

February 17, 1989

Docket No. 50-334

Mr. J. D. Sieber, Vice President
Nuclear Group
Duquesne Light Company
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Dear Mr. Sieber:

SUBJECT: BEAVER VALLEY UNIT 1 - ISSUANCE OF AMENDMENT (TAC NO. 65077)

The Commission has issued the enclosed Amendment No. 136 to Facility Operating License No. DPR-66 for the Beaver Valley Power Station, Unit No. 1, in response to your application dated April 7, 1987, supplement dated May 6, 1988 and revision dated November 1, 1988.

The amendment revises license condition 2.C.(5) and eliminates most fire protection specifications from the Technical Specifications. Approval of this amendment is in accordance with our Generic Letters 86-10 and 88-12.

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. 136 to DPR-66
2. Safety Evaluation

cc w/enclosures:
See next page

LA:PDI-4
SNorris
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PM:PDI-4
PTam:cb PST
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D:PDI-4
JStolz PSTam
02/2/89 for
2

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2

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1/1

Signal for
J. Stolz on PSTam
2/17/89

Mr. J. Sieber
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Beaver Valley Power Station
Units 1 & 2

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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. 136
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 April 7, 1987, supplement dated May 6, 1988 and revision dated November 1, 1988, comply 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, paragraph 2.C(5) of Facility Operating License DPR-66 is amended to read as follows:*

(5) The licensee shall implement and maintain in effect all provisions of the approved fire protection program as described in the Updated Final Safety Analysis Report (UFSAR) for the facility, subject to the following provision: the licensee may make changes to the approved fire protection program without prior approval of the Commission only if those changes would not adversely affect the ability to achieve and maintain safe shutdown in the event of a fire.

3. Accordingly, the license is further 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. 136, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

4. This license amendment is effective on issuance, to be implemented within 60 days of 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

Attachments:

1. Page 4 of License
2. Changes to the Technical Specifications

Date of Issuance: February 17, 1989

* Page 4 is attached, for convenience, for the composite license to reflect this change.

(3) Less Than Three Loop Operation

Duquesne Light Company shall not operate the reactor at power levels above P-7 (as defined in Table 3.3-1 of Specification 3.3.1.1 of the Technical Specifications, Appendix A) with less than three (3) reactor coolant loops in operation until safety analyses for less than three loop operation have been submitted by the licensees and approval for less than three loop operation at power levels above P-7 has been granted by the Commission by amendment of this license.

(4) Steam Generator Water Rise Rate

Except for the purpose of performing secondary side flow stability tests, Duquesne Light Company shall, whenever the secondary side water level in a steam generator is below the level of the feed-water sparger, limit the secondary side water level rise rate in each steam generator to less than 1.2 inches per minute and shall reduce the rise rate to within this limit within two (2) minutes.

For the purpose of conducting this test, the limiting condition for operation specified in Specification 3.7.1.2 of the Technical Specifications, Appendix A, shall be modified to allow power lockout of the auxiliary feedwater pumps. This condition shall be removed by amendment of this license when Duquesne Light Company demonstrates to the satisfaction of the Commission that secondary side flow instability (water hammer) does not result in unacceptable consequences.

(5) Fire Protection Program

The licensee shall implement and maintain in effect all provisions of the approved fire protection program as described in the Updated Final Safety Analysis Report (UFSAR) for the facility, subject to the following provision: the licensee may make changes to the approved fire protection program without prior approval of the Commission only if those changes would not adversely affect the ability to achieve and maintain safe shutdown in the event of a fire.

TABLE 4.3-6

REMOTE SHUTDOWN MONITORING INSTRUMENTATION
SURVEILLANCE REQUIREMENTS

<u>INSTRUMENT</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL CALIBRATION</u>
1. Intermediate Range Nuclear Flux	M	N.A.
2. Intermediate Range Startup Rate	M	N.A.
3. Source Range Nuclear Flux (1)	M (4)	N.A.
4. Source Range Startup Rate (1)	M (4)	N.A.
5. Reactor Coolant Temperature - Hot Leg	M	R
6. Reactor Coolant Temperature - Cold Leg	M	R
7. Pressurizer Pressure	M	R
8. Pressurizer Level	M	R
9. Steam Generator Pressure	M	R
10. Steam Generator Level	M	R
11. RHR Temperature - HX Outlet (3)	M (5)	R
12. Auxiliary Feedwater Flow Rate	S/U (2)	R

Notation

- (1) Operability required in accordance with Specification 3.3.1.1.
- (2) Channel check to be performed in conjunction with Surveillance Requirement 4.7.1.2.a.9 following an extended plant outage.
- (3) Operability required in accordance with Specification 3.4.1.3.
- (4) Below P-6.
- (5) Channel check to be performed in conjunction with Surveillance Requirement 4.4.1.3.1.

BEAVER VALLEY - UNIT 1

3/4 3-46 (next page is 3/4 3-49)

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.

3/4.3.3.7 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."

PLANT SYSTEMS

BASES

3/4.7.13 AUXILIARY RIVER WATER SYSTEM

The operability of the ARWS ensures that sufficient cooling capacity is available to bring the reactor to a cold shutdown condition in the event that a barge explosion at the station's intake structure or any other extremely remote event would render all of the normal RIVER WATER SYSTEM supply pumps inoperable.

ADMINISTRATIVE CONTROLS

6.2.2 UNIT STAFF

The unit organization shall be subject to the following:

- a. Each on duty shift shall be composed of at least the minimum shift crew composition shown in Table 6.2-1.
- b. At least one licensed Operator shall be in the control room when fuel is in the reactor.
- c. At least two licensed Operators shall be in the control room during reactor startup, scheduled reactor shutdown and during recovery from reactor trips.
- d. An individual qualified in radiation protection procedures shall be onsite when fuel is in the reactor.
- e. ALL CORE ALTERATIONS after the initial fuel loading shall be directly supervised by either a licensed Senior Reactor Operator or Senior Reactor Operator Limited to Fuel Handling who has no other concurrent responsibilities during this operation.
- f. Administrative procedures shall be developed and implemented to limit the working hours of unit staff who perform safety-related functions; senior reactor operators, reactor operators, radiation control technicians, auxiliary operators, meter and control repairman, and all personnel actually performing work on safety related equipment.

The objective shall be to have operating personnel work a normal 8-hour day, 40-hour week while the plant is operating. However, in the event that unforeseen problems require substantial amounts of overtime to be used, or during extended periods of shutdown for refueling, major maintenance or major plant modifications, on a temporary basis, the following guidelines shall be followed:

- a. An individual should not be permitted to work more than 16 hours straight, excluding shift turnover time.
- b. An individual should not be permitted to work more than 16 hours in any 24-hour period, nor more than 24 hours in any 48-hour period, nor more than 72 hours in any seven day period, all excluding shift turnover time.

ADMINISTRATIVE CONTROLS

6.3 FACILITY STAFF QUALIFICATIONS

6.3.1 Each member of the facility and Radiation Protection staff shall meet or exceed the minimum qualifications of ANSI N18.1-1971 for comparable positions, except for the Radiological Control Manager who shall meet or exceed the qualifications of Regulatory Guide 1.8, September 1975, and the technical advisory engineering representative who shall have a bachelor's degree or equivalent in a scientific or engineering discipline with specific training in plant design and response analysis of the plant for transients and accidents.

6.4 TRAINING

6.4.1 A retraining and replacement training program for the facility staff shall be maintained under the direction of the Nuclear Training Manager and shall meet or exceed the requirements and recommendations of Section 5.5 of ANSI N18.1-1971 and Appendix "A" of 10 CFR Part 55.

6.5 REVIEW AND AUDIT

6.5.1 ONSITE SAFETY COMMITTEE (OSC)

FUNCTION

6.5.1.1 The OSC shall function to advise the Plant Manager on all matters related to nuclear safety and shall provide review capability in the areas of:

- a. nuclear power plant operations
- b. radiological safety
- c. maintenance
- d. nuclear engineering
- e. nuclear power plant testing
- f. technical advisory engineering
- g. chemistry
- h. quality control
- i. instrumentation and control

COMPOSITION

6.5.1.2 The Plant Safety Review Director is the OSC Chairman and shall appoint all members of the OSC. The membership shall consist of a minimum of one individual from each of the areas designated in 6.5.1.1.

OSC members and alternates shall meet or exceed the minimum qualifications of ANSI N18.1-1971 Section 4.4 for comparable positions. The nuclear power plant operations individual shall meet the qualifications of Section 4.2.2 and the maintenance individual shall meet the qualifications of Section 4.2.3.

ADMINISTRATIVE CONTROLS

- a. ECCS Actuation, Specifications 3.5.2 and 3.5.3.
- b. Inoperable Seismic Monitoring Instrumentation, Specification 3.3.3.3.
- c. Inoperable Meteorological Monitoring Instrumentation, Specification 3.3.3.4.
- d. Seismic event analysis, Specification 4.3.3.3.2
- e. Sealed source leakage in excess of limits, Specification 4.7.9.1.3.
- f. Miscellaneous reporting requirements specified in the Action Statements for Radiological Effluent Technical Specifications.
- g. Containment Inspection Report, Specification 4.6.1.6.2.
- h. Steam Generator Tube Inservice Inspection Results Report, Specification 4.4.5.5.

6.10 RECORD RETENTION

- 6.10.1 The following records shall be retained for at least five (5) years:
- a. Records and logs of facility operation covering time interval at each power level.
 - b. Records and logs of principal maintenance activities, inspections, repair and replacement of principal items of equipment related to nuclear safety.
 - c. All Reportable Events.
 - d. Records of surveillance activities, inspections and calibrations required by these Technical Specifications.
 - e. Records of reactor tests and experiments.
 - f. Records of changes made to Operating Procedures.
 - g. Records of radioactive shipments.
 - h. Records of sealed source leak tests and results.
 - i. Records of annual physical inventory of all sealed source material of record.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 136 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

By letter dated November 1, 1988, revising and supplementing a previous letter dated April 7, 1987, Duquesne Light Company (the licensee, acting as agent for the above utilities) proposed that the existing license condition on fire protection be replaced with the standard condition noted in Generic Letter 86-10 and also proposed changes to the Technical Specifications (TS) for the unit. The proposed changes would remove requirements for fire detection systems, fire suppression systems, fire barriers, and fire brigade staffing requirements as recommended by Generic Letter 86-10. The proposed changes would also modify the administrative control requirements of the TS to add requirements for the fire protection program that are similar to requirements for other programs implemented by license condition. Guidance on these proposed changes to TS was provided to all power reactor licensees and applicants by Generic Letter 88-12, dated August 2, 1988.

BACKGROUND

Following the fire at the Browns Ferry Nuclear Power Plant on March 22, 1975, the Commission undertook a number of actions to ensure that improvements were implemented in the fire protection programs for all power reactor facilities. Because of the extensive modification of fire protection programs and the number of open issues resulting from staff evaluations, a number of revisions and alterations occurred in these programs over the years. Consequently, licensees were requested by Generic Letter 86-10 to incorporate the final NRC-approved fire protection program in their Final Safety Analysis Reports (FSARs). In this manner, the fire protection program -- including the systems, the administrative and technical controls, the organization, and other plant features associated with fire protection -- would have a status consistent with that of other plant features described in the FSAR. In addition, the Commission concluded that a standard license condition, requiring compliance with the provisions of the fire protection program as

described in the FSAR, should be used to ensure uniform enforcement of fire protection requirements. Finally, the Commission stated that with the requested actions, licensees may request an amendment to delete the fire protection TS that would now be unnecessary.

The licensees for the Callaway and Wolf Creek plants submitted lead-plant proposals to remove fire protection requirements from their TS. This action was an industry effort to obtain NRC guidance on an acceptable format for license amendment requests to remove fire protection requirements from plant TS.

Additionally, in the licensing review of new plants (e.g. Beaver Valley Unit 2), the staff has approved applicant requests to remove fire protection requirements from the TS issued with the operating license. Thus, on the basis of the lead-plant proposals and the staff's experience with TS for new licenses, Generic Letter 88-12 was issued to provide guidance on removing fire protection requirements from the TS.

EVALUATION

Generic Letter 86-10 recommended the removal of fire protection requirements from the TS. Although a comprehensive fire protection program is essential to plant safety, the basis for this recommendation is that many details of this program that are currently addressed in the TS can be modified without affecting nuclear safety. Such modifications can be made provided that there are suitable administrative controls over these changes. These details, that are currently included in the TS and which are removed by this amendment, do not constitute performance requirements necessary to ensure safe operation of the facility and, therefore, do not warrant being included in the TS. At the same time, suitable administrative controls ensure that there will be careful review and analysis by competent individuals of any changes in the fire protection program, including those technical and administrative requirements removed from the TS, to ensure that nuclear safety is not adversely affected. These controls include: (1) the TS administrative controls that are applicable to the fire protection program; (2) the license condition on implementation of, and subsequent changes to, the fire protection program; and (3) the 10 CFR 50.59 criteria for evaluating changes to the fire protection program as described in the Updated FSAR.

The specific details relating to fire protection requirements removed from the TS by this amendment include those specifications for fire detection systems, fire suppression systems, fire barriers, and fire brigade staffing requirements. Currently, the administrative control requirement (6.8.1.f) already includes fire protection program implementation as an element for which written procedures must be established, implemented, and maintained. In addition, the audit responsibilities of the Offsite Review Committee continue to include the review of the Fire Protection Program and implementing procedures (6.5.2.8.h).

The TS changes proposed by the licensee are in accordance with the guidance provided by Generic Letter 88-12, as addressed in the items below.

- (1) Specification 3.3.3.6, Fire Detection Instrumentation, its associated surveillance requirements, and bases were removed.
- (2) Specifications 3.7.14.1 through 3.7.14.5, Fire Suppression Systems, their associated surveillance requirements, and bases were removed.
- (3) Specification 3.7.15, Fire Barriers, and its associated surveillance requirements were removed.
- (4) Specification 6.2.2.f and 6.4.2 on fire brigade staffing requirements were removed.

As required by Generic Letter 86-10, the licensee confirmed that the NRC-approved fire protection program has been incorporated into the Updated FSAR. Also, the licensee has proposed that the existing licensing condition on the fire protection program be replaced with the standard condition noted in Generic Letter 86-10.

The licensee confirmed that the operational conditions, remedial actions, and test requirements associated with the removed fire protection TS have been included in the Fire Protection Program by incorporation into the station administrative procedures (SAP 9D, Rev. 5), which is referenced by the Updated FSAR. This is in accordance with the guidance of Generic Letter 88-12.

Currently, the administrative controls requirement (Section 6.8) already includes fire protection program implementation as an element for which written procedures must be established, implemented and maintained. The licensee's Onsite Safety Committee is currently required by Section 6.5.1.6 to be responsible for review of all procedures required by Section 6.8. The licensee's Offsite Review Committee is currently required by Section 6.5.2.8 to audit the fire protection program and associated implementing procedures. These requirements are similar to those imposed on the licensee's Facility Security Plan and Facility Emergency Plan, and are consistent with the guidance of Generic Letter 88-12.

On the basis of its review of the above items, the staff concludes that the licensee has met the guidance of Generic Letter 88-12. Therefore, the staff finds the proposed changes acceptable.

ENVIRONMENTAL CONSIDERATION

This amendment changes requirements with respect to the installation or use of facility components located within the restricted area as defined in 10 CFR Part 20, and changes 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 off-site, and that there is no significant increase in individual or cumulative occupational radiation exposure. The staff previously issued a proposal finding that this 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.

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, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: Peter S. Tam

Dated: February 17, 1989