

January 4, 1990

Docket No. 50-334

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

Dear Mr. Sieber:

SUBJECT: BEAVER VALLEY UNIT 1 - ISSUANCE OF AMENDMENT (TAC NO. 75146)

The Commission has issued the enclosed Amendment No. 149 to Facility Operating License No. DPR-66 for the Beaver Valley Power Station, Unit No. 1, in response to your application dated October 16, 1989.

The amendment revises the Technical Specifications to update the diesel generator fuel oil surveillance requirements to current standards.

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,

/s/

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. 149 to DPR-66
- 2. Safety Evaluation

cc w/enclosures:
See next page

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| NAME | :SMNorris | :PTam:lm | :JStolz | | | |
| DATE | :12/19/89 | :12/20/89 | :1/3/89 | :12/17/89 | | |

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

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Sincerely,

A handwritten signature in cursive script that reads "Peter S. Tam".

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. 149 to DPR-66
2. Safety Evaluation

cc w/enclosures:
See next page

Mr. J. Sieber
Duquesne Light Company

Beaver Valley Power Station
Units 1 & 2

cc:

Jay E. Silberg, Esquire
Shaw, Pittman, Potts and Trowbridge
2300 N Street, N.W.
Washington, DC 20037

Bureau of Radiation Protection
Pennsylvania Department of
Environmental Resources
ATTN: R. Janati
Post Office Box 2063
Harrisburg, Pennsylvania 17120

Kenny Grada, Manager
Nuclear Safety
Duquesne Light Company
P. O. Box 4
Shippingport, Pennsylvania 15077

Mayor of the Borough of
Shippingport
Post Office Box 3
Shippingport, Pennsylvania 15077

John A. Lee, Esquire
Duquesne Light Company
One Oxford Centre
301 Grant Street
Pittsburgh, Pennsylvania 15279

Ashley C. Schannauer
Assistant City Solicitor
City of Pittsburgh
313 City-County Building
Pittsburgh, Pennsylvania 15219

Commissioner Roy M. Smith
West Virginia Department of Labor
Building 3, Room 319
Capitol Complex
Charleston, WV 25305

Regional Administrator, Region I
U.S. Nuclear Regulatory Commission
475 Allendale Road
King of Prussia, Pennsylvania 19406

John D. Borrows
Director, Utilities Department
Public Utilities Commission
180 East Broad Street
Columbus, Ohio 43266-0573

Resident Inspector
U.S. Nuclear Regulatory Commission
Post Office Box 181
Shippingport, Pennsylvania 15077

Director, Pennsylvania Emergency
Management Agency
Post Office Box 3321
Harrisburg, Pennsylvania 17105-3321

DATED: January 4, 1990

AMENDMENT NO. 149 TO FACILITY OPERATING LICENSE NO. DRP-66

Docket File

NRC & Local PDR

Plant File

S. Varga (14E4)

B. Boger (14A2)

J. Stolz

S. Norris

P. Tam

OGC

D. Hagan (MNBB 3302)

E. Jordan (MNBB 3302)

G. Hill(4) (P1-137)

W. Jones (P-130A)

H. Calvo (11F23)

ACRS (10)

GPA/PA

ARM/LFMB



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. 149
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 October 16, 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.

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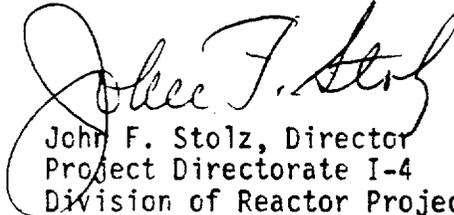
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. DPR-66 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 149, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective on 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:
Charges to the Technical
Specifications

Date of Issuance: January 4, 1990

ATTACHMENT TO LICENSE AMENDMENT NO. 149

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.

| <u>Remove</u> | <u>Insert</u> |
|---------------|---------------|
| 3/4 8-1 | 3/4 8-1 |
| 3/4 8-2 | 3/4 8-2 |
| 3/4 8-3 | 3/4 8-3 |
| 3/4 8-4 | 3/4 8-4 |
| ---- | 3/4 8-4a |
| B3/4 8-2 | B3/4 8-2 |

3/4.8 ELECTRICAL POWER SYSTEMS

3/4.8.1 A.C. SOURCES

OPERATING

LIMITING CONDITION FOR OPERATION

3.8.1.1 As a minimum, the following A.C. electrical power sources shall be OPERABLE:

- a. Two physically independent circuits between the offsite transmission network and the onsite Class 1E distribution system, and
- b. Two separate and independent diesel generators each with:
 1. Separate day and engine-mounted fuel tanks containing a minimum of 900 gallons of fuel,
 2. A separate fuel storage system containing a minimum of 17,500 gallons of fuel, and
 3. A separate fuel transfer pump.

APPLICABILITY: MODES 1,2,3 and 4.

ACTION:

- a. With either an offsite circuit or diesel generator* of the above required A.C. electrical power sources inoperable, demonstrate the OPERABILITY of the remaining A.C. sources by performing Surveillance Requirements 4.8.1.1.1.a and 4.8.1.1.2.a.5 within one hour and at least once per 8 hours thereafter; restore at least two offsite circuits and two diesel generators to OPERABLE status within 72 hours or be in COLD SHUTDOWN within the next 36 hours.
- b. With one offsite circuit and one diesel generator* of the above required A.C. electrical power sources inoperable, demonstrate the OPERABILITY of the remaining A.C. sources by performing Surveillance Requirements 4.8.1.1.1.a and 4.8.1.1.2.a.5 within one hour and at least once per 8 hours thereafter; restore at least one of the inoperable sources to OPERABLE status within 12 hours or be in COLD SHUTDOWN within the next 36 hours. Restore at least two offsite circuits and two diesel generators to OPERABLE status within 72 hours from the time of initial loss or be in COLD SHUTDOWN within the next 36 hours.

ELECTRICAL POWER SYSTEMS

ACTION (Continued)

- c. With two of the above required offsite A.C. circuits inoperable, demonstrate the OPERABILITY of two diesel generators by performing Surveillance Requirement 4.8.1.1.2.a.5 within one hour and at least once per 8 hours thereafter, unless the diesel generators are already operating; restore at least one of the inoperable offsite sources to OPERABLE status within 24 hours or be in at least HOT STANDBY within the next 4 hours. With only one offsite source restored, restore at least two offsite circuits to OPERABLE status within 72 hours from time of initial loss or be in COLD SHUTDOWN within the next 36 hours.
- d. With two of the above required diesel generators* inoperable, demonstrate the OPERABILITY of two offsite A.C. circuits by performing Surveillance Requirement 4.8.1.1.1.a within one hour and at least once per 8 hours thereafter; restore at least one of the inoperable diesel generators to OPERABLE status within 2 hours or be in COLD SHUTDOWN within the next 36 hours. Restore at least two diesel generators to OPERABLE status within 72 hours from time of initial loss or be in COLD SHUTDOWN within the next 36 hours.

SURVEILLANCE REQUIREMENTS

4.8.1.1.1 Two physically independent circuits between the offsite transmission network and the onsite Class 1E distribution system shall be:

- a. Determined OPERABLE at least once per 7 days by verifying correct breaker alignments, indicated power availability, and
- b. Demonstrated OPERABLE at least once per 18 months by transferring (manually and automatically) unit power supply from the unit circuit to the system circuit.

4.8.1.1.2 Each diesel generator shall be demonstrated OPERABLE:

- a. At least once per 31 days on a STAGGERED TEST BASIS by:
 - 1. Verifying the fuel level in the day and engine-mounted fuel tank,
 - 2. Verifying the fuel level in the fuel storage tank,

* Fuel oil contained in the storage tanks not meeting the properties in accordance with 4.8.1.1.2.d.2 or 4.8.1.1.2.e shall be brought within the specified limits within 7 days.

ELECTRICAL POWER SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

3. (Deleted)
 4. Verifying the fuel transfer pump can be started and transfers fuel from the storage system to the day and engine-mounted tank,
 5. Verifying the diesel starts from ambient condition,
 6. Verifying the generator is synchronized, loaded to ≥ 1425 kw, and operates for ≥ 60 minutes, and
 7. Verifying the diesel generator is aligned to provide standby power to the associated emergency busses.
- b. At least once per 18 months during shutdown by:
1. Subjecting the diesel to an inspection in accordance with procedures prepared in conjunction with its manufacturer's recommendations for this class of standby service,
 2. Verifying the generator capability to reject a load of ≥ 450 kw without tripping,
 3. Simulating a loss of offsite power in conjunction with a safety injection signal, and:
 - a) Verifying de-energization of the emergency busses and load shedding from the emergency busses.
 - b) Verifying the diesel starts from ambient condition on the auto-start signal, energizes the emergency busses with permanently connected loads, energizes the auto-connected emergency loads through the load sequencer and operates for ≥ 5 minutes while its generator is loaded with the emergency loads.
 4. Verifying that on a loss of power to the emergency busses, all diesel generator trips, except engine overspeed, generator differential and overcurrent, are automatically disabled.

ELECTRICAL POWER SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

5. Verifying the diesel generator operates for ≥ 60 minutes while loaded to ≥ 2750 kw.
 6. Verifying that the auto-connected loads to each diesel generator do not exceed the 2000 hour rating of 2850 kw.
 7. Verifying that the automatic load sequence timer is OPERABLE with each load sequence time within $\pm 10\%$ of its required value.
- c. Check for and remove accumulated water:
1. From the day tank, at least once per 31 days and after each operation of the diesel where the period of operation was greater than 1 hour, and
 2. From the fuel oil storage tank, at least once per 92 days.
- d. By sampling new fuel oil in accordance with ASTM D4057-81 prior to addition to the storage tanks and:
1. By verifying in accordance with the tests specified in ASTM D975-81 prior to addition to the storage tanks that the sample has:
 - a) An API Gravity of within 0.3 degrees at 60°F or a specific gravity of within 0.0016 at 60/60°F, when compared to the supplier's certificate or an absolute specific gravity at 60/60°F of greater than or equal to 0.83 but less than or equal to 0.89 or an API gravity at 60°F of greater than or equal to 27 degrees but less than or equal to 39 degrees,
 - b) A kinematic viscosity at 40°C of greater than or equal to 1.9 centistokes, but less than or equal to 4.1 centistokes, if gravity was not determined by comparison with the supplier's certification,
 - c) A flash point equal to or greater than 125°F, and
 - d) A clear and bright appearance with proper color when tested in accordance with ASTM D4176-82.

ELECTRICAL POWER SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

2. By verifying within 31 days of obtaining the sample that the other properties specified in Table 1 of ASTM D975-81 are met when tested in accordance with ASTM D975-81 except that the analysis for sulfur may be performed in accordance with ASTM D1552-79 or ASTM D2622-82.
- e) At least once every 31 days by obtaining a sample of fuel oil from the storage tanks and day tanks in accordance with ASTM D2276-78, and verifying that total particulate contamination is less than 10 mg/liter when checked in accordance with ASTM D2276-78, Method A.

ELECTRIC POWER SYSTEMS

BASES

A.C. SOURCES, D.C. SOURCES AND ONSITE POWER DISTRIBUTION SYSTEMS
(Continued)

Operation with a battery cell's parameter outside the normal limit but within the allowable value specified in Table 3.8-1 is permitted for up to 7 days. During this 7 day period: (1) the allowable values for electrolyte level ensures no physical damage to the plates with an adequate electron transfer capability; (2) the allowable value for the average specific gravity of all the cells, not more than .020 below the manufacturer's recommended full charge specific gravity, ensures that the decrease in rating will be less than the safety margin provided in sizing; (3) the allowable value for an individual cell's specific gravity, ensures that an individual cell's specific gravity will not be more than .040 below the manufacturer's full charge specific gravity and that the overall capability of the battery will be maintained within an acceptable limit; and (4) the allowable value for an individual cell's float voltage, greater than 2.07 volts, ensures the battery's capability to perform its design function.

Note * provides clarification of specification 3.8.1.1 action requirements when the diesel generators are inoperable as a result of surveillance requirements 4.8.1.1.2.d.2 and 4.8.1.1.2.e in accordance with Regulatory Guide 1.137 Revision 1 Regulatory Position C.2.a.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 149 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 October 16, 1989, Duquesne Light Company (the licensee, acting as agent for the above utilities) submitted a request to modify certain existing technical specifications, and adding additional specifications on diesel generator fuel oil. All of these changes would render Unit 1's specifications the same as Unit 2's, issued under Amendment No. 22.

2.0 DISCUSSION AND EVALUATION

The proposed amendment would modify the diesel generator fuel oil surveillance requirements to reflect the current Standard Technical Specifications for Westinghouse Reactors (WSTS). The following changes are made:

(1) Specification 3.8.1.1.a,b,d and Associated Bases

A footnote * is added to clarify the allowable duration (7 days) when the diesel generators are considered inoperable per specification 4.8.1.1.2.d.2 and 4.8.1.1.2.e. These surveillance requirements verify the quality of the fuel oil in the storage tanks on a periodic basis and in accordance with Regulatory Guide 1.137, Position C.2.a, the fuel oil may for a short period of time (about a week), be allowed not to meet the specification requirements. The intent of the surveillance requirements is to ensure the fuel oil satisfies the quality specifications; therefore, note * has been written to allow up to 7 days to correct the out-of-specification condition. These changes are acceptable due to their compliance with Regulatory Guide 1.137.

(2) Specification 4.8.1.1.2.a.3

This specification is deleted. The fuel oil sample verification requirements are now satisfied by the revised specifications 4.8.1.1.2.d and e (see below). The deletion is thus acceptable.

(3) Specification 4.8.1.1.2.c

This specification has been added to require periodic removal of accumulated water from the day tank and the fuel oil storage tank. This new surveillance

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requirement is identical to the current Unit 2 requirement, consistent with our current position expressed in the WSTS, and complies with Position C.2.d of Regulatory Guide 1.137, "Fuel Oil Systems for Standby Diesel Generators." This new specification will help to enhance diesel generator operability and is acceptable.

(4) Specification 4.8.1.1.2.d

The licensee proposed to add a new specification 4.8.1.1.2.d in compliance with the corresponding WSTS requirements. The new requirements specify tests to be applied to new fuel oil, i.e., API gravity test, kinematic viscosity, flash point and visual appearance. The acceptance criteria and procedures (ASTM documents) are also specified.

The new specification 4.8.1.1.2.d is identical to the WSTS as expressed in the McGuire TS. The requirements, previously non-existent, will help to enhance diesel generator operability, and are identical to those already existing in the Unit 2 TS. We find these changes acceptable.

(5) Specification 4.8.1.1.2.e

This is newly added to require sampling the fuel oil in the storage tanks and day tanks at least every 31 days, and verifying the total particulate contamination be less than 10 mg/liter. This will be performed in accordance with ASTM D2276-78 Method A which provides an accurate test method for indication of fuel oil impurity. This new requirement will help to enhance diesel generator operability, and is identical to the current Unit 2 TS. We find this change acceptable.

3.0 ENVIRONMENTAL CONSIDERATION

This amendment changes surveillance requirements. We have 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. We have previously issued a proposed finding that this amendment involves no significant hazards consideration and there has been no public comment on such finding. 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.

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 (3) 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: January 4, 1990

Principal Contributor:

Peter S. Tam