

November 29, 1989

Docket Nos. 50-334  
and 50-412

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

Dear Mr. Sieber:

<u>DISTRIBUTION</u>	
<u>Docket File</u>	EJordan
NRC & Local PDRs	
Plant File	TMeek(8) WJones
SVarga	HCalvo
BBoger	ACRS(10)
SNorris	GPA/PA
PTam	ARM/LFMB
OGC	
DHagan	

SUBJECT: BEAVER VALLEY UNITS 1 AND 2 - ISSUANCE OF AMENDMENTS  
(TAC. 71935 AND 71936)

The Commission has issued the enclosed Amendment No. 147 to Facility Operating License No. DPR-66 for the Beaver Valley Power Station, Unit 1, and Amendment No. 23 to Facility Operating License No. NPF-73 for Unit 2, in response to your application dated January 12, 1989 and revision dated August 14, 1989.

The amendments revise specification 3.4.6.1 for each unit to permit both containment atmosphere particulate and gaseous radiation monitors (both are reactor coolant leakage detection instruments) be inoperable for up to 12 hours due to calibration or maintenance activities. They also revise Table 4.3-3 to permit a more flexible calibration schedule for these monitors.

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,

Signed by

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

Enclosures:

1. Amendment No. 147 to DPR-66
2. Amendment No. 23 to NPF-73
3. Safety Evaluation

cc w/enclosures:  
See next page

[AMENDMENT NO. 71935 AND 71936]

LA:PDI-4  
SNorris:lm  
11/15/89

PM:PDI-4  
PTam:cb  
11/15/89 *PST*

PD:PDI-4  
JStolz  
11/15/89 *PSTam for*

OGC  
7AS  
11/22/89

*P.R.*  
BC:SPLB  
CMcCracken  
11/15/89

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PDR ADOCK 05000334  
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*11*

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Mr. J. Sieber  
Duquesne Light Company

cc:

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Beaver Valley Power Station  
Units 1 & 2

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U.S. Nuclear Regulatory Commission  
Post Office Box 181  
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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. 147  
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 January 12, 1989, and revision dated August 14, 1989 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.

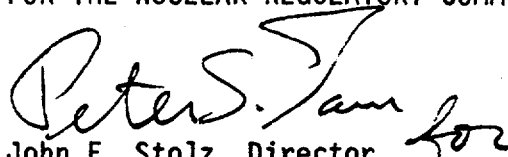
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. DPR-66 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 147, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of the date of its 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 29, 1989

ATTACHMENT TO LICENSE AMENDMENT NO. 147

FACILITY OPERATING LICENSE NO. DPR-66

DOCKET NO. 50-334

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

Remove

3/4 3-36

3/4 4-11

3/4 4-12

Insert

3/4 3-36

3/4 4-11

3/4 4-12

**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.

# Surveillance interval may be extended to the upcoming refueling outage if the interval between refueling outages is greater than 18 months.

## During movement of irradiated fuel.

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

REACTOR COOLANT SYSTEM

3/4.4.6 REACTOR COOLANT SYSTEM LEAKAGE

LEAKAGE DETECTION SYSTEMS

LIMITING CONDITION FOR OPERATION

3.4.6.1 The following Reactor Coolant System leakage detection systems shall be OPERABLE:

- a. The containment atmosphere particulate radioactivity monitoring system,
- b. The containment sump discharge flow measurement system or narrow range level instrument, and
- c. Containment atmosphere gaseous radioactivity monitoring system.

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

a. With one of the above required radioactivity monitoring leakage detection systems inoperable, operations may continue for up to 30 days provided:

1. The other two above required leakage detection systems are OPERABLE, and
2. Appropriate grab samples are obtained and analyzed at least once per 24 hours:

otherwise, be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

b. With both of the above required radioactivity monitoring leakage detection systems inoperable, operations may continue for up to 12 hours provided:

1. The containment sump discharge flow measurement system or narrow range level instrument is OPERABLE, and
2. A Reactor Coolant System water inventory balance measurement (Specification 4.4.6.2.d) is performed within the next four hours:

otherwise, be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

LIMITING CONDITION FOR OPERATION (Continued)

- c. With the containment sump discharge flow measurement system and narrow range level instrument inoperable, restore at least one inoperable system 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.
- d. The provisions of specification 3.0.4 are not applicable in Modes 1, 2 and 3.

SURVEILLANCE REQUIREMENTS

4.4.6.1 The leakage detection systems shall be demonstrated OPERABLE by:

- a. Containment atmosphere particulate and gaseous monitoring system-performance of CHANNEL CHECK, CHANNEL CALIBRATION and CHANNEL FUNCTIONAL TEST at the frequencies specified in Table 4.3-3.
- b. Containment sump discharge flow measurement system-performance of CHANNEL CALIBRATION TEST at least once per 18 months.
- c. Logging the narrow range level indication every 12 hours.



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

DUQUESNE LIGHT COMPANY

OHIO EDISON COMPANY

THE CLEVELAND ELECTRIC ILLUMINATING COMPANY

THE TOLEDO EDISON COMPANY

DOCKET NO. 50-412

BEAVER VALLEY POWER STATION, UNIT NO. 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 23  
License No. NPF-73

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Duquesne Light Company, et al. (the licensee) dated January 12, 1989, and revision dated August 14, 1989 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-73 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 23, and the Environmental Protection Plan contained in Appendix B, both of which are attached hereto, are hereby incorporated in the license. DLCo 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

  
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 29, 1989

ATTACHMENT TO LICENSE AMENDMENT NO. 23

FACILITY OPERATING LICENSE NO. NPF-73

DOCKET NO. 50-412

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

Remove

3/4 3-43

3/4 4-17

Insert

3/4 3-43

3/4 4-17

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 (2RMF-RQ202)	S	R	M	*
b. Containment Area (2RMR-RQ206 & 207)	S	R	M	1, 2, 3, 4
c. Control Room Area (2RMC-RQ201 & 202)	S	R	M	1, 2, 3, 4, 5## & 6##
2. PROCESS MONITORS				
a. Containment				
i. Gaseous Activity RCS Leakage Detection (2RMR-RQ303B)	S	R#	M	1, 2, 3 & 4
ii. Particulate Activity RCS Leakage Detection (2RMR-RQ303A)	S	R#	M	1, 2, 3 & 4
b. Fuel Building Vent				
i. Gaseous Activity (2RMF-RQ301B)	S	R	M	**
ii. Particulate Activity (2RMF-RQ301A)	S	R	M	**

\*With fuel in the storage pool or building

\*\*With irradiated fuel in the storage pool

#Surveillance interval may be extended to the upcoming refueling outage if the interval between refueling outages is greater than 18 months.

##During movement of irradiated fuel

## REACTOR COOLANT SYSTEM

### 3/4.4.6 REACTOR COOLANT SYSTEM LEAKAGE

#### LEAKAGE DETECTION SYSTEMS

#### LIMITING CONDITION FOR OPERATION

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3.4.6.1 The following Reactor Coolant System Leakage Detection Systems shall be OPERABLE:

- a. The containment atmosphere particulate radioactivity monitoring system,
- b. The containment sump discharge flow measurement system or narrow range level instrument, and
- c. Containment atmosphere gaseous radioactivity monitoring system.

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

#### ACTION:

- a. With one of the above required radioactivity monitoring leakage detection systems inoperable, operations may continue for up to 30 days provided:
  1. The other two above required leakage detection systems are OPERABLE, and
  2. Appropriate grab samples are obtained and analyzed at least once per 24 hours:otherwise, be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
- b. With both of the above required radioactivity monitoring leakage detection systems inoperable, operations may continue for up to 12 hours provided:
  1. The containment sump discharge flow measurement system or narrow range level instrument is OPERABLE, and
  2. A Reactor Coolant System water inventory balance measurement (Specification 4.4.6.2.d) is performed within the next 4 hours:otherwise, be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
- c. With the containment sump discharge flow measurement system and narrow range level instrument inoperable, restore at least one inoperable system 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.
- d. The provisions of Specification 3.0.4 are not applicable in MODES 1, 2, and 3.

#### SURVEILLANCE REQUIREMENTS

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4.4.6.1 The leakage detection systems shall be demonstrated OPERABLE by:

- a. Containment atmosphere particulate and gaseous monitoring system - performance of CHANNEL CHECK, CHANNEL CALIBRATION, and CHANNEL FUNCTIONAL TEST at the frequencies specified in Table 4.3-3,



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NO. 147 TO FACILITY OPERATING LICENSE NO. DPR-66  
AND AMENDMENT NO. 23 TO FACILITY OPERATING LICENSE NO. NPF-73

DUQUESNE LIGHT COMPANY

OHIO EDISON COMPANY

PENNSYLVANIA POWER COMPANY

THE CLEVELAND ELECTRIC ILLUMINATING COMPANY

THE TOLEDO EDISON COMPANY

BEAVER VALLEY POWER STATION, UNITS NO. 1 AND 2

DOCKET NOS. 50-334 AND 50-412

INTRODUCTION

Specification 3.4.6.1 requires three independent methods for detection of reactor coolant system (RCS) boundary leakage to be operable. This is in accordance with the recommendations of Regulatory Guide 1.45. Action statements are provided for one inoperable containment radiation monitor (gaseous or particulate) and for the containment sump discharge flow measurement system and narrow-range level instrument inoperable. By letter dated January 12, 1989, and revision dated August 14, 1989, Duquesne Light Company (the licensee, acting as agent for the above utilities) submitted a request to amend the Units 1 and 2 Technical Specifications to permit the radiation monitors (gaseous and particulate) to be inoperable for up to 12 hours. Current technical specifications require entering the action requirements of specification 3.0.3 if both monitors are inoperable.

DISCUSSION AND EVALUATION

For Beaver Valley Units 1 and 2, both the containment particulate and gaseous radiation monitors share a common piping system and pumping arrangement. Because of this design configuration, both radiation monitors must be taken out of service to perform the required periodic calibration and/or maintenance on either radiation monitor. With both monitors inoperable while in operational modes 1 thru 4, per specification 3.0.3, within one hour the unit must initiate a shutdown and be in HOT STANDBY within the next six hours and COLD SHUTDOWN within the following 30 hours. The time required to perform a complete calibration on these radiation monitors is greater than six hours.

The licensee proposed to add an action statement (3.4.6.1.b) to allow both monitors to be inoperable for a sufficient amount of time to complete the required calibration. To ensure the capability to detect RCS leakage during the time period when both radiation monitors are inoperable, the proposed action statement requires that the containment sump instrumentation be operable and a RCS water inventory balance measurement be performed. The new action statement 3.4.6.1.b thus allows a period of 12 hours for both radiation monitors to be inoperable due to calibration and maintenance activities. This period should be sufficient to accommodate the required calibration and/or maintenance. During this period, the containment sump discharge flow measurement system or narrow range level instrument will be operable to indicate any RCS leak. In addition, the new action statement will require that an RCS water inventory balance measurement (specification 4.4.6.2.d) be performed within four hours. The inventory balance measurement is normally performed once every 72 hours. The performance of this measurement within four hours of the onset of inoperability of the radiation monitors is a reasonable compensatory measure. We therefore find the new action statement 3.4.6.1.b acceptable.

Due to the addition of the above action statement, the existing action statements 3.4.6.1.b and c are renumbered 3.4.6.1.c and d, respectively. These changes are editorial and acceptable.

The amendments also revise Table 4.3-3 where it concerns calibration surveillance interval for the containment particulate and gaseous radiation monitors to allow this surveillance to be conducted during the upcoming refueling outage regardless of the interval between refueling outages. The present technical specifications would require the calibration interval between refuelings to be no greater than 18 months, thus necessitating reactor shutdown for the work. During our review of the initially proposed amendment request, we expressed concern with performing the periodic calibration of these radiation monitors during plant operation. When performing this calibration, both monitors would be taken out of service leaving only the containment sump instrumentation available for leak detection. While we agreed that the proposed additional action statement for both radiation monitors being inoperable was necessary for any potential maintenance and re-calibration on an inoperable monitor, we concluded that periodic calibration of these monitors should not be a cause for unnecessary shutdowns. To ensure that these monitors would be calibrated during outages, the channel calibration interval has been revised as stated above. The extension will provide flexibility of plant operation but would have minimal negative effect on the accuracy of the monitors. This change is thus acceptable.

#### ENVIRONMENTAL CONSIDERATION

This amendments change requirements with respect to the installation or use of facility components located within the restricted area as defined in 10 CFR Part 20 and change surveillance requirements. We have determined that the amendments involve 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. We have previously issued a proposed finding that these amendments involve no significant hazards consideration and there has been no public comment on such finding. Accordingly, these amendments meet 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 these amendments.

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 (3) the issuance of these amendments will not be inimical to the common defense and security or to the health and safety of the public.

Dated: November 29, 1989

Principal Contributor:

Peter S. Tam