



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
SUPPORTING AMENDMENT NO. 119 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 June 9, 1987, and supplemented by letter dated August 7, 1987, Duquesne Light Company (licensee) proposed changes to the Beaver Valley Unit 1 Technical Specifications (TS). The proposed Technical Specifications addressed the addition of two control room radiation monitors for the initiation of control room isolation on a high radiation signal. The provision of radiation monitors for the Unit 1 control room normal ventilation system was necessitated by a reevaluation of the dose consequences of postulated accidents as documented in the Unit 2 FSAR, Amendment 13, issued by the licensee in January, 1987, and in the Safety Evaluation related to Amendment No. 109 to the Unit 1 TS, issued May 20, 1987.

PROPOSED CHANGES

The proposed changes consist of the addition of the control room isolation area monitors (RM-218 A & B) to TS Tables 3.3-6 and 4.3-3 and the addition of Action Statement 41 to TS Table 3.3-6.

REVIEW CRITERIA/REQUIREMENTS

- (1) Safety Evaluation related to Amendment No. 109 to the Unit 1 Technical Specifications, issued May 20, 1987.
- (2) NUREG-0452, Standard Technical Specifications for Westinghouse Pressurized Water Reactors, Revision 4.
- (3) NUREG-0800, Standard Review Plan, Revision 2, Section 6.4, Control Room Habitability System.

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EVALUATION

Unit 2 FSAR Amendment 13, issued by the licensee in January, 1987, described a reevaluation of the dose consequences of postulated accidents in which the small-line break outside containment was determined to produce the most severe dose consequences for the control room operator, rather than the large-break LOCA. Due to a common control room envelope, this reevaluation necessitated the provision of radiation monitors for the Unit 1 control room normal ventilation systems, whereas none was required previously to protect control room operators from a large-break LOCA. Such radiation monitors were not previously required when the large-break LOCA was the limiting accident because (1) containment systems are designed to return the containment to a sub-atmospheric condition within one hour following a large-break LOCA, thereby limiting any radiation release and (2) containment isolation signals automatically isolate and pressurize the control room during this time interval to insure no net radioactive in-leakage.

The radiation monitors incorporated in the ventilation system associated with the Unit 1 control room are designed to initiate control room isolation and pressurization in the event of radioactive in-leakage. Control room ventilation isolation and actuation of the bottled air pressurization system will occur on receipt of a high control room radiation signal from either Unit 1 or 2, thereby providing a level of redundancy. (For details of the design and the staff's evaluation, see the Safety Evaluation supporting Amendment No. 109).

The proposed Technical Specifications would require a minimum of two radiation monitors, each on a separate power train, to be available from the combined Unit 1 and Unit 2 systems (Modes 1, 2, 3 and 4 and Modes 5 and 6 during movement of fuel or movement of loads over irradiated fuel, in either unit). The included Action Statement identifies steps to be taken by the licensee in the event the required number of monitors are not available. Therefore, we conclude that the licensee's proposal to modify Technical Specification Tables 3.3-6 and 4.3.3-3 is acceptable.

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 and in surveillance requirements. 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. Accordingly, this 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 this amendment.

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 8, 1987

Principal Contributor:

Robert M. Loesch, reviewer

November 24, 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 (Licensing Action TAC # 65593)

The Commission has issued the enclosed Amendment No. 119 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 June 9, 1987 and supplemented by letter dated August 7, 1987.

The amendment changes the Technical Specifications for Beaver Valley Unit No. 1 to impose requirements on new radiation monitors in the control room.

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,

~~XXXXXXXXXX~~

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

Enclosures:

- 1. Amendment No. 119 to DPR-66
- 2. Safety Evaluation

cc w/enclosures:
See next page

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have been revised
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DUQUESNE LIGHT COMPANY

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DOCKET NO. 50-334

BEAVER VALLEY POWER STATION, UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 119
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 June 9, 1987 and supplemented by letter dated August 7, 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:

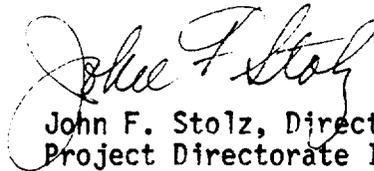
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(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 119, 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
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: November 24, 1987

ATTACHMENT TO LICENSE AMENDMENT NO.119

FACILITY OPERATING LICENSE NO. DPR-66

DOCKET NO. 50-334

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

Remove Pages

3/4 3-34

3/4 3-35

3/4 3-36

Insert Pages

3/4 3-34

3/4 3-35

3/4 3-35a

3/4 3-36

TABLE 3.3-6
RADIATION MONITORING INSTRUMENTATION

<u>INSTRUMENT</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>APPLICABLE MODES</u>	<u>SETPOINT#</u>	<u>MEASUREMENT RANGE</u>	<u>ACTION</u>
1. AREA MONITORS					
a. Fuel Storage Pool Area (RM-207)	1	*	≤ 15 mR/hr	$10^{-1} - 10^4$ mR/hr	19
b. Containment					
i. Purge & Exhaust Isolation (RMVS 104 A & B)	1	6	$\leq 1.6 \times 10^3$ cpm	$10 - 10^6$ cpm	22
ii. Area (RM-RM-219 A & B)	2	1,2,3 & 4	≤ 30 R/hr	$1 - 10^7$ R/hr	36
c. Control Room Isolation (RM-RM-218 A & B)	2	1,2,3,4,5##,6### (in either unit)	$\leq .47$ mR/hr	$10^{-2} - 10^3$ mR/hr	41
2. PROCESS MONITORS					
a. Containment					
i. Gaseous Activity RCS Leakage Detection (RM 215B)	1	1,2,3 & 4	N/A	$10 - 10^6$ cpm	20
ii. Particulate Activity RCS Leakage Detection (RM 215A)	1	1,2,3 & 4	N/A	$10 - 10^6$ cpm	20
b. Fuel Storage Building Gross Activity (RMVS-103 A & B)	1	**	$\leq 4.0 \times 10^4$ cpm	$10 - 10^6$ cpm	21

* With fuel in the storage pool or building.

** With Irradiated fuel in the storage pool.

Above background.

During movement of irradiated fuel or movement of heavy loads over spent fuel.

ACTION STATEMENTS

- ACTION 19 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, perform area surveys of the monitored area with portable monitoring instrumentation at least once per 24 hours.
- ACTION 20 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, comply with the ACTION requirements of Specification 3.4.6.1.
- ACTION 21 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, comply with the applicable ACTION requirements of Specifications 3.9.12 and 3.9.13.
- ACTION 22 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, comply with the ACTION requirements of Specification 3.9.9.
- ACTION 36 - With the number of OPERABLE channels less than required by the Minimum Channels OPERABLE requirement, either restore the inoperable Channel(s) to OPERABLE status within 72 hours, or:
- a) Initiate the preplanned alternate method of monitoring the appropriate parameter(s), and
 - b) Prepare and submit a Special Report to the Commission pursuant to Specification 6.9.2 within the next 14 days following the event outlining the action taken, the cause of the inoperability and the plans and schedule for restoring the system to OPERABLE status.
- ACTION 41 - a) With the number of Unit 1 OPERABLE channels one less than the Minimum Channels OPERABLE requirement:
- 1. Verify the respective Unit 2 control room radiation monitor train is OPERABLE within 1 hour and at least once per 31 days.
 - 2. With the respective Unit 2 control room radiation monitor train inoperable, suspend all operations involving movement of irradiated fuel within 1 hour and restore the Unit 1 control room radiation monitor to OPERABLE status within 7 days or isolate the control room from the outside atmosphere by closing all series air intake and exhaust isolation dampers, unless the respective Unit 2 control room radiation monitor train is restored to OPERABLE status within 7 days.

TABLE 3.3-6 (Continued)

ACTION STATEMENTS

ACTION 41 (Continued)

- b) With no Unit 1 control room radiation monitors OPERABLE:
1. Verify both Unit 2 control room radiation monitors are OPERABLE within 1 hour and at least once per 31 days.
 2. With either Unit 2 control room radiation monitor inoperable, suspend all operations involving movement of irradiated fuel within 1 hour and restore the respective Unit 1 control room radiation monitor train to OPERABLE status within 7 days or isolate the control room from the outside atmosphere by closing all series air intake and exhaust isolation dampers, unless the respective Unit 2 control room radiation monitor train is restored to OPERABLE status within 7 days.
 3. With no Unit 2 control room radiation monitors OPERABLE, immediately isolate the combined control room by closing all series air intake and exhaust isolation dampers and be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

TABLE 4.3-3
RADIATION MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

<u>INSTRUMENT</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL CALIBRATION</u>	<u>CHANNEL FUNCTIONAL TEST</u>	<u>MODES IN WHICH SURVEILLANCE REQUIRED</u>
1. AREA MONITORS				
a. Fuel Storage Pool Area (RM 207)	S	R	M	*
b. Containment				
i. Purge & Exhaust Isolation (RMVS 104 A & B)	S	R	M	6
ii. Area (RM-RM-219 A & B)	S	R	M	1,2,3 & 4
c. Control Room Isolation (RM-RM-218 A & B)	S	R	M###	1,2,3,4,5##,6## (in either unit)
2. PROCESS MONITORS				
a. Containment				
i. Gaseous Activity RCS Leakage Detection (RM 215B)	S	R	M	1,2,3 & 4
ii. Particulate Activity RCS Leakage Detection (RM 215A)	S	R	M	1,2,3 & 4
b. Fuel Storage Building Gross Activity (RMVS-103 A & B)	S	R	M	**

* With fuel in the storage pool or building.

** With Irradiated fuel in the storage pool.

During movement of irradiated fuel.

Control room intake and exhaust isolation dampers and CREBAPS solenoid valves are not actuated.