



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

CONSUMERS POWER COMPANY

DOCKET NO. 50-155

BIG ROCK POINT PLANT

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 57
License No. DPR-6

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Consumers Power Company (the licensee) dated March 1, 1982, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public; and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

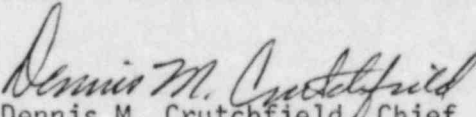
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment and Paragraph 2.C(2) of Facility Operating License No. DPR-6 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A as revised through Amendment No. 57, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION


Dennis M. Crutchfield, Chief
Operating Reactors Branch #5
Division of Licensing

Attachment:
Changes to the Technical
Specifications

Date of Issuance: February 18, 1983

ATTACHMENT TO LICENSE AMENDMENT NO. 57

FACILITY OPERATING LICENSE NO. DPR-6

DOCKET NO. 50-155

Revise Appendix A Technical Specifications by removing the pages identified below and inserting the enclosed pages. The revised pages include the captioned amendment number and marginal lines indicating the area of change.

PAGES

6-12

6-13

6-14

6-14a*

*The only change on page 6-14a is the correction of a typographical error from Amendment No. 54.

6.4.1 (Contd)

- (d) A process liquid monitor system employing gamma scintillation detector channels shall be provided to give indication of radioactivity trends in process liquid streams normally containing radioactive liquids and also to warn the operator of radioactivity in process liquid streams that do not normally contain radioactive liquids. Alarms on monitors (i), (iv) and (v) shall be set so as to warn the control room operator via a common annunciator when concentrations are present which exceed those listed in Column II, Table II, Appendix B of 10 CFR 20. The remaining alarms shall also annunciate on this common annunciator and shall be set to alert the operator to unexpected changes in radioactivity levels. These setpoints will be based on experience. The process liquid streams which shall be monitored are as follows:

- (i) Radioactive Waste System Effluent to Canal
- (ii) Reactor Enclosure Cooling Water
- (iii) Main Condensate Demineralizer Influent
- (iv) Circulating Water Discharge
- (v) Service Water Return From Reactor Enclosure

The radioactive waste system effluent to canal channel shall be used in conjunction with the liquid waste disposal system. Each batch of liquid wastes to be discharged shall be analyzed prior to discharge as described in 6.5. This monitor shall provide an additional means of checking the activity of the wastes being discharged.

The circulating water discharge monitor shall monitor the main stream of plant effluent prior to its discharge into Lake Michigan, and serve as a backup to the other liquid monitors. In addition, a continuous sample is drawn from the discharge canal for periodic analysis as specified in 6.4.3(d).

(e) In-Plant Radio-Iodine Measurements Under Accident Conditions

Procedures for determining airborne radio-iodine concentrations in occupied areas shall be implemented and technicians shall be trained on an annual basis. Maintenance of the sampling equipment shall occur at least semi-annually and maintenance of the analytical equipment shall occur at least monthly.

6.4.2 Area Monitoring System

- (a) Fixed gamma monitors employing scintillation type detectors shall be installed as follows: (1) two on the refueling deck and (2) one in the control room. Each monitor shall have the following:
- (i) A range consistent with expected radiation levels in the area to be monitored (0.01 mr to 10 mr or 0.1 mr to 100 mr or 1 mr to 1,000 mr).
 - (ii) An output indicated and recorded in the control room.
 - (iii) An adjustable high radiation alarm which shall be annunciated in the control room. Alarm settings that shall be as indicated in 6.4.3(e).

6.4.2 (Cont'd)

- (b) The two area monitors located on the refueling deck shall provide gamma monitoring of the fuel storage areas and refueling operations. Local alarms shall be provided for these monitors, and alarm settings shall be in accordance with the provisions of 10 CFR 70. In the event that both of these monitors become inoperable during power operation or fuel handling activities, the containment ventilation isolation valves shall be closed.

However, notwithstanding the requirements of Section 70.24(a)(1), alarm settings may be raised above 20 mR/hr as long as the overall detection criterion in Section 70.24(a)(1) is satisfied and the requirements specified in paragraph 6.4.3(e) below are met.

- (c) At least five environmental film or TLD monitoring stations shall be provided for determining the integrated gamma dose rate in the site environs. These stations shall be placed on an arc of about 1,350 meters from the stack.
- (d) Four narrow range water level monitors are provided in the main control room as part of the Reactor Depressurizing System to be used for detection of adequate core cooling during accident situations.
- (e) The containment atmosphere shall be monitored by two high range gamma monitors. The monitors are designed to measure gamma radiation in containment under accident conditions from 1 R/hr to $1E+06$ R/hr. The monitors are located external to the containment sphere. The readouts of the monitors are located in the control room.

6.4.3 Operating Requirements

- (a) At least one of the two air ejector off-gas monitoring systems shall be in service during power operation and set to initiate closure of the off-gas isolation valve as described below. Alarms normally shall be set to annunciate in the control room if the off-gas radioactivity reaches a level that corresponds to a stack release of 0.1 curie per second. At stack releases above 0.1 curie per second, the alarm shall be set approximately a factor of two above the expected off-gas release rate but in no event above that level corresponding to a stack release of $\frac{0.47}{E}$ curie per second where \bar{E} is the average gamma energy per disintegration (MEV/dis). If the limit of $\frac{0.47}{E}$ curie per second is exceeded, reactor power shall be immediately reduced such as to meet the limits. The monitors shall be set to initiate closure of the off-gas isolation valve (after a time adjustable from 0 to 15 minutes) if the off-gas radioactivity reaches a

6.4.3.3 (Cont'd)

- (c) One of the emergency condenser vent monitors shall be in service at all times during power operation. The monitors shall be set to alarm at approximately 10 mr above the maximum expected background during operation of the emergency condenser. The calibration shall be checked at least monthly.
- (d) The process liquid monitors shall normally be in service. Adequate spare parts shall be on hand to allow necessary repairs to be made promptly. Alarms shall be set as specified in 6.4.1 (d). Calibration of the "Radioactive Waste System Effluent to Canal" monitor shall be checked at least once a month. Calibration of the remaining monitors shall be checked at least once every three months. Each day an analysis shall be made of the previous 24-hour collection of discharge canal water.
- (e) The area monitors described in 6.4.2(a) shall normally be in operation; however, individual monitors may be taken out of service for maintenance and repairs. Adequate spare parts shall be on hand to allow necessary repairs to be made promptly. During monitor outages temporary monitoring shall be provided. Calibration of monitors shall be checked at least monthly. Alarm trip points shall be set at a radiation level approximately twice the normal maximum indicated radiation level, but normally not less than one decade above the lowest scale reading.

Two films or TLDs, each with a sensitivity of 10mR, shall be provided at each site environmental monitoring station. During operation at stack release rates of 0.1 curie per second or less, at least five monitoring stations shall be provided. The films or TLDs at each station shall be replaced and analyzed at least monthly.

Operation at stack release rates above 0.1 curie per second shall not exceed 48 hours without at least fifteen film or TLD monitoring stations in service. Two of these stations shall be on-site near the stack. The remaining additional stations shall complement the permanent stations but shall be located at greater distances from the stack. One film or TLD at each station shall be replaced and analyzed at least every two weeks. The second film or TLD shall be replaced and analyzed monthly.

Under all stack release conditions, the film or TLD processor shall be instructed to report within 24 hours on all films or TLDs that might indicate abnormal exposures.

- (f) Gamma dose-rate measuring instruments and neutron dose-rate measuring instruments shall be provided for establishing permissible working limits. These instruments shall be calibrated at least once every three months.
- (g) At least two reactor water level indicators in the Reactor Depressurizing System shall be operable during power operation.

6.4.3 (Cont'd)

- (h) Both high range containment atmosphere gamma monitors shall normally be in service during power operation. If either monitor is inoperable, restore to operable status within 72 hours or, in lieu of any other report required by Specification 6.9.2, prepare and submit a Special Report to the Commission pursuant to Specification 6.9.4 within the next 14 days outlining the cause of the inoperability and the plans for restoring the system to OPERABLE status. A channel check shall be performed for each monitor at least once per month, and channel calibration shall be performed at each refueling outage. The channel calibration for all ranges above 10R/hr may be performed by electronic signal substitution.