



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

COMMONWEALTH EDISON COMPANY

DOCKET NO. STN 50-454

BYRON STATION, UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 56  
License No. NPF-37

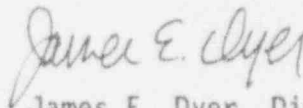
1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Commonwealth Edison Company (the licensee) dated July 27, 1992, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's rules 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-37 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A as revised through Amendment No. 56 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



James E. Dyer, Director  
Project Directorate III-2  
Division of Reactor Projects - III/IV/V  
Office of Nuclear Reactor Regulation

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: October 22, 1993



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

COMMONWEALTH EDISON COMPANY

DOCKET NO. STN 50-455

BYRON STATION, UNIT NO. 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 56  
License No. NPF-66

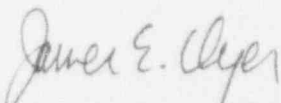
1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Commonwealth Edison Company (the licensee) dated July 27, 1992, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's rules 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. 56 and revised by Attachment 2 to NPF-66, and the Environmental Protection Plan contained in Appendix B, both of which were 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



James E. Dyer, Director  
Project Directorate III-2  
Division of Reactor Projects - III/IV/V  
Office of Nuclear Reactor Regulation

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: October 22, 1993

ATTACHMENT TO LICENSE AMENDMENT NOS. 56 AND 56  
FACILITY OPERATING LICENSE NOS. NPF-37 AND NPF-66  
DOCKET NOS. STN 50-454 AND STN 50-455

Revise the Appendix A Technical Specifications by removing the pages identified below and inserting the attached pages. The revised pages are identified by the captioned amendment number and contain marginal lines indicating the area of change. Pages marked with an asterisk are provided for convenience.

<u>Remove Pages</u>	<u>Insert Pages</u>
3/4 7-17	3/4 7-17
*3/4 7-18	*3/4 7-18
3/4 7-19	3/4 7-19
3/4 7-20	3/4 7-20
3/4 7-21	3/4 7-21
3/4 7-22	3/4 7-22
3/4 9-15	3/4 9-15
*3/4 9-16	*3/4 9-16

## PLANT SYSTEMS

### SURVEILLANCE REQUIREMENTS (Continued)

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- 2) Verifying, within 31 days after removal, that a laboratory analysis of a representative carbon sample from the Emergency Makeup System obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, meets the laboratory testing criteria of Regulatory Position C.6.a of Regulatory Guide 1.52, Revision 2, March 1978, for a methyl iodide penetration of less than 0.175% when tested at a temperature of 30°C and a relative humidity of 70%; and
  - 3) Verifying a system flow rate of 6000 cfm  $\pm$  10% for the Emergency Makeup System and 49,500 cfm  $\pm$  10% for the Recirculation System when tested in accordance with ANSI N510-1980.
- d. After every 720 hours of Emergency Makeup System operation by verifying within 31 days after removal, that a laboratory analysis of a representative carbon sample obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, meets the laboratory testing criteria of Regulatory Position C.6.a of Regulatory Guide 1.52, Revision 2, March 1978, for a methyl iodide penetration of less than 0.175% when tested at a temperature of 30°C and a relative humidity of 70%;
- e. At least once per 18 months by:
- 1) Verifying that the pressure drop across the combined HEPA filters and charcoal adsorber banks is less than 6.0 inches Water Gauge while operating the Emergency Makeup System at a flow rate of 6000 cfm  $\pm$  10%;
  - 2) Verifying that on a Safety Injection or High Radiation-Control Room Outside Air Intake test signal, the system automatically switches into a makeup mode of control room ventilation with flow through the Emergency Makeup System HEPA filters and charcoal adsorber banks and the recirculation charcoal adsorber;
  - 3) Verifying that the Emergency Makeup System maintains the control room at a positive nominal pressure of greater than or equal to 1/8 inch Water Gauge relative to ambient pressure in areas adjacent to the control room area when operating an Emergency Makeup System at a flowrate of 6,000 cfm  $\pm$  10% and the recirculation charcoal adsorber at a flowrate of 49,500 cfm  $\pm$  10%.
  - 4) Verifying that the heaters dissipate greater than or equal to 24.0 kW when tested in accordance with ANSI N510-1980.
  - 5) Verifying that the Emergency Makeup System maintains the Upper Cable Spreading Area at a positive nominal pressure of greater than or equal to 0.02 inches Water Gauge relative to the ambient pressure in areas adjacent to the upper cable spreading area (except for adjacent control room areas pressurized as specified above) when operating an Emergency Makeup System at a flow rate of 6,000 cfm  $\pm$  10% and the recirculation charcoal adsorber at a flowrate of 49,500 cfm  $\pm$  10%.



## PLANT SYSTEMS

### SURVEILLANCE REQUIREMENTS (Continued)

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- f. After each complete or partial replacement of a HEPA filter bank, by verifying that the cleanup system satisfies the in-place penetration testing acceptance criteria of less than 0.05% in accordance with ANSI N510-1980 for a DOP test aerosol while operating the Emergency Makeup System at a flow rate of 6000 cfm  $\pm$  10%; and
- g. After each complete or partial replacement of a charcoal adsorber bank in the Emergency Makeup System by verifying that the cleanup system satisfies the in-place penetration testing acceptance criteria of less than 0.05% in accordance with ANSI N510-1980 for a halogenated hydrocarbon refrigerant test gas while operating the system at a flow rate of 6000 cfm  $\pm$  10%.
- h. At least once per 18 months or (1) after any structural maintenance on the charcoal adsorber housings, or (2) following painting, fire or chemical release in any ventilation zone communicating with the recirculation charcoal adsorber by:
  - (1) Verifying that the recirculation charcoal adsorber satisfies the in-place penetration testing acceptance criteria of less than 2% total bypass and uses the test procedure guidance in Regulatory Positions C.5.a, and C.5.d of Regulatory Guide 1.52, Revision 2, March 1978, and the system flow rate is 49,500 cfm  $\pm$  10% for the recirculation charcoal adsorber;
  - (2) Verifying, within 31 days after removal, that a laboratory analysis of a representative carbon sample from the recirculation charcoal adsorber obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, meets the laboratory testing criteria of Regulatory Position C.6.a of Regulatory Guide 1.52, Revision 2, March 1978, for a methyl iodide penetration of less than 1% when tested at a temperature of 30°C and a relative humidity of 70%; and
  - (3) Verifying a system flow rate of 49,500 cfm  $\pm$  10% for the Recirculation Charcoal Adsorber when tested in accordance with ANSI N510-1980.
- i. After each complete or partial replacement of a charcoal adsorber bank in the Recirculation Charcoal Adsorber System by verifying that the cleanup system satisfies the in-place penetration testing acceptance criteria of less than 0.1% in accordance with ANSI N510-1980 for a halogenated hydrocarbon refrigerant test gas while operating at a system flowrate of 49,500 cfm  $\pm$  10%.
- j. After every 720 hours of Recirculation Charcoal Adsorber operation by verifying within 31 days after removal, that a laboratory analysis of a representative carbon sample obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978 meets the laboratory testing criteria of Regulatory Guide 1.52, Revision 2, March 1978 for a methyl iodide penetration of less than 1% when tested at a temperature of 30°C and a relative humidity of 70%.

## PLANT SYSTEMS

### 3/4.7.7 NON-ACCESSIBLE AREA EXHAUST FILTER PLENUM VENTILATION SYSTEM

#### LIMITING CONDITION FOR OPERATION

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3.7.7 Three independent non-accessible area exhaust filter plenums (50% capacity each) shall be OPERABLE.

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

#### ACTION:

With one non-accessible area exhaust filter plenum inoperable, restore the inoperable plenum to OPERABLE status within 7 days or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

#### SURVEILLANCE REQUIREMENTS

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4.7.7 Each non-accessible area exhaust filter plenum shall be demonstrated OPERABLE:

- a. At least once per 31 days on a STAGGERED TEST BASIS by initiating, from the control room, flow through the HEPA filters and charcoal adsorbers and verifying that operation occurs for at least 15 minutes;
- b. At least once per 18 months, or (1) after any structural maintenance on the HEPA filter or charcoal adsorber housings, or (2) following painting, fire, or chemical release in any ventilation zone communicating with the exhaust filter plenum by:
  - 1) Verifying that the exhaust filter plenum satisfies the in-place penetration and bypass leakage testing acceptance criteria of less than 1% when using the test procedure guidance in Regulatory Positions C.5.a, C.5.c and C.5.d of Regulatory Guide 1.52, Revision 2, March 1978, and the flow rate is between 55,669 cfm and 68,200 cfm for the train;
  - 2) Verifying, within 31 days after removal, that a laboratory analysis of a representative carbon sample from each bank of adsorbers of the train obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, meets the laboratory testing criteria of Regulatory Position C.6.a of Regulatory Guide 1.52, Revision 2, March 1978, for methyl iodide penetration of less than 1% when tested at the temperature of 30°C and a relative humidity of 70%;



## PLANT SYSTEMS

### SURVEILLANCE REQUIREMENTS (Continued)

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- 3) Verifying a system flow rate between 55,669 cfm and 68,200 cfm through the exhaust filter plenum during operation when tested in accordance with ANSI N510-1980; and
  - 4) Verifying that with the system operating at a flow rate between 55,669 cfm and 68,200 cfm through the train and exhausting through the HEPA filter and charcoal adsorbers, the total bypass flow of the system and the damper leakage is less than or equal to 1% when the system is tested by admitting cold DOP at the system intake and the damper leakage rate is determined by either direct measurements or pressure decay measurements at a test pressure of 2 inches of water and the auxiliary building exhaust fans are operating at their rated flow.
- c. After every 720 hours of charcoal adsorber operation, by verifying, within 31 days after removal, that a laboratory analysis of a representative carbon sample obtained from each bank of adsorbers of the train in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, meets the laboratory testing criteria of Regulatory Position C.6.a of Regulatory Guide 1.52, Revision 2, March 1978, when the average for a methyl iodide penetration of less than 1% when tested at a temperature of 30°C and a relative humidity of 70%.
- d. At least once per 18 months by:
- 1) Verifying for each filter bank of the train that the pressure drop across the combined HEPA filters and charcoal adsorber banks of less than 6.0 inches Water Gauge while operating the exhaust filter plenum at a flow rate between 55,669 cfm and 68,200 cfm through the train;
  - 2) Verifying that the exhaust filter plenum starts on manual initiation or Safety Injection test signal; and
  - 3) Verifying that the system maintains the ECCS equipment rooms at a negative pressure of greater than or equal to 1/4 in. Water Gauge relative to the outside atmosphere during system operation while operating at a flow rate between 55,669 cfm and 68,200 cfm through the train.
- e. After each complete or partial replacement of a HEPA filter bank, by verifying that the exhaust filter plenum satisfies the in-place penetration testing acceptance criteria of less than 1% in accordance with ANSI N510-1980 for a DOP test aerosol while operating at a flow rate between 55,669 cfm and 68,200 cfm through the train; and

## PLANT SYSTEMS

### SURVEILLANCE REQUIREMENTS (Continued)

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- f. After each complete or partial replacement of a charcoal adsorber bank, by verifying that the exhaust filter plenum satisfies the in-place penetration testing acceptance criteria of less than 1% in accordance with ANSI N510-1980 for a halogenated hydrocarbon refrigerant test gas while operating the system at a flow rate between 55,669 cfm and 68,200 cfm through the train.
- g. After any structural maintenance of the HEPA filter or charcoal adsorber housings, by verifying that the exhaust filter plenum satisfies the in-place penetration and bypass leakage testing acceptance criteria of less than 1% when using the test procedure guidance in Regulatory Positions C.5.a, C.5.c, and C.5.d of Regulatory Guide 1.52, Revision 2, March 1978, and the flow rate is between 55,669 cfm and 68,200 cfm for the train, and between 18,556 and 22,733 cfm per bank.

## PLANT SYSTEMS

### 3/4.7.8 SNUBBERS

#### LIMITING CONDITION FOR OPERATION

3.7.8 All snubbers shall be OPERABLE. Snubbers excluded from this requirement are those installed on nonsafety-related systems and then only if their failure or failure of the system on which they are installed would have no adverse effect on any safety-related system.

APPLICABILITY: MODES 1, 2, 3, and 4. MODES 5 and 6 for snubbers located on systems required OPERABLE in those MODES.

#### ACTION:

With one or more snubbers inoperable, within 72 hours replace or restore the inoperable snubber(s) to OPERABLE status and perform an engineering evaluation per Specification 4.7.8g. on the attached component or declare the attached system inoperable and follow the appropriate ACTION statement for that system.

#### SURVEILLANCE REQUIREMENTS

4.7.8 Each snubber shall be demonstrated OPERABLE by performance of the following augmented inservice inspection program and the requirements of Specification 4.0.5.

##### a. Inspection Types

As used in this specification, type of snubber shall mean snubbers of the same design and manufacturer, irrespective of capacity.

##### b. Visual Inspections

Snubbers are categorized as inaccessible or accessible during reactor operation. Each of these groups (inaccessible and accessible) may be inspected independently according to the schedule below. The first inservice visual inspection of each type of snubber shall be performed after 4 months but within 10 months of commencing POWER OPERATION and shall include all hydraulic and mechanical snubbers. If all snubbers of each type are found OPERABLE during the first inservice visual inspection, the second inservice visual inspection of that type shall be performed at the first refueling outage. Otherwise, subsequent visual inspections of a given type shall be performed in accordance with the following schedule:

## REFUELING OPERATIONS

### SURVEILLANCE REQUIREMENTS (Continued)

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- 1) Verifying that the Fuel Handling Building Exhaust Filter Plenum satisfies the in-place penetration testing acceptance criteria of less than 1% when using the test procedure guidance in Regulatory Positions C.5.a, C.5.c, and C.5.d of Regulatory Guide 1.52, Revision 2, March 1978, and the flow rate is 21,000 cfm  $\pm$  10%;
  - 2) Verifying, within 31 days after removal, that a laboratory analysis of a representative carbon sample obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, meets the laboratory testing criteria of Regulatory Position C.6.a of Regulatory Guide 1.52, Revision 2, March 1978, and by showing a methyl iodide penetration of less than 10% when tested at a temperature of 30°C and a relative humidity of 95%.
  - 3) Verifying a flow rate of 21,000 cfm  $\pm$  10% through the Fuel Handling Building Exhaust Filter Plenum during operation when tested in accordance with ANSI N510-1980; and
  - 4) Verifying that with the system operating at a flow rate of 21,000 cfm  $\pm$  10% and exhausting through the HEPA filters and charcoal adsorbers, the total bypass flow of the system and the leakage is less than or equal to 1% when the system is tested by injecting DOP at the system intake and the damper leakage rate is determined by either direct measurements or pressure decay measurements at a test pressure of 2 inches of water and the auxiliary building exhaust fans are operating at their rated flow.
- c. After every 720 hours of charcoal adsorber operation, by verifying, within 31 days after removal, that a laboratory analysis of a representative carbon sample obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, meets the laboratory testing criteria of Regulatory Position C.6.a of Regulatory Guide 1.52, Revision 2, March 1978, by showing a methyl iodide penetration of less than 10% when tested at a temperature of 30°C and a relative humidity of 95%.
- d. At least once per 18 months by:
- 1) Verifying that the pressure drop across the combined HEPA filters and charcoal adsorber banks is less than 6 inches Water Gauge while operating the exhaust filter plenum at a flow rate of 21,000 cfm  $\pm$  10%;
  - 2) Verifying that on a Safety Injection or a High Radiation test signal, the system automatically starts (unless already operating) and directs its exhaust flow through the HEPA filters and charcoal adsorber banks; and

## REFUELING OPERATIONS

### SURVEILLANCE REQUIREMENTS (Continued)

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- 3) Verifying that the Fuel Handling Building Exhaust Filter Plenum maintains the fuel building at a negative pressure of greater than or equal to 1/4 inch Water Gauge relative to the outside atmosphere during operation.
- e. After each complete or partial replacement of a HEPA filter bank, by verifying that the Fuel Handling Building Exhaust Filter Plenum satisfies the in-place penetration testing acceptance criteria of less than 1% in accordance with ANSI N510-1980 for a DOP test aerosol while operating the system at a flow rate of 21,000 cfm  $\pm$  10%; and
- f. After each complete or partial replacement of a charcoal adsorber bank, by verifying that the Fuel Handling Building Exhaust Filter Plenum satisfies the in-place penetration testing acceptance criteria of less than 1% in accordance with ANSI N510-1980 for a halogenated hydrocarbon refrigerant test gas while operating the system at a flow rate of 21,000 cfm  $\pm$  10%.