

ATTACHMENT A-1

Beaver Valley Power Station, Unit No. 1
Proposed License Amendment Request No. 246

The following is a list of the affected pages:

Affected Pages:	Operating License Page 6
	IV
	X
	XV
	XVI
	1-3
	1-6
	1-8
	3/4 0-1
	3/4 3-34
	3/4 3-34a
	3/4 3-35
	3/4 3-38
	3/4 3-41
	3/4 3-42
	3/4 3-43
	3/4 3-54
	3/4 4-10e
	3/4 5-3
	3/4 5-6
	3/4 7-23
	3/4 11-2
	3/4 11-4
	B 3/4 3-2
	B 3/4 4-1
	5-1
	6-16
	6-17
	6-18
	6-19
	6-20
	6-21

(6) Systems Integrity

Duquesne Light Company shall implement a program to reduce leakage from systems outside containment that would or could contain highly radioactive fluids during a serious transient or accident to as low as practical levels. This program shall include the following:

1. Provisions establishing preventive maintenance and periodic visual inspection requirements, and
2. Integrated leak test requirements for each system at a frequency not to exceed refueling cycle intervals.

(7) Iodine Monitoring

Duquesne Light Company shall implement a program which will ensure the capability to accurately determine the airborne iodine concentration in vital areas under accident conditions. This program shall include the following:

1. Training of personnel,
2. Procedures for monitoring, and
3. Provisions for maintenance of sampling and analysis equipment.

(8) Backup Method for Determining Subcooling Margin

Duquesne Light Company shall implement a program which will ensure the capability to accurately monitor the Reactor Coolant System subcooling margin. This program shall include the following:

1. Training of personnel, and
2. Procedures for monitoring.

(9) Surveillance Interval Extension

~~Deleted~~
The performance interval for those surveillance requirements identified in the licensee's request for surveillance interval extension dated August 18, 1992, as modified by letter dated September 2, 1992, shall be extended to 24 months to coincide with the Cycle 9 refueling outage.

INDEXLIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

<u>SECTION</u>		<u>PAGE</u>
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
<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 RATIO	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
3/4.3.3.7	Chlorine Detection System	3/4 3-49
3/4.3.3.8	Accident Monitoring Instrumentation . . .	3/4 3-50
3/4.3.3.11	Explosive Gas Monitoring Instrumentation.	3/4 3-54

INDEX

BASES

<u>SECTION</u>	<u>PAGE</u>
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 Moveable 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
3/4.3.3.7 Chlorine Detection Systems	B 3/4 3-3
3/4.3.3.8 Accident Monitoring Instrumentation . . .	B 3/4 3-3
3/4.3.3.11 Explosive Gas 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 Instrumentation	B 3/4 4-3
3/4.4.6.2 Operational Leakage	B 3/4 4-3d
3/4.4.6.3 Pressure Isolation Valve Leakage.	B 3/4 4-3j
3/4.4.7 CHEMISTRY	B 3/4 4-4
BEAVER VALLEY - UNIT 1	X Amendment No. 133

(Proposed wording)

INDEX

ADMINISTRATIVE CONTROLS

<u>SECTION</u>	<u>PAGE</u>
<u>6.8 PROCEDURES</u>	6-6
<u>6.9 REPORTING REQUIREMENTS</u>	6-16
6.9.1 Routine Reports	6-16
6.9.2 Startup Reports	6-17
6.9.1.1,2,3 Annual Radiological Environmental Operating Report	6-18
6.9.3 Annual Reports	6-17
6.9.1.4,5 Annual Radiological Environmental Operating Report	6-17
6.9.4 Annual Reports	6-17
6.9.1.6 Monthly Operating Report	6-18
6.9.1.10 Annual Radiological Environmental Operating Report	6-18
6.9.1.11 Annual Radiological Environmental Operating Report	6-18
6.9.1.12 Annual Radiological Environmental Operating Report	6-18
6.9.5 Core Operating Limits Report (COLR)	6-18
6.9.1.12 Annual Radiological Environmental Operating Report	6-18
6.9.2 SPECIAL REPORTS	6-20
<u>6.10 DELETED</u>	
<u>6.11 RADIATION PROTECTION PROGRAM</u>	6-21
<u>6.12 HIGH RADIATION AREA</u>	6-23
<u>6.13 PROCESS CONTROL PROGRAM (PCP)</u>	6-24
<u>6.14 OFFSITE DOSE CALCULATION MANUAL (ODCM)</u>	6-24
<u>6.16 MAJOR CHANGES TO RADIOACTIVE WASTE TREATMENT SYSTEMS</u>	6-25
<u>6.17 CONTAINMENT LEAKAGE RATE TESTING PROGRAM</u>	6-25

TABLE INDEX

<u>TABLE</u>	<u>TITLE</u>	<u>PAGE</u>
2.2-1	Reactor Trip System Instrumentation Trip Setpoints	2-6
3.1-1	Accident Analyses Requiring Reevaluation 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
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
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

DEFINITIONS

CHANNEL FUNCTIONAL TEST

1.11 A CHANNEL FUNCTIONAL TEST shall be the injection of a simulated signal into the channel as close to the primary sensor as practicable to verify OPERABILITY including alarm and/or trip functions.

CORE ALTERATION

REPLACE WITH INSERT 1

1.12 CORE ALTERATION shall be the movement or manipulation of any component within the reactor pressure vessel with the vessel head removed and fuel in the vessel. Suspension of CORE ALTERATIONS shall not preclude completion of movement of a component to a safe conservative position.

SHUTDOWN MARGIN

1.13 SHUTDOWN MARGIN shall be the instantaneous amount of reactivity by which the reactor is or would be subcritical from its present condition assuming all full length rod cluster assemblies (shutdown and control) are fully inserted except for the single rod cluster assembly of highest reactivity worth which is assumed to be fully withdrawn.

LEAKAGE

1.14 LEAKAGE shall be:

a. Identified LEAKAGE

1. LEAKAGE, such as that from pump seals or valve packing (except reactor coolant pump seal water injection or leakoff), that is captured and conducted to collection systems or a sump or collecting tank;
2. LEAKAGE into the containment atmosphere from sources that are both specifically located and known either not to interfere with the operation of leakage detection systems or not to be Pressure Boundary LEAKAGE, or
3. Reactor coolant system LEAKAGE through a steam generator to the secondary system.

b. Unidentified LEAKAGE

Unidentified LEAKAGE shall be all LEAKAGE (except reactor coolant pump seal water injection or leakoff) that is not Identified LEAKAGE.

Attachment A-1
Beaver Valley Power Station, Unit No. 1
License Amendment Request No. 246

INSERT 1

1.12 CORE ALTERATION shall be the movement of any fuel, sources, or reactivity control components within the reactor vessel with the vessel head removed and fuel in the vessel. Suspension of CORE ALTERATIONS shall not preclude completion of movement of a component to a safe position.

SOURCE CHECK

1.27 A SOURCE CHECK shall be the qualitative assessment of channel response when the channel sensor is exposed to a radioactive source.

PROCESS CONTROL PROGRAM

1.28 The PROCESS CONTROL PROGRAM (PCP) shall contain the current formulas, sampling, analyses, test, and determinations to be made to ensure that processing and packaging of solid radioactive wastes based on demonstrated processing of actual or simulated wet solid wastes will be accomplished in such a way as to assure compliance with 10 CFR Parts 20, 61, and 71, State regulations, burial ground requirements, and other requirements governing the disposal of solid radioactive waste.

1.29 DELETED

OFFSITE DOSE CALCULATION MANUAL (ODCM)

1.30 The OFFSITE DOSE CALCULATION MANUAL (ODCM) shall contain the methodology and parameters used in the calculation of offsite doses resulting from radioactive gaseous and liquid effluents, in the calculation of gaseous and liquid effluent monitoring Alarm/Trip Setpoints, and in the conduct of the Environmental Radiological Monitoring Program. The ODCM shall also contain (1) the Radioactive Effluent Controls and Radiological Environmental Monitoring Programs required by Section 6.8.6 and (2) descriptions of the information that should be included in the Annual Radiological Environmental Operating and Annual Radioactive Effluent Release Reports required by Specifications ~~6.9.1.10 and 6.9.1.11~~ in *The Administrative Control Section*.

GASEOUS RADWASTE TREATMENT SYSTEM

1.31 A GASEOUS RADWASTE TREATMENT SYSTEM is any system designed and installed to reduce radioactive gaseous effluents by collecting primary coolant system offgases from the primary system and providing for delay or holdup for the purpose of reducing the total radioactivity prior to release to the environment.

VENTILATION EXHAUST TREATMENT SYSTEM

1.32 A VENTILATION EXHAUST TREATMENT SYSTEM is any system designed and installed to reduce gaseous radioiodine or radioactive

DPR-65
DEFINITIONS

- 2) Major changes in the design of radwaste treatment systems (liquid, gaseous and solid) that could significantly increase the quantities or activity of effluents released or volumes of solid waste stored or shipped offsite from those previously considered in the FSAR and SER (e.g., use of asphalt system in place of cement);
- 3) Changes in system design which may invalidate the accident analysis as described in the SER (e.g., changes in tank capacity that would alter the curies released); and
- 4) Changes in system design that could potentially result in a significant increase in occupational exposure of operating personnel (e.g., use of temporary equipment without adequate shielding provisions.)

MEMBER(S) OF THE PUBLIC

1.36 MEMBER(S) OF THE PUBLIC shall include all persons who are not occupationally associated with the plant. This category does not include employees of the utility, its contractors or its vendors. Also excluded from this category are persons who enter the site to service equipment or to make deliveries and persons who traverse portions of the site as the consequence of a public highway, railway or waterway located within the confines of the site boundary. This category does include persons who use portions of the site for recreational, occupational, or other purposes not associated with the plant.

CORE OPERATING LIMITS REPORT

1.37 The CORE OPERATING LIMITS REPORT (COLR) is the unit-specific document that provides core operating limits for the current operating reload cycle. These cycle-specific core operating limits shall be determined for each reload cycle in accordance with Specification 6.9.1.12. Plant operation within these operating limits is addressed in individual specifications.

1.36 MEMBER(S) OF THE PUBLIC means any individual except when that individual is receiving an occupational dose.

3/4 LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS3/4.0 APPLICABILITY

, except as provided in Limiting
Condition for Operation 3.0.6.

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 when the conditions for the Limiting Conditions for Operation are not met and the associated ACTION requires a shutdown if they are not met within a specified time interval. Entry into an OPERATIONAL MODE or specified condition may be made in accordance with ACTION requirements when conformance to them permits continued operation of the facility for an unlimited period of time. This provision shall not prevent passage through or to 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:

(Proposed Wording)

RADIATION MONITORING INSTRUMENTATION

<u>INSTRUMENT</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>APPLICABLE MODES</u>	<u>SETPOINT</u> ⁽³⁾	<u>MEASUREMENT RANGE</u>	<u>ACTION</u>
1. AREA MONITORS					
a. Fuel Storage Pool Area (RM-207)	1	(1)	≤ 15 mR/hr	10 ⁻¹ - 10 ⁴ mR/hr	19
b. Containment					
i. Purge & Exhaust Isolation (RMVS 104 A & B)	1	6	≤ 1.6 x 10 ³ cpm	10 - 10 ⁶ cpm	22
ii. Area (RM-RM-219 A & B)	2	1,2,3 & 4	≤ 1.5 x 10 ⁴ R/hr	1 - 10 ⁷ R/hr	36 35
c. Control Room Isolation (RM-RM-218 A & B)	2	1,2,3,4,5 ⁽⁴⁾ ,6 ⁽⁴⁾ (in either unit)	≤ .47 mR/hr	10 ⁻² - 10 ³ mR/hr	41
2. PROCESS MONITORS					
a. Containment					
i. Gaseous Activity RCS Leakage Detection (RM 215B)	1	1,2,3 & 4	N/A	10 - 10 ⁶ cpm	20
ii. Particulate Activity RCS Leakage Detection (RM 215A)	1	1,2,3 & 4	N/A	10 - 10 ⁶ cpm	20
b. Fuel Storage Building Gross Activity (RMVS-103 A & B)	1	(2)	≤ 4.0 x 10 ⁴ cpm	10 - 10 ⁶ cpm	21

TABLE 3.3-6 (Continued)

DPR-66

RADIATION MONITORING INSTRUMENTATION

<u>INSTRUMENT</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>APPLICABLE MODES</u>	<u>SETPOINT</u> ⁽³⁾	<u>MEASUREMENT RANGE</u>	<u>ACTION</u>
PROCESS MONITORS (Continued)					
2.c. Noble Gas Effluent Monitors					
i. Supplementary Leak Collection and Release System (RM-VS-110 Ch. 7 & Ch. 9) ⁽⁷⁾	1	1, 2, 3, & 4	$\leq 7.98 \times 10^2 \text{ cpm}$	$10^{-2} - 10^5 \text{ uCi/cc}^{(5)}$	36 ³⁵
ii. Auxiliary Building Ventilation System (RM-VS-109 Ch. 7 & Ch. 9) ⁽⁷⁾	1	1, 2, 3, & 4	$\leq 6.69 \times 10^2 \text{ cpm}$	$10^{-2} - 10^5 \text{ uCi/cc}^{(5)}$	36 ³⁵
iii. Process Vent System (RM-GW-109 Ch. 7 & Ch. 9) ⁽⁷⁾	1	1, 2, 3, & 4	$\leq 1.83 \times 10^5 \text{ cpm}$	$10^{-2} - 10^5 \text{ uCi/cc}^{(6)}$	36 ³⁵
iv. Atmospheric Steam Dump Valve and Code Safety Relief Valve Discharge (RM-MS-100 A, B, C)	1/SG	1, 2, 3, & 4	$\leq 5.0 \times 10^1 \text{ cpm}$	$10^{-1} - 10^3 \text{ uCi/cc}$	36 ³⁵
v. Auxiliary Feedwater Pump Turbine Exhaust (RM-MS-101)	1	1, 2, 3, & 4	$\leq 6.5 \times 10^2 \text{ cpm}$	$10^{-1} - 10^3 \text{ uCi/cc}$	36 ³⁵

TABLE NOTATIONS

- (1) With fuel in the storage pool or building.
- (2) With Irradiated fuel in the storage pool.
- (3) Above background.
- (4) During movement of irradiated fuel or movement of heavy loads over spent fuel.
- (5) Nominal range for Ch. 7 and Ch. 9. Alarm set on Ch. 7.
- (6) Nominal range for Ch. 7 and Ch. 9. Alarm set on Ch. 9.
- (7) Other SPING-4 channels not applicable to this specification.

ACTION STATEMENTS

- ACTION 19 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, perform area surveys of the monitored area with portable monitoring instrumentation at least once per 24 hours.
- ACTION 20 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, comply with the ACTION requirements of Specification 3.4.6.1.
- ACTION 21 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, comply with the applicable ACTION requirements of Specification 3.9.12 and 3.9.13.
- ACTION 22 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, comply with the ACTION requirements of Specification 3.9.9.
- ACTION ³⁵~~36~~ - With the number of OPERABLE channels less than required by the Minimum Channels OPERABLE requirement, either restore the inoperable Channel(s) to OPERABLE status within 72 hours, or:
- a) Initiate the preplanned alternate method of monitoring the appropriate parameter(s), and
 - b) Return the channel to OPERABLE status within 30 days, or, explain in the next Annual Radioactive Effluent Release Report why the inoperability was not corrected in a timely manner.
- ACTION 41 - a) With the number of Unit 1 OPERABLE channels one less than the Minimum Channels OPERABLE requirement:
- 1. Verify the respective Unit 2 control room radiation monitor train is OPERABLE within 1 hour and at least once per 31 days.

INSTRUMENTATION

SEISMIC INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.3.3 The seismic monitoring instrumentation shown in Table 3.3-7 shall be OPERABLE.

APPLICABILITY: At all times.

ACTION:

- a. With the number of OPERABLE seismic monitoring instruments less than required by Table 3.3-7, restore the inoperable instrument(s) to OPERABLE status within 30 days.
- b. With one or more seismic monitoring instruments inoperable for more than 30 days, prepare and submit a Special Report ~~to the Commission pursuant to Specification 6.9.2~~ within the next 10 days outlining the cause of the malfunction and the plans for restoring the instrument(s) to OPERABLE status. in accordance with 10 CFR 50.4
- c. The provisions of Specification 3.0.3 are not applicable.

SURVEILLANCE REQUIREMENTS

4.3.3.3.1 Each of the above seismic monitoring instruments shall be demonstrated OPERABLE by the performance of the CHANNEL CHECK, CHANNEL CALIBRATION and CHANNEL FUNCTIONAL TEST operations at the frequencies shown in Table 4.3-4.

4.3.3.3.2 A seismic event greater than or equal to 0.01g shall be reported to the Commission within 1 hour. Each of the above seismic monitoring instruments actuated during a seismic event greater than or equal to 0.01g shall be restored to OPERABLE status within 24 hours and a CHANNEL CALIBRATION performed within 30 days following the seismic event. Data shall be retrieved from actuated instruments and analyzed to determine the magnitude of the vibratory ground motion. A Special Report shall be prepared and submitted ~~to the Commission pursuant to Specification 6.9.2~~ within 30 days describing the magnitude, frequency spectrum and resultant effect upon facility features important to safety. in accordance with 10 CFR 50.4

INSTRUMENTATION

METEOROLOGICAL INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.3.4 The meteorological monitoring instrumentation channels shown in Table 3.3-8 shall be OPERABLE.

APPLICABILITY: At all times.

ACTION:

- a. With the number of OPERABLE meteorological monitoring channels less than required by Table 3.3-8, suspend all release of gaseous radioactive material from the radwaste gas decay tanks until the inoperable channel(s) is restored to OPERABLE status.
- b. With one or more required meteorological monitoring channels inoperable for more than 7 days; prepare and submit a Special Report to the Commission pursuant to ~~Specification 6.0.2~~ *10 CFR 50.4* within the next 10 days outlining the cause of the malfunction and the plans for restoring the channel(s) to OPERABLE status.
- c. ~~The provisions of Specification 3.0.3 are not applicable.~~

SURVEILLANCE REQUIREMENTS

4.3.3.4 Each of the above meteorological monitoring instrumentation channels shall be demonstrated OPERABLE by the performance of the CHANNEL CHECK and CHANNEL CALIBRATION operations at the frequencies shown in Table 4.3-8.

TABLE 3.3-2/1

METEOROLOGICAL MONITORING INSTRUMENTATION

<u>INSTRUMENT</u>	<u>INSTRUMENT MINIMUM ACCURACY</u>	<u>MINIMUM OPERABLE</u>
1. WIND SPEED		
a. Nominal Elev. 500'	± 0.5 mph*	Any
b. Nominal Elev. 150'	± 0.5 mph*	3 of 6
c. Nominal Elev. 35'	± 0.5 mph*	
2. WIND DIRECTION		
a. Nominal Elev. 500'	± 5°	Any
b. Nominal Elev. 150'	± 5°	3 of 6
c. Nominal Elev. 35'	± 5°	
3. AIR TEMPERATURE ΔT		
a. ΔT Elev. 500' - 35'	± 0.1°C	Any
b. ΔT Elev. 150' - 35'	± 0.1°C	2 of 4

*Starting speed of anemometer shall be < 1 mph.

TABLE 4.3-¹~~2~~

METEOROLOGICAL MONITORING INSTRUMENTATION
SURVEILLANCE REQUIREMENTS CHANNEL

<u>INSTRUMENT</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL CALIBRATION</u>
1. WIND SPEED		
a. Nominal Elev. 500'	D	SA
b. Nominal Elev. 150'	D	SA
c. Nominal Elev. 35'	D	SA
2. WIND DIRECTION		
a. Nominal Elev. 500'	D	SA
b. Nominal Elev. 150'	D	SA
c. Nominal Elev. 35'	D	SA
3. AIR TEMPERATURE ΔT		
a. ΔT Elev. 500'-35'	D	SA
b. ΔT Elev. 150'-35'	D	SA

DPR-66
INSTRUMENTATION

EXPLOSIVE GAS MONITORING INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.3.11 The explosive gas monitoring instrumentation channels shown in Table 3.3-13 shall be OPERABLE with their alarm/trip setpoints set to ensure that the limits of Specification 3.11.2.6 are not exceeded.

APPLICABILITY: As shown in Table 3.3-13.

ACTION

- a. With an explosive gas monitoring instrumentation channel alarm/trip setpoint less conservative than required by the above specification, declare the channel inoperable and take the ACTION shown in Table 3.3-13.
- b. With less than the minimum number of explosive gas monitoring instrumentation channels OPERABLE, take the ACTION shown in Table 3.3-13. Restore the inoperable instrumentation to OPERABLE status within 30 days and, if unsuccessful, prepare and submit a Special Report ~~to the Commission pursuant to Specification 6.9.2~~ to explain why this inoperability was not corrected in a timely manner.
- c. The provisions of Specification 3.0.3 are not applicable.

in accordance with 10 CFR 50.4 within 30 days

SURVEILLANCE REQUIREMENTS

4.3.3.11 Each explosive gas monitoring instrumentation channel shall be demonstrated OPERABLE by performance of the CHANNEL CHECK, CHANNEL CALIBRATION, and CHANNEL FUNCTIONAL TEST operations at the frequencies shown in Table 4.3-13.

SURVEILLANCE REQUIREMENTS (Continued)

- b. The steam generator shall be determined OPERABLE after completing the corresponding actions (plug or repair all tubes exceeding the plugging or repair limit) required by Table 4.4-2.

4.4.5.5 Reports

in accordance with 10 CFR 50.4

submitted →

- a. Within 15 days following the completion of each inservice inspection of steam generator tubes, the number of tubes plugged or repaired in each steam generator shall be ~~reported to the Commission in a Special Report pursuant to Specification 6.9.2.~~
- b. The complete results of the steam generator tube and sleeve inservice inspection shall be submitted ~~to the Commission in a Special Report pursuant to Specification 6.9.2~~ within 12 months following the completion of the inspection. This Special Report shall include:
1. Number and extent of tubes and sleeves inspected.
 2. Location and percent of wall-thickness penetration for each indication of an imperfection.
 3. Identification of tubes plugged or repaired.
- c. Results of steam generator tube inspections which fall into Category C-3 shall be reported to the Commission pursuant to Specification 6.6 prior to resumption of plant operation. The written report shall provide a description of investigations conducted to determine the cause of the tube degradation and corrective measures taken to prevent recurrence.
- d. For implementation of the voltage-based repair criteria to tube support plate intersections, notify the Commission prior to returning the steam generators to service (MODE 4) should any of the following conditions arise:
1. If estimated leakage based on the projected end-of-cycle (or if not practical, using the actual measured end-of-cycle) voltage distribution exceeds the leak limit (determined from the licensing basis dose calculation for the postulated main steamline break) for the next operating cycle.
 2. If circumferential crack-like indications are detected at the tube support plate intersections.

EMERGENCY CORE COOLING SYSTEMS

3/4.5.2 ECCS SUBSYSTEMS - $T_{avg} \geq 350^{\circ}F$

LIMITING CONDITION FOR OPERATION

3.5.2 Two separate and independent ECCS subsystems shall be OPERABLE with each subsystem comprised of:

- a. One OPERABLE centrifugal charging pump,
- b. One OPERABLE low head safety injection pump, and
- c. An OPERABLE flow path capable of taking suction from the refueling water storage tank on a safety injection signal and transferring suction to the containment sump during the recirculation phase of operation.

APPLICABILITY: MODES 1, 2 and 3.

ACTION:

- a. With one ECCS subsystem inoperable, restore the inoperable subsystem to OPERABLE status within 72 hours or be in HOT SHUTDOWN within the next 12 hours.
- b. In the event the ECCS is actuated and injects water into the Reactor Coolant System, a Special Report shall be prepared and submitted to the Commission pursuant to ~~Specification 6.9.2~~ within 30 days describing the circumstances of the actuation and the total accumulated actuation cycles to date.

(in accordance with 10 CFR 50.4)

EMERGENCY CORE COOLING SYSTEMS3/4.5.3 ECCS SUBSYSTEMS - $T_{avg} < 350^{\circ}F$ LIMITING CONDITION FOR OPERATION

3.5.3 As a minimum, one ECCS subsystem comprised of the following shall be OPERABLE:

- a. One OPERABLE centrifugal charging pump,#
- b. One OPERABLE Low Head Safety Injection Pump, and
- c. An OPERABLE flow path capable of taking suction from the refueling water storage tank upon being manually realigned and transferring suction to the containment sump during the recirculation phase of operation.

APPLICABILITY: MODE 4.

ACTION:

- a. With no ECCS subsystem OPERABLE because of the inoperability of either the centrifugal charging pump or the flow path from the refueling water storage tank, restore at least one ECCS subsystem to OPERABLE status within 1 hour or be in COLD SHUTDOWN within the next 20 hours.
- b. In the event the ECCS is actuated and injects water into the Reactor Coolant System, a Special Report shall be prepared and submitted *in accordance with 10 CFR 50.4* ~~to the Commission pursuant to Specification 6.9.2~~ within 30 days describing the circumstances of the actuation and the total accumulated actuation cycles to date.

SURVEILLANCE REQUIREMENTS

4.5.3.1 The ECCS subsystem shall be demonstrated OPERABLE per the applicable Surveillance Requirements of 4.5.2.

4.5.3.2 All charging pumps except the above required OPERABLE pumps, shall be demonstrated inoperable at least once per 12 hours whenever the temperature of one or more of the non-isolated RCS cold legs is \leq the enable temperature set forth in Specification 3.4.9.3 by verifying that the control switches are placed in the PULL-TO-LOCK position and tagged.

A maximum of one centrifugal charging pump shall be OPERABLE whenever the temperature of one or more of the non-isolated RCS cold legs is \leq the enable temperature set forth in Specification 3.4.9.3.

SURVEILLANCE REQUIREMENTS (Continued)

- a. Sources in use - 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 and fission detector shall be tested prior to use or transfer to another licensee unless tested within the previous six months. Sealed sources and fission detectors transferred without a certificate indicating the last test date shall be tested prior to being placed into use.
- c. Startup sources and fission detectors - Each sealed startup source and fission detector shall be tested within 31 days prior to being subjected to core flux or installed in the core 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~~ on an annual basis if sealed source or fission detector leakage tests reveal the presence of ≥ 0.005 microcuries of removable contamination.

in accordance with 10 CFR 50.4

3/4.11 RADIOACTIVE EFFLUENTS

3/4.11.1 LIQUID EFFLUENTS

LIQUID HOLDUP TANKS

LIMITING CONDITION FOR OPERATION

3.11.1.4 The quantity of radioactive material contained in each of the following tanks shall be limited to less than or equal to 10 curies, excluding tritium and dissolved or entrained noble gases.

- a. BR-TK-6A (Primary Water Storage Tank)
- b. BR-TK-6B (Primary Water Storage Tank)
- c. LW-TK-7A (Steam Generator Drain Tank)
- d. LW-TK-7B (Steam Generator Drain Tank)
- e. Miscellaneous temporary outside radioactive liquid storage tanks.

APPLICABILITY: At all times.

ACTION:

- a. With the quantity of radioactive material in any of the above listed tanks exceeding the above limit, immediately suspend all additions of radioactive material to the tank and within 48 hours reduce the tank contents to within the limit, and in accordance with 10 CFR 50.4
- b. ~~Submit a Special Report to the Commission~~ within 30 days ~~pursuant to Specification 6.9.2~~ and include a schedule and a description of activities planned and/or taken to reduce the contents to within the specified limits.
- c. The provisions of Specification 3.0.3 are not applicable.

SURVEILLANCE REQUIREMENTS

4.11.1.4.1 The quantity of radioactive material contained in each of the above listed tanks shall be determined to be within the above limit by analyzing a representative sample of the tank's contents at least once per 7 days when radioactive materials are being added to the tank.

RADIOACTIVE EFFLUENTS

3/4.11.2 GASEOUS EFFLUENTS

GAS STORAGE TANKS

LIMITING CONDITION FOR OPERATION

3.11.2.5 The quantity of radioactivity contained in each gas storage tank shall be limited to less than or equal to 52,000 curies noble gases (considered as Xe-133).

APPLICABILITY: At all times.

ACTION:

in accordance with 10 CFR 50.4

- a. With the quantity of radioactive material in any gas storage tank exceeding the above limit, immediately suspend all additions of radioactive material to the tank and within 48 hours reduce the tank contents to within the limit, and
- b. Submit a Special Report ~~to the Commission~~ within 30 days ~~pursuant to Specification 6.9.2~~ and include a schedule and a description of activities planned and/or taken to reduce the contents to within the specified limits.
- c. The provisions of Specification 3.0.3 are not applicable.

SURVEILLANCE REQUIREMENTS

4.11.2.5.1 The quantity of radioactive material contained in each gas storage tank shall be determined to be within the above limit at least once per 24 hours when radioactive materials are being added to the tank. Performance of this surveillance is required when the gross concentration of the primary coolant is greater than 100 uCi/ml.

INSTRUMENTATIONBASES3/4.3.3 MONITORING INSTRUMENTATION3/4.3.3.1 RADIATION MONITORING INSTRUMENTATION

The OPERABILITY of the radiation monitoring channels ensures that: 1) the radiation levels are continually measured in the areas served by the individual channels; 2) the alarm or automatic action is initiated when the radiation level trip setpoint is exceeded; and 3) sufficient information is available on selected plant parameters to monitor and assess these variables following an accident. This capability is consistent with the recommendations of NUREG-0737, "Clarification of TMI Action Plan Requirements," October, 1980.

3/4.3.3.2 MOVABLE INCORE DETECTORS

The OPERABILITY of the movable incore detectors with the specified minimum complement of equipment ensures that the measurements obtained from use of this system accurately represent the spatial neutron flux distribution of the reactor core. The OPERABILITY of this system is demonstrated by irradiating each detector used and determining the acceptability of its voltage curve.

For the purpose of measuring FQ(Z) or FN Δ H, a full incore flux map is used. Quarter-core flux maps, as defined in WCAP-8648, June 1976, may be used in recalibration of the excore neutron flux detection system, and full incore flux maps or symmetric incore thimbles may be used for monitoring the Quadrant Power Tilt Ratio when one Power Range Channel is inoperable.

3.4.3.3.3 SEISMIC INSTRUMENTATION

The OPERABILITY of the seismic instrumentation ensures that sufficient capability is available to promptly determine the magnitude of a seismic event and evaluate the response of those features important to safety. This capability is required to permit comparison of the measured response to that used in the design basis for the facility and is consistent with the recommendations of Regulatory Guide 1.12, "Instrumentation for Earthquakes."

3/4.3.3.4 METEOROLOGICAL INSTRUMENTATION

The OPERABILITY of the meteorological instrumentation ensures that sufficient meteorological data is available for estimating potential radiation doses to the public as a result of routine or accidental release of radioactive materials to the atmosphere. This capability is required to evaluate the need for initiating protective measures to protect the health and safety of the public and is consistent with the recommendations of Regulatory Guide 1.23, "Onsite Meteorological Programs."

DELETE
3/4.3.3.4 Deleted

3/4.4 REACTOR COOLANT SYSTEMBASES3/4.4.1.1, 2, 3 REACTOR COOLANT LOOPS

The plant is designed to operate with all reactor coolant loops in operation and maintain DNBR above the design DNBR limit during all normal operations and anticipated transients. In Modes 1 and 2, with one reactor coolant loop not in operation, THERMAL POWER is restricted to less than or equal to 31 percent of RATED THERMAL POWER until the Overtemperature ΔT trip is reset. Either action ensures that the DNBR will be maintained above the design DNBR limit. A loss of flow in two loops will cause a reactor trip if operating above P-7 (11 percent of RATED THERMAL POWER) while a loss of flow in one loop will cause a reactor trip if operating above P-8 (31 percent of RATED THERMAL POWER).

In MODE 3, a single reactor coolant loop provides sufficient heat removal capability for removing decay heat; however, due to the initial conditions assumed in the analysis for the control rod bank withdrawal from a subcritical condition, two operating coolant loops are required to meet the DNB design basis for this Condition II event.

In MODES 4 and 5, a single reactor coolant loop or RHR subsystem provides sufficient heat removal capability for removing decay heat; but single failure considerations require that at least two loops be OPERABLE. Thus, if the reactor coolant loops are not OPERABLE, this specification requires two RHR loops to be OPERABLE.

The operation of one Reactor Coolant Pump or one RHR pump provides adequate flow to ensure mixing, prevent stratification and produce gradual reactivity changes during boron concentration reductions in the Reactor Coolant System. The reactivity change rate associated with boron reduction will, therefore, be within the capability of operator recognition and control.

The restrictions on starting a Reactor Coolant Pump with one or more RCS cold legs less than or equal to ~~275°F~~ ^{The enable temperature} are provided to prevent RCS pressure transients, caused by energy additions from the secondary system, which could exceed the limits of Appendix G to 10 CFR Part 50. The RCS will be protected against overpressure transients and will not exceed the limits of Appendix G by either (1) restricting the water level in the pressurizer and thereby providing a volume for the primary coolant to expand into or (2) by restricting starting of the RCPs to when the secondary water temperature of each steam generator is less than 25°F above each of the RCS cold leg temperatures.

set forth in
Specification 3.4.9.3

5.0 DESIGN FEATURES5.1 SITE LOCATION

The Beaver Valley Power Station Unit No. 1 is located in Shippingport Borough, Beaver County, Pennsylvania, on the south bank of the Ohio River. The site is approximately 1 mile southeast of Midland, Pennsylvania, 5 miles east of East Liverpool, Ohio, and approximately 25 miles northwest of Pittsburgh, Pennsylvania. ~~The exclusion area boundary has a minimum radius of 2000 feet from the center of containment.~~

5.2 REACTOR CORE5.2.1 FUEL ASSEMBLIES

The reactor shall contain 157 fuel assemblies. Each assembly shall consist of a matrix of Zircaloy or ZIRLO fuel rods with an initial composition of natural or slightly enriched uranium dioxide (UO_2) as fuel material. Limited substitutions of zirconium alloy or stainless steel filler rods for fuel rods, in accordance with approved applications of fuel rod configurations, may be used. Fuel assemblies shall be limited to those fuel designs that have been analyzed with applicable NRC staff approved codes and methods and shown by tests or analyses to comply with all fuel safety design bases. A limited number of lead test assemblies that have not completed representative testing may be placed in nonlimiting core regions.

5.2.2 CONTROL ROD ASSEMBLIES

The reactor core shall contain 48 full length and no part length control rod assemblies. The full length control rod assemblies shall contain a nominal 142 inches of absorber material. The nominal values of absorber material shall be 80 percent silver, 15 percent indium and 5 percent cadmium. All control rods shall be clad with stainless steel tubing.

5.3 FUEL STORAGE5.3.1 CRITICALITY

5.3.1.1 The spent fuel storage racks are designed and shall be maintained with:

- a. Fuel assemblies having a maximum U-235 enrichment as set forth in Specification 3.9.14;
- b. $K_{eff} \leq 0.95$ if fully flooded with unborated water, which includes an allowance for uncertainties as described in UFSAR Section 9.12;

- 3) Participation in an Interlaboratory Comparison Program to ensure that independent checks on the precision and accuracy of the measurements of radioactive materials in environmental sample matrices are performed as part of the quality assurance program for environmental monitoring.

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 U. S. Nuclear Regulatory Commission, Document Control Desk.

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.

INSERT A

Attachment A-1
Beaver Valley Power Station, Unit No. 1
License Amendment Request No. 246

INSERT A

The following reports shall be submitted in accordance with 10 CFR 50.4.

6.9.1 Occupational Radiation Exposure Report

- - - - - NOTE - - - - -
A single submittal may be made for a multiple unit station. The
submittal should combine sections common to all units at the
station.
- - - - -

ANNUAL REPORTS⁽¹⁾

delete

6.9.1.4 Annual reports covering the activities of the unit as described below for the previous calendar year shall be submitted prior to March 1 of each year.

6.9.1.5 Reports required on an annual basis shall include:

on an annual basis

- thermoluminescent dosimeter*
- X A tabulation of the number of station, utility, and other personnel (including contractors) receiving exposures greater than 100 mrem/yr and their associated man-rem exposure according to work and job functions (e.g., reactor operations and surveillance, inservice inspection, routine maintenance, special maintenance (describe maintenance), waste processing, and refueling). The dose assignments to various duty functions may be estimated based on pocket dosimeter, (TLD) or film badge measurements. Small exposures totalling less than 20 percent of the individual total dose need not be accounted for. In the aggregate, at least 80 percent of the total whole body dose received from external sources should be assigned to specific major work functions.
- INSERT C* *INSERT B*

- delete*
- b. Documentation of all challenges to the pressurizer power operated relief valves (PORVs) or pressurizer safety valves.
- c. The results of specific activity analysis in which the primary coolant exceeded the limits of Specification 3.4.8. The following information shall be included: (1) Reactor power history starting 48 hours prior to the first sample in which the limit was exceeded; (2) Results of the last isotopic analysis for radioiodine performed prior to exceeding the limit, results of analysis while limit was exceeded and results of one analysis after the radioiodine activity was reduced to less than limit. Each result should

delete

- (1) A single submittal may be made for a multiple unit site. The submittal should combine those sections that are common to all units at the site.
- (2) This tabulation supplements the requirements of Section 20.2206 of 10 CFR Part 20.

Attachment A-1
Beaver Valley Power Station, Unit No. 1
License Amendment Request No. 246

INSERT B

This tabulation supplements the requirements of 10 CFR 20.2206.

INSERT C

The report shall be submitted by April 30 of each year.

ANNUAL REPORTS (Continued)

delete

include date and time of sampling and the radioiodine concentrations; (3) Clean-up system flow history starting 48 hours prior to the first sample in which the limit was exceeded; (4) Graph of the I-131 concentration and one other radioiodine isotope concentration in microcuries per gram as a function of time for the duration of the specific activity above the steady-state level; and (5) The time duration when the specific activity of the primary coolant exceeded the radioiodine limit.

6.9.4 MONTHLY OPERATING REPORT INSERT D

~~6.9.1.6~~ Routine reports of operating statistics and shutdown experience shall be submitted on a monthly basis 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

delete

6.9.1.8 DELETED by Amendment No. 84

6.9.1.9 DELETED by Amendment No. 84

6.9.2 ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT ~~(X)~~

~~6.9.1.10~~ The Annual Radiological Environmental Operating Report covering the operation of the unit during the previous calendar year shall be submitted before May 1 of each year. The report shall include summaries, interpretations, and analysis of trends of the results of the Radiological Environmental Monitoring Program for the reporting period. The material provided shall be consistent with the objectives outlined in ~~(X)~~ the ODCM and ~~(X)~~ Sections IV.B.2, IV.B.3, and IV.C. of Appendix I to 10 CFR Part 50.

INSERT E

Offsite Dose
Calculation Manual

~~(3) A single submittal may be made for a multi unit station.~~

Attachment A-1
Beaver Valley Power Station, Unit No. 1
License Amendment Request No. 246

INSERT D

, including documentation of all challenges to the pressurizer power operated relief valves or pressurizer safety valves,

INSERT E

----- NOTE -----
A single submittal may be made for a multiple unit station. The submittal should combine sections common to all units at the station.

Process Control Program

6.9.3 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT ~~XX~~

in accordance with
10 CFR 50.36a

6.9.1.11 The Annual Radioactive Effluent Release Report covering the operation of the unit during the previous 12 months of operation shall be submitted before April 1 of each year. The report shall include a summary of the quantities of radioactive liquid and gaseous effluents and solid waste released from the unit. The material provided shall be ~~XX~~ consistent with the objectives outlined in the ODCM and (PCP) and ~~XX~~ in conformance with 10 CFR 50.36a and Section IV.B.1. ~~XX~~ Appendix I to 10 CFR Part 50.

CORE OPERATING LIMITS REPORT

reformat as Insert F

6.9.1.12 Core operating limits shall be established and documented in the CORE OPERATING LIMITS REPORT before each reload cycle or any remaining part of a reload cycle. The analytical methods used to determine the core operating limits shall be those previously reviewed and approved by the NRC in:

1. WCAP-9272-P-A, "WESTINGHOUSE RELOAD SAFETY EVALUATION METHODOLOGY," July 1985 (Westinghouse Proprietary). Methodology applied for the following Specifications:
 - 3.1.3.5, Shutdown Rod Insertion Limits
 - 3.1.3.6, Control Rod Insertion Limits
 - 3.2.1, Axial Flux Difference-Constant Axial Offset Control
 - 3.2.2, Heat Flux Hot Channel Factor- $F_Q(Z)$
 - 3.2.3, Nuclear Enthalpy Rise Hot Channel Factor-FN delta H
2. WCAP-10266-P-A Rev. 2 / WCAP-11524-NP-A Rev. 2, "The 1981 Version of the Westinghouse ECCS Evaluation Model Using the BASH Code," Kabadi, J. N., et al., March 1987; including Addendum 1-A "Power Shape Sensitivity Studies" 12/87 and Addendum 2-A "BASH Methodology Improvements and Reliability Enhancements" 5/88. Methodology applied for the following Specification: 3.2.2, Heat Flux Hot Channel Factor- $F_Q(Z)$
3. WCAP-8385, "POWER DISTRIBUTION CONTROL AND LOAD FOLLOWING PROCEDURES - TOPICAL REPORT," September 1974 (Westinghouse Proprietary). Methodology applied for the following Specification: 3.2.1, Axial Flux Difference-Constant Axial Offset Control

NOTE

~~XX~~ A single submittal may be made for a multi-unit station. The submittal should combine those sections that are common to all units at the station; however, for units with separate radwaste systems, the submittal shall specify the releases of radioactive material from each unit.

INSERT F

6.9.5 CORE OPERATING LIMITS REPORT (COLR)

- a. Core operating limits shall be established prior to each reload cycle, or prior to any remaining portion of a reload cycle, and shall be documented in the COLR for the following:

- 3.1.3.5 Shutdown Rod Insertion Limits
- 3.1.3.5 Control Rod Insertion Limits
- 3.2.1 Axial Flux Difference-Constant Axial Offset Control
- 3.2.2 Heat Flux Hot Channel Factor- $F_Q(Z)$
- 3.2.3 Nuclear Enthalpy Rise Hot Channel Factor- $F_{\Delta H}^N$

- b. The analytical methods used to determine the core operating limits shall be those previously reviewed and approved by the NRC, specifically those described in the following documents:

WCAP-9272-P-A, "WESTINGHOUSE RELOAD SAFETY EVALUATION METHODOLOGY," July 1985 (Westinghouse Proprietary).

WCAP-10266-P-A Rev. 2/WCAP-11524-NP-A Rev. 2, "The 1981 Version of the Westinghouse ECCS Evaluation Model Using the BASH Code," Kabadi, J. N., March 1987; including Addendum 1-A "Power Shape Sensitivity Studies" 12/87 and Addendum 2-A "BASH Methodology Improvements and Reliability Enhancements" 5/88.

WCAP-8385, "POWER DISTRIBUTION CONTROL AND LOAD FOLLOWING PROCEDURES - TOPICAL REPORT." September 1974 (Westinghouse Proprietary).

T. M. Anderson to K. Kniel (Chief of Core Performance Branch, NRC) January 31, 1980 -- Attachment: Operation and Safety Analysis Aspects of an Improved Load Follow Package.

NUREG-0800, Standard Review Plan, U.S. Nuclear Regulatory Commission, Section 4.3, Nuclear Design, July 1981. Branch Technical Position CPB 4.3-1, Westinghouse Constant Axial Offset Control (CAOC), Rev. 2, July 1981.

WCAP-12610-P-A, "VANTAGE+ Fuel Assembly Reference Core Report," April 1995 (Westinghouse Proprietary).

- c. The core operating limits shall be determined such that all applicable limits (e.g., fuel thermal mechanical limits, core thermal hydraulic limits, Emergency Core Cooling Systems (ECCS) limits, nuclear limits such as shutdown margin, transient analysis limits, and accident analysis limits) of the safety analysis are met.
- d. The COLR, including any midcycle revisions or supplements, shall be provided upon issuance for each reload cycle to the NRC.

CORE OPERATING LIMITS REPORT (Continued)

reformat as INSERT 6

4. T. M. Anderson to K. Kniel (Chief of Core Performance Branch, NRC) January 31, 1980 -- Attachment: Operation and Safety Analysis Aspects of an Improved Load Follow Package. Methodology applied for the following Specification: 3.2.1, Axial Flux Difference-Constant Axial Offset Control
5. NUREG-0800, Standard Review Plan, U. S. Nuclear Regulatory Commission, Section 4.3, Nuclear Design, July 1981. Branch Technical Position CPB 4.3-1, Westinghouse Constant Axial Offset Control (CAOC), Rev. 2, July 1981. Methodology applied for the following Specification: 3.2.1, Axial Flux Difference-Constant Axial Offset Control
6. WCAP-12610-P-A, "VANTAGE+ Fuel Assembly Reference Core Report," April 1995 (Westinghouse Proprietary). Methodology applied for the following Specification: 3.2.2, Heat Flux Hot Channel Factor - $F_Q(Z)$

The core operating limits shall be determined so that all applicable limits (e.g., fuel thermal-mechanical limits, core thermal-hydraulic limits, ECCS limits, nuclear limits such as shutdown margin, and transient and accident analysis limits) of the safety analysis are met. The CORE OPERATING LIMITS REPORT, including any mid-cycle revisions or supplements thereto, shall be provided on issuance, for each reload cycle, to the NRC Document Control Desk.

SPECIAL REPORTS

delete

6.9.2 Special reports shall be submitted to the U. S. Nuclear Regulatory Commission, Document Control Desk, within the time period specified for each report. These reports shall be submitted covering the activities identified below pursuant to the requirements of the applicable reference specification:

- a. ECCS Actuation, Specifications 3.5.2 and 3.5.3.
- b. Inoperable Seismic Monitoring Instrumentation, Specification 3.3.3.3.
- c. Inoperable Meteorological Monitoring Instrumentation, Specification 3.3.3.4.
- d. Seismic event analysis, Specification 4.3.3.3.2.
- e. Sealed source leakage in excess of limits, Specification 4.7.9.1.3.

SPECIAL REPORTS (Continued)

delete

- f. Miscellaneous reporting requirements specified in the Action Statements for Appendix C of the ODCM.
- g. DELETED
- h. Steam Generator Tube Inservice Inspection Results Report, Specification 4.4.5.5.
- i. Liquid Hold Up Tanks, Specification 3.11.1.4.
- j. Gas Storage Tanks, Specification 3.11.2.5.
- k. Explosive Gas Monitoring Instrumentation, Specification 3.3.3.11.

6.10 DELETED

6.11 RADIATION PROTECTION PROGRAM

Procedures for personnel radiation protection shall be prepared consistent with the requirements of 10 CFR Part 20 and shall be approved, maintained and adhered to for all operations involving personnel radiation exposure.

ATTACHMENT A-2

Beaver Valley Power Station, Unit No. 2
Proposed License Amendment Request No. 116

The following is a list of the affected pages:

Affected Pages:	Operating License Page 7
	IV
	X
	XIV
	1-3
	1-6
	1-7
	3/4 0-1
	3/4 3-40
	3/4 3-41
	3/4 3-42
	3/4 3-46
	3/4 3-49
	3/4 3-50
	3/4 3-51
	3/4 3-61
	3/4 3-63
	3/4 4-7
	3/4 4-14a
	3/4 5-3
	3/4 5-6
	3/4 7-21
	3/4 9-8
	3/4 11-2
	3/4 11-4
	B 3/4 3-6
	5-1
	6-16
	6-17
	6-18
	6-19
	6-20
	6-21

DLCo may make changes to the approved fire protection program without prior approval of the Commission only if those changes would not adversely affect the ability to achieve and maintain safe shutdown in the event of a fire.

G. Reporting to the Commission

delete

Except as otherwise provided in the Technical Specifications or Environmental Protection Plan, DLCo shall report any violations of the requirements contained in Section 2.C of this license in the following manner: initial notification shall be made within twenty-four (24) hours to the NRC Operations Center via the Emergency Notification System with written followup within 30 days in accordance with the procedures described in 10 CFR 50.73(b),(c), and (e).

H. Financial Protection

The licensees shall have and maintain financial protection of such type and in such amounts as the Commission shall require in accordance with Section 170 of the Atomic Energy Act of 1954, as amended, to cover public liability claims.

I. Expiration

This license is effective on the date of issuance and shall expire at midnight on May 27, 2027.

FOR THE NUCLEAR REGULATORY COMMISSION

Thomas E. Murley

Thomas E. Murley, Director
Office of Nuclear Reactor Regulation

Enclosures:

1. Appendix A - Technical Specifications (NUREG-1279)
2. Appendix B - Environmental Protection Plan

Date of Issuance: August 14, 1987

INDEX

LIMITING CONDITION FOR OPERATION AND SURVEILLANCE REQUIREMENTS

<u>SECTION</u>		<u>PAGE</u>
3/4.1.2.9	Isolation of Unborated Water Sources - Shutdown.	3/4 1-17
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 1-21
3/4.1.3.3	Position Indication System - Shutdown. . .	3/4 1-22
3/4.1.3.4	Rod Drop Time	3/4 1-23
3/4.1.3.5	Shutdown Rod Insertion Limit.	3/4 1-24
3/4.1.3.6	Control Rod Insertion Limits.	3/4 1-25

3/4.2 POWER DISTRIBUTION LIMITS

3/4.2.1	AXIAL FLUX DIFFERENCE (AFD)	3/4 2-1
3/4.2.2	HEAT FLUX HOT CHANNEL FACTOR - $F_Q(Z)$. . .	3/4 2-4
3/4.2.3	NUCLEAR ENTHALPY HOT CHANNEL FACTOR - $F_{\Delta H}^N$	3/4 2-7
3/4.2.4	QUADRANT POWER TILT RATIO	3/4 2-9
3/4.2.5	DNB PARAMETERS.	3/4 2-11

3/4.3 INSTRUMENTATION

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 3-39
3/4.3.3.2	Movable Incore Detectors.	3/4 3-45
3/4.3.3.3	Seismic Instrumentation	3/4 3-46
3/4.3.3.4	Meteorological Instrumentation.	3/4 3-49

INDEX

BASES

<u>SECTION</u>	<u>PAGE</u>
<u>3/4.2 POWER DISTRIBUTION LIMITS</u>	
3/4.2.1 AXIAL FLUX DIFFERENCE (AFD).....	B 3/4 2-1
3/4.2.2 AND 3/4.2.3 HEAT FLUX AND NUCLEAR ENTHALPY HOT CHANNEL FACTORS $F_Q(Z)$ AND $F_{\Delta H}^N$	B 3/4 2-2
3/4.2.4 QUADRANT POWER TILT RATIO.....	B 3/4 2-5
3/4.2.5 DNB PARAMETERS.....	B 3/4 2-5
<u>3/4.3 INSTRUMENTATION</u>	
3/4.3.1 REACTOR TRIP SYSTEM INSTRUMENTATION.....	B 3/4 3-1
3/4.3.2 ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION.....	B 3/4 3-1
3/4.3.3 MONITORING INSTRUMENTATION	
3/4.3.3.1 Radiation Monitoring Instrumentation.....	B 3/4 3-5
3/4.3.3.2 Movable Incore Detectors.....	B 3/4 3-5
3/4.3.3.3 Seismic Instrumentation.....	B 3/4 3-5
3/4.3.3.4 Meteorological Instrumentation.....	B 3/4 3-6
3/4.3.3.5 Remote Shutdown Instrumentation.....	B 3/4 3-6
3/4.3.3.7 Chlorine Detection Systems.....	B 3/4 3-6
3/4.3.3.8 Accident Monitoring Instrumentation.....	B 3/4 3-6
3/4.3.3.11 Explosive Gas Monitoring Instrumentation.....	B 3/4 3-7
3/4.3.4 TURBINE OVERSPEED PROTECTION.....	B 3/4 3-7
<u>3/4.4 REACTOR COOLANT SYSTEM</u>	
3/4.4.1 REACTOR COOLANT LOOPS AND COOLANT CIRCULATION.....	B 3/4 4-1
3/4.4.2 AND 3/4.4.3 SAFETY VALVES	B 3/4 4-2
3/4.4.4 PRESSURIZER.....	B 3/4 4-2

INDEX

ADMINISTRATIVE CONTROLS

<u>SECTION</u>	<u>PAGE</u>
6.2.2 UNIT STAFF	6-1
<u>6.3 FACILITY STAFF QUALIFICATIONS</u>	6-6
<u>6.4 TRAINING</u>	6-6
<u>6.5 DELETED</u>	
<u>6.6 REPORTABLE EVENT ACTION</u>	6-6
<u>6.7 SAFETY LIMIT VIOLATION</u>	6-6
<u>6.8 PROCEDURES</u>	6-7
<u>6.9 REPORTING REQUIREMENTS</u>	
6.9.1 <i>Occupational Radiation Exposure Report</i> ROUTINE REPORTS	6-16
6.9.2 <i>Annual Radiological Environmental Operating Report</i> 6.9.1.1 Startup Reports	6-16
6.9.3 <i>Annual Radioactive Effluent Release Report</i> 6.9.1.4 Annual Reports	6-17
6.9.4 <i>Monthly Operating Report</i>	6-18
6.9.1.10 Annual Radiological Environmental Operating Report	6-19
6.9.1.11 Annual Radioactive Effluent Release Report ..	6-19
6.9.1.12 <i>Core Operating Limits Report</i>	6-19
6.9.2 SPECIAL REPORTS	6-20
<u>6.10 DELETED</u>	
<u>6.11 RADIATION PROTECTION PROGRAM</u>	6-21

CORE ALTERATION

1.12 CORE ALTERATION shall be the movement or manipulation of any component within the reactor pressure vessel with the vessel head removed and fuel in the vessel. Suspension of CORE ALTERATIONS shall not preclude completion of movement of a component to a safe conservative position.

replace with Insert 1

SHUTDOWN MARGIN

1.13 SHUTDOWN MARGIN shall be the instantaneous amount of reactivity by which the reactor is or would be subcritical from its present condition assuming all full length rod-cluster assemblies (shutdown and control) are fully inserted except for the single rod cluster assembly of highest reactivity worth which is assumed to be fully withdrawn.

LEAKAGE

1.14 LEAKAGE shall be:

a. Identified LEAKAGE

1. LEAKAGE, such as that from pump seals or valve packing (except reactor coolant pump seal water injection or leakoff), that is captured and conducted to collection systems or a sump or collecting tank;
2. LEAKAGE into the containment atmosphere from sources that are both specifically located and known either not to interfere with the operation of leakage detection systems or not to be Pressure Boundary LEAKAGE, or
3. Reactor Coolant System LEAKAGE through a steam generator to the secondary system.

b. Unidentified LEAKAGE

Unidentified LEAKAGE shall be all LEAKAGE (except reactor coolant pump seal water injection or leakoff) that is not Identified LEAKAGE.

c. Pressure Boundary LEAKAGE

Pressure Boundary LEAKAGE shall be LEAKAGE (except steam generator tube LEAKAGE) through a nonisolable fault in a Reactor Coolant System component body, pipe wall or vessel wall.

Attachment A-2
Beaver Valley Power Station, Unit No. 2
License Amendment Request No. 116

INSERT 1

1.12 CORE ALTERATION shall be the movement of any fuel, sources, or reactivity control components within the reactor vessel with the vessel head removed and fuel in the vessel. Suspension of CORE ALTERATIONS shall not preclude completion of movement of a component to a safe position.

DEFINITIONSOFFSITE DOSE CALCULATION MANUAL (ODCM) (Continued)

Effluent Controls and Radiological Environmental Monitoring Programs required by Section 6.8.6 and (2) descriptions of the information that should be included in the Annual Radiological Environmental Operating and Annual Radioactive Effluent Release Reports required by Specifications ~~6.8.1.10 and 6.9.1.11~~ in the *Administrative Control Section*.

GASEOUS RADWASTE TREATMENT SYSTEM

1.31 A GASEOUS RADWASTE TREATMENT SYSTEM is any system designed and installed to reduce radioactive gaseous effluents by collecting Primary Coolant System offgases from the primary system and providing for delay or holdup for the purpose of reducing the total radioactivity prior to release to the environment.

VENTILATION EXHAUST TREATMENT SYSTEM

1.32 VENTILATION EXHAUST TREATMENT SYSTEM is any system designed and installed to reduce gaseous radioiodine or radioactive material in particulate form in effluents by passing ventilation or vent exhaust gases through charcoal adsorbers and/or HEPA filters for the purpose of removing iodines or particulates from the gaseous exhaust stream prior to the release to the environment (such a system is not considered to have any effect on noble gas effluents). Engineered Safety Feature (ESF) atmospheric cleanup systems are not considered to be VENTILATION EXHAUST TREATMENT SYSTEM components.

PURGE-PURGING

1.33 PURGE or PURGING is the controlled process of discharging air or gas from a confinement to maintain temperature, pressure, humidity, concentration or other operating conditions, in such a manner that replacement air or gas is required to purify the confinement.

VENTING

1.34 VENTING is the controlled process of discharging air or gas from a confinement to maintain temperature, pressure, humidity, concentration or other operating conditions, in such a manner that replacement air or gas is not provided or required during VENTING. Vent, used in system names, does not imply a VENTING process.

MAJOR CHANGES

1.35 MAJOR CHANGES to radioactive waste systems (liquid, gaseous and solid), as addressed in the PROCESS CONTROL PROGRAM, shall include the following:

DEFINITIONSMAJOR CHANGES (Continued)

- staff's Safety Evaluation Report (SER) (e.g., deletion of evaporators and installation of demineralizers, use of fluidized bed calciner/incineration in place of cement solidification systems);
- 2) Major changes in the design of radwaste treatment systems (liquid, gaseous, and solid) that could significantly increase the quantities or activity of effluents released or volumes of solid waste stored or shipped offsite from those previously considered in the FSAR and SER (e.g., use of asphalt system in place of cement);
 - 3) Changes in system design which may invalidate the accident analysis as described in the SER (e.g., changes in tank capacity that would alter the curies released); and
 - 4) Changes in system design that could potentially result in a significant increase in occupational exposure of operating personnel (e.g., use of temporary equipment without adequate shielding provisions).

MEMBER(S) OF THE PUBLIC

1.36 MEMBER(S) OF THE PUBLIC shall include all persons who are not occupationally associated with the plant. This category does not include employees of the utility, its contractors, or its vendors. Also excluded from this category are persons who enter the site to service equipment or to make deliveries and persons who traverse portions of the site as the consequence of a public highway, railway, or waterway located within the confines of the site boundary. This category does include persons who use portions of the site for recreational, occupational, or other purposes not associated with the plant.

CORE OPERATING LIMITS REPORT

1.37 The CORE OPERATING LIMITS REPORT (COLR) is the unit-specific document that provides core operating limits for the current operating reload cycle. These cycle-specific core operating limits shall be determined for each reload cycle in accordance with specification 6.9.1.12. Plant operation within these operating limits is addressed in individual specifications.

1.36 MEMBER(S) OF THE PUBLIC means any individual except when that individual is receiving an occupational dose.

3/4 LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS3/4.0 APPLICABILITY

, except as provided in Limiting Condition for Operation 3.0.6.

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 when the conditions for the Limiting Condition for Operation are not met and the associated ACTION requires a shutdown if they are not met within a specified time interval. Entry into an OPERATIONAL MODE or specified condition may be made in accordance with ACTION requirements when conformance to them permits continued operation of the facility for an unlimited period of time. This provision shall not prevent passage through or to 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.

TABLE 3.3-6

RADIATION MONITORING INSTRUMENTATION

<u>INSTRUMENT</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>APPLICABLE MODES</u>	<u>SETPOINT</u> ⁽³⁾	<u>MEASUREMENT RANGE</u>	<u>ACTION</u>
1. AREA MONITORS					
a. Fuel Storage Pool Area (2RMF-RQ202)	1	(1)	≤75.8 mR/hr	10 ⁻¹ to 10 ⁴ mR/hr	19
b. Containment Area (2RMR-RQ205 & 207)	2	1, 2, 3 & 4	≤2.0×10 ⁴ R/hr	1 to 10 ⁷ R/hr	36 ³⁵
c. Control Room Area (2RMC-RQ201 & 202)	2	1, 2, 3 & 4 5 ⁽⁴⁾ & 6 ⁽⁴⁾	≤0.476 mR/hr	10 ⁻² to 10 ³ mR/hr	46, 47
2. PROCESS MONITORS					
a. Containment					
i. Gaseous Activity (Xe-133) RCS Leakage Detection (2RMR-RQ303B)	1	1, 2, 3 & 4	N/A	10 ⁻⁶ to 10 ⁻¹ μCi/cc	20
ii. Particulate Activity (I-131) RCS Leakage Detection (2RMR-RQ303A)	1	1, 2, 3 & 4	N/A	10 ⁻¹⁰ to 10 ⁻⁵ μCi/cc	20
b. Fuel Building Vent					
i. Gaseous Activity (Xe-133) (2RMF-RQ301B)	1	(2)	≤7.82×10 ⁻⁶ μCi/cc	10 ⁻⁶ to 10 ⁻¹ μCi/cc	21

(Proposed wording)

TABLE 3.3-6 (Continued)

RADIATION MONITORING INSTRUMENTATION

<u>INSTRUMENT</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>APPLICABLE MODES</u>	<u>SETPOINT</u> ⁽³⁾	<u>MEASUREMENT RANGE</u>	<u>ACTION</u>
2. PPROCESS MONITORS (Continued)					
ii. Particulate (I-131) (2RMF-RQ301A)	1	(2)	$\leq 6.70 \times 10^{-3} \mu\text{Ci/cc}$	10^{-10} to $10^{-5} \mu\text{Ci/cc}$	21
c. Noble Gas and Effluent Monitors					
i. Supplementary Leak Collection and Release System					
1) Mid Range Noble Gas (Xe-133) (2HVS-RQ109C)	1	1, 2, 3&4	N.A.	10^{-4} to $10^2 \mu\text{Ci/cc}$	36 ³⁵
2) High Range Noble Gas (Xe-133) (2HVS-RQ109D)	1	1, 2, 3&4	N.A.	10^{-1} to $10^5 \mu\text{Ci/cc}$	36 ³⁵
ii. Containment Purge Exhaust (Xe-133) (2HVR-RQ104A & B)	1	6	$\leq 1.01 \times 10^{-3} \mu\text{Ci/cc}$	10^{-6} to $10^{-1} \mu\text{Ci/cc}$	22
iii. Main Steam Discharge (Kr-88) (2MSS-RQ101A, B & C)	1/SG	1, 2, 3&4	$\leq 3.9 \times 10^{-2} \mu\text{Ci/cc}$	10^{-2} to $10^3 \mu\text{Ci/cc}$	36 ³⁵

TABLE 3.3-6 (Continued)TABLE NOTATIONS

- (1) With fuel in the storage pool or building.
- (2) With irradiated fuel in the storage pool.
- (3) Above background.
- (4) During movement of irradiated fuel.

ACTION STATEMENTS

- ACTION 19 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, perform area surveys of the monitored area with portable monitoring instrumentation at least once per 24 hours.
- ACTION 20 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, comply with the ACTION requirements of Specification 3.4.6.1.
- ACTION 21 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, comply with the applicable ACTION requirements of Specifications 3.9.12 and 3.9.13.
- ACTION 22 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, comply with the ACTION requirements of Specification 3.9.9.
- ACTION ³⁵~~36~~ - With the number of OPERABLE channels less than required by the Minimum Channels OPERABLE requirement, either restore the inoperable channel(s) to OPERABLE status within 72 hours, or:
- 1) Initiate the preplanned alternate method of monitoring the appropriate parameter(s), and
 - 2) Return the channel to OPERABLE status within 30 days, or, explain in the next Annual Radioactive Effluent Release Report why the inoperability was not corrected in a timely manner.

INSTRUMENTATION

SEISMIC INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.3.3 The seismic monitoring instrumentation shown in Table 3.3-7 shall be OPERABLE.

APPLICABILITY: At all times.

ACTION:

- a. With the number of OPERABLE seismic monitoring instruments less than required by Table 3.3-7, restore the inoperable instrument(s) to OPERABLE status within 30 days. *in accordance with 10 CFR 50.4*
- b. With one or more seismic monitoring instruments inoperable for more than 30 days, prepare and submit a Special Report to the Commission pursuant to Specification 6.9.2 within the next 10 days outlining the cause of the malfunction and the plans for restoring the instrument(s) to OPERABLE status.
- c. The provisions of Specification 3.0.3 are not applicable.

SURVEILLANCE REQUIREMENTS

4.3.3.3.1 Each of the above seismic monitoring instruments shall be demonstrated OPERABLE by the performance of the CHANNEL CHECK, CHANNEL CALIBRATION and CHANNEL FUNCTIONAL TEST operations at the frequencies shown in Table 4.3-4.

4.3.3.3.2 A seismic event greater than or equal to 0.01g shall be reported to the Commission within 1 hour. Each of the above seismic monitoring instruments actuated during a seismic event greater than or equal to 0.01g shall be restored to OPERABLE status within 24 hours and a CHANNEL CALIBRATION performed within 30 days following the seismic event. Data shall be retrieved from actuated instruments and analyzed to determine the magnitude of the vibratory ground motion. A Special Report shall be prepared and submitted to the Commission pursuant to Specification 6.9.2 within 30 days describing the magnitude, frequency spectrum and resultant effect upon facility features important to safety.

in accordance with 10 CFR 50.4

NPF-73

INSTRUMENTATION

METEOROLOGICAL INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.3.4 The meteorological monitoring instrumentation channels shown in Table 3.3-X shall be OPERABLE.

APPLICABILITY: At all times.

ACTION:

- a. With the number of OPERABLE meteorological monitoring channels less than required by Table 3.3-X, suspend all release of gaseous radioactive material from the radwaste gas decay tanks until the inoperable channel(s) is restored to OPERABLE status.
- b. With one or more required meteorological monitoring channels inoperable for more than 7 days, prepare and submit a Special Report to the Commission pursuant to Specification 6.9.2 within the next 10 days outlining the cause of the malfunction and the plans for restoring the channel(s) to OPERABLE status.
- ~~c. The provisions of Specification 3.0.3 are not applicable.~~

SURVEILLANCE REQUIREMENTS

^{4.3.1}
~~4.3.3.4~~ Each of the above meteorological monitoring instrumentation channels shall be demonstrated OPERABLE by the performance of the CHANNEL CHECK and CHANNEL CALIBRATION operations at the frequencies shown in Table 4.3-X.

TABLE 3.3-8¹METEOROLOGICAL MONITORING INSTRUMENTATION

<u>INSTRUMENT</u>	<u>LOCATION</u>	<u>INSTRUMENT MINIMUM ACCURACY</u>	<u>MINIMUM OPERABLE</u>
1. WIND SPEED			
a. Nominal Elev. 500'		± 0.5 mph*	1
b. Nominal Elev. 150'		± 0.5 mph*	1
c. Nominal Elev. 35'		± 0.5 mph*	1
2. WIND DIRECTION			
a. Nominal Elev. 500'		± 5°	1
b. Nominal Elev. 150'		± 5°	1
c. Nominal Elev. 35'		± 5°	1
3. AIR TEMPERATURE ΔT			
a. ΔT Elev. 500'-35'		± 0.1°C	1
b. ΔT Elev. 150'-35'		± 0.1°C	1

*Starting speed of anemometer shall be < 1 mph.

BEAVER VALLEY - UNIT 2

3/4 3-50

(Relocate to LRM)

TABLE 4.3-~~B~~'

METEOROLOGICAL MONITORING INSTRUMENTATION
SURVEILLANCE REQUIREMENTS

<u>INSTRUMENT</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL CALIBRATION</u>
1. WIND SPEED		
a. Nominal Elev. 500'	D	SA
b. Nominal Elev. 150'	D	SA
c. Nominal Elev. 35'	D	SA
2. WIND DIRECTION		
a. Nominal Elev. 500'	D	SA
b. Nominal Elev. 150'	D	SA
c. Nominal Elev. 35'	D	SA
3. AIR TEMPERATURE ΔT		
a. ΔT Elev. 500'-35'	D	SA
b. ΔT Elev. 150'-35'	D	SA

NPF-73
INSTRUMENTATION

EXPLOSIVE GAS MONITORING INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.3.11 The explosive gas monitoring instrumentation channels shown in Table 3.3-13 shall be OPERABLE with their Alarm/Trip Setpoints set to ensure that the limits of Specification 3.11.2.6 are not exceeded.

APPLICABILITY: As shown in Table 3.3-13.

ACTION:

- a. With an explosive gas monitoring instrumentation channel Alarm/Trip Setpoint less conservative than required by the above specification declare the channel inoperable and take the ACTION shown in Table 3.3-13.
- b. With less than the minimum number of explosive gas monitoring instrumentation channels OPERABLE, take the ACTION shown in Table 3.3-13. Restore the inoperable instrumentation to OPERABLE status within 30 days and, if unsuccessful, prepare and submit a Special Report ~~to the Commission pursuant to Specification 6.9.2 to~~ explain why the inoperability was not corrected in a timely manner.
- c. The provisions of Specification 3.0.3 are not applicable.

in accordance with 10 CFR 50.4 within 30 days

SURVEILLANCE REQUIREMENTS

4.3.3.11 Each explosive gas monitoring instrumentation channel shall be demonstrated OPERABLE by performance of the CHANNEL CHECK, CHANNEL CALIBRATION, and CHANNEL FUNCTIONAL TEST operations at the frequencies shown in Table 4.3-13.

TABLE 3.3-13 (Continued)ACTION STATEMENTS

- ACTION 27 - (This ACTION is not used)
- ACTION 28 - (This ACTION is not used)
- ACTION 29 - (This ACTION is not used)
- ACTION 30 - (This ACTION is not used)
- ACTION 31 - With the number of channels OPERABLE one less than required by the MINIMUM Channels OPERABLE requirement, operation of this system may continue provided grab samples are taken and analyzed at least once per 24 hours. With both channels inoperable, operation may continue provided grab samples are taken and analyzed at least once per 4 hours during degassing operations and at least once per 24 hours during other operations.
- ACTION 32 - (This ACTION is not used)
- ~~ACTION 35 - (This ACTION is not used)~~

REACTOR COOLANT SYSTEM

REACTOR COOLANT PUMP-STARTUP

LIMITING CONDITION FOR OPERATION

3.4.1.6 An idle reactor coolant pump in a non-isolated loop shall not be started, unless the secondary water temperature* of each steam generator is less than 50°F above each of the inservice RCS cold leg temperatures.

APPLICABILITY: When the temperature of one or more of the non-isolated loop cold legs is \leq 350°F.

ACTION:

With the temperature of the steam generator in the loop associated with the reactor coolant pump being started greater than ^{or equal to} 50°F above the cold leg temperature of the other non-isolated loops, suspend the startup of the reactor coolant pump.

SURVEILLANCE REQUIREMENTS

4.4.1.6.1 The secondary water temperature of the non-isolated steam generators shall be determined within 10 minutes prior to starting a reactor coolant pump.

*The secondary water temperature is to be verified by direct measurement of the fluid temperature, or contact temperature readings on the steam generator secondary, or blowdown piping after purging of stagnant water within the piping.

SURVEILLANCE REQUIREMENTS (Continued)

7. Unserviceable describes the condition of a tube if it leaks or contains a defect large enough to affect its structural integrity in the event of an Operating Basis Earthquake, a loss-of-coolant accident, or a steam line or feedwater line break as specified in 4.4.5.3.c, above.
8. Tube Inspection means an inspection of the steam generator tube from the point of entry (hot leg side) completely around the U-bend to the top support to the cold leg.
9. Tube Repair refers to sleeving which is used to maintain a tube in-service or return a tube to service. This includes the removal of plugs that were installed as a corrective or preventive measure. The following sleeve designs have been found acceptable:
 - a) Babcock & Wilcox kinetic welded sleeves, BAW-2094P, Revision 1 including kinetic sleeve "tooling" and installation process parameter changes.
 - b) Westinghouse laser welded sleeves, WCAP-13483, Revision 1.

- b. The steam generator shall be determined OPERABLE after completing the corresponding actions (plug or repair all tubes exceeding the plugging or repair limit) required by Table 4.4-2.

4.4.5.5 Reports

- a. Within 15 days following the completion of each inservice inspection of steam generator tubes, the number of tubes plugged or repaired in each steam generator shall be ~~reported to the Commission in a Special Report pursuant to Specification 6.9.2.~~ *submitted* → *in accordance with 10 CFR 50.4*

- b. The complete results of the steam generator tube and sleeve inservice inspection shall be submitted ~~to the Commission in a Special Report pursuant to Specification 6.9.2~~ within 12 months following the completion of the inspection. This Special Report shall include: *in accordance with 10 CFR 50.4*

1. Number and extent of tubes and sleeves inspected.
2. Location and percent of wall-thickness penetration for each indication of an imperfection.
3. Identification of tubes plugged or repaired.

EMERGENCY CORE COOLING SYSTEMS3/4.5.2 ECCS SUBSYSTEMS - $T_{avg} \geq 350^{\circ}F$ LIMITING CONDITION FOR OPERATION

3.5.2 Two separate and independent ECCS subsystems shall be OPERABLE with each subsystem comprised of:

- a. One OPERABLE centrifugal charging pump,
- b. One OPERABLE low head safety injection pump,
- c. One OPERABLE recirculation spray pump⁽¹⁾ capable of supplying the safety injection flow path during recirculation phase, and
- d. An OPERABLE flow path capable of taking suction from the refueling water storage tank on a safety injection signal and transferring suction to the containment sump during the recirculation phase of operation.

APPLICABILITY: MODES 1, 2 and 3.⁽²⁾

ACTION:

- a. With one ECCS subsystem inoperable, restore the inoperable subsystem to OPERABLE status within 72 hours or be in HOT SHUTDOWN within the next 12 hours.
- b. In the event the ECCS is actuated and injects water into the Reactor Coolant System, a Special Report shall be prepared and submitted ~~to the Commission pursuant to Specification 6.9.2~~ within 30 days describing the circumstances of the actuation and the total accumulated actuation cycles to date.

SURVEILLANCE REQUIREMENTS

in accordance with 10 CFR 50.4

4.5.2 Each ECCS subsystem shall be demonstrated OPERABLE:

- a.1. At least once per 12 hours by verifying that the following valves are in the indicated positions with power to the valve operator control circuits disconnected by removal of the plug in the lock out circuit from each circuit:

(1) Recirculation spray pump 2RSS-P21C or 2RSS-P21D.

(2) The provisions of Specifications 3.0.4 and 4.0.4 are not applicable for entry into MODE 3 for the centrifugal charging pumps declared inoperable pursuant to Specification 4.5.3.2 provided the centrifugal charging pumps are restored to OPERABLE status within 4 hours or prior to the temperature of one or more of the RCS cold legs exceeding 375°F, whichever comes first.

EMERGENCY CORE COOLING SYSTEMSECCS SUBSYSTEMS - $T_{avg} < 350^{\circ}\text{F}$ LIMITING CONDITION FOR OPERATION

3.5.3 As a minimum, one ECCS subsystem comprised of the following shall be OPERABLE:

- a. One OPERABLE centrifugal charging pump,
- b. One OPERABLE Low Head Safety Injection Pump, and
- c. One OPERABLE recirculation spray pump* capable of supplying the safety injection flow path during recirculation phase, and
- d. An OPERABLE flow path capable of taking suction from the refueling water storage tank upon being manually realigned and transferring suction to the containment sump during the recirculation phase of operation.

APPLICABILITY: MODE 4.

ACTION:

- a. With no ECCS subsystem OPERABLE because of the inoperability of either the centrifugal charging pump or the flow path from the refueling water storage tank, restore at least one ECCS subsystem to OPERABLE status within 1 hour or be in COLD SHUTDOWN within the next 20 hours.
- b. In the event the ECCS is actuated and injects water into the Reactor Coolant System, a Special Report shall be prepared and submitted to the Commission pursuant to Specification 6.9.2 within 30 days describing the circumstances of the actuation and the total accumulated actuation cycle to date.

in accordance with 10 CFR 50.4

SURVEILLANCE REQUIREMENTS

4.5.3.1 The ECCS subsystem shall be demonstrated OPERABLE per the applicable Surveillance Requirements of 4.5.2.

4.5.3.2 All charging pumps, except the above required OPERABLE charging pump, shall be demonstrated inoperable** by verifying that the control switches are placed in the PULL-TO-LOCK position and tagged within 4 hours after entering MODE 4 from MODE 3 prior to the temperature of one or more of the RCS cold legs decreasing below 325°F , whichever comes first, and at least once per 12 hours thereafter.

*Recirculation spray pump 2RSS-P21C or 2RSS-P21D.

**An inoperable pump may be energized for testing provided the discharge of the pump has been isolated from the RCS by a closed isolation valve with power removed from the valve operator, or by a manual isolation valve secured in the closed position.

PLANT SYSTEMSSURVEILLANCE REQUIREMENTS (CONTINUED)

- b. Stored sources not in use - Each sealed source and fission detector shall be tested prior to use or transfer to another licensee unless tested within the previous six months. Sealed sources and fission detectors transferred without a certificate indicating the last test date shall be tested prior to being placed into use.
- c. Startup sources and fission detectors - Each sealed startup source and fission detector shall be tested within 31 days prior to being subjected to core flux or installed in the core 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~~ on an annual basis if sealed source or fission detector leakage tests reveal the presence of ≥ 0.005 microcuries of removable contamination.

in accordance with 10 CFR 50.4

REFUELING OPERATIONS

3/4 9.8 RESIDUAL HEAT REMOVAL AND COOLANT CIRCULATION

LIMITING CONDITION FOR OPERATION

3.9.8.1 At least one residual heat removal (RHR) loop shall be OPERABLE and in operation.

APPLICABILITY: MODE 6.

ACTION:

- a. With less than one residual heat removal loop in operation, except as provided below, suspend all operations involving an increase in the reactor decay heat load or a reduction in boron concentration of the Reactor Coolant System. Close all containment penetrations providing direct access from the containment atmosphere to the outside atmosphere within 4 hours.
- b. The residual heat removal loop may be removed from operation for up to 1 hour per 8 hour period during the performance of CORE ALTERATIONS in the vicinity of the reactor pressure vessel hot legs.
- c. The residual heat removal loop may be removed from operation for up to 4 hours per 8 hour period during the performance of Ultrasonic In-service Inspection inside the reactor vessel nozzles provided there is at least 23 feet of water above the top of the reactor vessel flange.
- d. The provisions of Specification 3.0.3 are not applicable.

SURVEILLANCE REQUIREMENTS

4.9.8.1 Verify at least one residual heat removal loop is in operation and circulating reactor coolant at:

- a. A flow rate \geq 1000 gpm twice per shift when the Reactor Coolant System is in a reduced inventory condition*.
- b. A flow rate \geq 3000 gpm prior to the start of and once per hour during a reduction in the Reactor Coolant System boron concentration.

*The reactor coolant system water level is lower than three feet below the reactor vessel flange.

3/4.11 RADIOACTIVE EFFLUENTS

3/4.11.1 LIQUID EFFLUENTS

LIQUID HOLDUP TANKS

LIMITING CONDITION FOR OPERATION

3.11.1.4 The quantity of radioactive material contained in each miscellaneous temporary outside radioactive liquid storage tank shall be limited to less than or equal to 10 curies, excluding tritium and dissolved or entrained noble gases.

APPLICABILITY: At all times.

ACTION:

- a. With the quantity of radioactive material in any of the above tanks exceeding the above limit, immediately suspend all additions of radioactive material to the tank and within 48 hours reduce the tank contents to within the limit, and in accordance with 10 CFR 50.4
- b. Submit a Special Report ~~to the Commission~~ within 30 days ~~pursuant to Specification 6.9.2~~ and include a schedule and a description of activities planned and/or taken to reduce the contents to within the specified limits.
- c. The provisions of Specification 3.0.3 are not applicable.

SURVEILLANCE REQUIREMENTS

4.11.1.4.1 The quantity of radioactive material contained in each of the above listed tanks shall be determined to be within the above limit by analyzing a representative sample of the tank's contents at least once per 7 days when radioactive materials are being added to the tank.

RADIOACTIVE EFFLUENTS

3/4.11.2 GASEOUS EFFLUENTS

GASEOUS WASTE STORAGE TANKS

LIMITING CONDITION FOR OPERATION

3.11.2.5 The quantity of radioactivity contained in any connected group of gaseous waste storage tanks shall be limited to less than or equal to 19,000 curies noble gases (considered as Xe-133).

APPLICABILITY: At all times.

ACTION:

- a. With the quantity of radioactive material in any connected group of gaseous waste storage tanks exceeding the above limit, immediately suspend all additions of radioactive material to the tanks and within 48 hours reduce the tanks' contents to within the limit, and
- b. Submit a Special Report ~~to the Commission~~ within 30 days ~~pursuant to Specification 6.9.2~~ and include a schedule and a description of activities planned and/or taken to reduce the contents to within the specified limits.
- c. The provisions of Specification 3.0.3 are not applicable.

in accordance with 10 CFR 50.4

SURVEILLANCE REQUIREMENTS

4.11.2.5.1 The quantity of radioactive material contained in any connected group of gaseous waste storage tanks shall be determined to be within the above limit at least once per 24 hours when radioactive materials are being added to the tanks.

3/4.3 INSTRUMENTATION

BASES

3/4.3.3.4 Deleted3/4.3.3.4 METEOROLOGICAL INSTRUMENTATION

The OPERABILITY of the meteorological instrumentation ensures that sufficient meteorological data is available for estimating potential radiation doses to the public as a result of routine or accidental release of radioactive materials to the atmosphere. This capability is required to evaluate the need for initiating protective measures to protect the health and safety of the public and is consistent with the recommendations of Regulatory Guide 1.23, "Onsite Meteorological Programs."

3/4.3.3.5 REMOTE SHUTDOWN INSTRUMENTATION *delete*

The OPERABILITY of the remote shutdown instrumentation ensures that sufficient capability is available to permit shutdown and maintenance of HOT STANDBY of the facility from locations outside of the control room. This capability is required in the event control room habitability is lost and is consistent with General Design Criteria 19 of 10 CFR 50.

3/4.3.3.6 (This Specification number is not used).

3/4.3.3.7 CHLORINE DETECTION SYSTEMS

The OPERABILITY of the chlorine detection systems ensures that sufficient capability is available to promptly detect and initiate protective action in the event of an accidental chlorine release. This capability is required to protect control room personnel and is consistent with the recommendations of Regulatory Guide 1.95, "Protection of Nuclear Power Plant Control Room Operators Against an Accidental Chlorine Release," January 1977.

3/4.3.3.8 ACCIDENT MONITORING INSTRUMENTATION

The OPERABILITY of the accident monitoring instrumentation ensures that sufficient information is available on selected plant parameters to monitor and assess these variables during and following an accident. This capability is consistent with the recommendations of Regulatory Guide 1.97, "Instrumentation for Light-Water-Cooled Nuclear Plants to Assess Plant Conditions During and Following an Accident," December 1975 and NUREG-0578, "TMI-2 Lessons Learned Task Force Status Report and Short-Term Recommendations."

5.0 DESIGN FEATURES5.1 SITE LOCATION

The Beaver Valley Power Station Unit No. 2 is located in Shippingport Borough, Beaver County, Pennsylvania, on the south bank of the Ohio River. The site is approximately 1 mile southeast of Midland, Pennsylvania, 5 miles east of East Liverpool, Ohio, and approximately 25 miles northwest of Pittsburgh, Pennsylvania. ~~The exclusion area boundary has a minimum radius of 2000 feet around the Unit No. 1 containment building.~~

5.2 REACTOR CORE5.2.1 FUEL ASSEMBLIES

The reactor shall contain 157 fuel assemblies. Each assembly shall consist of a matrix of Zircaloy or ZIRLO fuel rods with an initial composition of natural or slightly enriched uranium dioxide (UO_2) as fuel material. Limited substitutions of zirconium alloy or stainless steel filler rods for fuel rods, in accordance with approved applications of fuel rod configurations, may be used. Fuel assemblies shall be limited to those fuel designs that have been analyzed with applicable NRC staff approved codes and methods and shown by tests or analyses to comply with all fuel safety design bases. A limited number of lead test assemblies that have not completed representative testing may be placed in nonlimiting core regions.

5.2.2 CONTROL ROD ASSEMBLIES

The reactor core shall contain 48 full length and no part length control rod assemblies. The full length control rod assemblies shall contain a nominal 142 inches of absorber material. The nominal values of absorber material shall be 80 percent silver, 15 percent indium and 5 percent cadmium. All control rods shall be clad with stainless steel tubing.

5.3 FUEL STORAGE5.3.1 CRITICALITY

5.3.1.1 The spent fuel storage racks are designed and shall be maintained with:

- a. Fuel assemblies having a maximum U-235 enrichment as set forth in Specification 3.9.14;
- b. $K_{eff} \leq 0.95$ if fully flooded with unborated water, which includes an allowance for uncertainties as described in UPSAR Section 9.1;

PROCEDURES (Continued)

- 10) Limitations on the annual dose or dose commitment to any MEMBER OF THE PUBLIC due to releases of radioactivity and to radiation from uranium fuel cycle sources conforming to 40 CFR Part 190.

b. Radiological Environmental Monitoring Program

A program shall be provided to monitor the radiation and radionuclides in the environs of the plant. The program shall provide (1) representative measurements of radioactivity in the highest potential exposure pathways, and (2) verification of the accuracy of the effluent monitoring program and modeling of environmental exposure pathways. The program shall (1) be contained in the ODCM, (2) conform to the guidance of Appendix I to 10 CFR Part 50, and (3) include the following:

- 1) Monitoring, sampling, analysis, and reporting of radiation and radionuclides in the environment in accordance with the methodology and parameters in the ODCM,
- 2) A Land Use Census to ensure that changes in the use of areas at and beyond the SITE BOUNDARY are identified and that modifications to the monitoring program are made if required by the results of this census, and
- 3) Participation in an Interlaboratory Comparison Program to ensure that independent checks on the precision and accuracy of the measurements of radioactive materials in environmental sample matrices are performed as part of the quality assurance program for environmental monitoring.

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 U.S. Nuclear Regulatory Commission, Document Control Desk.

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 had been manufactured by a different fuel supplier, and (4) modifications that may have significantly altered the nuclear, thermal, or hydraulic performance of the plant.

INSERT A

STARTUP REPORTS (Continued)

delete

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 operations, 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.

ANNUAL REPORTS⁽¹⁾

6.9.1.4 Annual reports covering the activities of the unit as described below for the previous calendar year shall be submitted prior to March 1 of each year.

6.9.1.5 Reports required on an annual basis shall include:

- ✕. A tabulation ^{← (on an annual basis)} of the number of station, utility, and other personnel (including contractors) receiving exposure greater than 100 mrem/yr and their associated man-rem exposure according to work and job functions ✕ (e.g., reactor operations and surveillance, inservice inspection, routine maintenance, special maintenance (describe maintenance), waste processing, and refueling) → The dose assignments to various duty functions may be estimated based on pocket

INSERT B

- (1) A single submittal may be made for a multiple unit site. The submittal should combine those sections that are common to all units at the site.
- (2) This tabulation supplements the requirements of Section 20.2206 of 10 CFR Part 20.

delete

Attachment A-2
Beaver Valley Power Station, Unit No. 2
License Amendment Request No. 116

INSERT A

The following reports shall be submitted in accordance with 10 CFR 50.4.

6.9.1 Occupational Radiation Exposure Report

- - - - - NOTE - - - - -
A single submittal may be made for a multiple unit station. The submittal should combine sections common to all units at the station.
- - - - -

INSERT B

This tabulation supplements the requirements of 10 CFR 20.2206.

~~ANNUAL REPORTS (Continued)~~

thermoluminescent
dosimeter

INSERT C

dosimeter, (TLD), or film badge measurements. Small exposures totalling less than 20 percent of the individual total dose need not be accounted for. In the aggregate, at least 80 percent of the total whole body dose received from external sources should be assigned to specific major work functions.

- b. Documentation of all challenges to the pressurizer power operated relief valves (PORVS) or pressurizer safety valves.
- c. The results of specific activity analysis in which the primary coolant exceeded the limits of Specification 3.4.8. The following information shall be included: (1) Reactor power history starting 48 hours prior to the first sample in which the limit was exceeded; (2) Results of the last isotopic analysis for radioiodine performed prior to exceeding the limit, results of analysis while limit was exceeded and results of one analysis after the radioiodine activity was reduced to less than the limit. Each result should include date and time of sampling and the radioiodine concentrations; (3) Clean-up system flow history starting 48 hours prior to the first sample in which the limit was exceeded; (4) Graph of the I-131 concentration and one other radioiodine isotope concentration in microcuries per gram as a function of time for the duration of the specific activity above the steady-state level; and (5) The time duration when the specific activity of the primary coolant exceeded the radioiodine limit.

delete

6.9.4 MONTHLY OPERATING REPORT

INSERT D

~~6.9.1.6~~ Routine reports of operating statistics and shutdown experience shall be submitted on a monthly basis no later than the 15th of each month following the calendar month covered by the report.

- 6.9.1.7 This item intentionally blank
- 6.9.1.8 This item intentionally blank
- 6.9.1.9 This item intentionally blank

delete

Attachment A-2
Beaver Valley Power Station, Unit No. 2
License Amendment Request No. 116

INSERT C

The report shall be submitted by April 30 of each year.

INSERT D

, including documentation of all challenges to the pressurizer power operated relief valves or pressurizer safety valves,

Offsite Dose Calculation Manual

Insert E

6.9.2 ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT ~~X~~

17

6.9.1.10 The Annual Radiological Environmental Operating Report covering the operation of the unit during the previous calendar year shall be submitted before May 15 of each year. The report shall include summaries, interpretations, and analysis of trends of the results of the Radiological Environmental Monitoring Program for the reporting period. The material provided shall be consistent with the objectives outlined in (1) the ODCM and (2) Sections IV.B.2, IV.B.3, and IV.C of Appendix I to 10 CFR Part 50.

6.9.3 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT ~~X~~

in accordance with 10 CFR 50.36a

6.9.1.11 The Annual Radioactive Effluent Release Report covering the operation of the unit during the previous 12 months of operation shall be submitted before April 1 of each year. The report shall include a summary of the quantities of radioactive liquid and gaseous effluents and solid waste released from the unit. The material provided shall be consistent with the objectives outlined in the ODCM and (PCP) and in conformance with 10 CFR 50.36a and Section IV.B.1 of Appendix I to 10 CFR Part 50.

Process Control Program

Appendix I

Refermat as Insert F

CORE OPERATING LIMITS REPORT

6.9.1.12 Core operating limits shall be established and documented in the CORE OPERATING LIMITS REPORT before each reload cycle or any remaining part of a reload cycle. The analytical methods used to determine the core operating limits shall be those previously reviewed and approved by the NRC in:

1. WCAP-9272-P-A, "WESTINGHOUSE RELOAD SAFETY EVALUATION METHODOLOGY", July 1985 (Westinghouse Proprietary). Methodology applied for the following Specifications:
 - 3.1.3.5, Shutdown Rod Insertion Limits
 - 3.1.3.6, Control Rod Insertion Limits
 - 3.2.1, Axial Flux Difference-Constant Axial Offset Control
 - 3.2.2, Heat Flux Hot Channel Factor- $F_0(Z)$
 - 3.2.3, Nuclear Enthalpy Rise Hot Channel Factor-FN delta H

~~X~~ A single submittal may be made for a multi-unit station.

~~X~~ Note
A single submittal may be made for a multi-unit station. The submittal should combine those sections that are common to all units at the station; however, for units with separate radwaste systems, the submittal shall specify the releases of radioactive material from each unit.

(Proposed Wording)

INSERT E

----- NOTE -----
A single submittal may be made for a multiple unit station. The submittal should combine sections common to all units at the station.

INSERT F

6.9.5 CORE OPERATING LIMITS REPORT (COLR)

- a. Core operating limits shall be established prior to each reload cycle, or prior to any remaining portion of a reload cycle, and shall be documented in the COLR for the following:

- 3.1.3.5 Shutdown Rod Insertion Limits
- 3.1.3.6 Control Rod Insertion Limits
- 3.2.1 Axial Flux Difference-Constant Axial Offset Control
- 3.2.2 Heat Flux Hot Channel Factor- $F_Q(Z)$
- 3.2.3 Nuclear Enthalpy Rise Hot Channel Factor- $F_{\Delta H}^N$

- b. The analytical methods used to determine the core operating limits shall be those previously reviewed and approved by the NRC, specifically those described in the following documents:

WCAP-9272-P-A, "WESTINGHOUSE RELOAD SAFETY EVALUATION METHODOLOGY," July 1985 (Westinghouse Proprietary).

WCAP-10266-P-A Rev. 2/WCAP-11524-NP-A Rev. 2, "The 1981 Version of the Westinghouse ECCS Evaluation Model Using the BASH Code," Kabadi, J. N., March 1987; including Addendum 1-A "Power Shape Sensitivity Studies" 12/87 and Addendum 2-A "BASH Methodology Improvements and Reliability Enhancements" 5/88.

WCAP-8385, "POWER DISTRIBUTION CONTROL AND LOAD FOLLOWING PROCEDURES - TOPICAL REPORT." September 1974 (Westinghouse Proprietary).

T. M. Anderson to K. Kniel (Chief of Core Performance Branch, NRC) January 31, 1980 -- Attachment: Operation and Safety Analysis Aspects of an Improved Load Follow Package.

NUREG-0800, Standard Review Plan, U.S. Nuclear Regulatory Commission, Section 4.3, Nuclear Design, July 1981. Branch Technical Position CPB 4.3-1, Westinghouse Constant Axial Offset Control (CAOC), Rev. 2, July 1981.

WCAP-12610-P-A, "VANTAGE+ Fuel Assembly Reference Core Report," April 1995 (Westinghouse Proprietary).

Attachment A-2
Beaver Valley Power Station, Unit No. 2
License Amendment Request No. 116

INSERT F (Continued)

- c. The core operating limits shall be determined such that all applicable limits (e.g., fuel thermal mechanical limits, core thermal hydraulic limits, Emergency Core Cooling Systems (ECCS) limits, nuclear limits such as shutdown margin, transient analysis limits, and accident analysis limits) of the safety analysis are met.
- d. The COLR, including any midcycle revisions or supplements, shall be provided upon issuance for each reload cycle to the NRC.

CORE OPERATING LIMITS REPORT (Continued)*reformat as INSERT G*

2. WCAP-10266-P-A Rev. 2 / WCAP-11524-NP-A Rev. 2, "The 1981 Version of the Westinghouse ECCS Evaluation Model Using the BASH Code," Kabadi, J. N., et al., March 1987; including Addendum 1-A "Power Shape Sensitivity Studies" 12/87 and Addendum 2-A "BASH Methodology Improvements and Reliability Enhancements" 5/88. Methodology applied for the following Specification: 3.2.2, Heat Flux Hot Channel Factor- $F_Q(Z)$.
3. WCAP-8385, "POWER DISTRIBUTION CONTROL AND LOAD FOLLOWING PROCEDURES - TOPICAL REPORT," September 1974 (Westinghouse Proprietary). Methodology applied for the following Specification; 3.2.1, Axial Flux Difference-Constant Axial Offset Control.
4. T. M. Anderson to K. Kniel (Chief of Core Performance Branch, NRC) January 31, 1980 -- Attachment: Operation and Safety Analysis Aspects of an Improved Load Follow Package. Methodology applied for the following Specification: 3.2.1, Axial Flux Difference-Constant Axial Offset Control
5. NUREG-0800, Standard Review Plan, U. S. Nuclear Regulatory Commission, Section 4.3, Nuclear Design, July 1981. Branch Technical Position CPB 4.3-1, Westinghouse Constant Axial Offset Control (CAOC), Rev. 2, July 1981. Methodology applied for the following Specification: 3.2.1, Axial Flux Difference-Constant Axial Offset Control
6. WCAP-12610-P-A, "VANTAGE+ Fuel Assembly Reference Core Report," April 1995 (Westinghouse Proprietary). Methodology applied for the following Specification: 3.2.2, Heat Flux Hot Channel Factor - $F_Q(Z)$

The core operating limits shall be determined so that all applicable limits (e.g., fuel thermal-mechanical limits, core thermal-hydraulic limits, ECCS limits, nuclear limits such as shutdown margin, and transient and accident analysis limits) of the safety analysis are met. The CORE OPERATING LIMITS REPORT, including any mid-cycle revisions or supplements thereto, shall be provided upon issuance, for each reload cycle, to the NRC Document Control Desk.

SPECIAL REPORTS*delete*

6.9.2 Special reports shall be submitted to the U. S. Nuclear Regulatory Commission, Document Control Desk within the time period specified for each report. These reports shall be submitted covering the activities identified below pursuant to the requirements of the applicable reference specification:

- a. ECCS Actuation. Specifications 3.5.2 and 3.5.3.

SPECIAL REPORTS (Continued)

delete

- b. Inoperable Seismic Monitoring Instrumentation, Specification 3.3.3.3.
- c. Inoperable Meteorological Monitoring Instrumentation, Specification 3.3.3.4.
- d. Seismic event analysis, Specification 4.3.3.3.2.
- e. Sealed source leakage in excess of limits, Specification 4.7.9.1.3.
- f. Miscellaneous reporting requirements specified in the ACTION Statements for Appendix C of the ODCM.
- g. DELETED
- h. Steam generator tube inservice inspection, Specification 4.4.5.5.
- i. Inoperable accident monitoring, Specification 3.3.3.8.
- j. Liquid Hold-Up Tanks, Specification 3.11.1.4.
- k. Gas Storage Tanks, Specification 3.11.2.5.
- l. Explosive Gas Monitoring Instrumentation, Specification 3.3.3.11.

6.10 DELETED

6.11 RADIATION PROTECTION PROGRAM

Procedures for personnel radiation protection shall be prepared consistent with the requirements of 10 CFR Part 20 and shall be approved, maintained and adhered to for all operations involving personnel radiation exposure.

6.12 HIGH RADIATION AREA

6.12.1 In lieu of the "control device" or "alarm signal" required by paragraph 20.1601 of 10 CFR 20, each high radiation area in which the intensity of radiation is greater than 100 mrem/hr but less than 1000 mrem/hr shall be barricaded and conspicuously posted as a high radiation area and entrance thereto shall be controlled by requiring

ATTACHMENT B

Beaver Valley Power Station, Unit Nos. 1 and 2 Proposed License Amendment Request No. 246 and 11f MODIFY REPORTING REQUIREMENTS AND ADMINISTRATIVE CHANGES

A. DESCRIPTION OF AMENDMENT REQUEST

The proposed amendment would:

1. Delete two license requirements, one for each unit,
2. Modify one Limiting Condition For Operation's (LCO) Applicability,
3. Modify three definitions,
4. Change an action statement number,
5. Relocate the Meteorological Monitoring specification,
6. Modify the technical specification (TS) design feature site location description,
7. Correct inadvertent omissions and failure to delete items from previous Amendments,
8. Revise various reporting requirements to reflect those provided in the Improved Standard Technical Specifications (ISTS) of NUREG-1431 Revision 1, and
9. Address a few editorial changes.

Note that with the relocating of the Meteorological Monitoring specification, the contents of Unit 1 Technical Specification pages 3/4 3-42 and 3/4 3-43 as well as Unit 2 Technical Specification pages 3/4 3-50 and 3/4 3-51 will be relocated to the Licensing Requirements Manual for Units 1 and 2, respectively. NRC approval of relocating these requirements to the Licensing Requirements Manuals is being requested.

B. DESIGN BASES

1. Unit 1 Amendment No. 168 incorporated Operating License Condition 2.C(9) to allow a surveillance interval extension for Cycle 9. Unit 2 Operating License Section 2.G requires reporting violations of the requirements contained in Operating License Section 2.C.
2. Unit 1 Amendment 213 and Unit 2 Amendment 90 added Specification 3.0.6 that contains an exception to Specification 3.0.1 but did not make reference to 3.0.6 in 3.0.1 in the manner done in the ISTS.
3. The definition of CORE ALTERATIONS is being changed to limit core alterations to movement of fuel, sources, or reactivity control components, rather than movement of any component within the reactor vessel. The definition of OFFSITE DOSE CALCULATION Manual is being changed to refer to the correct portion of the Technical Specifications. The definition of MEMBERS OF THE PUBLIC is being changed to be the same as the definition in 10 CFR 20.1003.

4. Action Statement 36 is being renumbered to 35. Action Statement 36 in Table 3.3-6 is redundant to the same action statement number used in Table 3.3-3.
5. The Meteorological Monitoring specification has been relocated to the LRM. Meteorological instrumentation is not in the ISTS.
6. The TS design features site location description includes a description of the exclusion area boundary.
7. Unit 1 Amendment No. 160 added reference to the overpressure protection system (OPPS) enable temperature set forth in Specification 3.4.9.3 in various locations throughout the technical specifications, in lieu of a temperature of 275°F. Unit 2 Specification 3.4.1.6 and the associated ACTION are incomplete in that the action to be taken for the steam generator temperature being precisely 50°F above the cold leg temperature was not specified. The ACTION is being modified to include the case of precisely 50°F. Unit 2 Amendment No. 25 should have deleted the asterisk from the Specification 3.9.8.1 LCO.
8. The current administrative control section reporting requirements contain information based on Revision 0 of NUREG-0452. The proposed amendment updates the reporting requirements to contain those requirements based on the latest version of the ISTS, except for the Annual Radioactive Release Report requirement which is being retained in its current form as it more clearly specifies the reporting period and report due date.
9. Removal of reference to previous deletions is being done as sections are being renumbered.

C. JUSTIFICATION

1. Unit 1 Operating License Condition 2.C(9) was incorporated to allow a surveillance interval extension for one cycle only and is no longer required. Unit 2 operating license requirement 2.G has been deleted since reporting requirements are addressed in accordance with 10 CFR 50.73.
2. The reference to Specification 3.0.6 omitted from Unit 1 Amendment 213 and Unit 2 Amendment 90, is being added to 3.0.1., consistent with the ISTS.
3. The definition of CORE ALTERATIONS is being changed to limit core alterations to movement of fuel, sources, or reactivity control components, rather than movement of any component within the reactor vessel. This change is consistent with the ISTS. The definition of OFFSITE DOSE CALCULATION MANUAL is being changed to refer to the correct portion of the

Technical Specifications. The definition of MEMBERS OF THE PUBLIC is being changed to be the same as the definition in 10 CFR 20.1003, to include all individuals except those that are receiving occupational doses.

4. Table 3.3-6 Action Statement 36 has been changed to Action Statement 35 for both units since Action Statement 35 is not used.
5. The Licensing Requirements Manual (LRM) was developed and issued to control and maintain those items removed from the TS. Like the UFSAR, changes to the LRM are controlled in accordance with the requirements of 10 CFR 50.59; therefore, the Meteorological Monitoring requirements will be maintained in the LRM. The surveillance requirements will not be reduced since they will continue to demonstrate operability by performance of channel checks and channel calibrations.
6. The exclusion area boundary is adequately described in each unit's UFSAR; therefore, design feature 5.1 Site Location is being modified by deleting the description of the exclusion area boundary.
7. Unit 1 Amendment No. 160 added reference to the enable temperature set forth in Specification 3.4.9.3 in a number of places, inadvertently omitting that change in Bases, Section 3/4.4.1.1.2.3.

The NRC SAFETY ANALYSIS for Unit 2 Amendment 25 addressed changing the asterisk footnote. This change removes the asterisk from the Specification 3.9.8.1 LCO to make it consistent with Amendment 25.

The Unit 2 Specification 3.4.1.6 inadvertent omission of the ACTION to address the case where the temperature of the steam generator is precisely 50°F above the cold leg temperature is being corrected. The cases of greater than and less than 50°F are currently addressed.

8. The administrative control category with specified reporting requirements is identified and requires submittal of reports to the Commission pursuant to TS as specified in 10 CFR 50.4. The ISTS were developed to specifically comply with these requirements and to provide a model for plants to use when developing or modifying the TS administrative control section. Many of the reports identified in the current reporting requirements section are redundant to reports provided to satisfy various Title 10 requirements. Therefore, the reporting requirements can be modified to reflect the ISTS requirements without any loss of the current information or affecting the safety of the plant. The Annual Radioactive Release Report requirement is being retained with

12 month periodicity and April 1 report due date as this is more clear than the provisions of 10 CFR 50.36a(a)(2).

9. Removal of reference to previous deletions is being done as a result of sections being renumbered.

D. SAFETY ANALYSIS

1. Unit 1 Operating License Condition 2.C(9) has been deleted since this condition only applied during Cycle 9 and has since expired. Unit 2 Operating License requirement 2.G requires reporting violations of those requirements listed in 2.C; however, this is redundant to the reporting requirements identified in 10 CFR 50.73 and is no longer required. These are changes that do not affect the operation of the plant; therefore, these changes have been determined to be safe and will not impact the safety of the plant.
2. Reference to Specification 3.0.6 was omitted from Specification 3.0.1 in Unit 1 Amendment 213 and Unit 2 Amendment 90, and is being added to Specification 3.0.1 to be consistent with the ISTS. This is an editorial change that does not affect the operation of the plant; therefore, this change has been determined to be safe and will not impact the safety of the plant.
3. The Core Alteration definition has been modified by replacing the current wording with that provided in the ISTS. This change will allow flexibility in movement of components that may be used in refueling activities (i.e., lights, cameras, etc.) that have no effect on core reactivity. This is an editorial change to eliminate confusion between that equipment used in refueling and core components and will not impact the safety of the plant.

The Offsite Dose Calculation Manual (ODCM) definition has been modified to reflect the change to the new Administrative Control 6.9.3. This is an editorial change and will not impact the safety of the plant.

The Members of the Public definition has been modified by replacing the current wording with that provided in the ODCM. The ODCM definition is the same as the definition in 10 CFR 20.1003 and allows treating employees as Members of the Public when not receiving occupational dose. This is an editorial change to eliminate confusion between the TS and the ODCM and will not impact the safety of the plant.

4. Changing Table 3.3-6 Action Statement 36 to Action Statement 35 is an editorial change to eliminate redundant use of action statement numbers. This is consistent with maintaining unique action statement numbers. Consistent with this change, Unit 2 Table 3.3-13 has been revised by deleting

reference to Action 35 since this action is listed as not used. These changes are editorial and have been determined to be safe and will not impact the safety of the plant.

5. Relocating the Meteorological Monitoring requirements and Bases from the TS to the LRM is in accordance with the guidance in the Commission's Final Policy Statement and revisions to 10 CFR 50.36 on the content of the TS and ISTS. The requirements to be relocated have not been changed.

The Meteorological Monitoring Instrumentation Surveillance Requirements table is (currently Table 4.3-5 in the technical specifications) being relocated to the LRM.

These are changes that do not affect the operation of the plant; therefore, these changes have been determined to be safe and will not impact the safety of the plant.

6. The exclusion area boundary is described in design feature 5.1 site location description and is consistent with that provided in UFSAR Section 2.1.1 including UFSAR Figure 2.1-7 for Unit 1, and in UFSAR Section 2.1.2.1 including Figure 2.1-2 for Unit 2. The exclusion area boundary description has been deleted from TS, since it is redundant to the UFSAR description. The TS exclusion area boundary is no longer required; therefore, these changes have been determined to be safe and will not impact the safety of the plant.
7. The NRC SAFETY ANALYSIS for Unit 1 Amendment 160 addressed replacing the 275°F temperature at which OPPS is placed in service with reference to the OPPS enable temperature. This change modifies the Bases to make it consistent with Amendment 160.

The NRC SAFETY ANALYSIS for Unit 2 Amendment 25 addressed changing the asterisk footnote. This change removes the asterisk from the LCO to make it consistent with Amendment 25.

The Unit 2 Specification 3.4.1.6 inadvertent omission of the ACTION to take when the temperature of the steam generator is precisely 50°F above the cold leg temperature is being corrected. The conditions of greater than and less than 50°F are already included in the technical specifications.

These are editorial changes that have been determined to be safe and will not impact the safety of the plant.

8. The special reporting requirements of Specifications 3.3.3.3, 4.3.3.3.2, 3.3.3.11, 4.4.5.5, 3.5.2, 3.5.3, 4.7.9.1.3, 3.11.1.4 and 3.11.2.5 have been modified to require submitting a special report in accordance with 10 CFR 50.4 in lieu of Specification 6.9.2 since 6.9.2 is being deleted.

Modifying the administrative control reporting requirements to address the ISTS requirements involves deleting the routine reports, startup reports and annual reports of Section 6.9.1, 6.9.1.1, 6.9.1.2, 6.9.1.3 and 6.9.1.4. The requirement for a startup report has been deleted since this is redundant to the 10 CFR 50, Appendix B, Criterion XI which requires all of the same type of data and generation of the same types of records. Such records are also required by ANSI N45.2.9-1974, Appendix A, Item A.5. In addition, ANSI N18.7-1976, Section 5.2.19 has similar requirements. Further, without any regulatory requirements, these records would be generated and maintained for commercial purposes; i.e., for fuel performance warranty uses.

The new 6.9.1, Occupational Radiation Exposure Report, is a modification of the current 6.9.1.5 where the first sentence would be revised to include "on an annual basis." In addition, Insert A adds a general Note to replace Note (1) as "A single submittal may be made for a multiple unit station. The submittal should combine sections common to all units at the station." and Insert B incorporates Note (2) into the body of the text as "This tabulation supplements the requirements of 10 CFR 20.2206." TLD has been defined as "thermoluminescent dosimeter" and Insert C adds a requirement to submit the report by April 30 of each year. Sections 6.9.1.b and c have been deleted since challenges to the pressurizer power operated relief valves or pressurizer safety valves will be addressed in the monthly operating report and the ISTS does not require submittal of the specific activity analysis. These are mainly editorial changes that do not affect the intent of this reporting requirement; however, submittal of this report by April 30 of each year is a change from the current submittal date of March 1.

The "Monthly Operating Report" has been renumbered from 6.9.1.6 to 6.9.4 and would incorporate "including documentation of all challenges to the pressurizer power operated relief valves or pressurizer safety valves" into the body of the text like the ISTS. This requirement was formerly provided in the annual report required by 6.9.1.5.b. In addition, 6.9.1.7, 6.9.1.8 and 6.9.1.9 have been removed since they were previously deleted by Unit 1 Amendment No. 84 and were intentionally blank in the Unit 2 reporting requirements.

The "Annual Radiological Environmental Operating Report" has been renumbered from 6.9.1.10 to 6.9.2 and in place of Note (3), Insert E incorporates a general note, "A single submittal may be made for a multiple unit station. The submittal should combine sections common to all units at the station." In addition, the due date for submittal of this

report has been changed from May 1 to May 15, ODCM has been defined as Offsite Dose Calculation Manual, and other editorial changes have been incorporated to reflect the ISTS format.

The "Annual Radioactive Effluent Release Report" has been renumbered from 6.9.1.11 to 6.9.3. Note (4) has been changed to a general note. The PCP has been defined as "Process Control Program," and other editorial changes have been incorporated to reflect the ISTS format.

The "Core Operating Limits Report" has been renumbered from 6.9.1.12 to 6.9.5 and reformatted as shown in Insert G to reflect the ISTS format.

The current reporting requirements of Section 6.9.2 "Special Reports" have been deleted and the reporting requirements of the individual specifications have been modified to require submittal of a Special Report in accordance with 10 CFR 50.4. The reporting criteria specified in Section 6.9.2 as well as additional criteria applicable to these reporting requirements is specified in 10 CFR 50.4. Specification 3.3.3.11 has been further modified by including "within 30 days" to provide a time limit consistent with similar specifications for submittal of this report. Deleting Unit 2 Section 6.9.2 also removes item i which should have been deleted previously when the special report required in Specification 3.3.3.8 was deleted by Amendment 41. Section 6.9.2 only lists specifications that include special reports and identifies where the reports are to be sent. With the proposed change, each individual specification references 10 CFR 50.4 which details where the reports are to be sent; therefore, 6.9.2 is no longer required. The Technical Specification index has been modified to address the revised pages.

These are editorial changes that do not affect the intent of the special report requirements and will not impact the safety of the plant.

9. The TS index has been updated to address removal of the Meteorological Monitoring specification and to incorporate the Administrative Control changes addressed. Removal of reference to previous deletions is being done as a result of sections being renumbered. These are editorial changes and will not impact the safety of the plant.

E. NO SIGNIFICANT HAZARDS EVALUATION

The no significant hazard considerations involved with the proposed amendment have been evaluated, focusing on the three standards set forth in 10 CFR 50.92(c) as quoted below:

The Commission may make a final determination, pursuant to the procedures in paragraph 50.91, that a proposed amendment to an operating license for a facility licensed under paragraph 50.21(b) or paragraph 50.22 or for a testing facility involves no significant hazards consideration, if operation of the facility in accordance with the proposed amendment would not:

- (1) Involve a significant increase in the probability or consequences of an accident previously evaluated; or
- (2) Create the possibility of a new or different kind of accident from any accident previously evaluated; or
- (3) Involve a significant reduction in a margin of safety.

The following evaluation is provided for the no significant hazards consideration standards.

1. Does the change involve a significant increase in the probability or consequences of an accident previously evaluated?
 - a. This change deletes an expired Unit 1 license condition and a Unit 2 license requirement that is not required since it is redundant to the reporting requirements addressed in 10 CFR 50.73. Deleting these requirements does not involve any increase in the probability or consequences of an accident previously evaluated.
 - b. The reference to Specification 3.0.6 was omitted from Specification 3.0.1 in Unit 1 Amendment 213 and Unit 2 Amendment 90 and is being added to 3.0.1 to be consistent with the Improved Standard Technical Specifications of NUREG 1431. This does not involve any increase in the probability or consequences of an accident previously evaluated.
 - c. The Core Alteration definition has been updated to be consistent with the regulations and ISTS. The Offsite Dose Calculation Manual (ODCM) definition has been updated to be consistent with the change to Administrative Control 6.9.3. The Members of the Public definition has been changed to be consistent with 10 CFR 20.1003. This does not involve any increase in the probability or consequences of an accident previously evaluated.

- d. Changing Table 3.3-6 Action Statement 36 to Action Statement 35 is an editorial change to eliminate redundant use of action statement numbers. This does not involve any increase in the probability or consequences of an accident previously evaluated.
- e. The technical specification index is being revised to address removal of the Meteorological Monitoring specification and title and page number changes to the administrative control reporting requirements section. The Meteorological Monitoring specification is being relocated to the Licensing Requirements Manual (LRM). Relocating the Meteorological Monitoring requirements is in accordance with the guidance in the Commission's Final Policy Statement and revisions to 10 CFR 50.36 on the content of the technical specifications and the ISTS. The Meteorological Monitoring requirements do not meet any of the criteria, 1 thru 4 of 10 CFR 50.36 and can, therefore, be relocated from the Technical Specifications to the LRM. These changes do not involve any increase in the probability or consequences of an accident previously evaluated.
- f. The exclusion area boundary is adequately described in each unit's UFSAR; therefore, design feature 5.1 Site Location is also being modified by deleting the description of the exclusion area boundary. This does not involve any increase in the probability or consequences of an accident previously evaluated.
- g. The change to refer to the Unit 1 Overpressure Protection System (OPPS) enable temperature in Specification 3.4.9.3 in lieu of specifying 275°F was evaluated and found acceptable in the request for approval of Amendment 160. The deletion of the asterisk in Unit 2 Specification 3.9.8.1 was justified as part of the request for approval of Amendment 25. The inadvertent omission of the ACTION to take in the case that the temperature of the steam generator is precisely 50°F above the cold leg temperature is being corrected. The cases of greater than and less than 50°F are already included. These are editorial changes that do not involve any increase in the probability or consequences of an accident previously evaluated.
- h. The administrative control reporting requirements have been modified to incorporate various ISTS requirements. This requires changing titles and eliminating requirements addressed elsewhere, removing reference to deleted sections, and replacing reference to the administrative control section reporting requirements in various specifications with reference to 10 CFR 50.4.

The 1993 NRC final policy statement set forth the criteria for determination of those requirements to be included in TS. The reporting requirements being removed from the TS do not meet the criteria for inclusion in the TS; therefore, the reporting requirements have been modified to reflect those requirements provided in the ISTS. These are editorial changes that do not involve any increase in the probability or consequences of an accident previously evaluated.

- i. The Technical Specification index has been modified to address the revised pages.

These changes have been determined to be editorial and administrative in nature, and as such, would not affect any accident assumptions or radiological consequences of an accident. Therefore, the proposed changes would not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. Does the change create the possibility of a new or different kind of accident from any accident previously evaluated?

The editorial changes, the elimination of reporting requirements which duplicate 10 CFR requirements and administrative improvements to incorporate the ISTS requirements are all changes that are administrative in nature. The proposed changes will not affect any plant system or structure, nor will they affect any system functional or operability requirements. Consequently, no new failure modes are introduced as a result of the proposed changes. Therefore, the proposed change will not create the possibility of a new or different type of accident from any accident previously evaluated.

3. Does the change involve a significant reduction in a margin of safety?

The proposed amendment modifies reporting requirements and incorporates associated editorial changes that do not impact the UFSAR design basis or accident analyses assumptions. This change does not introduce any new operational modes or physical modifications to the plant; therefore, no action will occur that will involve a significant reduction in a margin of safety. In addition, the proposed change does not affect radiological release limits, monitoring equipment or operating practices. Therefore, the proposed amendment does not involve a significant reduction in a margin of safety.

F. NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION

Based on the considerations expressed above, it is concluded that the activities associated with this license amendment request satisfy the requirements of 10 CFR 50.92(c) and, accordingly, a no significant hazards consideration finding is justified.

G. ENVIRONMENTAL CONSIDERATION

This license amendment request changes a requirement with respect to the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. It has been determined that this license amendment request involves no significant increase in the amounts, and no significant change in the types of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. This license amendment request may change requirements with respect to installation or use of a facility component located within the restricted area or change an inspection or surveillance requirement; however, the category of this licensing action does not individually or cumulatively have a significant effect on the human environment. Accordingly, this license amendment request meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of this license amendment request.

H. UFSAR CHANGES

None

ATTACHMENT C-1

Beaver Valley Power Station, Unit No. 1
Proposed Technical Specification Change No. 246
LICENSING REQUIREMENTS MANUAL CHANGES

Applicable Licensing Requirements Manual Changes

BVPS-1
LICENSING REQUIREMENTS MANUAL

3.3 Meteorological Instrumentation

The meteorological monitoring instrumentation channels shown in Table 3.3-1 shall be OPERABLE.

APPLICABILITY: At all times.

ACTION:

- a. With the number of OPERABLE meteorological monitoring channels less than required by Table 3.3-1, suspend all release of gaseous radioactive material from the radwaste gas decay tanks until the inoperable channel(s) is restored to OPERABLE status.
- b. With one or more required meteorological monitoring channels inoperable for more than 7 days, prepare and submit a Special Report to the Commission pursuant to 10 CFR 50.4 within the next 10 days outlining the cause of the malfunction and the plans for restoring the channel(s) to OPERABLE status.

SURVEILLANCE REQUIREMENTS

- 4.3.1 Each of the above meteorological monitoring instrumentation channels shall be demonstrated OPERABLE by the performance of the CHANNEL CHECK and CHANNEL CALIBRATION operations at the frequencies shown in Table 4.3-1.

BVPS-1
LICENSING REQUIREMENTS MANUAL

TABLE 3.3-1

METEOROLOGICAL MONITORING INSTRUMENTATION

<u>INSTRUMENT</u>	<u>INSTRUMENT MINIMUM ACCURACY</u>	<u>MINIMUM OPERABLE</u>
1. WIND SPEED		
a. Nominal Elev. 500'	± 0.5 mph*	Any
b. Nominal Elev. 150'	± 0.5 mph*	3 of 6
c. Nominal Elev. 35'	± 0.5 mph*	
2. WIND DIRECTION		
a. Nominal Elev. 500'	± 5°	Any
b. Nominal Elev. 150'	± 5°	3 of 6
c. Nominal Elev. 35'	± 5°	
3. AIR TEMPERATURE Δt		
a. ΔT Elev. 500' - 35'	± 0.1°C	Any
b. ΔT Elev. 150' - 35'	± 0.1°C	2 of 4

*Starting speed of anemometer shall be < 1 mph.

BVPS-1
LICENSING REQUIREMENTS MANUAL

TABLE 4.3-1

METEOROLOGICAL MONITORING INSTRUMENTATION
SURVEILLANCE REQUIREMENTS CHANNEL

<u>INSTRUMENT</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL CALIBRATION</u>
1. WIND SPEED		
a. Nominal Elev. 500'	D	SA
b. Nominal Elev. 150'	D	SA
c. Nominal Elev. 35'	D	SA
2. WIND DIRECTION		
a. Nominal Elev. 500'	D	SA
b. Nominal Elev. 150'	D	SA
c. Nominal Elev. 35'	D	SA
3. AIR TEMPERATURE ΔT		
a. ΔT Elev. 500' - 35'	D	SA
b. ΔT Elev. 150' - 35'	D	SA

BVPS-1
LICENSING REQUIREMENTS MANUAL

B.3.3 METEOROLOGICAL INSTRUMENTATION

The OPERABILITY of the meteorological instrumentation ensures that sufficient meteorological data is available for estimating potential radiation doses to the public as a result of routine or accidental release of radioactive materials to the atmosphere. This capability is required to evaluate the need for initiating protective measures to protect the health and safety of the public and is consistent with the recommendations of Regulatory Guide 1.23, "Onsite Meteorological Programs."

ATTACHMENT C-2

Beaver Valley Power Station, Unit No. 2
Proposed Technical Specification Change No. 116
LICENSING REQUIREMENTS MANUAL CHANGES

Applicable Licensing Requirements Manual Changes

BVPS-2
LICENSING REQUIREMENTS MANUAL

3.3 Meteorological Instrumentation

The meteorological monitoring instrumentation channels shown in Table 3.3-1 shall be OPERABLE.

APPLICABILITY: At all times.

ACTION:

- a. With the number of OPERABLE meteorological monitoring channels less than required by Table 3.3-1, suspend all release of gaseous radioactive material from the radwaste gas decay tanks until the inoperable channel(s) is restored to OPERABLE status.
- b. With one or more required meteorological monitoring channels inoperable for more than 7 days, prepare and submit a Special Report to the Commission pursuant to 10 CFR 50.4 within the next 10 days outlining the cause of the malfunction and the plans for restoring the channel(s) to OPERABLE status.

SURVEILLANCE REQUIREMENTS

- 4.3.1 Each of the above meteorological instrumentation channels shall be demonstrated OPERABLE by the performance of the CHANNEL CHECK and CHANNEL CALIBRATION operations at the frequencies shown in Table 4.3-1.

BVPS-2
LICENSING REQUIREMENTS MANUAL

TABLE 3.3-1

METEOROLOGICAL MONITORING INSTRUMENTATION

<u>INSTRUMENT</u>	<u>LOCATION</u>	<u>INSTRUMENT MINIMUM ACCURACY</u>	<u>MINIMUM OPERABLE</u>
1. WIND SPEED			
a. Nominal Elev. 500'		± 0.5 mph*	1
b. Nominal Elev. 150'		± 0.5 mph*	1
c. Nominal Elev. 35'		± 0.5 mph*	1
2. WIND DIRECTION			
a. Nominal Elev. 500'		± 5°	1
b. Nominal Elev. 150'		± 5°	1
c. Nominal Elev. 35'		± 5°	1
3. AIR TEMPERATURE Δt			
a. ΔT Elev. 500' - 35'		± 0.1°C	1
b. ΔT Elev. 150' - 35'		± 0.1°C	1

*Starting speed of anemometer shall be < 1 mph.

BVPS-2
LICENSING REQUIREMENTS MANUAL

TABLE 4.3-1

METEOROLOGICAL MONITORING INSTRUMENTATION
SURVEILLANCE REQUIREMENTS

<u>INSTRUMENT</u>	<u>CHANNEL</u> <u>CHECK</u>	<u>CHANNEL</u> <u>CALIBRATION</u>
1. WIND SPEED		
a. Nominal Elev. 500'	D	SA
b. Nominal Elev. 150'	D	SA
c. Nominal Elev. 35'	D	SA
2. WIND DIRECTION		
a. Nominal Elev. 500'	D	SA
b. Nominal Elev. 150'	D	SA
c. Nominal Elev. 35'	D	SA
3. AIR TEMPERATURE ΔT		
a. ΔT Elev. 500' - 35'	D	SA
b. ΔT Elev. 150' - 35'	D	SA

BVPS-2
LICENSING REQUIREMENTS MANUAL

B.3.3 METEOROLOGICAL INSTRUMENTATION

The OPERABILITY of the meteorological instrumentation ensures that sufficient meteorological data is available for estimating potential radiation doses to the public as a result of routine or accidental release of radioactive materials to the atmosphere. This capability is required to evaluate the need for initiating protective measures to protect the health and safety of the public and is consistent with the recommendations of Regulatory Guide 1.23, "Onsite Meteorological Programs."