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Docket No. 50-334

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Mr. C. N. Dunn, Vice President
Operations Division
Duquesne Light Company
435 Sixth Avenue
Pittsburgh, Pennsylvania 15219

Dear Mr. Dunn:

The Commission has issued the enclosed Amendment No. 19 to Facility Operating License No. DPR-66 for the Beaver Valley Nuclear Power Station, Unit No. 1. The amendment consists of changes to the Technical Specifications in response to your application transmitted by letter dated June 26, 1979.

The amendment revises the Technical Specifications and requires actuation of safety injection based on two out of three channels of low pressurizer pressure.

Copies of the related Safety Evaluation and the Notice of Issuance are also enclosed.

Sincerely,

A. Schwencer, Chief
Operating Reactors Branch #1
Division of Operating Reactors

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Enclosures:
1. Amendment No. 19 to DPR-66
2. Safety Evaluation
3. Notice of Issuance

cc: w/enclosures
See next page

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

July 17, 1979

Docket No. 50-334

Mr. C. N. Dunn, Vice President
Operations Division
Duquesne Light Company
435 Sixth Avenue
Pittsburgh, Pennsylvania 15219

Dear Mr. Dunn:

The Commission has issued the enclosed Amendment No. 19 to Facility Operating License No. DPR-66 for the Beaver Valley Nuclear Power Station, Unit No. 1. The amendment consists of changes to the Technical Specifications in response to your application transmitted by letter dated June 26, 1979.

The amendment revises the Technical Specifications and requires actuation of safety injection based on two out of three channels of low pressurizer pressure.

Copies of the related Safety Evaluation and the Notice of Issuance are also enclosed.

Sincerely,

for C M Trammell
A. Schwencer, Chief
Operating Reactors Branch #1
Division of Operating Reactors

Enclosures:
1. Amendment No. 19 to DPR-66
2. Safety Evaluation
3. Notice of Issuance

cc: w/enclosures
See next page

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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. 19
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 June 26, 1979, 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. 19 , 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

for C M Trammell

A. Schwencer, Chief
Operating Reactors Branch #1
Division of Operating Reactors

Attachment:
Changes to the Technical
Specifications

Date of Issuance: July 17, 1979

ATTACHMENT TO LICENSE AMENDMENT NO. 19

FACILITY OPERATING LICENSE NO. DPR-66

DOCKET NO. 50-334

Replace the following pages of the Appendix "A" Technical Specifications with the enclosed pages. The revised pages are identified by Amendment number and contain vertical lines indicating the area of change. The corresponding overleaf pages are also provided to maintain document completeness.

Pages

3/4 3-15
3/4 3-21
3/4 3-22
3/4 3-26
3/4 3-29

TABLE 3.3-3

ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION

FUNCTIONAL UNIT	TOTAL NO. OF CHANNELS	CHANNELS TO TRIP	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ACTION
1. SAFETY INJECTION AND FEEDWATER ISOLATION					
a. Manual Initiation	2	1	2	1, 2, 3, 4	18
b. Automatic Actuation Logic	2	1	2	1, 2, 3, 4	13
c. Containment Pressure-High	3	2	2	1, 2, 3	14
d. Pressurizer Pressure - Low	3	2	2	1, 2, 3#	14
				1, 2, 3##	
e. Differential Pressure Between Steam Lines - High					
Three Loops Operating	3/steam line	2/steam line twice and 1/3 steam lines	2/steam line		14
Two Loops Operating	3/operating steam line	2[###]/steam line twice in either operating steam line	2/operating steam line		15

TABLE 3.3-3 (Continued)

ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION

FUNCTIONAL UNIT	TOTAL NO. OF CHANNELS	CHANNELS TO TRIP	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ACTION
f. Steam Flow in Two Steam Lines-High				1, 2, 3##	
Three Loops Operating	2/steam line	1/steam line any 2 steam lines	1/steam line		14
Two Loops Operating	2/operating steam	1###/any operating steam line	1/operating steam line		15
COINCIDENT WITH EITHER					
T_{avg}--Low-Low				1, 2, 3##	
Three Loops Operating	1 T_{avg}/loop	2 T_{avg} any loops	1 T_{avg} any 2 loops		14
Two Loops Operating	1 T_{avg}/ operating loop	1### T_{avg} in any operating loop	1 T_{avg} in any operating loop		15
OR, COINCIDENT WITH					
Steam Line Pressure-Low				1, 2, 3##	
Three Loops Operating	1 pressure/ loop	2 pressures any loops	1 pressure any 2 loops		14
Two Loops Operating	1 pressure/ loop	1### pressure in any operating loop	1 pressure any operating loop		15

b. Above P-11 or P-12, demonstrate that the Minimum Channels OPERABLE requirement is met within 1 hour; operation may continue with the inoperable channel bypassed and one additional channel may be bypassed for up to 2 hours for surveillance testing per Specification 4.3.2.1.

ACTION 17 - With less than the Minimum Channels OPERABLE, operation may continue provided the containment purge and exhaust valves are maintained closed.

ACTION 18 - With the number of OPERABLE Channels one less than the Total Number of Channels, restore the inoperable channel to OPERABLE status within 48 hours or be in at least HOT STANDBY within the next 6 hours and COLD SHUTDOWN within the following 30 hours.

ENGINEERED SAFETY FEATURES INTERLOCKS

DESIGNATION	CONDITION AND SETPOINT	FUNCTION
P-11	With 2 of 3 pressurizer pressure channels > 2010 psig.	P-11 prevents or defeats the manual block of safety injection actuation on low pressurizer pressure.
P-12	With 2 of 3 T_{avg} channels > 545°F.	P-12 prevents or defeats the manual block of safety injection actuation on high steam line flow and low steam line pressure.
	With 2 of 3 T_{avg} channels < 541°F.	Allows manual block of safety injection actuation on high steam line flow and low steam line pressure. Causes steam line isolation on high steam flow. Affects steam dump blocks.

TABLE 3.3-4

ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION TRIP SETPOINTS

FUNCTIONAL UNIT	TRIP SETPOINT	ALLOWABLE VALUES
1. SAFETY INJECTION, TURBINE TRIP AND FEEDWATER ISOLATION		
a. Manual Initiation	Not Applicable	Not Applicable
b. Automatic Actuation Logic	Not Applicable	Not Applicable
c. Containment Pressure--High	$\leq$ 1.5 psig	$\leq$ 2.0 psig
d. Pressurizer Pressure--Low	$\geq$ 1845 psig	$\geq$ 1835 psig
e. Differential Pressure Between Steam Lines--High	$\leq$ 100 psi	$\leq$ 112 psi
f. Steam Flow in Two Steam Lines--High Coincident with T_{avg}--Low-Low or Steam Line Pressure--Low	$\leq$ A function defined as follows: A Δp corresponding to 40% of full steam flow between 0% and 20% load and then a Δp increasing linearly to a Δp corresponding to 110% of full steam flow at full load $T_{avg} \geq 543°F$ $\geq$ 500 psig steam line pressure	$\leq$ A function defined as follows: A Δp corresponding to 44% of full steam flow between 0% and 20% load and then a Δp increasing linearly to a Δp corresponding to 111.5% of full steam flow at full load $T_{avg} \geq 541°F$ $\geq$ 480 psig steam line pressure

TABLE 3.3-5

ENGINEERED SAFETY FEATURES RESPONSE TIMES

INITIATING SIGNAL AND FUNCTION	RESPONSE TIME IN SECONDS
1. Manual	
a. Safety Injection (ECCS)	Not Applicable
Feedwater Isolation	Not Applicable
Reactor Trip (SI)	Not Applicable
Containment Isolation-Phase "A"	Not Applicable
Containment Vent and Purge Isolation	Not Applicable
Auxiliary Feedwater Pumps	Not Applicable
R_X Plant River Water System	Not Applicable
b. Containment Quench Spray Pumps	Not Applicable
Containment Quench Spray Valves	Not Applicable
Containment Isolation-Phase "B"	Not Applicable
c. Containment Isolation-Phase "A"	Not Applicable
d. Control Room Ventilation Isolation	Not Applicable
2. Containment Pressure-High	
a. Safety Injection (ECCS)	$\leq$ 27.0*
b. Reactor Trip (from SI)	$\leq$ 3.0
c. Feedwater Isolation	$\leq$ 75.0(1)
d. Containment Isolation-Phase "A"	$\leq$ 22.0#/33.0##
e. Auxiliary Feedwater Pumps	Not Applicable
f. R_X Plant River Water System	$\leq$ 77.0#/110.0##

TABLE 3.3-5 (Continued)

ENGINEERED SAFETY FEATURES RESPONSE TIMES

INITIATING SIGNAL AND FUNCTION	RESPONSE TIME IN SECONDS
3. Pressurizer Pressure-Low	
a. Safety Injection (ECCS)	$\leq$ 27.0*/13.0#
b. Reactor Trip (from SI)	$\leq$ 3.0
c. Feedwater Isolation	$\leq$ 75.0(1)
d. Containment Isolation-Phase "A"	$\leq$ 22.0#
e. Auxiliary Feedwater Pumps	Not Applicable
f. R_x Plant River Water System	$\leq$ 77.0#/110.0##
4. Differential Pressure Between Steam Lines-High	
a. Safety Injection (ECCS)	$\leq$ 13.0#/23.0##
b. Reactor Trip (from SI)	$\leq$ 3.0
c. Feedwater Isolation	$\leq$ 75.0(1)
d. Containment Isolation-Phase "A"	$\leq$ 22.0#/33.0##
e. Auxiliary Feedwater Pumps	Not Applicable
f. R_x Plant River Water System	$\leq$ 77.0#/110.0##
5. Steam Flow in Two Steam Lines - High Coincident with T_{avg}--Low-Low	
a. Safety Injection (ECCS)	$\leq$ 15.0#/25.0##
b. Reactor Trip (from SI)	$\leq$ 5.0
c. Feedwater Isolation	$\leq$ 77.0(1)
d. Containment Isolation-Phase "A"	$\leq$ 22.0#/33.0##
e. Auxiliary Feedwater Pumps	Not Applicable
f. R_x Plant River Water System	$\leq$ 77.0#/110.0##
g. Steam Line Isolation	$\leq$ 10.0

TABLE 4.3-2

ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION
SURVEILLANCE REQUIREMENTS

FUNCTIONAL UNIT	CHANNEL CHECK	CHANNEL CALIBRATION	CHANNEL FUNCTIONAL TEST	MODES IN WHICH SURVEILLANCE REQUIRED
1. SAFETY INJECTION AND FEEDWATER ISOLATION				
a. Manual Initiation	N.A.	N.A.	M(1)	1, 2, 3, 4
b. Automatic Actuation Logic	N.A.	N.A.	M(2)	1, 2, 3, 4
c. Containment Pressure-High	S	R	M(3)	1, 2. 3
d. Pressurizer Pressure--Low	S	R	M	1, 2, 3
e. Differential Pressure Between Steam Lines--High	S	R	M	1, 2, 3
f. Steam Flow in Two Steam Lines--High Coincident with T_{avg}--Low-Low or Steam Line Pressure--Low	S	R	M	1, 2, 3

TABLE 4.3-2 (Continued)

ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION
SURVEILLANCE REQUIREMENTS

FUNCTIONAL UNIT	CHANNEL CHECK	CHANNEL CALIBRATION	CHANNEL FUNCTIONAL TEST	MODES IN WHICH SURVEILLANCE REQUIRED
1.1. SAFETY INJECTION-TRANSFER FROM INJECTION TO THE RE-RECIRCULATION MODE				
a. Manual Initation	N.A.	N.A.	M (1)	1, 2, 3, 4
b. Automatic Actuation Logic Coincident with Safety Injection Signal	N.A.	N.A.	M (2)	1, 2, 3
c. Refueling Water Storage Tank Level-Low	S	R	M	1, 2, 3
2. CONTAINMENT SPRAY				
a. Manual Initiation	N.A.	N.A.	M (1)	1, 2, 3, 4
b. Automatic Actuation Logic	N.A.	N.A.	M (2)	1, 2, 3, 4
c. Contain Pressure-High-High	S	R	M	1, 2, 3

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 19 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 June 26, 1979, Duquesne Light Company (the licensee) proposed modifications to the safety injection actuation system logic for Beaver Valley Power Station Unit No. 1 in response to Item 3 of IE Bulletin 79-06A dated April 14, 1979. These modifications will require two out of three channels of low pressurizer pressure for actuation.

Discussion and Evaluation

Since the date of licensing until the issuance of IE Bulletin 79-06A safety injection was initiated, in addition to other parameters, based on coincident trip of one-of-three matched pairs of low pressurizer level and low pressurizer pressure trips. Item 3 of IE Bulletin 79-06A directed all facilities using pressurizer water level coincident with pressurizer pressure for automatic initiating of safety injection to trip the low pressurizer level setpoint bistables so that when pressurizer pressure reaches the low setpoint, safety injection would be initiated regardless of the pressurizer level.

Because of the concern that this action has resulted in placing Beaver Valley Unit 1 in a condition (one-out-of-three trip) which is more susceptible to spurious actuation of the safety injection system, the licensee has proposed modifications and related Technical Specification changes to alleviate this situation.

The proposed modifications to the safety injection actuation system consist of removing the pressurizer level signal from each of the pressurizer level pressure channel trips and converting the system to a two-out-of-three logic based on the pressurizer low pressure trips. The instrumentation logic receives pressurizer pressure signals from three pressure transmitters and initiates a safety injection actuation when two of the three signals reach the low pressure setpoint of 1845 psig. These modifications do not involve a change in the setpoint. These modifications will satisfy the requirements of IEEE 279-1971, and other applicable standards. The modifications will be implemented during the current outage.

Based on our review of the licensee's submittal, we conclude that the modifications to the safety injection actuation system logic satisfy the requirements of IEEE 279-1971 and that the changes in Technical Specifications are correct, and therefore, are acceptable.

Environmental Consideration

We have determined that the amendment does not authorize a change in effluent types or total amounts nor an increase in power level and will not result in any significant environmental impact. Having made this determination, we have further concluded that the amendment involves an action which is insignificant from the standpoint of environmental impact and, pursuant to 10 CFR §51.5(d)(4), that an environmental impact statement or negative declaration and environmental impact appraisal need not be prepared in connection with the issuance of this amendment.

Conclusion

We have concluded, based on the considerations discussed above, that: (1) because the amendment does not involve a significant increase in the probability or consequences of accidents previously considered and does not involve a significant decrease in a safety margin, the amendment does not involve a significant hazards consideration, (2) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (3) 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: July 17, 1979

7590-01

UNITED STATES NUCLEAR REGULATORY COMMISSION

DOCKET NO. 50-334

DUQUESNE LIGHT COMPANY

OHIO EDISON COMPANY

PENNSYLVANIA POWER COMPANY

NOTICE OF ISSUANCE OF AMENDMENT TO FACILITY OPERATING LICENSE

The U. S. Nuclear Regulatory Commission (the Commission) has issued Amendment No. 19 to Facility Operating License No. DPR-66 issued to Duquesne Light Company, Ohio Edison Company, and Pennsylvania Power Company (the licensees), which revised Technical Specifications for operation of the Beaver Valley Power Station, Unit No. 1 (the facility) located in Beaver County, Pennsylvania. The amendment is effective as of the date of issuance.

The amendment revises the Technical Specifications to require actuation of safety injection based on two out of three channels of low pressurizer pressure.

The application for the amendment complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations. The Commission has made appropriate findings as required by the Act and the Commission's rules and regulations in 10 CFR Chapter I, which are set forth in the license amendment. Prior public notice of this amendment was not required since this amendment does not involve a significant hazards consideration.

The Commission has determined that the issuance of this amendment will not result in any significant environmental impact and that pursuant to 10 CFR §51.5(d)(4) an environmental impact statement or negative declaration and environmental impact appraisal need not be prepared in connection with issuance of this amendment.

For further details with respect to this action, see (1) the application for amendment dated June 26, 1979, (2) Amendment No. 19 to License No. DPR-66 and (3) the Commission's related Safety Evaluation. All of these items are available for public inspection at the Commission's Public Document Room, 1717 H Street, N.W., Washington, D.C. and at the B. F. Jones Memorial Library, 663 Franklin Avenue, Aliquippa, Pennsylvania 15001. A copy of items (2) and (3) may be obtained upon request addressed to the U. S. Nuclear Regulatory Commission, Washington, D.C. 20555, Attention: Director, Division of Operating Reactors.

Dated at Bethesda, Maryland, this 17th day of July.

FOR THE NUCLEAR REGULATORY COMMISSION

Charles M. Trammell

Charles M. Trammell, Acting Chief
Operating Reactors Branch #1
Division of Operating Reactors