DISTRIBUTION
Docket File 50-334
NRC PDR
Local PDR
TERA
NSIC
NRR Reading
ORB1 Reading
H. Denton
D. Eisenhut
R. Purple
R. Tedesco
G. Lainas
T. Novak
S. Varga
W. Ross
C. Parrish
J. Roe
J. Heltemes
I&E (5)
ACRS (16)
B. Scharf (10)
B. Jones (4)
C. Miles
R. Diggs
C. Stephens
J. Wetmore

TACS 11055, 11685, 42924

#19

OFFICE	DL:ORB1	DL:ORB1	DL:ORB1	DL:AD:OR	OELD	STSG
SURNAME	WJRoss:jb	CSParrish	SAVarga	TMNovak	R. Lenz	JWetmore
DATE	09/12/80	09/26/80	10/30/80	10/31/80	11/12/80	10/29/80

NRC FORM 318 (9-76) NRCM 0240

☆U.S. GOVERNMENT PRINTING OFFICE: 1979-289-369

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

November 28, 1980

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. 36 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 May 14, 1980.

The amendment revises the Radiological Technical Specifications to reflect modification of the following: (1) installation of hydraulic snubbers; (2) surveillance of auxiliary feedwater pumps; (3) surveillance of auxiliary feedwater flow indication; (4) surveillance of containment liner weld channels and plugs; and (5) redefinition of terminology ("operable").

This amendment also includes a revision of page 3/4 3-7 of Appendix A which was inadvertently omitted from Amendment No. 29.

Your letter of May 14, 1980 also provided information related to implementation of 10 CFR 50, Appendix I. This information is under staff review and you will be informed of its acceptability at a later date.

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

Sincerely,

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

Enclosures:
1. Amendment No. 36 to DPR-66
2. Safety Evaluation
3. Notice of Issuance

cc: w/enclosures
See next page

cc: Gerald Charnoff, Esquire
Jay E. Silberg, Esquire
Shaw, Pittman, Potts and Trowbridge
1800 M Street, N.W.
Washington, D. C. 20036

Karin Carter, Esquire
Special Assistant Attorney General
Bureau of Administrative Enforcement
5th Floor, Executive House
Harrisburg, Pennsylvania 17120

Mr. Roger Tapan
Stone and Webster Engineering Corporation
P. O. Box 2325
Boston, Massachusetts 02107

Mr. F. Noon
R & D Center
Westinghouse Electric Corporation
Building 7-303
Pittsburgh, Pennsylvania 15230

B. F. Jones Memorial Library
663 Franklin Avenue
Aliquippa, Pennsylvania 15001

Mr. John Carey, Director
Nuclear Operations
Duquesne Light Company
435 Sixth Avenue
Pittsburgh, Pennsylvania 15219

Mr. R. E. Martin
Duquesne Light Company
435 Sixth Avenue
Pittsburgh, Pennsylvania 15219

Marvin Fein
Utility Counsel
City of Pittsburgh
313 City-County Building
Pittsburgh, Pennsylvania 15219

Mr. James A. Werling
Plant Superintendent
Beaver Valley Power Station
P. O. Box 4
Shippingport, Pennsylvania 15077

Department of Environmental Resources
ATTN: Director, Office of Radiological Health
Post Ofice Box 2063
Harrisburg, Pennsylvania 17105

Mr. Thomas J. Czerpah
Mayor of the Burrough of Shippingport
P. O. Box 26
Shippingport, Pennsylvania 15077

Ohio Edison Company
c/o Chief Nuclear QA Engineer
76 South Main Street
Akron, Ohio 44308

Pennsylvania Power Company
Ray E. Semmler, President
One E. Washington Street
New Castle, Pennsylvania 16103

Ohio Environmental Protection Agency
Division of Planning
Environmental Assessment Section
P. O. Box 1049
Columbus, Ohio 43216

Office of the Governor
State of West Virginia
Charleston, West Virginia 25305

Mr. Carl Frasure
Committee of State Officials on Suggested State Legislation
Department of Political Science
West Virginia University
Morgantown, West Virginia 26505

cc: Mr. Joseph H. Mills, Acting Commissioner
State of West Virginia Department
of Labor
1900 Washington Street
East Charleston, West Virginia 25305

N. H. Dyer, M.D.
State Director of Health
State Department of Health
State Office Building No. 1
1800 Washington Street, East
Charleston, West Virginia 25305

Director, Criteria and Standards Division
Office of Radiation Programs (ANR-460)
U. S. Environmental Protection Agency
Washington, D. C. 20460

U. S. Environmental Protection Agency
Region III Office
ATTN: EIS COORDINATOR
Curtis Building - 6th Floor
Philadelphia, Pennsylvania 19106

Governor's Office of State Planning
and Development
ATTN: Coordinator, Pennsylvania
State Clearinghouse
P. O. Box 1323
Harrisburg, Pennsylvania 17120

Mr. John A. Levin
Public Utility Commission
P. O. Box 3265
Harrisburg, Pennsylvania 17120

Mr. J. D. Sieber, Superintendent
of Licensing and Compliance
Duquesne Light Company
Post Office Box 4
Shippingport, Pennsylvania 15077

Irwin A. Popowsky, Esquire
Office of Consumer Advocate
1425 Strawberry Square
Harrisburg, Pennsylvania 17120

Mr. Charles E. Thomas, Esquire
Thomas and Thomas
212 Locust Street
Box 999
Harrisburg, Pennsylvania 17108

Resident Inspector
U. S. Nuclear Regulatory Commission
Post Office Box 298
Shippingport, Pennsylvania 15077

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. 36
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 14, 1980, 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.

8012240142

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. 36 , 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

Steven A. Varga

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

Attachment:
Changes to the Technical
Specifications

Date of Issuance: November 28, 1980

ATTACHMENT TO LICENSE AMENDMENT

AMENDMENT NO. 36 TO FACILITY OPERATING LICENSE NO. DPR-66

DOCKET NO. 50-334

Revise Appendix A as follows:

Remove Pages	Insert Pages
1-1	1-1
3/4 0-1	3/4 0-1
3/4 0-2	3/4 0-2
3/4 0-3	3/4 0-3
3/4 3-7	3/4 3-7
3/4 3-46	3/4 3-46
3/4 6-10	3/4 6-10
3/4 7-6	3/4 7-6
3/4 7-32	3/4 7-32
3/4 7-32b	3/4 7-32b
3/4 7-32d	3/4 7-32d
B3/4 0-1	B3/4 0-1
B3/4 0-2	B3/4 0-2
B3/4 0-3	B3/4 0-3
	B3/4 0-4

1.0 DEFINITIONS

DEFINED TERMS

1.1 The DEFINED TERMS of this section appear in capitalized type and are applicable throughout these Technical Specifications.

THERMAL POWER

1.2 THERMAL POWER shall be the total reactor core heat transfer rate to the reactor coolant.

RATED THERMAL POWER

1.3 RATED THERMAL POWER shall be a total reactor core heat transfer rate to the reactor coolant of 2652 MWt.

OPERATIONAL MODE

1.4 An OPERATIONAL MODE shall correspond to any one inclusive combination of core reactivity condition, power level and average reactor coolant temperature specified in Table 1.1.

ACTION

1.5 ACTION shall be those additional requirements specified as corollary statements to each principle specification and shall be part of the specifications.

OPERABLE - OPERABILITY

1.6 A system, subsystem, train, component or device shall be OPERABLE or have OPERABILITY when it is capable of performing its specified function(s). Implicit in this definition shall be the assumption that all necessary attendant instrumentation, controls, normal and emergency electric power sources, cooling or seal water, lubrication or other auxiliary equipment that are required for the system, subsystem, train, component or device to perform its function(s) are also capable of performing their related safety function(s).

REPORTABLE OCCURRENCE

1.7 A REPORTABLE OCCURRENCE shall be any of those conditions specified in Specifications 6.9.1.8 and 6.9.1.9.

CONTAINMENT INTEGRITY

1.8 CONTAINMENT INTEGRITY shall exist when:

1.8.1 All penetrations required to be closed during accident conditions are either:

a. Capable of being closed by an OPERABLE containment automatic isolation valve system, or

b. Closed by manual valves, blind flanges, or deactivated automatic valves secured in their closed positions, except as provided in Table 3.6-1 of Specification 3.6.3.1.

1.8.2 All equipment hatches are closed and sealed,

1.8.3 Each air lock is OPERABLE pursuant to Specification 3.6.1.3., and

1.8.4 The containment leakage rates are within the limits of Specification 3.6.1.2.

CHANNEL CALIBRATION

1.9 A CHANNEL CALIBRATION shall be the adjustment, as necessary, of the channel output such that it responds with the necessary range and accuracy to known values of the parameter which the channel monitors. The CHANNEL CALIBRATION shall encompass the entire channel including the sensor and alarm and/or trip functions, and shall include the CHANNEL FUNCTIONAL TEST. The CHANNEL CALIBRATION may be performed by any series of sequential, overlapping or total channel steps such that the entire channel is calibrated.

CHANNEL CHECK

1.10 A CHANNEL CHECK shall be the qualitative assessment of channel behavior during operation by observation. This determination shall include, where possible, comparison of the channel indication and/or status with other indications and/or status derived from independent instrument channels measuring the same parameter.

3/4 LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

3/4.0 APPLICABILITY

LIMITING CONDITION FOR OPERATION

3.0.1 Compliance with the limiting Conditions for Operation contained in the succeeding specifications is required during the OPERATIONAL MODES or other conditions specified therein; except that upon failure to meet the Limiting Conditions for Operation, the associated ACTION requirements shall be met.

3.0.2 Noncompliance with a specification shall exist when the requirements of the Limiting Condition for Operation and associated ACTION requirements are not met within the specified time intervals. If the Limiting Condition for Operation is restored prior to expiration of the specified time intervals, completion of the ACTION requirements is not required.

3.0.3 When a Limiting Condition for Operation is not met except as provided in the associated ACTION requirements, within one hour action shall be initiated to place the unit in a MODE in which the specification does not apply by placing it, as applicable, in:

1. At least HOT STANDBY within the next 6 hours,
2. At least HOT SHUTDOWN within the following 6 hours, and
3. At least COLD SHUTDOWN within the subsequent 24 hours.

Where corrective measures are completed that permit operation under the ACTION requirements, the ACTION may be taken in accordance with the specified time limits as measured from the time of failure to meet the Limiting Condition for Operation. Exceptions to these requirements are stated in the individual specifications.

3.0.4 Entry into an OPERATIONAL MODE or other specified condition shall not be made unless the conditions of the Limiting Condition for Operation are met without reliance on provisions contained in the ACTION statements requirements. This provision shall not prevent passage through OPERATIONAL MODES as required to comply with ACTION requirements. Exceptions to these requirements are stated in the individual specifications.

3.0.5 When a system, subsystem, train, component or device is determined to be inoperable solely because its emergency power source is inoperable, or solely because its normal power source is inoperable, it may be considered OPERABLE for the purpose of satisfying the requirements of its applicable limiting Condition for Operation, provided: (1) its corresponding normal or emergency power source is OPERABLE; and (2) all of its redundant system(s), subsystem(s), train(s), component(s) and device(s) are OPERABLE, or likewise satisfy the requirements of this specification. Unless both conditions (1) and (2) are satisfied within 2 hours, action shall be initiated to place the unit in a MODE in which the applicable Limiting Condition for Operation does not apply, by placing it, as applicable, in:

1. At least HOT STANDBY within the next 6 hours,
2. At least HOT SHUTDOWN within the following 6 hours, and
3. At least COLD SHUTDOWN within the subsequent 24 hours.

This specification is not applicable in MODES 5 or 6.

APPLICABILITY

SURVEILLANCE REQUIREMENTS

4.0.1 Surveillance Requirements shall be met during the OPERATIONAL MODES or other conditions specified for individual Limiting Conditions for Operation unless otherwise stated in an individual Surveillance Requirement.

4.0.2 Each Surveillance Requirement shall be performed within the specified time interval with:

a. A maximum allowable extension not to exceed 25% of the surveillance interval, and

b. The combined time interval for any 3 consecutive surveillance intervals shall not exceed 3.25 times the specified surveillance interval.

4.0.3 Failure to perform a Surveillance Requirement within the specified time interval shall constitute a failure to meet the OPERABILITY requirements for a Limiting Condition for Operation. Exceptions to these requirements are stated in the individual specifications. Surveillance Requirements do not have to be performed on inoperable equipment.

4.0.4 Entry into an OPERATIONAL MODE or other specified condition shall not be made unless the Surveillance Requirement(s) associated with the Limiting Condition for Operation have been performed within the stated surveillance interval or as otherwise specified.

4.0.5 Surveillance Requirements for inservice inspection and testing of ASME Code Class 1, 2 and 3 components shall be applicable as follows:

a. Inservice inspection of ASME Code Class 1, 2 and 3 components and inservice testing of ASME Code Class 1, 2 and 3 pumps and valves shall be performed in accordance with Section XI of the ASME Boiler and Pressure Vessel Code and applicable Addenda as required by 10 CFR 50, Section 50.55a(g), except where specific written relief has been granted by the Commission pursuant to 10 CFR 50, Section 50.55a(g)(6)(i).

b. Surveillance intervals specified in Section XI of the ASME Boiler and Pressure Vessel Code and applicable Addenda for the inservice inspection and testing activities required by the ASME Boiler and Pressure Vessel Code and applicable Addenda shall be applicable as follows in these Technical Specifications:

3/4.0 APPLICABILITY

SURVEILLANCE REQUIREMENTS

ASME Boiler and Pressure Vessel Code and applicable Addenda terminology for inservice inspection and testing activities	Required frequencies for performing inservice inspection and testing activities
Weekly	At least once per 7 days
Monthly	At least once per 31 days
Quarterly or every 3 months	At least once per 92 days
Semiannually or every 6 months	At least once per 184 days
Every 9 months	At least once per 276 days
Yearly or annually	At least once per 366 days.

c. The provision of Specification 4.0.2 are applicable to the above required frequencies for performing inservice inspection and testing activities.

d. Performance of the above inservice inspection and testing activities shall be in addition to other specified Surveillance Requirements.

e. Nothing in the ASME Boiler and Pressure Vessel Code shall be construed to supersede the requirements of any Technical Specification.

TABLE 3.3-1 (Continued)

ACTION 9 - With a channel associated with an operating loop inoperable, restore the inoperable channel to OPERABLE status within 2 hours or be in HOT STANDBY within the next 6 hours; however, one channel associated with an operating loop may be bypassed for up to 2 hours for surveillance testing per Specification 4.3.1.1.

ACTION 10 - Not applicable.

ACTION 11 - With less than the Minimum Number of Channels OPERABLE, operation may continue provided the inoperable channel is placed in the tripped condition within 1 hour.

ACTION 12 - With the number of channels OPERABLE one less than required by the Minimum Channels OPERABLE requirement, restore the inoperable channel to OPERABLE status within 48 hours or be in HOT STANDBY within the next 6 hours and/or open the reactor trip breakers.

REACTOR TRIP SYSTEM INTERLOCKS

DESIGNATION	CONDITION AND SETPOINT	FUNCTION
P-6	With 2 of 2 Intermediate Range Neutron Flux Channels < 6×10^{-11} amps.	P-6 prevents or defeats the manual block of source range reactor trip.
P-7	With 2 of 4 Power Range Neutron Flux Channels ≥ 11% of RATED THERMAL POWER or 1 of 2 Turbine impulse chamber pressure channels ≥ 80 psia.	P-7 prevents or defeats the automatic block of reactor trip on: Low flow in more than one primary coolant loop, reactor coolant pump under-voltage and under-frequency, turbine trip, pressurizer low pressure, and pressurizer high level.
P-8	With 2 of 4 Power Range Neutron Flux channels ≥ 31% of RATED THERMAL POWER.	P-8 prevents or defeats the automatic block of reactor trip on low coolant flow in a single loop.

TABLE 3.3-1 (Continued)

DESIGNATION	CONDITION AND SETPOINT	
P-10	With 3 of 4 Power range neutron flux channels < 9% of RATED THERMAL POWER.	P-10 prevents or defeats the manual block of: Power Range low setpoint reactor trip, intermediate range reactor trip, and intermediate range rod stops. Provides input to P-7.

TABLE 3.3-9

REMOTE SHUTDOWN PANEL MONITORING INSTRUMENTATION

	INSTRUMENT	MEASUREMENT RANGE	MINIMUM CHANNELS OPERABLE
1.	Intermediate Range Nuclear Flux	10^{-11} to 10^{-3} amps	1
2.	Intermediate Range Startup Rate	-0.5 to 5.0 DPM	1
3.	Source Range Nuclear Flux	1 to 10^{6} CPS	1
4.	Source Range Startup Rate	-0.5 to 5 DPM	1
5.	Reactor Coolant Temperature - Hot Leg	0 - 700°F	1
6.	Reactor Coolant Temperature - Cold Leg	0 - 700°F	1
7.	Pressurizer Pressure	1700 to 2500 psig	1
8.	Pressurizer Level	0 - 100%	1
9.	Steam Generator Pressure	0 - 1400 psig	1/steam generator
10.	Steam Generator Level	0 to 100%	1/steam generator
11.	RHR Temperature - HX Outlet	50 - 400°F	1
12.	Auxiliary Feedwater Flow Rate	0 - 400 GPM	1/steam generator

TABLE 4.3-6

REMOTE SHUTDOWN MONITORING INSTRUMENTATION
SURVEILLANCE REQUIREMENTS

	INSTRUMENT	CHANNEL CHECK	CHANNEL CALIBRATION
1.	Intermediate Range Nuclear Flux	M	N.A.
2.	Intermediate Range Startup Rate	M	N.A.
3.	Source Range Nuclear Flux	M	N.A.
4.	Source Range Startup Rate	M	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	M	R
12.	Auxiliary Feedwater Flow Rate	S/U(2)	R

Notation
(1) If not performed in previous 7 days.
(2) Channel check to be performed in conjunction with Surveillance Requirement 4.7.1.2.a.9 following an extended plant outage.

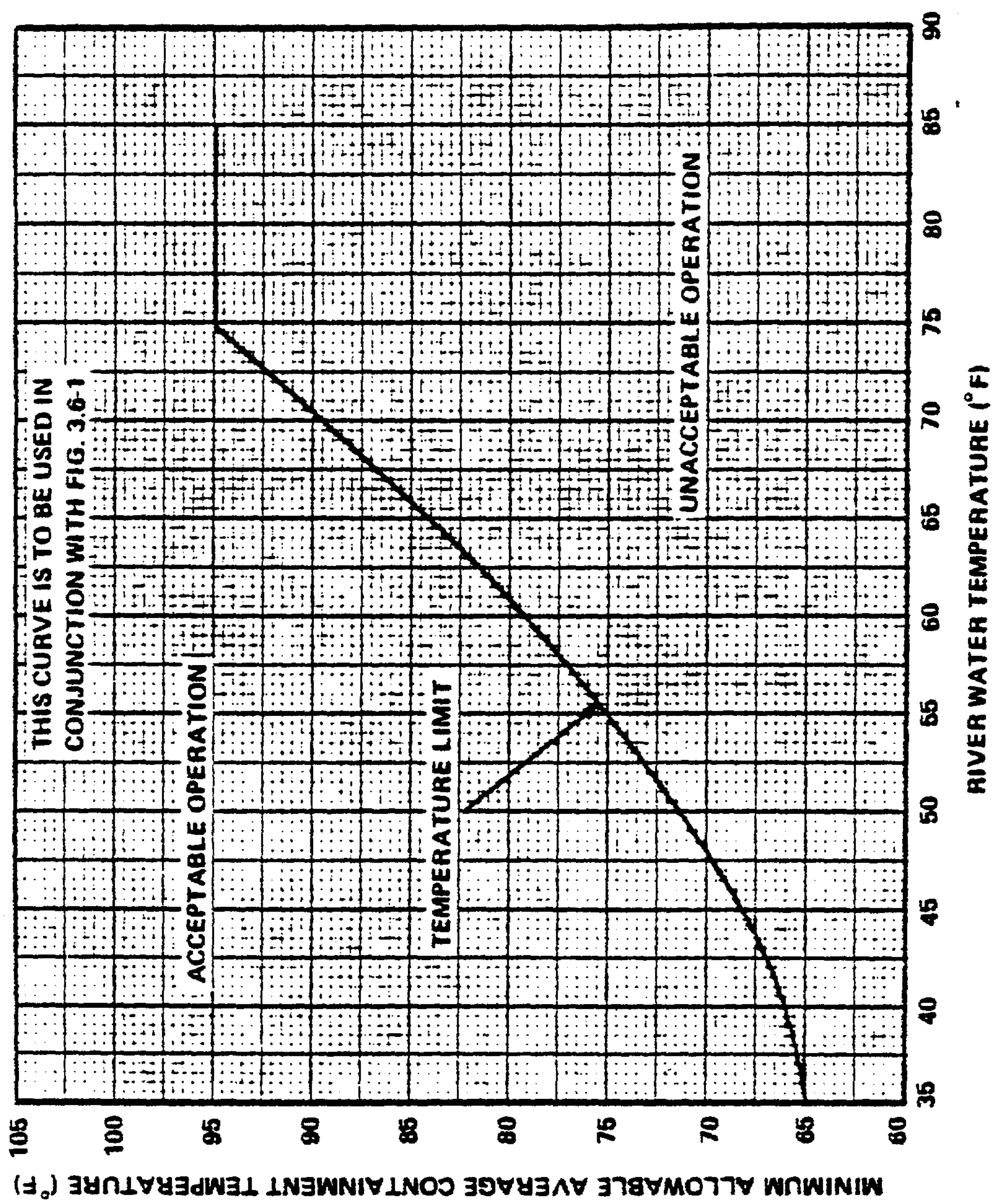

FIGURE 3.6-2 MINIMUM ALLOWABLE PRIMARY CONTAINMENT AVERAGE AIR TEMPERATURE VERSUS RIVER WATER TEMPERATURE

CONTAINMENT STRUCTURAL INTEGRITY

LIMITING CONDITIONS FOR OPERATION

3.6.1.6 The structural integrity of the containment shall be maintained at a level consistent with the acceptance criteria in Specification 4.6.1.7.

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

With the structural integrity of the containment not conforming to the above requirements, restore the structural integrity to within the limits prior to increasing the Reactor Coolant System temperature above 200°F.

SURVEILLANCE REQUIREMENTS

4.6.1.6.1 Liner Plate and Concrete The structural integrity of the containment liner plate and concrete shall be determined during the shutdown for each Type A containment leakage rate test (reference Specification 4.6.1.2) by:

a. a visual inspection of the accessible surfaces and verifying no apparent changes in appearance or other abnormal degradation.

b. a visual inspection of accessible containment liner test channels prior to each Type A containment leakage rate test. Any containment liner test channel which is found to be damaged to the extent that channel integrity is impaired or which is discovered with a vent plug removed, shall be removed and a protective coating shall be applied to the liner in that area.

c. a visual inspection of the dome area prior to each Type A containment leakage rate test to insure the integrity of the protective coating. If a loss of integrity of the protective coating is observed, any vent plug to a test channel which may be in the area where the protective coating has failed shall be seal welded and then the protective coating shall be repaired.

4.6.1.6.2 Reports An initial report of any abnormal degradation of the containment structure detected during the above required tests and inspections shall be made within 10 days after completion of the surveillance requirements of this specification, and the detailed report shall be submitted pursuant to Specification 6.9.1 within 90 days after completion. This report shall include a description of the condition of the liner plate and concrete, the inspection procedure, the tolerances on cracking and the corrective actions taken.

PLANT SYSTEMS

AUXILIARY FEEDWATER SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.1.2 At least three steam generator auxiliary feedwater pumps and associated flow paths shall be OPERABLE with:

a. Two feedwater pumps, each capable of being powered from separate emergency busses, and

b. One feedwater pump capable of being powered from an OPERABLE steam supply system.

APPLICABILITY: MODES 1, 2 and 3.

ACTION:

With one auxiliary feedwater pump inoperable, restore at least three auxiliary feedwater pumps (two capable of being powered from separate emergency busses and one capable of being powered by an OPERABLE steam supply system) to OPERABLE status within 72 hours or be in HOT SHUTDOWN within the next 12 hours.

SURVEILLANCE REQUIREMENTS

4.7.1.2 Each auxiliary feedwater pump shall be demonstrated OPERABLE:

a. At least once per 31 days by:

1. Starting each pump from the control room.

2. Verifying that:

a. Each motor driven pump develops a discharge pressure of $\geq$ 1155 psig on recirculation flow, and

b. The steam turbine driven pump develops a discharge pressure of $\geq$ 1155 psig on recirculation flow when the secondary steam pressure is greater than 600 psig.

SURVEILLANCE REQUIREMENTS (Continued)

3. Verifying that each pump operates for at least 15 minutes.

4. Cycling each testable power operated or automatic valve in the flow path through at least one complete cycle of full travel.

5. Verifying that each valve (manual, power operated or automatic) in the flow path that is not locked, sealed, or otherwise secured in position, is in its correct position.

6. Reverifying the requirements of Tech Spec. surveillance 4.7.1.2.a.5 by a second and independent operator.

7. Establish and maintain constant communications between the control room and the auxiliary feed pump room while any normal discharge valve is closed during surveillance testing.

8. Verifying operability of each River Water auxiliary supply valve by cycling each manual River Water to Auxiliary Feedwater System valve through one complete cycle.

9. Following an extended plant outage verify Auxiliary Feedwater Flow from WT-TK-10 to the Steam Generators with the Auxiliary Feedwater Valves in their normal alignment.

b. At least once per 18 months during shutdown by:

1. Cycling each power operated (excluding automatic) valve in the flow path that is not testable during plant operation, through at least once complete cycle of full travel.

2. Verifying that each automatic valve in the flow path actuates to its correct position on a test signal.

3. Verifying that each pump starts automatically upon receipt of a test signal.

TABLE 3.7-4 (Continued)

SAFETY RELATED HYDRAULIC SNUBBERS*

SNUBBER NO.	SYSTEM SNUBBER INSTALLED ON, LOCATION AND ELEVATION			ACCESSIBLE OR INACCESSIBLE	HIGH RADIATION ZONE	ESPECIALLY DIFFICULT TO REMOVE
RC-HSS-101	RC	RCP Cub. A	739'	I	Yes	Yes
RC-HSS-102	"	" "	739'	"	"	"
SI-HSS-102A	SI	" "	745'	"	"	"
SI-HSS-102B	"	" "	745'	"	"	"
SI-HSS-414	"	" "	741'	"	"	"
RC-HSS-103	RC	RCP Cub. B	739'	"	"	"
RC-HSS-104	"	" "	739'	"	"	"
SI-HSS-418	SI	" "	741'	"	"	"
RC-HSS-23	RC	Reac. Cnt. Bldg.	749'	A	No	No
RC-HSS-105	RC	RCP Cub. C	739'	I	Yes	Yes
RC-HSS-106	RC	" "	739'	"	"	"
RC-HSS-130	RC	" "	739'	I	"	"
RC-HSS-131	RC	" "	739'	I	"	"
SI-HSS-114A	SI	" "	745'	"	"	"
SI-HSS-114B	"	" "	745'	"	"	"
SI-HSS-422	"	" "	741'	"	"	"
SI-HSS-423	"	" "	739'	"	"	"
RC-HSS-22	RC	Pressurizer Cub.	784'	A	Yes	Yes
RC-HSS-41A	"	"	784'	A	"	"
RC-HSS-44A	"	"	784'	A	"	"
RS-HSS-235	RS	Reac. Cnt. Bldg.	832'	I	No	"
RS-HSS-210	"	" "	817'	"	"	"
RS-HSS-211	"	" "	817'	"	"	"
RS-HSS-213	"	"	800'	"	"	"
RS-HSS-214	"	" "	800'	"	"	"
RS-HSS-222	"	" "	814'	"	"	"
RS-HSS-223	"	" "	814'	"	"	"
RS-HSS-224	"	" "	813'	"	"	"
RS-HSS-225	"	" "	813'	"	"	"
WFPD-HSS-201FW		" "	780'	A	No	No

TABLE 3.7-4 (Continued)

SAFETY RELATED HYDRAULIC SNUBBERS*

SNUBBER NO.	SYSTEM SNUBBER INSTALLED ON, LOCATION AND ELEVATION				ACCESSIBLE OR INACCESSIBLE	HIGH RADIATION ZONE	ESPECIALLY DIFFICULT TO REMOVE
RC-HSS-119	RC	Reac.	Cnt. Bldg.	734'	A	Yes	No
SI-HSS-377	SI	"	"	728'	"	No	"
SI-HSS-409	SI	"	"	729'	"	No	"
SI-HSS-410	"	"	"	731'	"	"	"
SI-HSS-411	"	"	"	731'	"	"	"
RS-HSS-201	RS	"	"	731'	"	Yes	"
RS-HSS-202	"	"	"	731'	"	"	"
RS-HSS-237	"	"	"	731'	"	No	"
RS-HSS-238	"	"	"	731'	"	"	"
RS-HSS-229	"	"	"	731'	"	"	"
RS-HSS-236	"	"	"	731'	"	"	"
RS-HSS-234	"	"	"	726'	"	"	"
CC-HSS-405A	CC	"	"	707'	I	Yes	Yes
CC-HSS-405B	"	"	"	707'	"	"	"
CC-HSS-407A	"	"	"	711'	"	"	"
CC-HSS-407B	"	"	"	711'	"	"	"
RS-HSS-205	RS	"	"	702'	A	No	No
RS-HSS-206	"	"	"	702'	"	"	"
RS-HSS-219	"	"	"	702'	"	"	"
RS-HSS-220	"	"	"	702'	"	"	"
RS-HSS-207	"	"	"	702'	"	"	"
RS-HSS-208	"	"	"	702'	"	"	"
RS-HSS-209	"	"	"	710'	"	"	"
RS-HSS-215	"	"	"	715'	"	"	"
RS-HSS-216	"	"	"	715'	"	"	"
RH-HSS-105	RH	"	"	704'	I	Yes	Yes
RH-HSS-107	"	"	"	704'	"	"	"
RH-HSS-108	"	"	"	704'	"	"	"
RH-HSS-111	"	"	"	704'	"	"	"

TABLE 3.7-4 (Continued)

SAFETY RELATED HYDRAULIC SNUBBERS*

SNUBBER NO.	SYSTEM SNUBBER INSTALLED ON, LOCATION AND ELEVATION			ACCESSIBLE OR INACCESSIBLE	HIGH RADIATION ZONE	ESPECIALLY DIFFICULT TO REMOVE
WR-HSS-304B	RW	Cable Vault	728'	A	No	No
WR-HSS-316	"	" "	733'	"	"	"
WR-HSS-307	"	" "	733'	"	"	"
WR-HSS-306	"	" "	733'	"	"	"
WR-HSS-308	"	" "	731'	"	"	"
WR-HSS-309	"	" "	731'	"	"	"
WR-HSS-300	"	" "	724'	"	"	"
SI-HSS-522	SI	" "	731'	"	"	"
SI-HSS-523A	"	" "	731'	"	"	"
SI-HSS-523B	"	" "	731'	"	"	"
SI-HSS-521	"	" "	731'	"	"	"
SI-HSS-516A	"	" "	731'	"	"	"
SI-HSS-516B	"	" "	731'	"	"	"
SI-HSS-520	"	" "	731'	"	"	"
SI-HSS-515	"	" "	731'	"	"	"
SI-HSS-519	"	" "	731'	"	"	"
SI-HSS-514	"	" "	731'	"	"	"
SI-HSS-512	"	" "	738'	"	"	"
SI-HSS-512A	"	" "	734'	"	"	"
SI-HSS-511	"	" "	738'	"	"	"
SI-HSS-518	"	" "	733'	"	"	"
SI-HSS-517	"	" "	738'	"	"	"
QS-HSS-504	QS	Safeguards Area	741'	"	"	"
SI-HSS-002	SI	Safeguards Area	743'	A	No	No
SI-HSS-003	"	" "	743'	"	"	"
SI-HSS-009	"	" "	743'	"	"	"
SI-HSS-010	"	" "	743'	"	"	"
QS-HSS-205A	QS	" "	735'	"	"	"
QS-HSS-205B	"	" " "	735'	"	"	"
QS-HSS-202	"	" "	737'	"	"	"

3/4.0 APPLICABILITY

BASES

The specifications of this section provide the general requirements applicable to each of the Limiting Conditions for Operation and Surveillance Requirements within Section 3/4.

3.0.1 This specification defines the applicability of each specification in terms of defined OPERATIONAL MODES or other specified conditions and is provided to delineate specifically when each specification is applicable.

3.0.2 This specification defines those conditions necessary to constitute compliance with the terms of an individual Limiting Condition for Operation and associated ACTION requirement.

3.0.3 This specification delineates the ACTION to be taken for circumstances not directly provided for in the ACTION statements and whose occurrence would violate the intent of the specification. For example, Specification 3.5.1 calls for each Reactor Coolant System accumulator to be OPERABLE and provides explicit ACTION requirements if one accumulator is inoperable. Under the terms of Specification 3.0.3, if more than one accumulator is inoperable, the unit is required to be in at least HOT STANDBY within 1 hour and in at least HOT SHUTDOWN within the following 6 hours. As a further example, Specification 3.6.2.1 requires two Containment Spray Systems to be OPERABLE and provides explicit ACTION requirements if one spray system is inoperable: Under the terms of Specification 3.0.3, if both of the required Containment Spray Systems are inoperable, the unit is required to be in at least HOT STANDBY within 1 hour, in at least HOT SHUTDOWN within the following 6 hours and in at least COLD SHUTDOWN in the next 30 hours. It is assumed that the unit is brought to the required MODE within the required times by promptly initiating and carrying out the appropriate ACTION statement.

3.0.4 This specification provides that entry into an OPERATIONAL MODE or other specified applicability condition must be made with (a) the full complement of required systems, equipment or components OPERABLE and (b) all other parameters as specified in the Limiting Conditions for Operation being met without regard for allowable deviations and out of service provisions contained in the ACTION statements.

The intent of this provision is to insure that facility operation is not initiated with either required equipment or systems inoperable or other specified limits being exceeded.

Exceptions to this provision have been provided for a limited number of specifications when startup with inoperable equipment would not affect plant safety. These exceptions are stated in the ACTION statements of the appropriate specifications.

3.0.5 This specification delineates what additional conditions must be satisfied to permit operation to continue, consistent with the ACTION statements for power sources, when a normal or emergency power source is not OPERABLE. It specifically prohibits operation when one division is inoperable because its normal or emergency power source is inoperable and a system, subsystem, train, component or device in another division is inoperable for another reason.

The provisions of this specification permit the ACTION statements associated with inidvidual systems, subsystems, trains, components, or devices to be consistent with the ACTION statements of the associated electrical power source. It allows operation to be governed by the time limits of the ACTION statement associated with the Limiting Condition for Operation for the normal or emergency power source, not the individual ACTION statements for each system, subsystem, train, component or device that is determined to be inoperable solely because of the inoperability of its normal or emergency power source.

For example, Specification 3.8.1.1 requires in part that two emergency diesel generators be OPERABLE. The ACTION statement provides for a 72 hour out-of-service time when one emergency diesel generator is not OPERABLE. If the definition of OPERABLE were applied without consideration of Specification 3.0.5, all systems subsystems, trains, components and devices supplied by the inoperable emergency power source would also be inoperable. This would dictate invoking the applicable ACTION statements for each of the applicable Limiting Conditions for Operation. However, the provisions of Specification 3.0.5 permit the time limits for continued operation to be consistent with the ACTION statement for the inoperable emergency diesel generator instead, provided the other specified conditions are satisfied. In this case, this would mean that the corresponding normal power source must be OPERABLE, and all redundant systems, subsystems, trains, components, and devices must be OPERABLE, or otherwise satisfy Specification 3.0.5 (i.e., be capable of performing their design function and have at least one normal or one emergency power source OPERABLE). If they are not satisfied, action is required in accordance with this specification.

As a further example, Specification 3.8.1.1 requires in part that two physically independent circuits between the offsite transmission network and the onsite Class IE distribution system be OPERABLE. The ACTION statement provides a 24-hour out-of-service time when both required offsite circuits are not OPERABLE. If the definition of OPERABLE were applied without consideration of Specification 3.0.5, all systems, subsystems, trains, components and devices supplied by the inoperable normal power sources, both of the offsite circuits, would also be inoperable. This would dictate invoking the applicable ACTION statement for the inoperable normal power sources instead, provided the other specified conditions are satisfied. In this case, this would mean that for one division the emergency power source must be OPERABLE (as must be the components supplied by the emergency power source) and all redundant systems, subsystems, trains, components and devices in the other division must be OPERABLE, or likewise satisfy Specification 3.0.5 (i.e., be capable of performing their design functions and have an emergency power source OPERABLE). In other words, both emergency power sources must be OPERABLE and all redundant systems, subsystems, trains, components and devices in both divisions must also be OPERABLE. If these conditions are not satisfied, action is required in accordance with this specification.

In MODES 5 or 6 Specification 3.0.5 is not applicable, and thus the individual ACTION statements for each applicable Limiting Condition for Operation in these MODES must be adhered to.

4.0.1 This specification provides that surveillance activities necessary to insure the Limiting Conditions for Operation are met and will be performed during the OPERATIONAL MODES or other conditions for which the Limiting Conditions for Operation are applicable. Provisions for additional surveillance activities to be performed without regard to the applicable OPERATIONAL MODES or other conditions are provided in the individual Surveillance Requirements. Surveillance Requirements for Special Test Exceptions need only be performed when the Special Test Exception is being utilized as an exception to an individual specification.

4.0.2 The provisions of this specification provide allowable tolerances for performing surveillance activities beyond those specified in the nominal surveillance interval. These tolerances are necessary to provide operational flexibility because of scheduling and performance considerations.

The tolerance values, taken either individually or consecutively over 3 test intervals, are sufficiently restrictive to ensure that the reliability associated with the surveillance activity is not significantly degraded beyond that obtained from the nominal specified interval.

4.0.3 The provisions of this specification set forth the criteria for determination of compliance with the OPERABILITY requirements of the Limiting Conditions for Operation. Under this criteria, equipment, systems or components are assumed to be OPERABLE if the associated surveillance activities have been satisfactorily performed within the specified time interval. Nothing in this provision is to be construed as defining equipment, systems or components OPERABLE, when such items are found or known to be inoperable although still meeting the Surveillance Requirements.

4.0.4 This specification ensures that the surveillance activities associated with a Limiting Condition for Operation have been performed within the specified time interval prior to entry into an OPERATIONAL MODE or other applicable condition. The intent of this provision is to ensure that surveillance activities have been satisfactorily demonstrated on a current basis as required to meet the OPERABILITY requirements of the Limiting Condition for Operation.

Under the terms of this specification, for example, during initial plant startup or following extended plant outages, the applicable surveillance activities must be performed within the stated surveillance interval prior to placing or returning the system or equipment into OPERABLE status.

4.0.5 This specification ensures that inservice inspection of ASME Code Class 1, 2 and 3 components and inservice testing of ASME Code Class 1, 2 and 3 pumps and valves will be performed in accordance with a periodically updated version of Section XI of the ASME Boiler and Pressure Vessel Code and Addenda as required by 10 CFR 50.55a. Relief from any of the above requirements has been provided in writing by the Commission and is not a part of these technical specifications.

This specification includes a clarification of the frequencies for performing the inservice inspection and testing activities required by Section XI of the ASME Boiler and Pressure Vessel Code and applicable Addenda. This clarification is provided to ensure consistency in surveillance intervals thoughout these Technical Specifications and to remove any ambiguities relative to the frequencies for performing the required inservice inspection and testing activities.

Under the terms of this specification, the more restrictive requirements of the Technical Specifications take precedence over the ASME Boiler and Pressure Vessel Code and applicable Addenda. For example, the requirements of Specification 4.0.4 to perform surveillance activities prior to entry into an OPERATIONAL MODE or other specified applicability condition takes precedence over the ASME Boiler and Pressure Vessel Code provision which allows pumps to be tested up to one week after return to normal operation. And for example, the Technical Specification definition of OPERABLE does not grant a grace period before a device that is not capable of performing its specified function is declared inoperable and takes precedence over the ASME Boiler and Pressure Vessel Code provision which allows a valve to be incapable of performing its specified function for up to 24 hours before being declared inoperable.

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 36 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

In a submittal of May 14, 1980 Duquesne Light Company (the licensee) proposed multiple changes to the Technical Specifications in Appendix A of License No. DPR-66. Five of these requests have been sufficiently simple to review that we are incorporating them into a single amendment. Our evaluations of these proposed changes are as follows.

Installation of New Hydraulic Snubbers

Technical Specification 3.7.8.12 lists all hydraulic snubbers that are required to be operable to ensure that the structural integrity of the reactor coolant system and all other safety related systems is maintained during and following a seismic or other event initiating dynamic loads. The licensee has proposed to install seven additional snubbers which will be included in this list. These snubbers are identified as follows:

(1 and 2) RC-HSS-130 and 131 - installed on the Reactor Coolant Pump in an inaccessible, high radiation zone.

(3) SI-HSS-337 - installed on the Safety Injection System for the reactor in an accessible, non-high radiation zone.

(4, 5, 6, 7) SI-HSS-002, 3, 9 and 10 - installed on the Safety Injection System in an accessible, non-high radiation zone.

8012240 145

Snubber SI-HSS-337 was installed as the result of the seismic analysis made in response to the Commission's Show Cause Order and, subsequently, IE Bulletin 79-07. The other snubbers were installed during previously reviewed activities that were performed under provisions of 10 CFR 50.59. The inclusion of these snubbers in Table 3.7.4 of Appendix A of License DPR-66 (T.S. 3.7.8.12) will require that they be considered in the surveillance requirements. Consequently, this action increases the level of plant safety and is acceptable.

Revised Surveillance Requirements for Auxiliary Feedwater System

The surveillance requirements in Technical Specification 4.7.1.2(a) have been developed to ensure that each auxiliary feedwater (AFW) pump is operable and each valve in the auxiliary feedwater flow path is in its correct position. As the result of our review of lessons learned from the TMI-2 accident, the staff determined that all licensees should confirm flow path availability of an AFW system flow train that has been out of service.

In fulfillment of the staff's recommendation GS-6, the licensee has proposed four additional surveillance Technical Specifications for the AFW system:

(a) Verification of status and position of each valve will be performed by a second and independent operator.

(b) Maintenance of constant communications with the control room while any discharge valve is closed during testing.

(c) Verification of operability of each River Water Auxiliary Supply Valve.

(d) Verification of flow path from the Primary Plant Demineralizer Water Storage Tank (WT-TK-10) to the Steam Generators.

These actions satisfy the intent of the staff's recommendation and are acceptable.

The licensee has assured the staff that the three River Water valves can be exercised, one at a time, without allowing river water to enter the suction lines of the AFW pumps.

Auxiliary Feedwater Rate Indication of Remote Shutdown Panel

The licensee has proposed a change in the frequency of demonstrating the operability of the flow indicators in the auxiliary feedwater (AFW) flow train. Feedwater from the AFW pumps is pumped to each steam generator through normally open control valves when this emergency source of water is required. Flow is monitored in each line by flow indicators. The valves that control AFW flow can be manually adjusted from both the control room and the shutdown control panel. Currently, the Technical Specifications for monitoring the AFW train require demonstration of the flow indicators operability on a monthly frequency. Such a check is not meaningful unless the AFW system is operating and feeding the steam generators.

The licensee proposes that the AFW flow rate be checked when the AFW system is being used during plant startup. This schedule assures that the indicator will be checked at least once per fuel cycle as well as after each scheduled or unscheduled shutdown that result in an extended outage.

Although each AFW pump must be demonstrated to be operable once per 31 days, such a check does not require actuation of flow to the steam generator since both motor and steam operated pumps are equipped with recirculation paths upstream from the flow indicator.

We find the licensee's proposal to check the AFW flow indicator after each extended outage to be acceptable because it is only when the plant has been in Mode 5 (Cold Shutdown) that the AFW pumps are used.

Containment Liner Weld Channels and Plugs Integrity

The licensee has proposed two additional criteria to be met for assuring an acceptable structural integrity of the containment. In addition to visually inspecting and verifying that containment surfaces appear normal, a similar inspection of liner test channels and the dome area shall be made. These requirements expand the scope of "Type A Tests" as defined in Appendix J to 10 CFR Part 50 and Technical Specification 4.6.1.2.

The licensee's proposal implies that an acceptable surveillance of containment test channels is equivalent to an acceptable visual inspection of the containment liner welds that are obscured by the test channels. Where these channels are found to have flaws that would impair the integrity of the containment, the channels are to be removed.

Similar reasoning underlies the inclusion of test channels in a visual inspection of the dome. Inasmuch as visual inspection of the channels complements the use of the channels to verify the integrity of the liner joints, such a procedure is acceptable.

Redefining the Term "Operable"

In response to the Staff's request dated April 10, 1980, the licensee, by letter of May 14, 1980, proposed changes to Appendix A, Safety

Technical Specification 3/4.0. These changes reflect the Staff's current definition of the term "operable" as it applies to the single failure criterion for safety systems in power reactors.

The NRC's Standard Technical Specifications (STS) were formulated to preserve the single failure criterion for systems that are relied upon in the safety analysis report. By and large, the single failure criterion is preserved by specifying Limiting Conditions for Operation (LCOs) that require all redundant components of safety related systems to be OPERABLE. When the required redundancy is not maintained, either due to equipment failure of maintenance outage, action is required, within a specified time, to change the operating mode of the plant to place it in a safe condition. The specified time to take action, usually called the equipment out-of-service time, is a temporary relaxation of the single failure criterion, which consistent with overall system reliability considerations, provides a limited time to fix equipment or otherwise make it OPERABLE. If equipment can be returned to OPERABLE status within the specified time, plant shutdown is not required.

LCOs are specified for each safety related system in the plant, and with few exceptions, the ACTION statements address single outages of components, trains or subsystems. For any particular system, the LCO does not address multiple outages of redundant components, nor does it address the effects of outages of any support systems - such as electrical power or cooling water - that are relied upon to maintain the OPERABILITY of the particular system. This is because of the large number of combinations of these types of outages that are possible. Instead, the STS employ general specifications and an explicit definition of the term OPERABLE to encompass all such cases. These provisions have been formulated to assure that no set of equipment outages would be allowed to persist that would result in the facility being in an unprotected condition.

To achieve the necessary clarification, the Staff provided the licensee with model Technical Specifications that have been accepted and resubmitted without change. We, therefore, find these changes to be acceptable. The licensee shall implement appropriate procedures to assure that the necessary records, such as plant logs or similar documents, are reviewed to determine compliance with these specifications.

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: November 28, 1980

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. 36 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 Radiological Technical Specifications to reflect changes in the following: installation of snubbers; surveillance of auxiliary feedwater pumps, auxiliary feedwater flow indicators, and containment liners and plugs; and redefinition of the term "operable".

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 May 14, 1980, (2) Amendment No. 36 to License No. DPR-66 and (3) the Commissions 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 Licensing.

Dated at Bethesda, Maryland, this 28th day of November, 1980.

FOR THE NUCLEAR REGULATORY COMMISSION

Steven A. Varga

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