

**REGULATORY DOCKET FILE COPY**

*Docket File  
50-334*

SEPTEMBER 29 1980

Docket No. 50-334

*cel*

Mr. C. N. Dunn, Vice President  
Operations Division  
Duquesne Light Company  
435 Sixth Avenue  
Pittsburgh, Pennsylvania 15219

Dear Mr. Dunn:

The Commission has issued the enclosed Amendment No. *32* to Facility Operating License No. DPR-66 for the Beaver Valley Nuclear Power Station, Unit No. 1. The amendment consists of changes to the Technical Specifications in response to your application transmitted by letter dated May 14, 1980.

The amendment adds new Technical Specifications to Appendix A of License No. DPR-66 which describe requirements for a chlorine detection system for the plants control room. Your actions in installing this detection system and in modifying the control room ventilation system constitutes completion of requirements in License Condition 2.C.3 (Main Control Room Ventilation System). This amendment terminates that condition.

Copies of the Safety Evaluation and the Notice of Issuance are also enclosed.

Sincerely,  
Original signed by:  
S. A. Varga

Steven A. Varga, Chief  
Operating Reactors Branch #1  
Division of Licensing

Enclosures:

- 1. Amendment No. *32* to DPR-66
- 2. Safety Evaluation
- 3. Notice of Issuance

cc: w/enclosures  
See next page

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*with correction of 1400 on p. 2 of transcript*



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

September 29, 1980

Docket No. 50-334

Mr. C. N. Dunn, Vice President  
Operations Division  
Duquesne Light Company  
435 Sixth Avenue  
Pittsburgh, Pennsylvania 15219

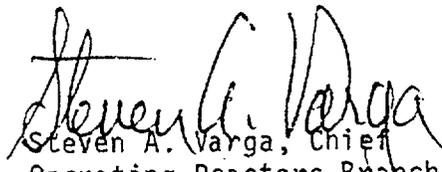
Dear Mr. Dunn:

The Commission has issued the enclosed Amendment No. 32 to Facility Operating License No. DPR-66 for the Beaver Valley Nuclear Power Station, Unit No. 1. The amendment consists of changes to the Technical Specifications in response to your application transmitted by letter dated May 14, 1980.

The amendment adds new Technical Specifications to Appendix A of License No. DPR-66 which describe requirements for a chlorine detection system for the plants control room. Your actions in installing this detection system and in modifying the control room ventilation system constitutes completion of requirements in License Condition 2.C.3 (Main Control Room Ventilation System). This amendment terminates that condition.

Copies of the Safety Evaluation and the Notice of Issuance are also enclosed.

Sincerely,

  
Steven A. Varga, Chief  
Operating Reactors Branch #1  
Division of Licensing

Enclosures:

1. Amendment No. 32 to DPR-66
2. Safety Evaluation
3. Notice of Issuance

cc: w/enclosures  
See next page

Mr. C. N. Dunn  
Duquesne Light Company

- 2 -

September 29, 1980

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Mr. C. N. Dunn  
Duquesne Light Company

- 3 -

September 29, 1980

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

DUQUESNE LIGHT COMPANY

OHIO EDISON COMPANY

PENNSYLVANIA POWER COMPANY

DOCKET NO. 50-334

BEAVER VALLEY POWER STATION, UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 32  
License No. DPR-66

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Duquesne Light Company, Ohio Edison Company, and Pennsylvania Power Company (the licensees) dated May 14, 1980, 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.

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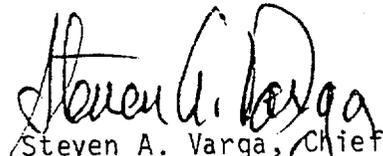
2. Accordingly, Facility Operating License No. DPR-66 is hereby amended by deleting paragraph 2.C.(3) in its entirety.
3. In addition, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of this license is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 32, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

4. This license amendment is effective as of the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

  
Steven A. Varga, Chief  
Operating Reactors Branch #1  
Division of Licensing

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: September 29, 1980

ATTACHMENT TO LICENSE AMENDMENT  
AMENDMENT NO. 32 TO FACILITY OPERATING LICENSE NO. DPR-66

DOCKET NO. 50-334

Revise Appendix A as follows:

Remove Page

IV

Insert Pages

IV  
3/4 3-49

INDEX

LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

<u>SECTION</u>	<u>Page</u>
<u>3/4.2 POWER DISTRIBUTION LIMITS</u>	
3/4.2.1 Axial Flux Difference.....	3/4 2-1
3/4.2.2 Heat Flux Hot Channel Factor.....	3/4 2-5
3/4.2.3 Nuclear Enthalpy Hot Channel Factor.....	3/4 2-8
3/4.2.4 Quadrant Power Tilt Ratio.....	3/4 2-10
3/4.2.5 DNB Parameters.....	3/4 2-12
<u>3/4.3 INSTRUMENTATION</u>	
3/4.3.1 PROTECTIVE INSTRUMENTATION.....	3/4 3-1
3/4.3.2 ENGINEERED SAFETY FEATURE INSTRUMENTATION.....	3/4 3-14
3/4.3.3 MONITORING INSTRUMENTATION	
Radiation Monitoring.....	3/4 3-33
Movable Incore Detectors.....	3/4 3-37
Seismic Instrumentation.....	3/4 3-38
Meteorological Instrumentation.....	3/4 3-41
Remote Shutdown Instrumentation.....	3/4 3-44
Fire Detection Instrumentation.....	3/4 3-47
Chlorine Detection System.....	3/4 3-49
<u>3/4.4 REACTOR COOLANT SYSTEM</u>	
3/4.4.1 REACTOR COOLANT LOOPS	
Normal Operation.....	3/4 4-1
Isolated Loop.....	3/4 4-3
Isolated Loop Startup.....	3/4 4-4

## INSTRUMENTATION

### CHLORINE DETECTION SYSTEMS

#### LIMITING CONDITION FOR OPERATION

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3.3.3.7 Three independent chlorine detection systems, with their alarm/trip setpoints adjusted to actuate at a chlorine concentration of less than or equal to 5 ppm, shall be OPERABLE.

APPLICABILITY: MODES 1, 2, 3 and 4.

#### ACTION:

- a. With one chlorine detection system inoperable, operation may continue provided the inoperable detector is placed in the tripped condition within 1 hour.
- b. With two chlorine detection systems inoperable, restore one of the inoperable detection systems to OPERABLE status within 7 days, or within the next 6 hours, initiate and maintain operation of the control room emergency ventilation system in the recirculation mode of operation.
- c. With no chlorine detection system OPERABLE, within 1 hour initiate and maintain operation of the control room emergency ventilation system in the recirculation mode of operation.
- d. The provisions of Specification 3.0.4 are not applicable.

#### SURVEILLANCE REQUIREMENTS

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4.3.3.7 Each chlorine detection system shall be demonstrated OPERABLE by performance of a CHANNEL FUNCTION TEST at least once per 31 days and a CHANNEL CALIBRATION at least once per 18 months.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NO. 32 TO FACILITY OPERATING LICENSE NO. DPR-66

DUQUESNE LIGHT COMPANY

OHIO EDISON COMPANY

PENNSYLVANIA POWER COMPANY

BEAVER VALLEY POWER STATION, UNIT NO. 1

DOCKET NO. 50-334

Introduction

Amendment No. 4 to the License for Beaver Valley Unit No. 1 (DPR-66) added the following Condition:

"2.C.3 Main Control Room Ventilation System

The licensee shall, prior to the commencement of the second fuel cycle of operation, modify the control room ventilation system to provide for automatic isolation of the system on detection of chlorine, or the facility shall not be operated beyond the first fuel cycle of operation without prior written authorization from the Commission."

By letter of May 14, 1980 the licensee submitted schematic drawings of isolation systems actuated by signals from three independent chlorine detection systems. Concurrently, the licensee proposed new Technical Specifications for these detection systems. This document is the staff's evaluation of the proposed detection and actuation systems.

Background

Chlorine gas is primarily a respiratory irritant. Concentrations in air above 3 to 15 ppm by volume are readily detected by most persons and concentrations of 40 to 60 ppm for 30 to 60 minutes are considered to be dangerous. (This concentration will cause irritation of the throat and is the maximum concentration that can be tolerated for two minutes without physical incapacitation such as severe coughing, eye burn, or severe skin irritation.) The criteria for control rooms, published in Regulatory Guide 1.78, limit chlorine concentrations to less than 15 ppm within two minutes after the operators are made aware of the presence of chlorine.

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In the event that gaseous chlorine entered the air inlet of a control room and in the absence of special design measures to limit the buildup within the control room, the operators might be incapacitated before they are able to don breathing apparatus. It is therefore, the staff's position that control room operators should be protected against the effects of an accidental chlorine release by providing such protective features in the control room as: (1) quick response chlorine detectors located in the fresh-air inlets and (2) isolation of the control room from fresh air make-up within 10 seconds.

### Evaluation

The licensee has proposed to install three independent chlorine detection systems in the fresh air intake line upstream of the intake fans. The detection systems meet the criteria of Regulatory Guide 1.95 related to sensitivity, response time (5 seconds), single failure criteria, seismic and environmental qualifications, and maintenance.

If, under improbable circumstances, all three detectors become inoperable, the licensee has the capability to isolate the control room through use of the recirculation mode of operation of the emergency ventilation system. It is the staff's position that continued operation in the recirculation mode for an unlimited time in lieu of restoring a chlorine detector to operable status is not acceptable. The licensee has been advised of this position and has responded that there is agreement in this matter. Consequently, in the event of predicted prolonged inoperability of all three chlorine detectors, the licensee proposes to seek alternative means of detection rather than operate the emergency ventilation system in the recirculation mode longer than one week. We consider a week to be sufficient time to repair or replace the type of chlorine detector to be installed by the licensee or to obtain a portable replacement that can be installed temporarily in the control room. Consequently, we find the action items in proposed Technical Specification 3.3.3.7 to be acceptable.

### Environmental Consideration

We have determined that the amendment does not authorize a change in effluent types or total amounts nor an increase in power level and will not result in any significant environmental impact. Having made this determination, we have further concluded that the amendment involves an action which is insignificant from the standpoint of environmental impact and, pursuant to 10 CFR §51.5(d)(4), that an environmental impact statement or negative declaration and environmental impact appraisal need not be prepared in connection with the issuance of this amendment.

Conclusion

We have concluded, based on the considerations discussed above, that: (1) because the amendment does not involve a significant increase in the probability or consequences of accidents previously considered and does not involve a significant decrease in a safety margin, the amendment does not involve a significant hazards consideration, (2) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (3) such activities will be conducted in compliance with the Commission's regulations and the issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public.

Date: September 29, 1980

UNITED STATES NUCLEAR REGULATORY COMMISSIONDOCKET NO. 50-334DUQUESNE LIGHT COMPANYOHIO EDISON COMPANYPENNSYLVANIA POWER COMPANYNOTICE OF ISSUANCE OF AMENDMENT TO FACILITY  
OPERATING LICENSE

The U. S. Nuclear Regulatory Commission (the Commission) has issued Amendment No. 32 to Facility Operating License No. DPR-66 issued to Duquesne Light Company, Ohio Edison Company, and Pennsylvania Power Company (the licensees), which revised Technical Specifications for operation of the Beaver Valley Power Station, Unit No. 1 (the facility) located in Beaver County, Pennsylvania. The amendment is effective as of the date of issuance.

The amendment adds new Technical Specifications to Appendix A of License No. DPR-66 which describe requirements for a chlorine detection system for the plant's control room.

The application for the amendment complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations. The Commission has made appropriate findings as required by the Act and the Commission's rules and regulations in 10 CFR Chapter I, which are set forth in the license amendment. Prior public notice of this amendment was not required since this amendment does not involve a significant hazards consideration.

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- 2 -

The Commission has determined that the issuance of this amendment will not result in any significant environmental impact and that pursuant to 10 CFR §51.5(d)(4) an environmental impact statement or negative declaration and environmental impact appraisal need not be prepared in connection with issuance of this amendment.

For further details with respect to this action, see (1) the application for amendment dated May 14, 1980, (2) Amendment No. 32 to License No. DPR-66 and (3) the Commission's related Safety Evaluation. All of these items are available for public inspection at the Commission Public Document Room, 1717 H Street, N.W., Washington, D. C. and at the B. F. Jones Memorial Library, 663 Franklin Avenue, Aliquippa, Pennsylvania 15001. A copy of items (2) and (3) may be obtained upon request addressed to the U. S. Nuclear Regulatory Commission, Washington, D. C. 20555, Attention: Director, Division of Licensing

Dated at Bethesda, Maryland, this 29th day of September, 1980.

FOR THE NUCLEAR REGULATORY COMMISSION



Steven Al Varga, Chief  
Operating Reactors Branch #1  
Division of Licensing