

June 23, 1987

DPR 016

Docket No. 50-334

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

Dear Mr. Sieber:

Subject: Issuance of Amendment (Licensing Action TAC #60581)

The Commission has issued the enclosed Amendment No. 110 to Facility Operating License No. DPR-66 for the Beaver Valley Power Station, Unit No. 1, in response to your application dated January 15, 1986 and revised by letters dated May 8 and June 30, 1986, January 15, March 5, March 17 and April 6, 1987.

The amendment changes the Technical Specifications for Beaver Valley Unit 1 to (1) provide clean, retyped pages for the Index, (2) reflect the new titles and responsibilities of the new Duquesne Light Company organization, and (3) to eliminate blank pages whose contents have been deleted by previous amendments.

A copy of the related Safety Evaluation is also enclosed. The Notice of Issuance will be included in the Commission's bi-weekly Federal Register notice.

Sincerely,

/s/

Peter S. Tam, Project Manager
Project Directorate I-4
Division of Reactor Projects I/II

Enclosures:

- 1. Amendment No. 110 to DPR-66
- 2. Safety Evaluation

cc w/enclosures:
See next page

DISTRIBUTION:

Docket File	J. Partlow
NRC & Local PDRs	T. Barnhart (4)
PDI-4 Files	Wanda Jones
S. Varga	E. Butcher
B. Boger	V. Benaroya
S. Norris	L. Crocker
P. Tam	ACRS (10)
OGC-Bethesda	GPA/PA
D. Hagan	ARM/LFMB
E. Jordan	

LAPDI-4
SNorris
6/16/87

PDI-4
PTam:eh
6/16/87

PDI-4
JStolz
6/16/87

OGC-Beth
M. Hagan
6/17/87

Mr. J. D. Sieber
Duquesne Light Company

Beaver Valley 1 Power Station

cc:

Mr. W. S. Lacey
Station Superintendent
Duquesne Light Company
Beaver Valley Power Station
Post Office Box 4
Shippingport, Pennsylvania 15007

Pennsylvania Power Company
James R. Edgerly
Post Office Box 891
New Castle, Pennsylvania 16103

Mr. S. Sovick, Acting Supervisor
of Licensing
Duquesne Light Company
Post Office Box 4
Shippingport, Pennsylvania 15077

Mr. Jess T. Shumate, Commissioner
State of West Virginia Department
of Labor
1800 Washington Street, East
Charleston, West Virginia 25305

Mr. John A. Levin
Public Utility Commission
Post Office Box 3265
Harrisburg, Pennsylvania 17120

David K. Heydinger, M.D.
State Director of Health
State Department of Health
1800 Washington Street, East
Charleston, West Virginia 25305

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

Regional Administrator, Region I
U.S. Nuclear Regulatory Commission
631 Park Avenue
King of Prussia, Pennsylvania 19406

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

Mr. R. Janati
Bureau of Radiation Protection
Pennsylvania Department of
Environmental Resources
P.O. Box 2063
Harrisburg, Pennsylvania 17120

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

John D. Burrows, P.E.
Director of Utilities
State of Ohio
Public Utilities Commission
180 East Broad Street
Columbus, Ohio 43266-0573

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

Pennsylvania Office of Consumer
Advocate
ATTN: Michael Bardee
1425 Strawberry Square
Harrisburg, Pennsylvania 17120



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. 110
License No. DPR-66

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Duquesne Light Company, et al. (the licensee) dated January 15, 1986 and revised by letters dated May 8 and June 30, 1986, January 15, March 5, March 17 and April 6, 1987, 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:

8706300575 870623
PDR ADOCK 05000334
PDR

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 110, 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 no later than 30 days after issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



John F. Stolz, Director
Project Directorate I-4
Division of Reactor Projects I/II

Attachment:
Changes to the Technical
Specifications

Date of Issuance: June 23, 1987

ATTACHMENT TO LICENSE AMENDMENT NO.110

FACILITY OPERATING LICENSE NO. DPR-66

DOCKET NO. 50-334

Revise Appendix A as follows:

<u>Remove Pages</u>	<u>Insert Pages</u>	<u>Comments</u>
I thru XVIIa	I thru XXVI	Retyped Index
3/4 1-26	-	Deleted blank page
3/4 4-29	-	Deleted blank page
3/4 4-30	-	Deleted blank page
3/4 4-31	3/4 4-29	Renumbered
3/4 5-8	-	Deleted blank page
3/4 7-23	3/4 7-23	Added (next pg is 3/4 7-26)
3/4 7-24	-	Deleted blank page
3/4 7-25	-	Deleted blank page
3/4 11-16	3/4 11-16	Added (next pg is 3/4 11-18)
3/4 11-17	-	Deleted blank page
3/4 11-18	3/4 11-18	Added (next pg is 3/4 11-20)
3/4 11-19	-	Deleted blank page
6-15	6-15	Added info. from pages 6-16/6-17, 6-18, 6-19 and Added (next page is 6-20)
6-16/6-17	-	Deleted blank page
6-18	-	Deleted blank page
6-19	-	Deleted blank page
6-1	6-1	Reorganization
6-1a	6-1a	Reorganization
6-2	6-2	Reorganization
6-3	6-3	Reorganization
6-4	6-4	Reorganization
6-5	6-5	Reorganization
6-6	6-6	Reorganization
6-7	6-7	Reorganization
6-8	6-8	Reorganization
6-9	6-9	Reorganization
6-11	6-11	Reorganization
6-12	6-12	Reorganization
6-13	6-13	Reorganization
6-30	6-30	Corrected a typographical error
6-31	6-31	Reorganization
B3/4 11-2	B3/4 11-2	Corrected a typographical error

INDEX

DEFINITIONS

SECTION

PAGE

1.0 DEFINITIONS

Defined Terms	1-1
Thermal Power	1-1
Rated Thermal Power	1-1
Operational Mode	1-1
Action	1-1
Operable - Operability	1-1
Reportable Event	1-2
Containment Integrity	1-2
Channel Calibration	1-2
Channel Check	1-2
Channel Functional Test	1-3
Core Alteration	1-3
Shutdown Margin	1-3
Identified Leakage	1-3
Unidentified Leakage	1-3
Pressure Boundary Leakage	1-4
Controlled Leakage	1-4
Quadrant Power Tilt Ratio	1-4
Dose Equivalent I-131	1-4
Staggered Test Basis	1-4
Frequency Notation	1-4
Reactor Trip System Response Time	1-5
Engineered Safety Feature Response Time	1-5

DEFINITIONS

SECTION

	<u>PAGE</u>
Axial Flux Difference	1-5
Physics Tests	1-5
\bar{E} -Average Disintegration Energy	1-5
Source Check	1-6
Process Control Program	1-6
Solidification.	1-6
Off-Site Dose Calculation Manual (ODCM)	1-6
Gaseous Radwaste Treatment System	1-6
Ventilation Exhaust Treatment System	1-6
Purge - Purging	1-7
Venting	1-7
Major Changes	1-7
Member(s) of the Public	1-8
Operational Modes (Table 1.1)	1-9
Frequency Notation (Table 1.2)	1-10

INDEX

SAFETY LIMITS AND LIMITING SAFETY SYSTEM SETTINGS

<u>SECTION</u>	<u>PAGE</u>
<u>2.1 SAFETY LIMITS</u>	
2.1.1 Reactor Core	2-1
2.1.2 Reactor Coolant System Pressure	2-1
<u>2.2 LIMITING SAFETY SYSTEM SETTINGS</u>	
2.2.1 Reactor Trip System Instrumentation Setpoints	2-5

BASES

<u>SECTION</u>	<u>PAGE</u>
<u>2.1 SAFETY LIMITS</u>	
2.1.1 Reactor Core.	B 2-1
2.1.2 Reactor Coolant System Pressure	B 2-2
<u>2.2 LIMITING SAFETY SYSTEM SETTINGS</u>	
2.2.1 Reactor Trip Setpoints	B 2-3

INDEX

LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

<u>SECTION</u>	<u>PAGE</u>
<u>3/4.0 APPLICABILITY</u>	3/4 0-1
<u>3/4.1 REACTIVITY CONTROL SYSTEMS</u>	
3/4.1.1 BORATION CONTROL	
3/4.1.1.1 Shutdown Margin - $T_{avg} > 200^{\circ}\text{F}$	3/4 1-1
3/4.1.1.2 Shutdown Margin - $T_{avg} \leq 200^{\circ}\text{F}$	3/4 1-3
3/4.1.1.3 Boron Dilution	3/4 1-4
3/4.1.1.4 Moderator Temperature Coefficient	3/4 1-5
3/4.1.1.5 Minimum Temperature for Criticality	3/4 1-6
3/4.1.2 BORATION SYSTEMS	
3/4.1.2.1 Flow Paths - Shutdown	3/4 1-7
3/4.1.2.2 Flow Paths - Operating	3/4 1-9
3/4.1.2.3 Charging Pump - Shutdown	3/4 1-11
3/4.1.2.4 Charging Pumps - Operating	3/4 1-12
3/4.1.2.5 Boric Acid Transfer Pumps - Shutdown	3/4 1-13
3/4.1.2.6 Boric Acid Transfer Pumps - Operating	3/4 1-14
3/4.1.2.7 Borated Water Sources - Shutdown	3/4 1-15
3/4.1.2.8 Borated Water Sources - Operating	3/4 1-16
3/4.1.3 MOVABLE CONTROL ASSEMBLIES	
3/4.1.3.1 Group Height	3/4 1-18
3/4.1.3.2 Position Indication Systems - Operating	3/4 1-20
3/4.1.3.3 Position Indication System - Shutdown	3/4 1-21
3/4.1.3.4 Rod Drop Time	3/4 1-22
3/4.1.3.5 Shutdown Rod Insertion Limit	3/4 1-23
3/4.1.3.6 Control Rod Insertion Limits	3/4 1-23A

INDEX

LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

<u>SECTION</u>		<u>PAGE</u>
<u>3/4.2 POWER DISTRIBUTION LIMITS</u>		
3/4.2.1	AXIAL FLUX DIFFERENCE	3/4 2-1
3/4.2.2	HEAT FLUX HOT CHANNEL FACTOR	3/4 2-5
3/4.2.3	NUCLEAR ENTHALPY HOT CHANNEL FACTOR	3/4 2-8
3/4.2.4	QUADRANT POWER TILT RADIO	3/4 2-10
3/4.2.5	DNB PARAMETERS	3/4 2-12
<u>3/4.3 INSTRUMENTATION</u>		
3/4.3.1	REACTOR TRIP SYSTEM INSTRUMENTATION	3/4 3-1
3/4.3.2	ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION	3/4 3-14
3/4.3.3	MONITORING INSTRUMENTATION	
3/4.3.3.1	Radiation Monitoring	3/4 3-33
3/4.3.3.2	Movable Incore Detectors	3/4 3-37
3/4.3.3.3	Seismic Instrumentation	3/4 3-38
3/4.3.3.4	Meteorological Instrumentation	3/4 3-41
3/4.3.3.5	Remote Shutdown Instrumentation	3/4 3-44
3/4.3.3.6	Fire Detection Instrumentation	3/4 3-47
3/4.3.3.7	Chlorine Detection Systems	3/4 3-49
3/4.3.3.8	Accident Monitoring Instrumentation	3/4 3-50
3/4.3.3.9	Radioactive Liquid Effluent Monitoring Instrumentation.	3/4 3-53
3/4.3.3.10	Radioactive Gaseous Effluent Monitoring Instrumentation	3/4 3-59

INDEX

LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

<u>SECTION</u>	<u>PAGE</u>
<u>3/4.4 REACTOR COOLANT SYSTEM</u>	
3/4.4.1	REACTOR COOLANT LOOPS
3/4.4.1.1	Normal Operation 3/4 4-1
3/4.4.1.2	Hot Standby 3/4 4-2b
3/4.4.1.3	Shutdown 3/4 4-2c
3/4.4.1.4	Isolated Loop 3/4 4-3
3/4.4.1.5	Isolated Loop Startup 3/4 4-4
3/4.4.1.6	Reactor Coolant Pump Startup 3/4 4-4a
3/4.4.2	SAFETY VALVES - SHUTDOWN 3/4 4-5
3/4.4.3	SAFETY VALVES - OPERATING 3/4 4-6
3/4.4.4	PRESSURIZER 3/4 4-7
3/4.4.5	STEAM GENERATORS 3/4 4-8
3/4.4.6	REACTOR COOLANT SYSTEM LEAKAGE
3/4.4.6.1	Leakage Detection Systems 3/4 4-11
3/4.4.6.2	Operational Leakage 3/4 4-13
3/4.4.6.3	Pressure Isolation Valves 3/4 4-14a
3/4.4.7	CHEMISTRY 3/4 4-15
3/4.4.8	SPECIFIC ACTIVITY 3/4 4-18
3/4.4.9	PRESSURE/TEMPERATURE LIMITS
3/4.4.9.1	Reactor Coolant System 3/4 4-22

INDEX

LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

<u>SECTION</u>	<u>PAGE</u>
3/4.4.9.2 Pressurizer	3/4 4-27
3/4.4.9.3 Overpressure Protection Systems	3/4 4-27a
3/4.4.10 STRUCTURAL INTEGRITY - ASME Code Class 1, 2 and 3 Components	3/4 4-28
3/4.4.11 RELIEF VALVES	3/4 4-29
 <u>3/4.5 EMERGENCY CORE COOLING SYSTEMS (ECCS)</u>	
3/4.5.1 ACCUMULATORS	3/4 5-1
3/4.5.2 ECCS SUBSYSTEMS - $T_{avg} \geq 350^{\circ}F$	3/4 5-3
3/4.5.3 ECCS SUBSYSTEMS - $T_{avg} < 350^{\circ}F$	3/4 5-6
3/4.5.4 BORON INJECTION SYSTEM	
3/4.5.4.1.1 Boron Injection Tank $\geq 350^{\circ}F$	3/4 5-7
3.4.5.4.1.2 Boron Injection Tank $< 350^{\circ}F$	3/4 5-7a
3/4.5.5 Deleted by Amendment No. 75	
 <u>3/4.6 CONTAINMENT SYSTEMS</u>	
3/4.6.1 PRIMARY CONTAINMENT	
3/4.6.1.1 Containment Integrity	3/4 6-1
3/4.6.1.2 Containment Leakage	3/4 6-2
3/4.6.1.3 Containment Air Locks	3/4 6-5
3/4.6.1.4 Internal Pressure	3/4 6-6
3/4.6.1.5 Air Temperature	3/4 6-8
3/4.6.1.6 Containment Structural Integrity	3/4 6-10

INDEX

LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

<u>SECTION</u>	<u>PAGE</u>	
3/4.6.2	DEPRESSURIZATION AND COOLING SYSTEMS	
3/4.6.2.1	Containment Quench Spray System	3/4 6-11
3/4.6.2.2	Containment Recirculation Spray System	3/4 6-13
3/4.6.2.3	Chemical Addition System	3/4 6-15
3/4.6.3	CONTAINMENT ISOLATION VALVES	3/4 6-17
3/4.6.4	COMBUSTIBLE GAS CONTROL	
3/4.6.4.1	Hydrogen Analyzers	3/4 6-20
3/4.6.4.2	Electric Hydrogen Recombiners	3/4 6-21
3/4.6.4.3	Hydrogen Purge System	3/4 6-23
3/4.6.5	SUBATMOSPHERIC PRESSURE CONTROL SYSTEM	
3/4.6.5.1	Steam Jet Air Ejector	3/4 6-25
 <u>3/4.7 PLANT SYSTEMS</u>		
3/4.7.1	TURBINE CYCLE	
3/4.7.1.1	Safety Valves	3/4 7-1
3/4.7.1.2	Auxiliary Feedwater System	3/4 7-5
3/4.7.1.3	Primary Plant Demineralized Water (PPDW)	3/4 7-7
3/4.7.1.4	Activity	3/4 7-8
3/4.7.1.5	Main Steam Line Isolation Valves	3/4 7-10
3/4.7.2	STEAM GENERATOR PRESSURE/TEMPERATURE LIMITATION	3/4 7-11
3/4.7.3	COMPONENT COOLING WATER SYSTEM	3/4 7-12
3/4.7.4	RIVER WATER SYSTEM	3/4 7-13
3/4.7.5	ULTIMATE HEAT SINK - OHIO RIVER	3/4 7-14

INDEX

LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

<u>SECTION</u>		<u>PAGE</u>
3/4.7.6	FLOOD PROTECTION	3/4 7-15
3/4.7.7	CONTROL ROOM EMERGENCY HABITABILITY SYSTEMS	3/4 7-16
3/4.7.8	SUPPLEMENTAL LEAK COLLECTION AND RELEASE SYSTEM	3/4 7-19
3/4.7.9	SEALED SOURCE CONTAMINATION	3/4 7-22
3/4.7.10	Deleted by Amendment No. 43	
3/4.7.11	Deleted by Amendment No. 43	
3/4.7.12	SNUBBERS	3/4 7-26
3/4.7.13	AUXILIARY RIVER WATER SYSTEM	3/4 7-34
3/4.7.14	FIRE SUPPRESSION SYSTEMS	
3/4.7.14.1	Fire Suppression Water System	3/4 7-35
3/4.7.14.2	Spray and/or Sprinkler System	3/4 7-39
3/4.7.14.3	Low Pressure CO ₂ System	3/4 7-41
3/4.7.14.4	Fire Hose Stations	3/4 7-42
3/4.7.14.5	Halon Systems	3/4 7-43
3/4.7.15	FIRE RATED ASSEMBLIES	3/4 7-44
<u>3/4.8 ELECTRICAL POWER SYSTEMS</u>		
3/4.8.1	A.C. SOURCES	
3/4.8.1.1	Operating	3/4 8-1
3/4.8.1.2	Shutdown	3/4 8-5
3/4.8.2	ONSITE POWER DISTRIBUTION SYSTEMS	
3/4.8.2.1	A.C. Distribution - Operating	3/4 8-6

INDEX

LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

<u>SECTION</u>		<u>PAGE</u>
3/4.8.2.2	A.C. Distribution - Shutdown	3/4 8-7
3/4.8.2.3	D.C. Distribution - Operating	3/4 8-8
3/4.8.2.4	D.C. Distribution - Shutdown	3/4 8-10
<u>3/4.9 REFUELING OPERATIONS</u>		
3/4.9.1	BORON CONCENTRATION	3/4 9-1
3/4.9.2	INSTRUMENTATION	3/4 9-2
3/4.9.3	DECAY TIME	3/4 9-3
3/4.9.4	CONTAINMENT BUILDING PENETRATIONS	3/4 9-4
3/4.9.5	COMMUNICATIONS	3/4 9-5
3/4.9.6	MANIPULATOR CRANE OPERABILITY	3/4 9-6
3/4.9.7	CRANE TRAVEL - SPENT FUEL STORAGE POOL BUILDING	3/4 9-7
3/4.9.8.1	RESIDUAL HEAT REMOVAL AND COOLANT CIRCULATION	3/4 9-8
3/4.9.8.2	LOW WATER LEVEL	3/4 9-8a
3/4.9.9	CONTAINMENT PURGE AND EXHAUST ISOLATION SYSTEM	3/4 9-9
3/4.9.10	WATER LEVEL-REACTOR VESSEL	3/4 9-10
3/4.9.11	STORAGE POOL WATER LEVEL	3/4 9-11
3/4.9.12	FUEL BUILDING VENTILATION SYSTEM - FUEL MOVEMENT	3/4 9-12
3/4.9.13	FUEL BUILDING VENTILATION SYSTEM - FUEL STORAGE	3/4 9-13
<u>3/4.10 SPECIAL TEST EXCEPTIONS</u>		
3/4.10.1	SHUTDOWN MARGIN	3/4 10-1
3/4.10.2	GROUP HEIGHT, INSERTION AND POWER DISTRIBUTION LIMITS	3/4 10-2

INDEX

LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

<u>SECTION</u>		<u>PAGE</u>
3/4.10.3	PRESSURE/TEMPERATURE LIMITATIONS - REACTOR CRITICALITY.	3/4 10-4
3/4.10.4	PHYSICS TESTS	3/4 10-6
3/4.10.5	NO FLOW TESTS	3/4 10-7
<u>3/4.11 RADIOACTIVE EFFLUENTS</u>		
3/4.11.1 LIQUID EFFLUENTS		
3/4.11.1.1	Concentration	3/4 11-1
3/4.11.1.2	Dose	3/4 11-6
3/4.11.1.3	Liquid Waste Treatment	3/4 11-8
3/4.11.1.4	Liquid Holdup Tanks	3/4 11-10
3/4.11.2 GASEOUS EFFLUENTS		
3/4.11.2.1	Dose Rate	3/4 11-11
3/4.11.2.2	Dose - Noble Gases	3/4 11-15
3/4.11.2.3	Dose - Radioiodines, Particulates, and Radionuclides Other than Noble Gases	3/4 11-16
3/4.11.2.4	Gaseous Radwaste Treatment	3/4 11-18
3/4.11.2.5	Gas Storage Tanks	3/4 11-20
3/4.11.2.6	Explosive Gas Mixture	3/4 11-21
3/4.11.3	SOLID RADIOACTIVE WASTE	3/4 11-22
3/4.11.4	TOTAL DOSE	3/4 11-23
<u>3/4.12 RADIOLOGICAL ENVIRONMENTAL MONITORING</u>		
3/4.12.1	MONITORING PROGRAM	3/4 12-1
3/4.12.2	LAND USE CENSUS	3/4 12-10
3/4.12.3	INTERLABORATORY COMPARISON PROGRAM	3/4 12-12

INDEX

BASES

SECTION	PAGE
<u>3/4.0 APPLICABILITY</u>	B 3/4 0-1
<u>3/4.1 REACTIVITY CONTROL SYSTEMS</u>	
3/4.1.1 BORATION CONTROL	B 3/4 1-1
3/4.1.2 BORATION SYSTEMS	B 3/4 1-2
3/4.1.3 MOVABLE CONTROL ASSEMBLIES	B 3/4 1-3
<u>3/4.2 POWER DISTRIBUTION LIMITS</u>	
3/4.2.1 AXIAL FLUX DIFFERENCE	B 3/4 2-1
3/4.2.2 and 3/4.2.3 HEAT FLUX AND NUCLEAR ENTHALPY HOT CHANNEL FACTORS	B 3/4 2-4
3/4.2.4 QUADRANT POWER TILT RATIO	B 3/4 2-5
3/4.2.5 DNB PARAMETERS	B 3/4 2-6
<u>3/4.3 INSTRUMENTATION</u>	
3/4.3.1 and 3/4.3.2 PROTECTIVE AND ENGINEERED SAFETY FEATURES (ESF) INSTRUMENTATION	B 3/4 3-1
3/4.3.3 MONITORING INSTRUMENTATION	B 3/4 3-2
3/4.3.3.1 Radiation Monitoring Instrumentation	B 3/4 3-2
3/4.3.3.2 Movable Incore Detectors	B 3/4 3-2
3/4.3.3.3 Seismic Instrumentation	B 3/4 3-2
3/4.3.3.4 Meteorological Instrumentation	B 3/4 3-2
3/4.3.3.5 Remote Shutdown Instrumentation	B 3/4 3-3
3/4.3.3.6 Fire Detection Instrumentation	B 3/4 3-3

INDEX

BASES

<u>SECTION</u>	<u>PAGE</u>
3/4.3.3.7 Chlorine Detection Systems	B 3/4 3-3
3/4.3.3.8 Accident Monitoring Instrumentation	B 3/4 3-3
3/4.3.3.9 Radioactive Liquid Effluent Monitoring Instrumentation.	B 3/4 3-4
3/4.3.3.10 Radioactive Gaseous Effluent Monitoring Instrumentation	B 3/4 3-4
 <u>3/4.4 REACTOR COOLANT SYSTEM</u>	
3/4.4.1 REACTOR COOLANT LOOPS	B 3/4 4-1
3/4.4.2 and 3/4.4.3 SAFETY VALVES	B 3/4 4-1a
3/4.4.4 PRESSURIZER	B 3/4 4-2
3/4.4.5 STEAM GENERATORS	B 3/4 4-2
3/4.4.6 REACTOR COOLANT SYSTEM LEAKAGE	B 3/4 4-3
3/4.4.6.1 Leakage Detection System	B 3/4 4-3
3/4.4.6.2 Operational Leakage	B 3/4 4-3
3/4.4.7 CHEMISTRY	B 3/4 4-4
3/4.4.8 SPECIFIC ACTIVITY	B 3/4 4-4
3/4.4.9 PRESSURE/TEMPERATURE LIMITS	B 3/4 4-5
3/4.4.10 STRUCTURAL INTEGRITY	B 3/4 4-10
3/4.4.11 RELIEF VALVES	B 3/4 4-10
 <u>3/4.5 EMERGENCY CORE COOLING SYSTEMS (ECCS)</u>	
3/4.5.1 ACCUMULATORS	B 3/4 5-1
3/4.5.2 and 3/4.5.3 ECCS SUBSYSTEMS	B 3/4 5-1

INDEX

BASES

<u>SECTION</u>		<u>PAGE</u>
3/4.5.4	BORON INJECTION SYSTEM	B 3/4 5-1
3/4.5.5	(Moved to Bases Section 3/4.1.2)	
<u>3/4.6 CONTAINMENT SYSTEMS</u>		
3/4.6.1 PRIMARY CONTAINMENT		
3/4.6.1.1	Containment Integrity	B 3/4 6-1
3/4.6.1.2	Containment Leakage	B 3/4 6-1
3/4.6.1.3	Containment Airlocks	B 3/4 6-1
3/4.6.1.4	and 3/4.6.1.5 Internal Pressure and Air Temperature .	B 3/4 6-2
3/4.6.1.6	Containment Structural Integrity	B 3/4 6-2
3/4.6.2 DEPRESSURIZATION AND COOLING SYSTEMS		
3/4.6.2.1	and 3/4.6.2.2 Containment Quench and Recirculation Spray Systems	B 3/4 6-2
3/4.6.2.2	Chemical Addition System	B 3/4 6-3
3/4.6.3	CONTAINMENT ISOLATION VALVES	B 3/4 6-3
3/4.6.4	COMBUSTIBLE GAS CONTROL	B 3/4 6-3
3/4.6.5 SUBATMOSPHERIC PRESSURE CONTROL SYSTEM		
3/4.6.5.1	Steam Jet Air Ejector	B 3/4 6-3
3/4.6.5.2	Deleted by Amendment No. 78.	
<u>3/4.7 PLANT SYSTEMS</u>		
3/4.7.1 TURBINE CYCLE		
3/4.7.1.1	Safety Valves	B 3/4 7-1

INDEX

BASES

<u>SECTION</u>		<u>PAGE</u>
3/4.7.1.2	Auxiliary Feedwater Pumps	B 3/4 7-2
3/4.7.1.3	Primary Plant Demineralized Water	B 3/4 7-2
3/4.7.1.4	Activity	B 3/4 7-3
3/4.7.1.5	Main Steam Line Isolation Valves	B 3/4 7-3
3/4.7.2	STEAM GENERATOR PRESSURE/TEMPERATURE LIMITATION . . .	B 3/4 7-4
3/4.7.3	COMPONENT COOLING WATER SYSTEM	B 3/4 7-4
3/4.7.4	RIVER WATER SYSTEM	B 3/4 7-4
3/4.7.5	ULTIMATE HEAT SINK	B 3/4 7-4
3/4.7.6	FLOOD PROTECTION	B 3/4 7-4
3/4.7.7	CONTROL ROOM EMERGENCY HABITABILITY SYSTEM	B 3/4 7-5
3/4.7.8	SUPPLEMENTAL LEAK COLLECTION AND RELEASE SYSTEM . . .	B 3/4 7-5
3/4 7.9	SEALED SOURCE CONTAMINATION	B 3/4 7-5
3/4.7.10 and 3/4.7.11	Deleted by Amendment No. 43	
3/4.7.12	SNUBBERS	B 3/4 7-6
3/4.7.13	AUXILIARY RIVER WATER SYSTEM	B 3/4 7-7
3/4.7.14	FIRE SUPPRESSION SYSTEMS	B 3/4 7-7
3/4.7.15	FIRE RATED ASSEMBLIES	B 3/4 7-7
 <u>3/4.8 ELECTRICAL POWER SYSTEMS</u>		
3/4.8.1 and 3/4.8.2	A.C. SOURCES, D. C. SOURCES AND ONSITE POWER DISTRIBUTION SYSTEMS	B 3/4 8-1

INDEX

BASES

SECTION

PAGE

3/4.9 REFUELING OPERATIONS

3/4.9.1	BORON CONCENTRATION	B 3/4 9-1
3/4.9.2	INSTRUMENTATION	B 3/4 9-1
3/4.9.3	DECAY TIME	B 3/4 9-1
3/4.9.4	CONTAINMENT BUILDING PENETRATIONS	B 3/4 9-1
3/4.9.5	COMMUNICATIONS	B 3/4 9-2
3/4.9.6	MANIPULATOR CRANE OPERABILITY	B 3/4 9-2
3/4.9.7	CRANE TRAVEL - SPENT FUEL STORAGE BUILDING	B 3/4 9-2
3/4.9.8	RESIDUAL HEAT REMOVAL AND COOLANT CIRCULATION	B 3/4 9-2
3/4.9.9	CONTAINMENT PURGE AND EXHAUST ISOLATION SYSTEM	B 3/4 9-2
3/4.9.10 and 3/4.9.11	WATER LEVEL-REACTOR VESSEL AND STORAGE POOL	B 3/4 9-3
3/4.9.12 and 3/4.9.13	FUEL BUILDING VENTILATION SYSTEM	B 3/4 9-3

3/4.10 SPECIAL TEST EXCEPTIONS

3/4.10.1	SHUTDOWN MARGIN	B 3/4 10-1
3/4.10.2	GROUP HEIGHT, INSERTION AND POWER DISTRIBUTION LIMITS	B 3/4 10-1
3/4.10.3	PRESSURE/TEMPERATURE LIMITATIONS-REACTOR CRITICALITY.	B 3/4 10-1
3/4.10.4	PHYSICS TESTS	B 3/4 10-1
3/4.10.5	NO FLOW TESTS	B 3/4 10-1

INDEX

BASES

<u>SECTION</u>	<u>PAGE</u>
<u>3/4.11 RADIOACTIVE EFFLUENTS</u>	
3/4.11.1 LIQUID EFFLUENTS	
3/4.11.1.1 Concentration	B 3/4 11-1
3/4.11.1.2 Dose	B 3/4 11-1
3/4.11.1.3 Liquid Waste Treatment	B 3/4 11-2
3/4.11.1.4 Liquid Holdup Tanks	B 3/4 11-2
3/4.11.2 GASEOUS EFFLUENTS	
3/4.11.2.1 Dose Rate	B 3/4 11-2
3/4.11.2.2 Dose, Noble Gases	B 3/4 11-3
3/4.11.2.3 Dose, Radioiodines, Radioactive Material in Particulate Form and Radionuclides other than Noble Gases	B 3/4 11-4
3/4.11.2.4 Gaseous Radwaste Treatment	B 3/4 11-5
3/4.11.2.5 Gas Storage Tanks	B 3/4 11-5
3/4.11.2.6 Explosive Gas Mixture	B 3/4 11-5
3/4.11.3 SOLID RADIOACTIVE WASTE	B 3/4 11-6
3/4.11.4 TOTAL DOSE	B 3/4 11-6
<u>3/4.12 RADIOLOGICAL ENVIRONMENTAL MONITORING</u>	
3/4.12.1 MONITORING PROGRAM	B 3/4 12-1
3/4.12.2 LAND USE CENSUS	B 3/4 12-1
3/4.12.3 INTERLABORATORY COMPARISON PROGRAM	B 3/4 12-1

INDEX

DESIGN FEATURES

<u>SECTION</u>	<u>PAGE</u>
<u>5.1 SITE</u>	
5.1.1 Site Boundary for Gaseous Effluents	5-1
5.1.2 Site Boundary for Liquid Effluents	5-1
5.1.3 Exclusion Area	5-1
5.1.4 Low Population Zone	5-1
5.1.5 Flood Control	5-1
<u>5.2 CONTAINMENT</u>	
5.2.1 Configuration	5-1
5.2.2 Design Pressure and Temperature	5-4
5.2.3 Penetrations	5-4
<u>5.3 REACTOR CORE</u>	
5.3.1 Fuel Assemblies	5-4
5.3.2 Control Rod Assemblies	5-4
<u>5.4 REACTOR COOLANT SYSTEMS</u>	
5.4.1 Design Pressure and Temperature	5-5
5.4.2 Volume	5-5
<u>5.5 EMERGENCY CORE COOLING SYSTEMS</u>	5-5
<u>5.6 FUEL STORAGE</u>	
5.6.1 Criticality	5-5
5.6.2 Drainage	5-5
5.6.3 Capacity	5-6
<u>5.7 SEISMIC CLASSIFICATION</u>	5-6
<u>5.8 METEOROLOGICAL TOWER LOCATION</u>	5-6

INDEX

ADMINISTRATIVE CONTROLS

<u>SECTION</u>	<u>PAGE</u>
<u>6.1 RESPONSIBILITY</u>	6-1
<u>6.2 ORGANIZATION</u>	
6.2.1 Offsite	6-1
6.2.2 Facility Staff	6-1
<u>6.3 FACILITY STAFF QUALIFICATIONS</u>	6-5
<u>6.4 TRAINING</u>	6-5
<u>6.5 REVIEW AND AUDIT</u>	
6.5.1 ONSITE SAFETY COMMITTEE (OSC)	
6.5.1.1 Function	6-5
6.5.1.2 Composition	6-5
6.5.1.3 Alternates	6-6
6.5.1.4 Meeting Frequency	6-6
6.5.1.5 Quorum	6-6
6.5.1.6 Responsibilities	6-6
6.5.1.7 Authority	6-7
6.5.1.8 Records	6-7
6.5.2 OFFSITE REVIEW COMMITTEE (ORC)	
6.5.2.1 Function	6-7
6.5.2.2 Composition	6-8
6.5.2.3 Alternates	6-8

INDEX

ADMINISTRATIVE CONTROLS

<u>SECTION</u>	<u>PAGE</u>
6.5.2.4 Consultants	6-8
6.5.2.5 Meeting Frequency	6-9
6.5.2.6 Quorum	6-9
6.5.2.7 Review	6-9
6.5.2.8 Audits	6-10
6.5.2.9 Authority	6-11
6.5.2.10 Records	6-11
<u>6.6 REPORTABLE EVENT ACTION</u>	6-11
<u>6.7 SAFETY LIMIT VIOLATION</u>	6-12
<u>6.8 PROCEDURES</u>	6-12
<u>6.9 REPORTING REQUIREMENTS</u>	6-13
6.9.1 Routine Reports	6-13
6.9.1,2,3 Startup Report	6-13
6.9.1.4,5 Annual Reports	6-14
6.9.1.6 Monthly Operating Report	6-15
6.9.1.7,8,9 Deleted by Amendment No. 84	
6.9.1.10,11 Annual Radiological Environmental Report	6-15
6.9.1.12,13 Semi-Annual Radioactive Effluent Release Report	6-21
6.9.1.14 Radial Peaking Factor Limit Report	6-22

INDEX

ADMINISTRATIVE CONTROLS

<u>SECTION</u>	<u>PAGE</u>
<u>6.9.2 SPECIAL REPORTS</u>	6-22
<u>6.10 RECORD RETENTION</u>	6-23
<u>6.11 RADIATION PROTECTION PROGRAM</u>	6-25
<u>6.12 HIGH RADIATION AREA</u>	6-25
<u>6.13 Deleted by Amendment No. 95</u>	
<u>6.14 PROCESS CONTROL PROGRAM (PCP)</u>	6-27
<u>6.15 OFFSITE DOSE CALCULATION MANUAL</u>	6-27
<u>6.16 MAJOR CHANGES TO RADIOACTIVE WASTE TREATMENT SYSTEMS</u> . .	6-28
<u>6.17 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM</u>	6-31

TABLE INDEX

<u>TABLE</u>	<u>TITLE</u>	<u>PAGE</u>
2.2-1	Reactor Trip System Instrumentation Setpoints	2-6
3.1-1	Accident Analyses Requiring Re-evaluation in the event of an Inoperable Full or Part Length Rod	3/4 1-19A
3.2-1	DNB Parameters	3/4 2-13
3.3-1	Reactor Trip System Instrumentation	3/4 3-2
3.3-2	Reactor Trip System Instrumentation Response Times	3/4 3-9
4.3-1	Reactor Trip System Instrumentation Surveillance Requirements	3/4 3-11
3.3-3	Engineered Safety Features Actuation System Instrumentation	3/4 3-15
3.3-4	Engineered Safety Features Actuation System Instrumentation Trip Setpoints	3/4 3-22
3.3-5	Engineered Safety Feature Response Times	3/4 3-25
4.3-2	Engineered Safety Feature Actuation System Instrumentation Surveillance Requirements	3/4 3-29
3.3-6	Radiation Monitoring Instrumentation	3/4 3-34
4.3-3	Radiation Monitoring Instrumentation Surveillance Requirements	3/4 3-36
3.3-7	Seismic Monitoring Instrumentation	3/4 3-39
4.3-4	Seismic Monitoring Instrumentation Surveillance Requirements	3/4 3-40
3.3-8	Meteorological Monitoring Instrumentation	3/4 3-42
4.3-5	Meteorological Monitoring Instrumentation Surveillance Requirements	3/4 3-43
3.3-9	Remote Shutdown Panel Monitoring Instrumentation	3/4 3-45
4.3-6	Remote Shutdown Monitoring Instrumentation Surveillance Requirements	3/4 3-46
3.3-10	Fire Detection Instruments	3/4 3-48
3.3-11	Accident Monitoring Instrumentation	3/4 3-51

Table Index

<u>TABLE</u>	<u>TITLE</u>	<u>PAGE</u>
4.3-7	Accident Monitoring Instrumentation Surveillance Requirements	3/4 3-52
3.3-12	Radioactive Liquid Effluent Monitoring Instrumentation	3/4 3-54
4.3-12	Radioactive Liquid Effluent Monitoring Instrumentation Surveillance Requirements	3/4 3-57
3.3-13	Radioactive Gaseous Effluent Monitoring Instrumentation	3/4 3-60
4.3-13	Radioactive Gaseous Effluent Monitoring Instrumentation Surveillance Requirements	3/4 3-65
4.4-1	Minimum Number of Steam Generators to be Inspected During Inservice Inspection	3/4 4-10c
4.4-2	Steam Generator Tube Inspection	3/4 4-10d
4.4-3	Reactor Coolant System Pressure Isolation Valves	3/4 4-14c
3.4-1	Reactor Coolant System Chemistry Limits	3/4 4-16
4.4-10	Reactor Coolant System Chemistry Limits Surveillance Requirements	3/4 4-17
4.4-12	Primary Coolant Specific Activity Sample and Analysis Program	3/4 4-20
4.4-3	Reactor Vessel Material Irradiation Surveillance Schedule	3/4 4-26
3.6-1	Containment Penetrations	3/4 6-19a
3.7-1	Maximum Allowable Power Range Neutron Flux High Setpoint With Inoperable Steamline Safety Valves During 3 Loop Operation	3/4 7-2
3.7-2	Maximum Allowable Power Range Neutron Flux High Setpoint with Inoperable Steamline Safety Valves During 2 Loop Operation	3/4 7-3
4.7-1	Steamline Safety Valves Per Loop	3/4 7-4
4.7-2	Secondary Coolant System Specific Activity Sample and Analysis System	3/4 7-9
3.8-1	Battery Surveillance Requirements	3/4 8-9a

Table Index

<u>TABLE</u>	<u>TITLE</u>	<u>PAGE</u>
4.11-1	Radioactive Liquid Waste Sampling and Analysis Program	3/4 11-3
4.11-2	Radioactive Gaseous Waste Sampling and Analysis Program	3/4 11-13
3.12-1	Radiological Environmental Monitoring Program	3/4 12-3
3.12-2	Reporting Levels for Radioactivity Concentrations in Environmental Samples	3/4 12-6
4.12-1	Maximum Values for the Lower Limits of Detection	3/4 12-7
B 3/4.4-1	Reactor Vessel Toughness Data (unirradiated)	B 3/4 4-7
6.2-1	Minimum Shift Crew Composition	6-4
6.9-1	Environmental Radiological Monitoring Program Summary	6-20

Figure Index

<u>FIGURE</u>	<u>TITLE</u>	<u>PAGE</u>
2.1-1	Reactor Core Safety Limit - Three Loops in Operation	2-2
2.1-2	Reactor Core Safety Limit - Two Loops in Operation (One Loop Isolated)	2-3
2.1-3	Reactor Core Safety Limit - Two Loops in Operation (No Isolated Loop)	2-4
3.1-1	Rod Group Insertion Limits Versus Thermal Power - Three Loop Operation	3/4 1-24
3.1-2	Rod Group Insertion Limits Versus Thermal Power - Two Loop Operation	3/4 1-25
3.2-1	Axial Flux Difference Limits as a Function of Rated Thermal Power	3/4 2-4
3.2-2	$K(z)$ - Normalized $F_Q(z)$ as a function of Core Height	3/4 2-7
3.2-4	Rod Bow Penalty as a Function of Burnup	3/4 2-9a
3.4-1	Dose Equivalent I-131 Primary Coolant Specific Activity Limit Versus Percent of Rated Thermal Power with the Primary Coolant Specific Activity > 1.0 $\mu\text{Ci/gram}$ Dose Equivalent I-131	3/4 4-21
3.4-2	Beaver Valley Unit No. 1 Reactor Coolant System Heatup Limitations Applicable for the First 6 EFPY	3/4 4-24
3.4-3	Beaver Valley Unit No. 1 Reactor Coolant System Cooldown Limitations Applicable for the First 6 EFPY	3/4 4-25
3.6-1	Maximum Allowable Primary Containment Air Pressure Versus River Water Temperature and RWST Water Temperature	3/4 6-7
B 3/4.2-1	Typical Indicated Axial Flux Difference Versus Thermal Power at BOL.	B 3/4 2-3
B 3/4.4-1	Fast Neutron Fluence ($E > 1$ Mev) as a Function of Full Power Service Life	B 3/4 4-6a
B 3/4.4-2	Effect of Fluence, Copper Content, and Phosphorus Content on ΔRT_{NDT} for Reactor Vessel Steels Per Reg. Guide 1.99	B 3/4 4-6b

Figure Index

<u>FIGURE</u>	<u>TITLE</u>	<u>PAGE</u>
5.1-1	Site Boundary for Gaseous Effluents for the Beaver Valley Power Station	5-1b
5.1-2	Site Boundary for Liquid Effluents for the Beaver Valley Power Station	5-1c
5.1-3	Exclusion Area - Beaver Valley Power Station	5-1d
5.1-4	Low Population Zone - Beaver Valley Power Station	5-1e
5.1-5	Gaseous Release Points - Beaver Valley Power Station	5-2
5.1-6	Liquid Release Points - Beaver Valley Power Station	5-3
6.2-1	Corporate Organization (Partial)	6-2
6.2-2	Facility Organization	6-3

REACTOR COOLANT SYSTEM

3/4.4.11 RELIEF VALVES

LIMITING CONDITION FOR OPERATION

3.4.11 (Two) power operated relief valves (PORVs) and their associated block valves shall be OPERABLE.

APPLICABILITY: MODES 1, 2 and 3

ACTION:

- a. With less than 2 PORV(s) operable, within 1 hour either restore two PORV(s) to OPERABLE status or close the associated block valve(s) and remove power from the block valve(s); otherwise, be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
- b. With one or more block valve(s) inoperable, within 1 hour either restore the block valve(s) to OPERABLE status or close the block valve(s) and remove power from the block valve(s); otherwise, be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.4.11.1 Each PORV shall be demonstrated OPERABLE:

- a. At least once per 31 days by performance of a CHANNEL CHECK of the position indication, excluding valve operation and
- b. By performance of a CHANNEL CALIBRATION in accordance with Table 4.3-7 on the operable PORV(s) Control Channel(s).

4.4.11.2 Each block valve shall be demonstrated OPERABLE at least once per 92 days by operating the valve through one complete cycle of full travel.

4.4.11.3 The emergency power supply for the PORVs and block valves shall be demonstrated OPERABLE at least once per 18 months by operating the valves through a complete cycle of full travel.

PLANT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

- a. Source in use (excluding startup sources previously subjected to core flux) - At least once per six months for all sealed sources containing radioactive materials.
 - 1. With a half-life greater than 30 days (excluding Hydrogen 3) and
 - 2. In any form other than gas.
- b. Stored sources not in use - Each sealed source shall be tested prior to use or transfer to another licensee unless tested within the previous six months. Sealed sources transferred without a certificate indicating the last test date shall be tested prior to being placed into use.
- c. Startup sources - Each sealed startup source shall be tested prior to being subjected to core flux and following repair or maintenance to the source.

4.7.9.1.3 Reports - A Special Report shall be prepared and submitted to the Commission pursuant to Specification 6.9.2 within 90 days if source leakage tests reveal the presence of ≥ 0.005 microcuries of removable contamination.

RADIOACTIVE EFFLUENTS

DOSE, RADIOIODINES, RADIOACTIVE MATERIAL IN PARTICULATE FORM AND RADIONUCLIDES OTHER THAN NOBLE GASES

LIMITING CONDITION FOR OPERATION

3.11.2.3 The dose to MEMBER(S) OF THE PUBLIC from radioiodines and radioactive materials in particulate form (excluding C-14), and radionuclides (other than noble gases) with half-lives greater than 8 days in gaseous effluents released from the site (see Figure 5.1-1) shall be limited to the following:

- a. During any calendar quarter to \leq 7.5 mrem to any organ, and
- b. During any calendar year to \leq 15 mrem to any organ.

APPLICABILITY: At all times

ACTION:

- a. With the calculated dose from the release of radioiodines, radioactive materials in particulate form, (excluding C-14), and radionuclides (other than noble gases) with half lives greater than 8 days, in gaseous effluents exceeding any of the above limits, prepare and submit to the Commission within 30 days, pursuant to Specification 6.9.2, a Special Report, which identifies the cause(s) for exceeding the limit and defines the corrective actions taken to reduce the releases and the proposed corrective actions to be taken to assure the subsequent releases will be within the above limits.
- b. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.11.2.3 Dose Calculations. Cumulative dose contributions shall be determined in accordance with the ODCM at least once every 31 days.

RADIOACTIVE EFFLUENTS

GASEOUS RADWASTE TREATMENT

LIMITING CONDITION FOR OPERATION

3.11.2.4 The Gaseous Radwaste Treatment System and the Ventilation Exhaust Treatment System shall be used to reduce radioactive materials in gaseous waste prior to their discharge when the projected gaseous effluent air doses due to gaseous effluent releases from the site (see Figure 5.1-1), when averaged over 31 days, would exceed 0.2 mrad for gamma radiation and 0.4 mrad for beta radiation. The appropriate portions of the Ventilation Exhaust Treatment System shall be used to reduce radioactive materials in gaseous waste prior to their discharge when the projected doses due to gaseous effluent releases from the site (see Figure 5.1-1) when averaged over 31 days would exceed 0.3 mrem to any organ.

APPLICABILITY: At all times.

ACTION

- a. With gaseous waste being discharged without treatment and in excess of the above limits, prepare and submit to the Commission within 30 days, pursuant to Specification 6.9.2, a Special Report which includes the following information:
1. Identification of the inoperable equipment or subsystems and the reason for inoperability,
 2. Action(s) taken to restore the inoperable equipment to operational status, and
 3. Summary description of action(s) taken to prevent a recurrence.
- b. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.11.2.4 Doses due to gaseous releases from the site shall be projected at least once per 31 days, in accordance with the ODCM.

ADMINISTRATIVE CONTROLS

MONTHLY OPERATING REPORT

6.9.1.6 Routine reports of operating statistics and shutdown experience shall be submitted on a monthly basis to the Director, Office of Management Information and Program Control, U. S. Nuclear Regulatory Commission, Washington, DC 20555, with a copy to the Regional Office, submitted no later than the 15th of each month following the calendar month covered by the report.

6.9.1.7 DELETED by Amendment No. 84

6.9.1.8 DELETED by Amendment No. 84

6.9.1.9 DELETED by Amendment No. 84

ANNUAL RADIOLOGICAL ENVIRONMENTAL REPORT³

6.9.1.10 Routine radiological environmental operating reports covering the operation of the unit during the previous calendar year shall be submitted prior to May 1 of each year and will include reporting any deviations not reported under 6.9.2 with respect to the Radiological Effluent Technical Specifications.

6.9.1.11 The annual radiological environmental reports shall include summaries, interpretations, and statistical evaluation of the results of the radiological environmental surveillance activities for the report period, including a comparison with preoperational studies, operational controls (as appropriate), and previous environmental surveillance reports, and an assessment of the observed impacts of the plant operation on the environment. The reports shall also include the results of the land use censuses required by Specification 3.12.2. If harmful effects or evidence of irreversible damage are detected by the monitoring, the report shall provide an analysis of the problem and a planned course of action to alleviate the problem.

The annual radiological environmental operating reports shall include summarized and tabulated results in the format of Table 6.9-1 of all radiological environmental samples taken during the report period. In the event that some results are not available for inclusion with the report, the report shall be submitted noting and explaining the reasons for the missing results. The missing data shall be submitted as soon as possible in a supplementary report.

³ A single submittal may be made for a multiple unit site. The submittal should combine these sections that are common to both units.

6.0 ADMINISTRATIVE CONTROLS

6.1 RESPONSIBILITY

6.1.1 The Plant Manager shall be responsible for overall facility operation and shall delegate in writing the succession to this responsibility during his absence.

6.2 ORGANIZATION

CORPORATE

6.2.1 The corporate organization for facility management and technical support shall be as shown on Figure 6.2-1.

FACILITY STAFF

6.2.2 The facility organization shall be as shown on Figure 6.2-2 and:

- a. Each on duty shift shall be composed of at least the minimum shift crew composition shown in Table 6.2-1.
- b. At least one licensed Operator shall be in the control room when fuel is in the reactor.
- c. At least two licensed Operators shall be in the control room during reactor start-up, scheduled reactor shutdown and during recovery from reactor trips.
- d. An individual qualified in radiation protection procedures shall be onsite when fuel is in the reactor.
- e. ALL CORE ALTERATIONS after the initial fuel loading shall be directly supervised by either a licensed Senior Reactor Operator or Senior Reactor Operator Limited to Fuel Handling who has no other concurrent responsibilities during this operation.
- f. A Fire Brigade of at least 5 members shall be maintained on site at all times. The Fire Brigade shall not include 3 members of the minimum shift crew necessary for safe shutdown of the unit or any personnel required for other essential functions during a fire emergency.
- g. Administrative procedures shall be developed and implemented to limit the working hours of unit staff who perform safety-related functions; senior reactor operators, reactor operators, radiation control technicians, auxiliary operators, meter and control repairman, and all personnel actually performing work on safety related equipment.

ADMINISTRATIVE CONTROLS (Continued)

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

- a. An individual should not be permitted to work more than 16 hours straight, excluding shift turnover time.
- b. An individual should not be permitted to work more than 16 hours in any 24-hour period, nor more than 24 hours in any 48-hour period, nor more than 72 hours in any seven day period, all excluding shift turnover time.
- c. A break of at least eight hours should be allowed between work periods, including shift turnover time.
- d. Except during extended shutdown periods, the use of overtime should be considered on an individual basis and not for the entire staff on a shift.

Any deviation from the above guidelines shall be authorized by the Plant Manager or predesignated alternate, or higher levels of management. Authorized deviations to the working hour guidelines shall be documented and available for NRC review.

DUQUESNE LIGHT COMPANY
Nuclear Group

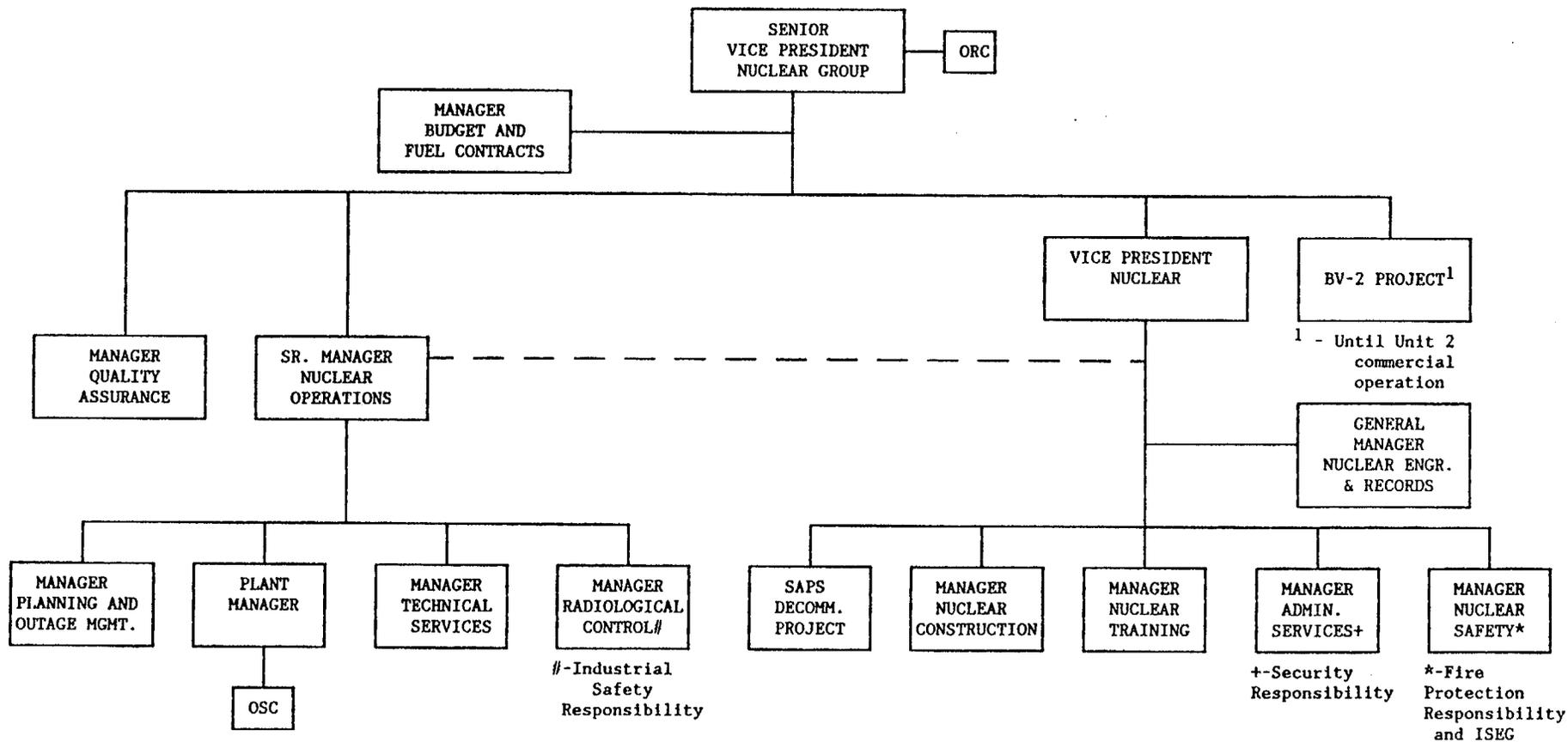


Figure 6.2-1
ACORPORATE ORGANIZATION (Partial)

TABLE 6.2-1

MINIMUM SHIFT CREW COMPOSITION#

SINGLE UNIT FACILITY

LICENSE CATEGORY QUALIFICATIONS	APPLICABLE MODES	
	1, 2, 3 and 4	5 and 6
SRO*	2	1**
RO	2	1
Non-Licensed Auxiliary Operator	2	1
Shift Technical Advisor	1(a)	None Required

* Includes the Licensed Senior Reactor Operator serving as the Shift Supervisor.

** Does not include the licensed Senior Reactor Operator or Senior Reactor Operator Limited to Fuel Handling, supervising CORE ALTERATIONS.

Shift crew composition may be one less than the minimum requirements for a period of time not to exceed 2 hours in order to accommodate unexpected absence of on-duty shift crew members provided immediate action is taken to restore the shift crew composition to within the minimum requirements of Table 6.2-1. This provision does not permit any shift crew position to be unmanned upon shift change due to an oncoming shift crewman being late or absent.

(a) A single qualified person can be used to satisfy the requirements of the STA position for both units.

6.3 FACILITY STAFF QUALIFICATIONS

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

6.4 TRAINING

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

6.4.2 A Training program for the Emergency Squad shall be maintained under the direction of the Nuclear Training Manager and shall meet or exceed the requirements of Section 27 of the NFPA Code-1975.

6.5 REVIEW AND AUDIT

6.5.1 ONSITE SAFETY COMMITTEE (OSC)

FUNCTION

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

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

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

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

ADMINISTRATIVE CONTROLS

ALTERNATES

6.5.1.3 All alternate members shall be appointed in writing by the OSC Chairman to serve on a temporary basis; however, no more than two alternates shall participate as voting members in OSC activities at any one time.

MEETING FREQUENCY

6.5.1.4 The OSC shall meet at least once per calendar month and as convened by the OSC Chairman or his designated alternate.

QUORUM

6.5.1.5 A quorum of the OSC shall consist of the Chairman or his designated alternate and at least one half of the members including alternates.

RESPONSIBILITIES

6.5.1.6 The OSC shall be responsible for:

- a. Review of 1) all procedures required by Specification 6.8 and changes of intent thereto, 2) any other proposed procedures or changes thereto as determined by the Plant Manager to affect nuclear safety.
- b. Review of all proposed tests and experiments that affect nuclear safety.
- c. Review of all proposed changes to the Technical Specifications.
- d. Review of all proposed changes or modifications to plant systems or equipment that affect nuclear safety.
- e. Investigation of all violations of the Technical Specifications including the preparation and forwarding of reports covering evaluation and recommendations to prevent recurrence to the Senior Manager, Nuclear Operations and to the Chairman of the Offsite Review Committee.
- f. Review of all REPORTABLE EVENTS.
- g. Review of facility operations to detect potential safety hazards.
- h. Performance of special reviews, investigations or analyses and reports thereon as requested by the Chairman of the Offsite Review Committee.

ADMINISTRATIVE CONTROLS

AUTHORITY

6.5.1.7 The OSC shall:

- a. Recommend to the Plant Manager written approval or disapproval of items considered under 6.5.1.6(a) through (d) above.
- b. Render determinations in writing with regard to whether or not each item considered under 6.5.1.6(a) through (e) above constitutes an unreviewed safety question.
- c. Provide written notification within 24 hours to the Senior Manager Nuclear Operations and the Offsite Review Committee of disagreement between the OSC and the Plant Manager; however, the Plant Manager shall have responsibility for resolution of such disagreements pursuant to 6.1.1 above.

RECORDS

6.5.1.8 The OSC shall maintain written minutes of each meeting and copies shall be provided to the Senior Manager Nuclear Operations and Chairman of the Offsite Review Committee.

6.5.2 OFFSITE REVIEW COMMITTEE (ORC)

FUNCTION

6.5.2.1 The ORC shall function to provide independent review and audit of designated activities in the areas of:

- a. nuclear power plant operations
- b. nuclear engineering
- c. chemistry and radiochemistry
- d. metallurgy
- e. instrumentation and control
- f. radiological safety
- g. mechanical and electrical engineering
- h. quality assurance practices

ADMINISTRATIVE CONTROLS

COMPOSITION

6.5.2.2 The chairman and all members of the ORC shall be appointed by the Senior Vice President, Nuclear Group. The membership shall consist of a minimum of five individuals who collectively possess a broad based level of experience and competence enabling the committee to review and audit those activities designated in 6.5.2.1 above and to recognize when it is necessary to obtain technical advice and counsel. An individual may possess expertise in more than one speciality area. The collective competence of the committee will be maintained as changes to the membership are made.

ALTERNATES

6.5.2.3 All alternate members shall be appointed in writing by the ORC Chairman to serve on a temporary basis; however, no more than two alternates shall participate as voting members in ORC activities at any one time.

CONSULTANTS

6.5.2.4 Consultants shall be utilized as determined by the ORC Chairman to provide expert advice to the ORC.

MEETING FREQUENCY

6.5.2.5 The ORC shall meet at least once per calendar quarter during the initial year of facility operation following fuel loading and at least once per six months thereafter.

QUORUM

6.5.2.6 A quorum of ORC shall consist of the Chairman or his designated alternate and at least 4 members including alternates. No more than a minority of the quorum shall have line responsibility for operation of the facility.

REVIEW

6.5.2.7 The ORC shall review:

- a. The safety evaluations for 1) changes to procedures, equipment or systems and 2) tests or experiments completed under the provision of Section 50.59, 10 CFR, to verify that such actions did not constitute an unreviewed safety question.
- b. Proposed changes to procedures, equipment or systems which involve an unreviewed safety question as defined in Section 50.59, 10 CFR.
- c. Proposed tests or experiments which involve an unreviewed safety question as defined in Section 50.59, 10 CFR.
- d. Proposed changes in Technical Specifications or licenses.
- e. Violations of applicable statutes, codes, regulations, orders, Technical Specifications, license requirements, or of internal procedures or instructions having nuclear safety significance.
- f. Significant operation abnormalities or deviations from normal and expected performance of plant equipment that affect nuclear safety.
- g. All REPORTABLE EVENTS
- h. All recognized indications of an unanticipated deficiency in some aspect of design or operation of safety-related structures, systems, or components.
- i. Reports and meeting minutes of the OSC.
- j. The results of the Radiological Environmental Monitoring Program annual report provided in accordance with Specification 6.9.1.10, prior to submittal.

AUDITS (Continued)

6.5.2.9 The ORC shall report to and advise the Senior Vice President, Nuclear Group on those areas of responsibility specified in Section 6.5.2.7 and 6.5.2.8.

RECORDS

6.5.2.10 Records of ORC activities shall be prepared, approved and distributed as indicated by the following:

- a. Minutes of each ORC meeting shall be prepared for and approved by the ORC Chairman or Vice-Chairman within 14 days following each meeting.
- b. Reports of reviews encompassed by Section 6.5.2.7 above, shall be documented in the ORC meeting minutes.
- c. Audit reports encompassed by Section 6.5.2.8 above, shall be forwarded to the Senior Vice President, Nuclear Group and to the management positions responsible for the areas audited within 30 days after completion of the audit.

6.6 REPORTABLE EVENT ACTION

6.6.1 The following actions shall be taken for REPORTABLE EVENTS:

- a. The Commission shall be notified in accordance with 10 CFR 50.72 and/or a report be submitted pursuant to the requirements of Section 50.73 to 10CFR Part 50, and
- b. Each REPORTABLE EVENT shall be reviewed by the OSC, and results of this review shall be submitted to the ORC.

6.7 SAFETY LIMIT VIOLATION

6.7.1 The following actions shall be taken in the event a Safety Limit is violated:

- a. The facility shall be placed in at least HOT STANDBY within one (1) hour.
- b. The Safety Limit violation shall be reported to the Commission, the Senior Manager, Nuclear Operations and to the ORC within 24 hours.

SAFETY LIMIT VIOLATION (Continued)

- c. A Safety Limit Violation Report shall be prepared. The report shall be reviewed by the On-Site Safety Committee (OSC). This report shall describe (1) applicable circumstances preceding the violation, (2) effects of the violation upon facility components, systems or structures, and (3) corrective action taken to prevent recurrence.
- d. The Safety Limit Violation Report shall be submitted to the Commission, the ORC and the Senior Manager, Nuclear Operations within 14 days of the violation.

6.8 PROCEDURES

6.8.1 Written procedures shall be established, implemented, and maintained covering the activities referenced below:

- a. The applicable procedures recommended in Appendix "A" of Regulatory Guide 1.33, Revision 2, February 1978.
- b. Refueling operations.
- c. Surveillance and test activities of safety related equipment.
- d. Security Plan implementation.
- e. Emergency Plan implementation.
- f. Fire Protection Program implementation.
- g. PROCESS CONTROL PROGRAM implementation.
- h. OFFSITE DOSE CALCULATION MANUAL implementation.

6.8.2 Each procedure and administrative policy of 6.8.1 above and changes of intent thereto, shall be reviewed by the OSC and approved by the Plant Manager, predesignated alternate or a predesignated Manager to whom the Plant Manager has assigned in writing the responsibility for review and approval of specific subjects considered by the committee, as applicable. Changes to procedures and administrative policies of 6.8.1 above that do not receive OSC review, such as correcting typographical errors, reformatting procedures and other changes not affecting the purpose for which the procedure is performed shall receive an independent review by a qualified individual and approved by . designated manager or director.

ADMINISTRATIVE CONTROLS

6.8.3 Temporary changes to procedures of 6.8.1 above may be made provided:

- a. The intent of the original procedure is not altered.
- b. The change is approved by two (2) members of the plant management staff, at least one (1) of whom hold a Senior Reactor Operator's License on the unit affected.
- c. The change is documented, reviewed by the OSC and approved by the Plant Manager within 14 days of implementation.

6.9 REPORTING REQUIREMENTS

ROUTINE REPORTS

6.9.1 In addition to the applicable reporting requirements of Title 10, Code of Federal Regulations, the following reports shall be submitted to the Director of the Regional Office of Inspection and Enforcement unless otherwise noted.

STARTUP REPORTS

6.9.1.1 A summary report of plant startup and power escalation testing will be submitted following (1) receipt of an operating license, (2) amendment to the license involving a planned increase in power level, (3) installation of fuel that has a different design or has been manufactured by a different fuel supplier, and (4) modifications that may have significantly altered the nuclear, thermal, or hydraulic performance of the plant.

6.9.1.2 The startup report shall address each of the tests identified in the FSAR and shall include a description of the measured values of the operating conditions or characteristics obtained during the test program and a comparison of these values with design predictions and specifications. Any corrective actions that were required to obtain satisfactory operation shall also be described. Any additional specific details requested in license conditions based on other commitments shall be included in this report.

6.9.1.3 Startup reports shall be submitted within (1) 90 days following completion of the startup test program, (2) 90 days following resumption or commencement of commercial power operation, or (3) 9 months following initial criticality, whichever is earliest. If the Startup Report does not cover all three events (i.e., initial criticality, completion of startup test program, and resumption or commencement of commercial power operation), supplementary reports shall be submitted at least every three months until all three events have been completed.

ADMINISTRATIVE CONTROLS

6.16.3 Background of what constitutes "MAJOR CHANGES" to radioactive waste systems (liquid, gaseous, and solid).

A. Background

1. 10 CFR Part 50, Section 50.34a(a) requires that each application to construct a nuclear power reactor provide a description of the equipment installed to maintain control over radioactive material in gaseous and liquid effluents produced during normal reactor operations including operational occurrences.
2. 10 CFR Part 50, Section 50.34a(b)(2) requires that each application to construct a nuclear power reactor provide an estimate of the quantity of radionuclides expected to be released annually to unrestricted areas in liquid and gaseous effluents produced during normal reactor operation.
3. 10 CFR Part 50, Section 50.34a(3) requires that each application to construct a nuclear power reactor provide a description of the provisions for packaging, storage and shipment offsite of solid waste containing radioactive materials resulting from treatment of gaseous and liquid effluents and from other sources.
4. 10 CFR Part 50, Section 50.34a(3)(c) requires that each application to operate a nuclear power reactor shall include (1) a description of the equipment and procedures for the control of gaseous and liquid effluents and for the maintenance and use of equipment installed in radioactive waste systems and (2) a revised estimate of the information required in (b)(2) if the expected releases and exposures differ significantly from the estimate submitted in the application for a construction permit.
5. The Regulatory staff's Safety Evaluation Report and amendments thereto issued prior to the issuance of an operating license contains a description of the radioactive waste systems installed in the nuclear power reactor and a detailed evaluation (including estimated releases of radioactive materials in liquid and gaseous waste and quantities of solid waste produced from normal operation, estimated annual maximum exposures to an individual in the unrestricted area and estimated exposures to the general population) which shows the capability of these systems to meet the appropriate regulations.

6.17 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM

The Senior Manager Nuclear Operations delegates the responsibility for the Radiological Environmental Monitoring Program to the Radiological Control Manager (Figure 6.2-1) or his designated alternate.

The Radiological Control Manager is responsible for administering the offsite Radiological Environmental Monitoring Program. He shall determine that the sampling program is being implemented as described to verify that the environment is adequately protected under existing procedures. He shall also have the responsibility for establishing, implementing, maintaining and approving offsite environmental program sampling, analyses and calibration procedures.

3/4.11 RADIOACTIVE EFFLUENTS

BASES

Revision 1, October, 1977, and Regulatory Guide 1.113, "Estimating Aquatic Dispersion of Effluents from Accidental and Routine Reactor Releases for the Purpose of Implementing Appendix I," April, 1977. NUREG-0133 provides methods for dose calculations consistent with Regulatory Guides 1.109 and 1.113.

This specification applies to the release of liquid effluents from Beaver Valley Power Station, Unit No. 1. For units with shared radwaste treatment systems, the liquid effluents from the shared system are proportioned among the units sharing that system.

3/4.11.1.3 LIQUID WASTE TREATMENT

The requirements that the appropriate portions of this system be used when specified provides assurance that the releases of radioactive materials in liquid effluents will be kept "as low as is reasonably achievable." This specification implements the requirements of 10 CFR Part 50.36a, General Design Criterion 60 of Appendix A to 10 CFR Part 50 and design objective given in Section II.D of Appendix I to 10 CFR Part 50. The specified limits governing the use of appropriate portions of the liquid radwaste treatment system were specified as a suitable fraction of the dose design objectives set forth in Section II.A of Appendix I, 10 CFR Part 50, for liquid effluents. This specification applies to Beaver Valley Power Station, Unit No. 1.

3/4.11.1.4 LIQUID HOLDUP TANKS

Restricting the quantity of radioactive material contained in the specified tanks provides assurance that the event of an uncontrolled release of the tanks' contents, the resulting concentrations would be less than the limits of 10 CFR Part 20, Appendix B, Table II, Column 2, at the nearest portable water supply and the nearest surface water supply in an unrestricted area.

3/4.11.2 GASEOUS EFFLUENTS

3/4.11.2.1 DOSE RATE

This specification is provided to ensure that the dose at anytime at the site boundary from gaseous effluents from all units on the site will be within the annual dose limits of 10 CFR Part 20



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 110 TO FACILITY OPERATING LICENSE NO. DPR-66

DUQUESNE LIGHT COMPANY
OHIO EDISON COMPANY
PENNSYLVANIA POWER COMPANY
BEAVER VALLEY POWER STATION, UNIT NO. 1

DOCKET NO. 50-334

1.0 INTRODUCTION

By letters dated January 15, May 8 and June 30, 1986, and January 15, March 5, March 17 and April 6, 1987, the licensee requested changes to the Administrative Controls, Section 6, of the Technical Specifications for Beaver Valley Power Station, Unit 1. The licensee's letter of May 8, 1986, furnished information in response to questions that had been raised by the staff following its initial review of the January 15, 1986 letter. This evaluation addresses all of the changes requested by the licensee such that it presents the staff evaluation of the organization as finally proposed through Revision 5 of the submittal (April 6, 1987).

2.0 DISCUSSION AND EVALUATION

1. Sections 6.1.1, 6.5.1.1., 6.5.1.6(a), 6.5.1.7(a), 6.5.1.7(c), 6.8.2 and 6.8.3(c) - The previous title of "Plant Superintendent" would be changed to "Plant Manager". This is a title change only and is acceptable.
2. Sections 6.2 and 6.2.1 - The previous designation of "Offsite Organization" would be changed to "Corporate Organization". This is a title change only and is acceptable.
3. Figure 6.2-1 - The January 15, 1986 letter proposed extensive changes to this figure, including a title change to "Corporate Organization (Partial)", consistent with Item 2, above. The licensee's letter of May 8, 1986, provided a comparison of the new position titles with the titles appearing in the existing Technical Specifications, and a functional description of each of the new positions. Our review of the proposed changes indicated that the resulting organization would be in accordance with the guidance of the Standard Review Plan, Section 13.1.1.

8706300577 870623
PDR ADOCK 05000334
PDR

The licensee's letter dated January 15, 1987 (Revision 2) proposed to further modify the corporate organization. The previously proposed title change of the senior nuclear officer to Nuclear Group Vice President would be further changed to Senior Vice President, Nuclear Group. This is a title change only and is acceptable. Reporting to this position would be a Manager, Budget and Fuel Contracts; a Manager, Quality Assurance; a Senior Manager, Nuclear Operations; a Vice President, Nuclear; and the Beaver Valley Unit 2 Project. The latter office will disband when Unit 2 achieves commercial operation.

The Senior Manager, Nuclear Operations is the proposed new title for the previously designated Nuclear Operations General Manager. Reporting to this position would be the Plant Manager; the Manager, Technical Services; the Manager, Planning and Outage Management; and the Manager, Radiological Control.

The newly established Vice President, Nuclear would provide support services to the nuclear program. Reporting to this position would be the Manager, Nuclear Training; the Manager, Nuclear Construction; the Manager, Admin. Services; the Manager, Nuclear Safety; the General Manager, Nuclear Engineering and Records; and the Shippingport Atomic Power Station (SAPS) Decommissioning Project.

The March 17, 1987 letter (Revision 4) further modified Figure 6.2-1 to show the Offsite Review Committee (ORC) reporting to the Senior Vice President, Nuclear Group, and the Independent Safety Engineering Group (ISEG) reporting to the Manager, Nuclear Safety, who reports to the Vice President Nuclear. These reporting relationships are consistent with the SRP Section 13.4 requirements and are acceptable.

We have reviewed the proposed changes to the licensee's corporate organization including the changes through Revision 5. We find that the resulting organization provides for the type of support services

that normally are provided at the corporate level and that the functional groupings for corporate support are logically organized. Overall, the proposed revisions result in an organization that is consistent with the guidance of the Standard Review Plan, Section 13.1.1. We therefore find the proposed organization acceptable.

4. Figure 6.2-2 - The January 15, 1986 letter proposed certain changes to the figure describing the plant organization, but essentially the revised figure would be merely a simplified version of the figure appearing in the existing Technical Specifications. Functions regarding refueling activity planning and engineering support activities were moved from the plant to the corporate support groups. The proposed revision included extensive title changes of the positions at the plant. The licensee's letter dated May 8, 1986, provided a comparison of the proposed new titles with those in the existing figure and provided a functional description of the proposed new positions. Our review found that the functions provided in the revised organization were consistent with those in the existing organization except for the refueling and engineering support activities noted earlier. Overall, we found that the proposed new organization was consistent with the guidance of the Standard Review Plan, Section 13.1.2, and was, therefore, acceptable.

The licensee's letter of January 15, 1987 (Revision 2), proposes further changes to the plant organization. The previously proposed title of Operations Director would now be changed to Assistant Plant Manager, with responsibilities for operation of both Unit 1 and Unit 2. Two Nuclear Operating Supervisors would be provided, one for each unit, supervising separate groups of licensed and unlicensed operators. A third group would also be provided, headed by the Nuclear Operating Supervisor, Operations Support. Within this group would be the Radwaste Coordinator and staff, and the Operations Coordinators and Operations Engineers, who would provide support to both units. A Maintenance Support Supervisor and staff would be added to the maintenance department to provide addi-

tional manpower in support of plant maintenance requirements. Minor changes would be made to the I&C organization to show the staffs (I&C Foreman and I&C Staff) reporting to the I&C Maintenance Supervisor and to the I&C Calibration Supervisor. The position of the Plant Safety Review Director (OSC) has been clarified to show that he reports directly to the Plant Manager, but with a communication line to the Technical Services Manager.

We have reviewed the proposed changes to the plant organization through the changes proposed by Revision 2. We find that the resulting organization provides coverage for those functions normally required at an operating plant and that the functional groupings are logically organized. Overall, we find that the proposed revisions result in an organization that is consistent with the guidance of the Standard Review Plan, Section 13.1.2, and that the revised organization is, therefore, acceptable.

5. Table 6.2-1 - A proposed change to this table would delete a footnote regarding a temporary staffing change which was authorized until December 1, 1983. This temporary authorization has now expired and deletion of the footnote is, therefore, acceptable.

A second change to this table, proposed in the March 5, 1987 letter (Revision 3), would add a footnote stating that a single qualified person may act as Shift Technical Advisor (STA) for both Unit 1 and Unit 2. This statement is consistent with the requirements for STAs as specified in the Standard Review Plan, Section 13.1.2, and is acceptable.

6. Section 6.3.1 and 6.17 - Change the title Radiological Operations Coordinator to Radiological Control Manager. This change is consistent with the revised titles at the plant, is a change only in title, and is, therefore, acceptable.

7. Sections 6.4.1 and 6.4.2 - Change the title of the Director Nuclear Division Training to the Nuclear Training Manager. This change is consistent with the revised titles at the plant, is a change only in title, and is, therefore, acceptable. Section 6.4.2 has also been revised to correct a typographical error, changing "NEPA Code-1976" to "NFPA Code-1975". This is acceptable.

8. Section 6.5.1.1 - Revise to add the words, "and shall provide review capability in the areas of:

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

This change specifies the functional areas of OSC review capability and, in conjunction with Item 9, below, is acceptable.

9. Section 6.5.1.2 - Delete the titles of the OSC members and replace with, "The Plant Safety Review Director is the OSC Chairman and shall appoint all members of the OSC. The membership shall consist of a minimum of one individual from each of the areas designated in 6.5.1.1." In conjunction with the proposed changes to Section 6.5.1.1, described in Item 8 above, and the change to Section 6.5.1.5, described in Item 12 below, this change accomplishes the purpose of specifying OSC membership and is acceptable.

10. Section 6.5.1.2 - The first NOTE to this section has been deleted. The intent of the note regarding who appoints OSC members is now incorporated in the body of the section while the reference to minimum periods of membership has been deleted. The result is in accordance with the Standard Review Plan, Section 13.4, and is acceptable.
11. Section 6.5.1.2 - A second NOTE to this section has been deleted and the words have been incorporated in the body of the Section. This is acceptable. A change also has been made to specify that OSC alternate members will meet the same minimum qualification as members. This is acceptable.
12. Section 6.5.1.5 - Quorum requirements for OSC meetings would be changed to specify that, "A quorum of the OSC shall consist of the Chairman or his designated alternate and at least one-half of the members including alternates". This accomplishes the intent of having a majority of the members or their alternates present to conduct OSC business, and is acceptable.
13. Section 6.5.1.6.a and 6.8.2 - Add the words "of intent" to specify that the OSC will review, "all procedures required by Specification 6.8 and changes of intent thereto". This change would decrease the OSC workload by reducing the changes that must be reviewed by the OSC, such as correcting typographical errors, reformatting procedures and other changes not affecting the purpose for which the procedure is performed. The intent of this change is acceptable.
14. Section 6.5.1.6.c - Delete the words "Appendix A" such that this section reads, "Review of all proposed changes to the Technical Specifications". This change is acceptable since the Technical Specifications are no longer divided into an Appendix A and Appendix B.
15. Section 6.5.1.6.e, 6.5.1.7.c, 6.5.1.8, 6.7.1.b, and 6.7.1.d - Revise the title "Manager of Nuclear Operations" to "Senior Manager Nuclear Operations". This change is consistent with the title changes in the corporate organization, is a change only in title, and is acceptable.

16. Section 6.5.2.2 - Change to delete the listing of designated ORC members and replace with, "The Chairman and all members of the ORC shall be appointed by the Senior Vice President, Nuclear Group. The membership shall consist of a minimum of five individuals who collectively possess a broad based level of experience and competence enabling the committee to review and audit those activities designated in 6.5.2.1 above and to recognize when it is necessary to obtain technical advice and counsel. An individual may possess expertise in more than one speciality area. The collective competence of the committee will be maintained as changes to the membership are made".

This change assures that the broad review capability of the ORC will be maintained, while avoiding the necessity of changing the Technical Specifications each time there is a title change among the designated ORC members. The composition of the ORC as revised is in accordance with the guidance of the Standard Review Plan, Section 13.4, and is therefore, acceptable.

17. Section 6.5.2.6 - Change the quorum requirements for the ORC to specify that, "A quorum of the ORC shall consist of the Chairman or his designated alternate and at least four members including alternates. No more than a minority of the quorum shall have line responsibility for operation of the facility". In conjunction with Section 6.5.2.2 "Composition" and Section 6.5.2.3 "Alternates", this section would allow an ORC meeting to be conducted with a total of five members.
18. Section 6.5.2.7.j - Change the wording to specify that the ORC will review "The results of the Radiological Environmental Monitoring Program annual report provided in accordance with specification 6.9.1.10, prior to submittal." The intent of this change is to assure that the ORC reviews these reports prior to submittal to the NRC. This change clarifies only the language of this requirement , and is acceptable.
19. Section 6.5.2.9 - This section would be revised to show the ORC reporting to and advising the Senior Vice President, Nuclear Group. This is consistent with Figure 6.2-1 and is acceptable.

20. Section 6.5.2.10.a - This section would be revised to allow approval of ORC meeting minutes by the Vice Chairman as well as the Chairman. We find this acceptable since the Vice Chairman would be the knowledgeable individual for the meetings he chairs.
21. Section 6.5.2.10.b - A change to this section would delete the requirement that reports of ORC reviews encompassed by Section 6.5.1.7 be forwarded to the ORC Chairman within 14 days following completion of the review and replace it with, "Reports of reviews encompassed by Section 6.5.2.7 above shall be documented in the ORC meeting minutes". We find this acceptable since forwarding of reports by the ORC Chairman to the ORC Chairman is a meaningless requirement. The review should be documented in the meeting minutes.
22. Section 6.5.2.10.c - The person who should receive ORC reports is the Senior Vice President, Nuclear Group. This is consistent with the revised organization and is acceptable.
23. Section 6.5.2.10.d - The licensee proposes to delete this section, which requires the Vice President, Nuclear to review all ORC recommendations, on the basis that the Vice President, Nuclear is the ORC Chairman and performs the ORC meeting minute review and approval. In fact, the proposed changes to the Technical Specifications do not now specify the Chairman of the ORC, stating only that the Chairman and members of the ORC are appointed by the Senior Vice President, Nuclear Group. However, the Standard Technical Specifications do not specify what the recipient of ORC reports is to do with them. Therefore, we have no reason to prescribe what the Senior Vice President, Nuclear Group does with the Beaver Valley ORC reports, and we agree that this section may be deleted.
24. Section 6.8.1.a - This section would be changed to specify that procedures recommended in Appendix "A" of Regulatory Guide 1.33, Revision 2, would be addressed. This change updates the reference to the latest version of the Regulatory Guide, and makes this specification consistent with those for Unit 2. The change is, therefore, acceptable.

25. Section 6.13.3 - This section would be renumbered to 6.16.3 to correct a typographical error. This change is acceptable.
26. Section 6.17 - This section would be changed to revise the title, "Manager of Nuclear Safety" to "Senior Manager Nuclear Operations". This change is acceptable since the Manager of Radiological Control will now report to the Senior Manager Nuclear Operations.
27. Index of the Technical Specifications - The Index has been retyped and a listing of Tables (Table Index) has been introduced. There are no technical issues involved and the changes are purely editorial.
28. A number of technical specifications have been deleted or relocated by previous amendments, leaving blank pages behind. These blank pages are deleted and remaining pages that have been affected are renumbered. No technical issues are involved. The Attachment to the license amendment lists the affected and deleted pages.

3.0 ENVIRONMENTAL CONSIDERATION

This amendment involves changes in administrative procedures or requirements. Accordingly, this amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 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.

4.0 CONCLUSION

We have concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (2) such activities will be conducted in compliance with the Commission's regulations and the issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public.

Dated: June 23, 1987

Principal Contributors:
L. Crocker
V. Benaroya
P. Tam