

October 15, 1987

Docket No. 50-334

Mr. J. D. Sieber, Vice President
Nuclear Operations
Duquesne Light Company
Post Office Box 4
Shippingport, PA 15077

Dear Mr. Sieber:

Subject: Issuance of Amendment (TAC 65782)

The Commission has issued the enclosed Amendment No. 116 to Facility Operating License No. DPR-66 for the Beaver Valley Power Station, Unit No. 1. The amendment consists of changes to the Technical Specifications in response to your application dated July 1, 1987.

The amendment changes the Technical Specifications for Beaver Valley Unit No. 1 to provide corrections regarding control room habitability requirements.

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

Sincerely,

Peter S. Tam, Project Manager
Project Directorate I-4
Division of Reactor Projects I/II

Enclosures:

1. Amendment No. 116 to DPR-66
2. Safety Evaluation

cc w/enclosures:
See next page

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Mr. J. D. Sieber
Duquesne Light Company

Beaver Valley 1 Power Station

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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. 116
License No. DPR-66

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Duquesne Light Company, et al. (the licensee) dated July 1, 1987 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. DPR-66 is hereby amended to read as follows:

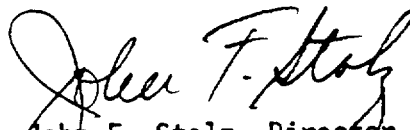
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(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 116, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This amendment is effective on issuance, to be implemented no later than 30 days after issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



John F. Stolz, Director
Project Directorate I-4
Division of Reactor Projects I/II

Attachment:
Changes to the Technical
Specifications

Date of Issuance: October 15, 1987

ATTACHMENT TO LICENSE AMENDMENT NO.116

FACILITY OPERATING LICENSE NO. DPR-66

DOCKET NO. 50-334

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

<u>Remove</u>	<u>Insert</u>
3/4 7-16	3/4 7-16
3/4 7-18	3/4 7-18
3/4 7-18a	3/4 7-18a
3/4 7-18b	3/4 7-18b
3/4 9-16	3/4 9-16
3/4 9-17	3/4 9-17
B 3/4 3-3	B 3/4 3-3

PLANT SYSTEMS

3/4.7.7 CONTROL ROOM EMERGENCY HABITABILITY SYSTEMS

LIMITING CONDITION FOR OPERATION

3.7.7.1 The control room emergency habitability system is OPERABLE when:

- a. Two out of three emergency ventilation subsystems, fans, associated filters and dampers are OPERABLE, and
- b. Five bottled air pressurization subsystems consisting of two bottles per subsystem are OPERABLE**, and
- c. The series normal air intake and exhaust isolation dampers for both units are OPERABLE, and capable of automatic closure on a CIB, Control Room High Radiation and Chlorine isolation signal, or closed.
- d. The control room air temperature is maintained $\leq 88^{\circ}\text{F}$.

APPLICABILITY:

- a. With either unit* in MODES 1, 2, 3 and 4, or
- b. During irradiated fuel movement or movement of loads over irradiated fuel at either unit and a. above or
- c. Refer to T.S. 3.9.15 when both units are in either MODES 5 or 6

ACTION:

- a. With less than two emergency ventilation subsystems, fans, and associated filters OPERABLE, restore at least two subsystems 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.
 - a.1 With an emergency ventilation subsystem inlet isolation damper open and not capable of being closed, the requirements of 3.0.3 are applicable.
- b. With one bottled air pressurization subsystem inoperable, restore five bottled air pressurization subsystems to OPERABLE within 7 days or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
 - b.1 With less than four bottled air pressurization subsystems OPERABLE, the requirements of 3.0.3 are applicable and movement of irradiated fuel shall be suspended.

* Emergency power for one train of dampers of the Unit in MODES 5 or 6 need not be available.

** The air bottles may be isolated for up to 8 hours for performance of instrumentation and control systems testing.

PLANT SYSTEMS

SURVEILLANCE REQUIREMENTS (continued)

3. Verifying a system flow rate of 800 - 1000 cfm during system operation.
- d. At least once per 18 months by:
 1. Verifying that the pressure drop across the combined HEPA filters and charcoal adsorber banks is <6 inches Water Gauge while operating the ventilation system at a flow rate of 800 - 1000 cfm .
 2. Verifying that on a chlorine/control room high radiation/containment phase B isolation test signal from either Unit, the system automatically closes all the series isolation ventilation system dampers which isolate the combined control room from the outside atmosphere.
 3. Verifying that one emergency ventilation subsystem maintains the combined control room at a positive pressure of $\geq 1/8$ inch Water Gauge relative to the outside atmosphere during system operation.
 4. Verifying that the heaters dissipate 5 ± 0.5 kw when tested in accordance with ANSI N510-1980.

4.7.7.1.2 The BV-2 emergency ventilation subsystems shall be demonstrated OPERABLE:

- a. At least once per 12 hours by verifying that the control room air temperature is $\leq 88^{\circ}\text{F}$.
- b. At least once per 31 days by initiating flow through each HEPA filter and charcoal adsorber train and by verifying that each train operates for 15 minutes.
- c. At least once per 18 months, or after every 720 hours of system operation and (1) after each complete or partial replacement of a HEPA filter or charcoal adsorber bank, or (2) after any structural maintenance on the HEPA filter or charcoal adsorber housings, or (3) following painting, fire or chemical release in any ventilation zone communicating with the system by:
 1. Verifying that the filtration system satisfies the in-place penetration and by-pass leakage testing acceptance criteria of less than 1% when tested in accordance with ANSI N510-1980 while operating the ventilation system at a flow rate of 800-1000 cfm.

PLANT SYSTEMS

SURVEILLANCE REQUIREMENTS, Continued

2. Subjecting the carbon contained in at least one test canister or at least two carbon samples removed from one of the charcoal adsorbers to a laboratory carbon sample analysis and verifying a removal efficiency of $\geq 99\%$ for radioactive methyl iodine at an air flow velocity of 0.70 ft/sec $\pm 20\%$ with an inlet methyl iodine concentration of 1.5 to 2.0 mg/m³, $\geq 70\%$ relative humidity, and 30°C $\pm 1/2^\circ\text{C}$; other test conditions shall be in accordance with ANSI N510-1980. The carbon samples not obtained from test canisters shall be prepared by either:
 - a) Emptying one entire bed from a removed adsorber tray, mixing the adsorbent thoroughly, and obtaining a sample volume equivalent to at least two inches in diameter and with a length equal to the thickness of the bed, or
 - b) Removing a longitudinal sample from an adsorber tray using a slotted-tube sampler, mixing the adsorbent thoroughly, and obtaining a sample volume equivalent to at least two inches in diameter and with a length equal to the thickness of the bed.
 3. Verifying a system flow rate of 800 to 1000 cfm during system operation.
- d. At least once per 18 months by:
1. Verifying that the pressure drop for the combined HEPA filters and charcoal adsorber banks is less than 5.6 inches Water Gauge while operating the ventilation system at a flow rate of 800 to 1000 cfm.
 2. Verifying that on a Containment Isolation Phase B/Control Room High Radiation test signal from either Unit, the system automatically closes all the series isolation ventilation system dampers which isolate the combined control room from the outside atmosphere and the system automatically starts 60 minutes later and supplies air to the control room through the HEPA filters and charcoal adsorber banks.
 3. Verifying that on a chlorine test signal from either Unit, the system automatically closes all the series isolation ventilation system dampers which isolate the combined control room from the outside atmosphere.

PLANT SYSTEMS

SURVEILLANCE REQUIREMENTS, (continued)

4. Verifying that one emergency ventilation subsystem maintains the control room at a positive pressure of $\geq 1/8$ inch Water Gauge relative to the outside atmosphere during system operation.
5. Verifying that the heaters dissipate 5 ± 0.5 kw when tested in accordance with ANSI N510-1980.

4.7.7.2 The bottled air pressurization system shall be demonstrated OPERABLE:

- a. At least once per 31 days by verifying that the system contains a minimum of 10 bottles of air each pressurized to at least 1825 psig and by verifying that the system solenoid operated valves are powered from an operable emergency bus.
- b. At least once per 18 months be verifying that:
 1. A chlorine/control room high radiation/containment phase B isolation test signal from either Unit will initiate system operation.
 2. Upon a partial discharge test using four out of five bottled air subsystems the system will supply ≤ 1000 cfm of air and pressurize the control room to $\geq 1/8$ inch Water Gauge relative to the outside atmosphere during system operation.

REFUELING OPERATIONS

3/4.9.15 CONTROL ROOM EMERGENCY HABITABILITY SYSTEMS

LIMITING CONDITION FOR OPERATION

3.9.15.1 The control room emergency habitability system is OPERABLE when:

- a. Two out of three emergency ventilation subsystems, fans and associated filters and dampers are OPERABLE, and
- b. Five bottled air pressurization subsystems consisting of two bottles per subsystem are OPERABLE, and
- c. The series normal air intake and exhaust isolation dampers for both units are OPERABLE, and capable of automatic closure on a Control Room High Radiation and Chlorine isolation signal*, or closed.

APPLICABILITY: When both units are in either MODE 5 or 6.

ACTION:

- a. With less than two emergency ventilation subsystems, fans and associated filters OPERABLE and irradiated fuel being moved or movement of loads over irradiated fuel, restore at least two subsystems to OPERABLE status within 7 days or close at least one series normal air intake and exhaust isolation damper on each intake and exhaust to the control room.
- b. With one bottled air pressurization subsystem inoperable, restore five bottled air pressurization subsystems to OPERABLE within 7 days or suspend all operations involving movement of irradiated fuel or movement of loads over irradiated fuel.
- b.1 With less than four bottled air pressurization subsystems OPERABLE or no emergency ventilation subsystems OPERABLE, suspend all operations involving movement of irradiated fuel or movement of loads over irradiated fuel.
- c. With one open series normal air intake or exhaust isolation damper inoperable# and not capable of closing and irradiated fuel being moved or movement of loads over irradiated fuel, restore all series dampers to OPERABLE status within 7 days or close at least one series normal air intake and exhaust isolation damper on each intake and exhaust to the control room.

* Not applicable when output relay fuses are removed to prevent inadvertant ESF actuation for a single unit.

Emergency backup power not required for any 1 of 2 series dampers.

REFUELING OPERATIONS

LIMITING CONDITION FOR OPERATION

- c.1 With both series normal air intake or exhaust isolation dampers inoperable# and not capable of being closed, suspend all operations involving movement of irradiated fuel or movement of loads over irradiated fuel.

SURVEILLANCE REQUIREMENTS

4.9.15.1 The emergency ventilation subsystems and the bottled air pressurization system shall be demonstrated OPERABLE in accordance with Specifications 4.7.7.1.1, 4.7.7.1.2 and 4.7.7.2 with the following exception:

- a. Automatic operation upon receipt of a containment phase B isolation signal is not required.

Emergency backup power not required for any 1 of 2 series dampers.

INSTRUMENTATION

BASES

3/4.3.3.5 REMOTE SHUTDOWN INSTRUMENTATION

The OPERABILITY of the remote shutdown instrumentation ensures that sufficient capability is available to permit shutdown and maintenance of HOT STANDBY of the facility 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.

3/4.3.3.6 FIRE DETECTION INSTRUMENTATION

OPERABILITY of the fire detection instrumentation ensures that adequate warning capability is available for the prompt detection of fires. This capability is required in order to detect and locate fires in their early stages. Prompt detection of fires will reduce the potential for damage to safety-related equipment and is an integral element in the overall facility fire protection program.

In the event that a portion of the fire detection instrumentation is inoperable, the establishment of frequent fire patrols or in-containment air temperature monitoring in the affected areas is required to provide detection capability until the inoperable instrumentation is restored to OPERABILITY.

3/4.3.3.7 CHLORINE DETECTION SYSTEMS

The OPERABILITY of the chlorine detection system ensures that sufficient capability is available to promptly detect and initiate protective action in the event of an accidental chlorine release. The chlorine detection system will protect the control room operators by initiating control room isolation in a timely manner to assure the chlorine concentration in the control room does not exceed the toxicity limit of 15 ppm by volume within 2 minutes following detection. This capability is required to protect control room personnel and is consistent with the recommendations of Regulatory Guide 1.95, "Protection of Nuclear Power Plant Control Room Operators Against an Accidental Chlorine Release", February 1975.

3/4.3.3.8 ACCIDENT MONITORING INSTRUMENTATION

The OPERABILITY of the accident monitoring instrumentation ensures that sufficient information is available on selected plant parameters to monitor and assess these variables during and following an accident. This capability is consistent with the recommendations of Regulatory Guide 1.97, "Instrumentation for Light-Water-Cooled Nuclear Plants to Assess Plant Conditions During and Following an Accident", December 1975 and NUREG-0578, "TMI-2 Lessons Learned Task Force Status Report and Short-Term Recommendations".



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
SUPPORTING AMENDMENT NO. 116 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

1.0 INTRODUCTION

By letter dated July 1, 1987, Duquesne Light Company (the licensee) requested an amendment to Operating License No. DPR-66, revising a number of pages of the Technical Specifications (TS) that are associated with control room habitability requirements. We have reviewed the requested changes and the results of our review are documented below.

2.0 DISCUSSION AND EVALUATION

Section 3.7.7.1

A note has been added to clarify the operability requirements of the Control Room Emergency Bottled Air Pressurization System (CREBAPS) to reflect the Beaver Valley Unit 2 Technical Specifications. The note provides for isolation of the air bottles for up to 8 hours to perform instrumentation and control systems testing. The Unit 2 Technical Specifications contain such a footnote to preclude shutdown whenever operators are conducting master-and-slave relay testing. This testing will cause the CREBAPS, which is a shared system between Unit 1 and Unit 2 control rooms, to discharge and place both units into the requirements of TS 3.0.3 (shut down). Since we did not intend for Unit 2 to be shut down whenever this test is conducted, we approved conducting this test on Unit 2 with the CREBAPS isolated for up to 8 hours. However, the Unit 1 Technical Specifications did not have the same footnote to permit isolating the CREBAPS; every time the Unit 2 testing is conducted, Unit 1 will enter the requirements of TS 3.0.3. The purpose of this change, therefore, is to permit the NRC-required testing to be done on Unit 2 without requiring Unit 1 to enter the requirements of TS 3.0.3., or shutdown.

The omission of such a footnote in Amendment No. 109 was an error. The addition of the footnote corrects the error and is therefore acceptable.

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Section 4.7.7.1.1, 4.7.7.1.2 and 4.7.7.2

The footnote referring to Unit 2 entering Mode 4 is no longer applicable since the event already took place. The licensee proposed to delete the footnote and any reference to it.

The requested change is purely editorial and is acceptable.

Section 4.7.7.1.2

The allowable pressure drop across the Beaver Valley Unit 2 HEPA filter and charcoal absorber banks will be revised to be consistent with the manufacturer's design recommendations and system specifications. The revision is concerned with components that belong to Unit 2, but are shared by Unit 1. The revision would state this requirement the same way it already exists in the Unit 2 Technical Specifications. This change is purely editorial and is acceptable.

Section 4.7.7.2

The footnote ** applied to a one-time test that has already been completed. Elimination of the footnote is an editorial change and is acceptable.

Section 3/4.9.15

The heading is changed to "Refueling Operations". This change is editorial and is acceptable.

3.0 ENVIRONMENTAL CONSIDERATION

This amendment changes a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The staff has determined that the amendment involves 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 published a proposed finding that the amendment involves no significant hazards consideration and there has been no public comment on such finding. Accordingly, the amendment meets 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 amendment.

4.0 CONCLUSION

We have 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, and (2) 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.

Dated: October 15, 1987

Principal Contributor:
Peter S. Tam, Project Manager