ATTACHMENT 1

CONSUMERS ENERGY COMPANY
BIG ROCK POINT PLANT
DOCKET 50-155

As Proposed

6 Pages

6.1.3 Reactor Safety System Bypass

The following tabulation gives the permissive functional conditions during which certain reactor safety system sensors are bypassed by the reactor safety system mode selector switch. A keylock reactor mode switch shall be provided having "Shutdown," "Refuel," "Bypass Dump Tank" and "Run" positions.

These positions shall have the following functions:

Mode Selector Switch Position	Trip Function Bypassed
Run	None(e)
Bypass Dump Tank(a)	Low Steam Drum Water Level Recirculation Waterline Valves Closed Steam Line Backup Isolation Valve Closed High Water Level in Scram Dump Tank(b) High Condenser Pressure
Refuel(d)	Low Steam Drum Water Level Recirculation Waterline Valves Closed Steam Line Backup Isolation Valve Closed High condenser Pressure
Shutdown	Low Steam Drum Water Level(c) / Steam Line Backup Isolation Valve Closed / High Condenser Pressure / Recirculation Waterline Valves Closed /

(a) Control rod withdrawal is prevented by interlock while switch is in this mode position.

(b) Bypass of this trip function is necessary to enable emptying the dump tank after a scram.

(c) With the mode switch in the "shutdown" position, both the scram circuit and the control rod withdrawal circuit are open. The ventilating duct circuit power supply is transferred to a point which provides penetration closure protection through signals from "high containment sphere pressure" and "low water level in reactor vessel." This permits normal ventilation in the containment sphere during shutdown when the control rods are held in the full-in position.

(d) With the mode switch in the refuel position and the crane positioned over the reactor vessel, crane operation is prevented if any one rod is withdrawn from full-in position. /

(e) High condenser pressure reactor trip is automatically bypassed any time steam drum pressure is below a set point maximum of 500 psig.

As Proposed

is above 300 psig. The shutdown cooling system shall be OPERABLE and ready for service during REFUELING OPERATIONS and the breakers for MO-7070 and MO-7071 shall be tagged "open". The primary coolant shall be sampled and analyzed daily during periods of POWER OPERATION. The following are absolute limits which if exceeded shall necessitate reactor SHUTDOWN. Corrective action will necessarily be taken at more stringent limits to minimize the possibility of these absolute limits ever being reached.

Conductivity (Micromho/cm)		
Maximum	5	
Maximum Transient*	10	
pH (Lower and Upper Limits)	4.0 and 10.0	
Chloride Ion (ppm)	1.0	/
Boron (ppm)	100	/

Isotopic analysis of the primary coolant to determine the DOSE EQUIVALENT I-131 concentration shall be performed at least every 72 hours during periods of operation.

1. If the DOSE EQUIVALENT I-131 concentration exceeds 0.2 μCi/ml and is less than or equal to 4.0 μCi/ml, isotopic analysis to determine DOSE EQUIVALENT I-131 shall be performed every 24 hours until the activity is less than 0.2 μCi/ml.

2. If the DOSE EQUIVALENT I-131 exceeds 4.0 μCi/ml, the plant shall be placed in a SHUTDOWN condition with the main steam isolation valve closed within 12 hours.

(c) Leakage Limits

1. If the primary coolant system leakage exceeds 1 gpm and the source of leakage is not identified, the reactor shall be SHUTDOWN as described in Section 1.2.5(a) within 12 hours, and cooldown to a COLD SHUTDOWN condition shall be initiated within 24 hours.

2. If leakage from the primary coolant system exceeds 10 gpm, the reactor shall be SHUTDOWN as described in Section 1.2.5(a) within 12 hours, and cooldown to a COLD SHUTDOWN condition shall be initiated within 24 hours.

*Conductivity is expected to increase temporarily after startups from cold shutdown. The maximum transient value here stated is the maximum permissible and applies only to the period subsequent to a cold shutdown between criticality and 24 hours after reaching 20% rated power.

6.9.2.2.A (Contd)

3. Solid Waste

The Radioactive Effluent Release Reports shall include the following information for each class of solid waste (as defined by 10 CFR Part 61) shipped offsite during the report period:

a. Container burial volume,

b. Total curie quantity (specify whether determined by measurement or estimate),

c. Principal radionuclides (specify whether determined by measurement or estimate),

d. Source of waste and processing employed (e.g., dewatered spent resin, compacted dry waste, evaporator bottoms),

e. Type of container (e.g., LSA, Type A, Type B, Large Quantity), and

f. Solidification agent or absorbent (e.g., cement, asphalt).

4. Radiological Impact on Man

The Radioactive Effluent Release Report shall include potential doses to individuals and populations calculated using measured effluent and averaged meteorological data in accordance with the methodologies in the Offsite Dose Calculation Manual.

a. Total body and significant organ doses (greater than 1 milliRem) to individuals in unrestricted areas from receiving water-related exposure pathways.

b. The maximum offsite air doses (greater than 1 milliRad) due to beta and gamma radiation at locations near ground level from gaseous effluents.

c. Organ doses (greater than 1 milliRem) to individuals in unrestricted areas from radioactive iodine and radioactive material in particulate form from the major pathways of exposure.

d. Total body doses (greater than 1 manRem) to the population and average doses (greater than 1 milliRem) to individuals in the population from receiving water-related pathways to a distance of 50 miles from the site.

6.12.1 (Contd)

c. A radiation protection qualified individual (e.g., Health Physics Technician) with a radiation dose rate monitoring device, who is responsible for providing positive control over the activities within the area, and shall perform periodic radiation surveillance as specified by the Radiation Protection Supervisor in the RWP. /

6.12.2 In addition to the requirements of Specification 6.12.1, areas accessible to personnel with radiation levels greater than 1000 mrem/h at 30 cm (12 inches) but less than 500 rad/h at 1 meter from the radiation source or from any surface from which the radiation penetrates shall be provided with locked doors to prevent unauthorized entry, and the keys shall be maintained under the administrative control of the Shift Supervisor on duty and/or health physics supervision. Doors shall remain locked except during periods of access by personnel under an approved RWP which shall specify the dose rate levels in the immediate work areas and the maximum allowable stay time for individuals in that area. In lieu of the stay time specification of the RWP, direct or remote (such as closed circuit TV cameras) continuous surveillance may be made by personnel qualified in radiation protection procedures to provide positive exposure control over the activities being performed within the area. / /

For individual high radiation areas accessible to personnel with radiation levels of greater than 1000 mR/h that are located within large areas where no enclosure exists for purposes of locking, and no enclosure can be reasonably constructed around the individual areas, then that individual area shall be barricaded, conspicuously posted, and a flashing light shall be activated as a warning device.

6.13 ENVIRONMENTAL QUALIFICATION

(Deleted)

6.14 PROCESS CONTROL PROGRAM (PCP)

6.14.1 Changes to the PCP shall be submitted to the Commission in the Radioactive Effluent Release Report for the period in which the change(s) was made effective. This submittal shall contain:

a. Sufficiently detailed information to support the rationale for the change;

b. A determination that the change did not reduce the overall conformance of the solidified waste product to existing criteria for solid wastes; and

c. Documentation of the fact that the change has been reviewed and approved by the responsible Nuclear Operations Department per CPC-2A (Quality Program).

Limiting Conditions for Operation

11.3.5.3 EMERGENCY POWER SOURCES (Contd)

initiated within one (1) hour and the reactor shall be shutdown as described in Section 1.2.5(a) within twelve (12) hours and shutdown as described in Section 1.2.5(a) and (b) within the following 24 hours.

7. One RDS uninterruptible power supply including battery may be out of service as described in Section 3.1.5 Action a.

8. During reactor power operation, the 138 kV line may be out of service for repair for periods up to three (3) days.

9. If Specification A.8 is not met, a normal orderly shutdown shall be initiated within one (1) hour and the reactor shall be shutdown as described in Section 1.2.5(a) within twelve (12) hours and shutdown as described in Section 1.2.5(a) and (b) within the following 24 hours.

B. During power and refueling operations the 2400 volt bus undervoltage components shall be operable or placed in the tripped condition, except during the monthly channel functional testing period.

Surveillance Requirements

11.4.5.3 EMERGENCY POWER SOURCES (Contd)

(h) Verify that the capacity of the station battery, the RDS batteries and the alternate shutdown battery is adequate to supply and maintain in OPERABLE status all of the actual emergency loads for the design time interval when the battery is subjected to a battery service test. The design time interval for the RDS batteries is one hour, two hours for the station battery and seventy-two hours for the alternate shutdown battery. /

(i) Test and calibrate the 2400 volt bus undervoltage trip control components as follows:

(1) The undervoltage relays 127-10XY, XZ and YZ will drop out on decreasing voltage of no lower than 107.1 volts, after a delay of $\leq$.6 seconds.

(2) The auxiliary timing relay 162-104 will be actuated after a 10 ± 0.5 second time delay upon receiving a signal from all three (3) undervoltage relays.

As Proposed

BASES FOR 13.1.3.1 - GASEOUS EFFLUENT DOSE RATE (Contd)

or to less than or equal to 3000 mrems/yr to the skin. These release rate limits also restrict, at all times, the corresponding thyroid dose rate above background to a child via the inhalation pathway to less than or equal to 1500 mrems/yr. /

The required detection capabilities for radioactive materials in gaseous waste samples are tabulated in terms of the lower limits of detection (LLDs). Detailed discussion of the LLD and other detection limits can be found in HASL Procedures Manual, HASL-300 (revised annually), Currie, L A, "Limits for Qualitative Detection and Quantitative Determination - Application to Radiochemistry," Anal Chem 40, 586-93 (1968), and Hartwell, J K, "Detection Limits for Radioanalytical Counting Techniques," Atlantic Richfield Hanford Company Report ARH-SA-215 (June 1975).

ATTACHMENT 2

CONSUMERS ENERGY COMPANY
BIG ROCK POINT PLANT
DOCKET 50-155

CURRENT TECHNICAL SPECIFICATION PAGES MARKED UP TO ILLUSTRATE CHANGES

6 Pages

is above 300 psig. The shutdown cooling system shall be OPERABLE and ready for service during REFUELING OPERATIONS and the breakers for MO-7070 and MO-7071 shall be tagged "open". The primary coolant shall be sampled and analyzed daily during periods of POWER OPERATION. The following are absolute limits which if exceeded shall necessitate reactor SHUTDOWN. Corrective action will necessarily be taken at more stringent limits to minimize the possibility of these absolute limits ever being reached.

Conductivity (Micromho/cm)	
Maximum	5
Maximum Transient*	10
pH (Lower and Upper Limits)	4.0 and 10.0
Chloride Ion (ppm)	1.0
Boron (ppm)	100

Isotopic analysis of the primary coolant to determine the DOSE EQUIVALENT I-131 concentration shall be performed at least every 72 hours during periods of operation.

1. If the DOSE EQUIVALENT I-131 concentration exceeds 0.2 μCi/ml and is less than or equal to 4.0 μCi/ml, isotopic analysis to determine DOSE EQUIVALENT I-131 shall be performed every 24 hours until the activity is less than 0.2 μCi/ml.

2. If the DOSE EQUIVALENT I-131 exceeds 4.0 μCi/ml, the plant shall be placed in a SHUTDOWN condition with the main steam isolation valve closed within 12 hours.

(c) Leakage Limits

1. If the primary coolant system leakage exceeds 1 gpm and the source of leakage is not identified, the reactor shall be SHUTDOWN as described in Section 1.2.5(a) within 12 hours, and cooldown to a COLD SHUTDOWN condition shall be initiated within 24 hours.

2. If leakage from the primary coolant system exceeds 10 gpm, the reactor shall be SHUTDOWN as described in Section 1.2.5(a) within 12 hours, and cooldown to a COLD SHUTDOWN condition shall be initiated within 24 hours.

*Conductivity is expected to increase temporarily after startups from cold shutdown. The maximum transient value here stated is the maximum permissible and applies only to the period subsequent to a cold shutdown between criticality and 24 hours after reaching 20% rated power.

6.1.3 Reactor Safety System Bypass

The following tabulation gives the permissive functional conditions during which certain reactor safety system sensors are bypassed by the reactor safety system mode selector switch. A keylock reactor mode switch shall be provided having "Shutdown," "Refuel," "Bypass Dump Tank" and "Run" positions.

These positions shall have the following functions:

Mode Selector Switch Position	Trip Function Bypassed
Run	None(e)
Bypass Dump Tank(a)	Low Steam Drum Water Level Recirculation Waterline Valves Closed Steam Line Backup Isolation Valve Closed High Water Level in Scram Dump Tank(b) High Condenser Pressure
Refuel(d)	Low Steam Drum Water Level Recirculation Waterline Valves Closed Steam Line Backup Isolation Valve Closed High condenser Pressure
Shutdown	~~None~~(c) LOW STEAM DRUM WATER LEVEL STEAM LINE BACKUP ISOLATION VALVE CLOSE HIGH CONDENSER PRESSURE RECIRCULATION WATERLINE VALVES CLOSED

(a) Control rod withdrawal is prevented by interlock while switch is in this mode position.

(b) Bypass of this trip function is necessary to enable emptying the dump tank after a scram.

(c) With the mode switch in the "shutdown" position, both the scram circuit and the control rod withdrawal circuit are open. The ventilating duct circuit power supply is transferred to a point which provides penetration closure protection through signals from "high containment sphere pressure" and "low water level in reactor vessel." This permits normal ventilation in the containment sphere during shutdown when the control rods are held in the full-in position. ~~None of the reactor safety system signals are bypassed since there is no need to withdraw control rods.~~

(d) With the mode switch in the refuel position and the crane positioned over the reactor vessel, crane operation is prevented if any one rod is withdrawn from full-in position.

(e) High condenser pressure reactor trip is automatically bypassed any time steam drum pressure is below a set point maximum of 500 psig.

Amendment 107
February 19, 1992

6.9.2.2.A (Contd)

3. Solid Waste

The Radioactive Effluent Release Reports shall include the following information for each class of solid waste (as defined by 10 CFR Part 61) shipped offsite during the report period:

a. Container burial volume,

b. Total curie quantity (specify whether determined by measurement or estimate),

c. Principal radionuclides (specify whether determined by measurement or estimate),

d. Source of waste and processing employed (e.g., dewatered spent resin, compacted dry waste, evaporator bottoms),

e. Type of container (e.g., LSA, Type A, Type B, Large Quantity), and

f. Solidification agent or absorbent (e.g., cement, asphalt).

4. Radiological Impact on Man

The Radioactive Effluent Release Report ~~to be submitted within 60 days after January 1 of each year shall~~ SHALL include potential doses to individuals and populations calculated using measured effluent and averaged meteorological data in accordance with the methodologies in the Offsite Dose Calculation Manual.

a. Total body and significant organ doses (greater than 1 milliRem) to individuals in unrestricted areas from receiving water-related exposure pathways.

b. The maximum offsite air doses (greater than 1 milliRad) due to beta and gamma radiation at locations near ground level from gaseous effluents.

c. Organ doses (greater than 1 milliRem) to individuals in unrestricted areas from radioactive iodine and radioactive material in particulate form from the major pathways of exposure.

d. Total body doses (greater than 1 manRem) to the population and average doses (greater than 1 milliRem) to individuals in the population from receiving water-related pathways to a distance of 50 miles from the site.

6.12.1 (Contd)

c. A radiation protection qualified individual (e.g., Health Physics Technician) with a radiation dose rate monitoring device, who is responsible for providing positive control over the activities within the area, and shall perform periodic radiation surveillance as specified by the ~~Chemistry and~~ Radiation Protection Supervisor in the RWP.

6.12.2 In addition to the requirements of Specification 6.12.1, areas accessible to personnel with radiation levels greater than 1000 mrem/h at 30 cm (12 inches) but less than 500 rad/h at 1 meter from the radiation source or from any ~~service~~ SURFACE from which the radiation penetrates shall be provided with locked doors to prevent unauthorized entry, and the keys shall be maintained under the administrative control of the Shift Supervisor on duty and/or health physics supervision. Doors shall remain locked except during periods of access by personnel under an approved RWP which shall specify the dose rate levels in the immediate work areas and the maximum allowable stay time for individuals in that area. In lieu of the stay time specification of the RWP, direct or remote (such as closed circuit TV cameras) continuous surveillance may be made by personnel qualified in radiation protection procedures to provide positive exposure control over the activities being performed within the area.

For individual high radiation areas accessible to personnel with radiation levels of greater than 1000 mR/h that are located within large areas where no enclosure exists for purposes of locking, and no enclosure can be reasonably constructed around the individual areas, then that individual area shall be barricaded, conspicuously posted, and a flashing light shall be activated as a warning device.

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c. Documentation of the fact that the change has been reviewed and approved by the responsible Nuclear Operations Department per CPC-2A (Quality Program).

Limiting Conditions for Operation

11.3.3.3 EMERGENCY POWER SOURCES (Contd)

initiated within one (1) hour and the reactor shall be shutdown as described in Section 1.2.5(a) within twelve (12) hours and shutdown as described in Section 1.2.5(a) and (b) within the following 24 hours.

7. One RDS uninterruptible power supply including battery may be out of service as described in Section 3.1.3 Action 1.a.

8. During reactor power operation, the 138 kV line may be out of service for repair for periods up to three (3) days.

9. If Specification A.8 is not met, a normal orderly shutdown shall be initiated within one (1) hour and the reactor shall be shutdown as described in Section 1.2.5(a) within twelve (12) hours and shutdown as described in Section 1.2.5(a) and (b) within the following 24 hours.

B. During power and refueling operations the 2400 volt bus undervoltage components shall be operable or placed in the tripped condition, except during the monthly channel functional testing period.

Surveillance Requirements

11.4.5.3 EMERGENCY POWER SOURCES (Contd)

(h) Verify that the capacity of the station battery, the RDS batteries and the alternate shutdown battery is adequate to supply and maintain in OPERABLE status all of the actual emergency loads for the design time interval when the battery is subjected to a battery service test. The design time interval for the RDS batteries is one hour, two hours for the station battery and seventy-two hours for the alternate shutdown battery.

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BASES FOR 13.1.3.1 - GASEOUS EFFLUENT DOSE RATE (Contd)

or to less than or equal to 3000 mrems/~~hr~~ 45 to the skin. These release rate limits also restrict, at all times, the corresponding thyroid dose rate above background to a child via the inhalation pathway to less than or equal to 1500 mrems/yr.

The required detection capabilities for radioactive materials in gaseous waste samples are tabulated in terms of the lower limits of detection (LLDs). Detailed discussion of the LLD and other detection limits can be found in HASL Procedures Manual, HASL-300 (revised annually), Currie, L A, "Limits for Qualitative Detection and Quantitative Determination - Application to Radiochemistry," Anal Chem 40, 586-93 (1968), and Hartwell, J K, "Detection Limits for Radioanalytical Counting Techniques," Atlantic Richfield Hanford Company Report ARH-SA-215 (June 1975).

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CONSUMERS POWER

POWERING MICHIGAN'S PROGRESS

Big Rock Point Nuclear Plant, 10269 US 31 North, Charlevoix, MI 49720

Patrick M Donnelly
Plant Manager

BOB - FYI

October 15, 1996

Nuclear Regulatory Commission
Document Control Desk
Washington, DC 20555

DOCKET 50-155 - LICENSE DPR-6 - BIG ROCK POINT PLANT - TECHNICAL SPECIFICATION CHANGE REQUEST - CONTAINMENT LEAK RATE TESTING PROGRAM REVISION - AND - MINOR EDITORIAL CHANGES.

A request for change to the Big Rock Point Technical Specifications is enclosed. This change is required to implement Option B, Performance Based Requirements, to Appendix J of 10 CFR Part 50. In addition, several editorial changes are also included.

On October 25, 1995, the Commission amended its regulations to provide a performance-based option for leakage-rate testing of containments of light-water cooled nuclear power plants. This action improves the focus of the regulations by eliminating prescriptive requirements that are marginal to safety. The amended rule allows test intervals to be based on system and component performance and provides licensees greater flexibility for cost effective implementation methods of regulatory safety objectives.

The proposed Technical Specification Change will allow the use of Option B for the Type A (containment), Type B (pneumatic tests to detect and measure local leakage rates across pressure retaining, leakage-limiting boundaries) and C (pneumatic tests to measure containment isolation valve leakage rates) tests. The Type A test to measure the containment system overall integrated leakage rate will continue to be performed under Option A. When Option B prerequisites are met, Option B will then be adopted for the Type A test.