January 4, 1985

Docket No. 50-334

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Mr. J. J. Carey, Vice President
Nuclear Division
Duquesne Light Company
Post Office Box 4
Shippingport, PA 15077

Dear Mr. Carey:

SUBJECT: ISSUANCE OF AMENDMENT (LICENSING ACITON TAC 55105)

The Commission has issued the enclosed Amendment No. 89 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 May 21, 1984. Minor changes have been made to the change pages you submitted; these have been discussed with and agreed to by Mr. K. Grada of your staff during phone conversations in November 1984. Other issues covered by your letter are addressed by separate amendments.

The amendment changes the Technical Specifications for Beaver Valley Unit No. 1 to revise miscellaneous fire protection specifications and their bases.

A copy of the related Safety Evaluation is enclosed. The Notice of Issuance will be included in the Commission's next regular monthly Federal Register notice.

Sincerely,

/s/PSTam

Peter S. Tam, Project Manager
Operating Reactors Branch No. 1
Division of Licensing

Enclosures:
1. Amendments No. 89 to DPR-66
2. Safety Evaluation

cc w/enclosures:
See next page

ORB#1:DL	ORB#1:DL	BC-ORB#1:DL	OELD	AD:OR:DL
CParrish	PTam	SVarga		GLainas
12/20/84	12/27/84	12/27/84	12/27/84	1/3/85

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. 89
License No. DPR-66

1. The Nuclear Regulatory Commission (the Commission) has found that:

   A. The application for amendment by Duquesne Light Company, Ohio Edison Company, and Pennsylvania Power Company (the licensees) dated May 21, 1984, 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 Appendices A and B, as revised through Amendment No. 89 , 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 within 30 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Steven A. Varga, Chief
Operating Reactors Branch #1
Division of Licensing

Attachment:
Changes to the Technical Specifications

Date of Issuance: January 4, 1985

ATTACHMENT TO LICENSE AMENDMENT

AMENDMENT NO. 89 TO FACILITY OPERATING LICENSE NO. DPR-66

DOCKET NO. 50-334

Revise Appendix A as follows:

Remove Pages	Insert Pages
3/4 7-39	3/4 7-39
3/4 7-40	3/4 7-40
3/4 7-42	3/4 7-42
3/4 7-43	3/4 7-43
3/4 7-44	3/4 7-44
3/4 7-45	3/4 7-45
B 3/4 7-7	B 3/4 7-7

SPRAY AND/OR SPRINKLER SYSTEMS

LIMITING CONDITION FOR OPERATION

3.7.14.2 The following spray and/or sprinkler systems shall be OPERABLE:

a. Containment (RHR Area)*

b. Containment (Cable Penetration Area)*

c. Auxiliary Feedwater Pump Area**

d. CCR Pump Area

e. Main Filter Bank

APPLICABILITY: Whenever equipment protected by the spray/sprinkler system is required to be OPERABLE.

ACTION:

a. With one or more of the above required spray and/or sprinkler systems inoperable, within one hour establish a roving fire watch with backup fire suppression equipment for those areas in which redundant systems or components could be damaged such that the area is checked hourly when the system has to be operable. Restore the system to OPERABLE status within 14 days or prepare and submit a Special Report to the Commission pursuant to Specification 6.9.2 within the next 30 days outlining the action taken, the cause of the inoperability and the plans and schedule for restoring the system to OPERABLE status.

b. The provisions of Specification 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.7.14.2 Each of the above required spray and/or sprinkler systems shall be demonstrated OPERABLE:

a. At least once per 31 days by verifying that each valve (manual, power operated, or automatic in the flow path accessible during plant operation is in its correct position.

b. At least once per 12 months by cycling each testable valve in the flow path through at least one complete cycle of full travel.

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* With a containment area sprinkler system inoperable check this area during scheduled containment entries in modes 1-4 and once per shift in modes 5 and 6.

** Until such time as the backup auxiliary Feedwater Pump is operable, establish a continuous firewatch whenever an auxiliary feedwater pump area sprinkler system is inoperable.

SURVEILLANCE REQUIREMENTS (continued)

c. At least once per 18 months:

1. By performing a system functional test which includes simulated automatic actuation of the system, and:

a) Verifying that the automatic valves in the flow path actuate to their correct positions on a manual test signal, and

b) Cycling each valve in the flow path that is not testable during plant operation through at least one complete cycle of full travel.

2. By a visual inspection of the dry pipe spray and sprinkler headers to verify their integrity, and

3. By a visual inspection of each nozzle's spray area to verify the spray pattern is not obstructed.

d. At least once per 3 years by performing an air flow test through each open head spray/sprinkler header and verifying each open head spray/sprinkler nozzle is unobstructed.

Note: The only open head spray/sprinkler nozzles are those associated with the Main Filter Banks, and the cable penetration area in containment.

FIRE HOSE STATIONS

LIMITING CONDITION FOR OPERATION

3.7.14.4 The fire hose stations in the following locations shall be OPERABLE.

a. Primary Auxiliary Building
b. Fuel Building
c. Intake Structure
d. Service Building (Safety Related Areas)
e. Safeguards Building (Pipe Tunnel Areas)
f. Containment

APPLICABILITY: Whenever equipment in the areas protected by the fire hose stations is required to be OPERABLE.

ACTION:

a. With one or more of the above fire hose stations inoperable, route an additional equivalent capacity fire hose to the unprotected area(s) from an OPERABLE hose station within 1 hour (4 hours for containment hose stations) if the inoperable fire hose is the primary means of fire suppression; otherwise, route the additional hose within 24 hours. Restore the fire hose station to OPERABLE status within 14 days or submit a Special Report to the Commission pursuant to Specification 6.9.2 within the next 30 days, outlining the action taken, the cause of the inoperability, and plans and schedule for restoring the station to OPERABLE status.

b. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.7.14.4 Each of the above fire hose stations shall be demonstrated OPERABLE:

a. At least once per 31 days by a visual inspection of the fire hose stations accessible during plant operations to assure all required equipment is at the station.

b. At least once per 18 months by:

1. Visual inspection of the stations not accessible during plant operations to assure all required equipment is at the station,

2. Removing the hose for inspection and re-racking, and

3. Inspecting all gaskets and replacing any degraded gaskets in the couplings.

c. At least once per 3 years by:

1. Partially opening each hose station valve to verify valve OPERABILITY and no flow blockage.

2. Conducting a hose hydrostatic test at a pressure at least 50 psig above maximum fire main operating pressure.

HALON SYSTEMS

LIMITING CONDITION FOR OPERATION

3.7.14.5 The following Halon systems shall be OPERABLE.

a. Process Equipment Area Zone 1

b. Process Equipment Area Zone 2

c. Cable Tunnel (CV-3)

APPLICABILITY: Whenever equipment protected by the Halon system is required to be OPERABLE.

ACTION:

a. With one or more of the above required Halon systems inoperable, within 1 hour establish a continuous fire watch with backup fire suppression equipment for those areas in which redundant systems or components could be damaged. Restore the system to OPERABLE status within 14 days or prepare and submit a Special Report to the Commission pursuant to Specification 6.9.2 within the next 30 days outlining the action taken, the cause of the inoperability and the plans and schedule for restoring the system to OPERABLE status.

b. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.7.14.5 Each of the above required Halon systems shall be demonstrated OPERABLE:

a. At least once per 31 days by verifying that each valve (manual, power operated, or automatic) in the flow path is in its correct position.

b. At least once per 6 months by verifying Halon storage tank weight to be at least 95% of full charge weight (or level) and pressure to be at least 90% of full charge pressure.

c. At least once per 18 months by:

1. Verifying the system, including the associated ventilation dampers and fire door release mechanisms, actuate manually and automatically upon receipt of a simulated actuation signal.

2. Visually inspect each header and nozzle to verify their integrity.

d. At lease once per 36 months by performance of a flow test through headers and nozzles to assure no blockage.

3/4.7.15 FIRE RATED ASSEMBLIES

LIMITING CONDITION FOR OPERATION

3.7.15 All fire rated assemblies (walls, floor/ceilings, cable tray enclosures and other fire barriers) separating safety related fire areas or separating portions of redundant systems important to safe shutdown within a fire area and all sealing devices in fire rated assembly penetrations (fire doors, fire windows, fire dampers, cable and piping penetration seals and ventilation seals) shall be OPERABLE.

APPLICABILITY: At all times.

ACTION:

a. With one or more of the above required fire rated assemblies and/or sealing devices inoperable, within one hour either establish a continuous fire watch on at least one side of the affected assembly, or verify the OPERABILITY of fire detectors on at least one side of the inoperable assembly and establish an hourly fire watch patrol until the functional capability of the barrier is restored. Restore the inoperable fire rated assembly and sealing device to OPERABLE status within 7 days, or prepare and submit a Special Report to the Commission pursuant to Specification 6.9.2 within the next 30 days outlining the action taken, the cause of inoperability and the plans and schedule for restoring to OPERABLE status.

b. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.7.15.1 At least once per 18 months the above required fire rated assemblies and penetration sealing devices shall be verified OPERABLE by:

a. Performing a visual inspection of the exposed surfaces of each fire rated assemblies.

b. Performing a visual inspection of each fire window/fire damper/ and associated hardware.

c. Performing a visual inspection of at least 10 percent of each type of sealed penetration. If apparent changes in appearance or abnormal degradations are found, a visual inspection of an additional 10 percent of each type of sealed penetration shall be made. This inspection process shall continue until a 10 percent sample with no apparent changes in appearance or abnormal degradation is found.

SURVEILLANCE REQUIREMENTS (Continued)

4.7.15.2 Each of the above required fire doors * shall be verified OPERABLE by inspecting the automatic holdopen, release and closing mechanism and latches at least once per 6 months, and by verifying:

a. The position of each closed Fire door at least once per 24 hours.

b. That doors with automatic holdopen and release mechanisms are free of obstructions at least once per 24 hours.

* Security alarm fire doors are not included in the above surveillance requirements, since they are checked per security requirements.

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.

3/4.7.14 FIRE SUPPRESSION SYSTEMS

The OPERABILITY of the fire suppression systems ensures that adequate fire suppression capability is available to confine and extinquish fires occurring in any portion of the facility where safety-related equipment is located. The fire suppression system consists of the water system, spray and/or sprinklers, CO_2, Halon and fire hose stations. The collective capability of the fire suppression systems is adequate to minimize potential damage to safety-related equipment and is a major element in the facility fire protection program.

In the event that portions of the fire suppression systems are inoperable, alternate backup fire-fighting equipment is required to be made available in the affected areas until the inoperable equipment is restored to service. When the inoperable fire-fighting equipment is intended for use as a backup means of fire suppression, a longer period of time is allowed to provide an alternate means of fire fighting than if the inoperable equipment is the primary means of fire suppression.

The surveillance requirements provide assurance that the minimum OPERABILITY requirements of the fire suppression systems are met. An allowance is made for ensuring a sufficient volume of Halon in the Halon storage tanks by verifying either the weight or the level of the tanks. The halon systems are indoor, underfloor cable area systems not susceptible to outdoor weather conditions. The systems are dry pipe (rust is not expected) gas suppression systems.

In the event the fire suppression water system becomes inoperable, immediate corrective measures must be taken since this system provides the major fire suppression capability of the plant. The requirement for a twenty-four hour report to the Commission provides for prompt evaluation of the acceptability of the corrective measures to provide adequate fire suppression capability for the continued protection of the nuclear plant.

3/4.7.15 FIRE RATED ASSEMBLIES

The OPERABILITY of the fire barriers and barrier penetrations ensure that fire damage will be limited. These design features minimize the possibility of a single fire involving more than one fire area prior to detection and extinguishment. The fire barriers, fire barrier penetrations for conduits, cable trays and piping, fire windows, fire dampers, and fire doors are periodically inspected to verify their operability.

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 89 TO FACILITY OPERATING LICENSING NO. DPR-66

DUQUESNE LIGHT COMPANY

OHIO EDISON COMPANY

PENNSYLVANIA POWER COMPANY

BEAVER VALLEY POWER STATION, UNIT NO. 1

DOCKET NO. 50-334

INTRODUCTION

To comply with 10 CFR 50 Appendix R and Branch Technical Position 9.5-1, Duquesne Light Company (the licensee) has installed additional sprinkler systems, hose stations and halon systems. In order to identify the conditions for the operability of these systems, provide compensatory measures in the event any of these systems are not available and to assure and verify system operability, the licensee proposed to revise the relevant fire protection technical specifications (TS) to include these new systems.

By letter dated May 21, 1984, the licensee proposed changes to the various fire suppression system TS and Bases set forth in Appendix A to the license. This safety evaluation is for these TS changes. No additional physical changes to the facility or equipment will be made as a result of these proposed TS changes. The proposed changes either update and clarify the existing specifications or add additional requirements that generally enhance the effectiveness of the Technical Specifications.

EVALUATION AND DISCUSSION

The staff reviewed the licensee's proposed TS changes against the Standard Technical Specifications (NUREG-0452) and identified areas in the proposed changes to the TS that required additional information. The staff conferred with the licensee to resolve the staff's concerns and the licensee agreed to incorporate the staff's comments into the proposed changes.

The licensee also proposed to revise the Penetration Fire Barrier TS to include all fire barrier components such as fire doors, fire dampers, cable tray enclosures, walls, floors, etc. This change defines fire barrier components and features, and is in conformance with the Appendix R requirements.

The licensee's proposed revision of the Fire Protection System TS also updates the Action Statement and Surveillance Requirements to be in conformance with the Standard Technical Specifications.

The following paragraphs provide specific staff evaluation comments regarding the proposed changes.

A. Spray and/or Sprinkler Systems TS

The proposed changes to the spray systems TS include the incorporation of four additional spray systems into the TS, revision of the Action Statement and the Surveillance Requirements.

The incorporation into the TS of the four additional spray systems, Containment-RHR area, Containment-Cable Penetration area, Auxiliary Feedwater Pump area and CCR Pump area will add conservatism and improve the overall Fire Protection Program.

The revision of the Surveillance Requirements will likewise improve the Fire Protection Program, since the proposed changes will result in more restrictive and conservative surveillance requirements.

Since the proposed administrative changes are an improvement to the Fire Protection Program and also closely reflect the requirement of the Standard Technical Specifications, the staff finds this change to be acceptable.

B. Fire Hose Station TS

The changes to the Fire Hose Station TS include the incorporation into the TS all hose stations in the Service Building safety related areas, the Safeguards Building pipe tunnel areas and the containment. Also, the Action Statement and Surveillance Requirement are revised to conform to and reflect the requirements of the Standard Technical Specification.

The incorporation into the TS of the hose stations in the areas listed above is an improvement to the overall fire protection program since it expands the scope of the TS and thus adds conservatism. The revision to the Action Statement adds not only clarity to the TS but also imposes additional requirements to restore the operability of the fire hose stations within a specified time or take other appropriate action. These actions contribute to the improvement of the hose station systems in particular and contribute to the improvement of the Fire Protection Program in general. The staff's evaluation finds the proposed revision to the Surveillance Requirements to be an improvement to the hose station systems since the proposed changes will result in more restrictive and conservative requirements. Since the proposed administrative changes generally constitute an improvement to the fire protection program and are in conformance with the Standard Technical Specification the staff finds this change to be acceptable.

C. Halon Systems TS

By this revision the licensee proposes to add a halon system TS. The staff finds that the addition of TS to the halon system improves the fire protection of the areas protected by these systems, since it imposes operability requirements to test the systems and compensatory measures in the event any of the Halon Systems are determined inoperable.

The staff finds that the proposed halon system TS is in conformance with the Standard Technical Specification and therefore is acceptable.

D. Fire Rated Assemblies TS

The change to the referenced specification includes the re-titling of this section from "Penetration Fire Barriers" to "Fire Rated Assemblies". The change further expands and clarifies the scope of the TS with regards to fire barriers to include all components that comprise the fire barrier such as fire doors, fire dampers, cable tray enclosures, penetration seals, etc. The TS Action Statement and Surveillance Requirements were revised to reflect this expanded scope. The staff finds that the expanded TS scope adds clarity and imposes additional requirements to ensure integrity of the entire fire barriers, not just the penetration seals. Since the proposed administrative changes constitute an improvement to the Fire Protection Program and also reflects the guidance of the Standard Technical Specifications, the staff finds this change to be acceptable.

Based upon the review summarized herein, the staff concludes that these TS changes are acceptable.

Environmental Consideration

This amendment involves a change in the administrative procedure and requirements. Accordingly, this amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR Section 51.22(c)(10). 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.

Date: January 4, 1985

Principal Contributor:
Aristides A. Krasopoulos