists:
  - a. Instrument indicates measured levels above the Alarm/Trip Setpoint, or
  - b. Circuit failure (monitor loss of communications - alarm only, detector loss of counts, or monitor loss of power), or
  - c. Detector check source test failure, or
  - d. Detector channel out-of-service, or
  - e. Monitor loss of sample flow.
- (2) The DIGITAL CHANNEL OPERATIONAL TEST shall also demonstrate that control room alarm annunciation occurs if any of the following conditions exists:
  - a. Instrument indicates measured levels above the Alarm Setpoint, or
  - b. Circuit failure (monitor loss of communications - alarm only, detector loss of counts, or monitor loss of power), or
  - c. Detector check source test failure, or
  - d. Detector channel out-of-service, or
  - e. Monitor loss of sample flow.
- (3) The initial CHANNEL CALIBRATION shall be performed using one or more of the reference standards certified by the National Bureau of Standards (NBS) or using standards that have been obtained from suppliers that participate in measurement assurance activities with NBS. These standards shall permit calibrating the system over its intended range of energy and measurement range. For subsequent CHANNEL CALIBRATION, sources that have been related to the initial calibration shall be used.
- (4) The CHANNEL CALIBRATION shall include the use of standard gas samples containing hydrogen and nitrogen.
- (5) The CHANNEL CALIBRATION shall include the use of standard gas samples containing oxygen and nitrogen.

ATTACHMENT TO LICENSE AMENDMENT NOS. 8 AND 8  
AND FACILITY OPERATING LICENSE NOS. NPF-72 AND NPF-75  
DOCKET NOS. STN-50-456 AND STN 50-457

Revise Appendix A as follows:

<u>Remove Pages</u>	<u>Insert Pages</u>
3/4 3-66	3/4 3-66
3/4 3-67	3/4 3-67
3/4 3-70	3/4 3-70
3/4 3-72	3/4 3-72

BRAIDWOOD - UNITS 1 & 2

3/4 3-66

Amendment No. 8

TABLE 3.3-13 (Continued)

RADIOACTIVE GASEOUS EFFLUENT MONITORING INSTRUMENTATION<sup>#</sup>

	<u>INSTRUMENT</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>APPLICABILITY</u>	<u>ACTION</u>
3.	Gaseous Waste Management System			
a.	Hydrogen Analyzer (OAT-GW8000)	1	**	38
b.	Oxygen Analyzer (OAT-GW8003)	1	**	38
c.	Waste Gas Compressor Discharge Oxygen Analyzer (OAIT-GW004)	1	***	38
4.	Gas Decay Tank System			
a.	Noble Gas Activity Monitor - Providing Alarm and Automatic Termination of Release (ORE-PR002A and 2B)	2	*	35
5.	Containment Purge System			
a.	Noble Gas Activity Monitor - Providing Alarm (RE-PR001B)	1	*	37
b.	Iodine Sampler (RE-PR001C)	1	*	40
c.	Particulate Sampler (RE-PR001A)	1	*	40
6.	Radioactivity Monitors Providing Alarm and Automatic Closure of Surge Tank Vent-Component Cooling Water Line (ORE-PR009 and RE-PR009)	2	*	41

TABLE 3.3-13 (Continued)

TABLE NOTATIONS

- \*At all times.
- \*\*During WASTE GAS HOLDUP SYSTEM operation.
- \*\*\*During Waste Gas Compressor Operation.
- #All instruments required for Unit 1 or Unit 2 operation.

ACTION STATEMENTS

- ACTION 35 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, the contents of the tank(s) may be released to the environment for up to 14 days provided that prior to initiating the release:
- a. At least two independent samples of the tank's contents are analyzed, and
  - b. At least two technically qualified members of the facility staff independently verify the release rate calculations and discharge valve lineup.
- Otherwise, suspend release of radioactive effluents via this pathway.
- ACTION 36 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, effluent releases via this pathway may continue for up to 30 days provided the flow rate is estimated at least once per 4 hours.
- ACTION 37 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, immediately suspend PURGING of radioactive effluents via this pathway.
- ACTION 38 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, operation of this system may continue provided grab samples are taken and analyzed at least once per 4 hours during degassing operations and at least once per 24 hours during other operations.
- ACTION 39 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, effluent releases via this pathway may continue for up to 30 days provided grab samples are taken at least once per 12 hours and these samples are analyzed for radioactivity within 24 hours.

TABLE 4.3-9 (Continued)

RADIOACTIVE GASEOUS EFFLUENT MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS<sup>#</sup>

FUNCTIONAL UNIT	CHANNEL CHECK	SOURCE CHECK	CHANNEL CALIBRATION	DIGITAL CHANNEL OPERATIONAL TEST	MODES FOR WHICH SURVEILLANCE IS REQUIRED
2. Plant Vent Monitoring System - Unit Two (continued)					
d. Effluent System Flow Rate Measuring Device (LOOP-VA020)	D	N.A.	R##	Q	*
e. Sampler Flow Rate Measuring Device (2FT-PR165)	D	N.A.	R##	Q	*
3. Gaseous Waste Management System					
a. Hydrogen Analyzer (OAT-GW8000)	D	N.A.	Q(4)	M	**
b. Oxygen Analyzer (OAT-GW8003)	D	N.A.	Q(5)	M	**
c. Waste Gas Compressor Discharge Oxygen Analyzer (OAIT-GW004)	D	N.A.	Q(5)	M	***
4. Gas Decay Tank System					
a. Noble Gas Activity Monitor - Providing Alarm and Automatic Termination of Release (ORE-PR002A and 2B)	P	P	R(3)##	Q(1)	*
5. Containment Purge System					
a. Noble Gas Activity Monitor - Providing Alarm (RE-PR001B)	D	P	R(3)##	Q(2)	*
b. Iodine Sampler (RE-PR001C)	P	P	R(3)##	N.A.	*
c. Particulate Sampler (RE-PR001A)	P	P	R(3)##	N.A.	*

BRAIDWOOD - UNITS 1 &amp; 2

3/4 3-70

Amendment No. 8

TABLE 4.3-9 (Continued)

TABLE NOTATIONS

\*At all times.

\*\*During WASTE GAS HOLDUP SYSTEM operation.

\*\*\*During Waste Gas Compressor Operation.

# All instruments required for Unit 1 or Unit 2 operation.

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

- (1) The DIGITAL CHANNEL OPERATIONAL TEST shall also demonstrate that automatic isolation of this pathway and control room alarm annunciation occur if any of the following conditions exists:
  - a. Instrument indicates measured levels above the Alarm/Trip Setpoint, or
  - b. Circuit failure (monitor loss of communications - alarm only, detector loss of counts, or monitor loss of power), or
  - c. Detector check source test failure, or
  - d. Detector channel out-of-service, or
  - e. Monitor loss of sample flow.
- (2) The DIGITAL CHANNEL OPERATIONAL TEST shall also demonstrate that control room alarm annunciation occurs if any of the following conditions exists:
  - a. Instrument indicates measured levels above the Alarm Setpoint, or
  - b. Circuit failure (monitor loss of communications - alarm only, detector loss of counts, or monitor loss of power), or
  - c. Detector check source test failure, or
  - d. Detector channel out-of-service, or
  - e. Monitor loss of sample flow.
- (3) The initial CHANNEL CALIBRATION shall be performed using one or more of the reference standards certified by the National Bureau of Standards (NBS) or using standards that have been obtained from suppliers that participate in measurement assurance activities with NBS. These standards shall permit calibrating the system over its intended range of energy and measurement range. For subsequent CHANNEL CALIBRATION, sources that have been related to the initial calibration shall be used.
- (4) The CHANNEL CALIBRATION shall include the use of standard gas samples containing hydrogen and nitrogen.
- (5) The CHANNEL CALIBRATION shall include the use of standard gas samples containing oxygen and nitrogen.



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

COMMONWEALTH EDISON COMPANY

DOCKET NO. STN 50-456

BRAIDWOOD STATION, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 8  
License No. NPF-72

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Commonwealth Edison Company (the licensee) dated January 12, 1988, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's rules and 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 rules and 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;
  - 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 Specification as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. NPF-72 is hereby amended to read as follows:

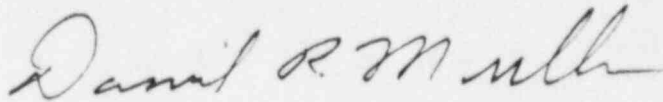


(2) Technical Specifications

The Technical Specifications contained in Appendix A as revised through Amendment No. 8 and the Environmental Protection Plan contained in Appendix B, both of which are attached hereto, are hereby incorporated into this 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.

FOR THE NUCLEAR REGULATORY COMMISSION



Daniel R. Muller, Director  
Project Directorate III-2  
Division of Reactor Projects - III,  
IV, V and Special Projects

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: April 15, 1988





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

COMMONWEALTH EDISON COMPANY

DOCKET NO. STN 50-457

BRAIDWOOD STATION, UNIT 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 8  
License No. NPF-75

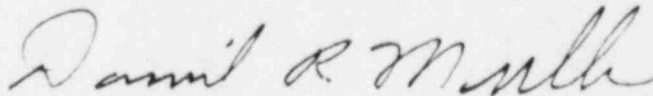
1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Commonwealth Edison Company (the licensee) dated January 12, 1988, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's rules and 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 rules and 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;
  - 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 Specification as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. NPF-75 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A as revised through Amendment No. 8 and the Environmental Protection Plan contained in Appendix B, both of which were attached to License No. NPF-72, dated July 2, 1987, are hereby incorporated into this license. Attachment 2 contains revisions to Appendix A which are hereby incorporated into this 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.

FOR THE NUCLEAR REGULATORY COMMISSION



Daniel R. Muller, Director  
Project Directorate III-2  
Division of Reactor Projects - III,  
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