



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

CONSUMERS POWER COMPANY

DOCKET NO. 50-155

BIG ROCK POINT NUCLEAR PLANT

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 46  
License No. DPR-6

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. This application for amendment by Consumers Power Company (the licensee) dated February 16, 1981, as supplemented July 1, 1981, 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. 46, 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: September 3, 1981

ATTACHMENT TO LICENSE AMENDMENT NO. 46

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. These revised pages include the captioned amendment number and contain vertical lines indicating the area of change.

PAGES

10-1

10-1a

10-2 (Figure 6.2-1)

10-3 (Figure 6.2-2)

10-4

10-5

10-6

10-7

10-8

10-9

10-10

10-11

10-12

## 6.0 ADMINISTRATIVE CONTROLS

### 6.1 RESPONSIBILITY

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

### 6.2 ORGANIZATION

#### 6.2.1 OFF SITE

The off-site organization for plant management and technical support shall be as shown on Figure 6.2-1.

#### 6.2.2 PLANT STAFF

The plant organization shall be as shown on Figure 6.2-2, and:

- a. Each on-duty shift shall be composed of at least the minimum shift crew composition shown in Table 6.2-1.
- b. At least one licensed Operator shall be in the control room when fuel is in the reactor.
- c. At least two licensed Operators shall be present in the control room during reactor start-up (to a power level  $\geq 5$  percent), scheduled reactor shutdown and during recovery from reactor trips.
- d. An individual qualified in radiation protection procedures shall be on site when fuel is in the reactor.
- e. All core alterations after the initial fuel loading shall either be performed by a licensed Operator under the general supervision of a licensed Senior Operator or a non-licensed Operator directly supervised by a licensed Senior Operator (or a licensed Senior Operator Limited to fuel handling) who has no other concurrent responsibilities during this operation.
- f. A fire brigade of at least 5 members shall be maintained on site at all times.\* This excludes 2 members of the minimum shift crew necessary for safe shutdown of the plant and any personnel required for other essential functions during a fire emergency.

\*Fire brigade composition may be less than the minimum requirements for a period of time not to exceed 2 hours to accommodate unexpected absence of fire brigade members provided immediate action is taken to restore the fire brigade to the minimum requirements.

### 6.3 PLANT STAFF QUALIFICATIONS

- 6.3.1 Each member of the plant staff shall meet or exceed the minimum qualifications of ANSI N18.1-1971 for comparable positions.
- 6.3.2 Either the Health Physicist or the Chemistry and Radiation Protection Supervisor shall meet or exceed the qualifications of Regulatory Guide 1.8, September 1975.(1)
- 6.3.3 The Shift Technical Advisor (STA) shall have a bachelor's degree or equivalent in a scientific or engineering discipline with specific training in plant design, and response and analysis of the plant for transients and accidents.

### 6.4 TRAINING

- 6.4.1 A retraining and replacement training program for the plant staff shall be maintained under the direction of the Plant Superintendent and shall meet or exceed the requirements and recommendations of Section 5.5 of ANSI N18.1-1971 and Appendix "A" of 10 CFR Part 55.
- 6.4.2 A training program for the Fire Brigade shall be maintained under the direction of the Director of Property Protection and shall meet or exceed the requirements of Section 27 of the NPPA Code-1975 except for fire Brigade training sessions which shall be held at least quarterly.

### 6.5 REVIEW AND AUDIT

#### 6.5.1 PLANT REVIEW COMMITTEE (PRC)

- 6.5.1.1 The Plant Review Committee (PRC) shall function to advise the Plant Superintendent on all matters related to nuclear safety.

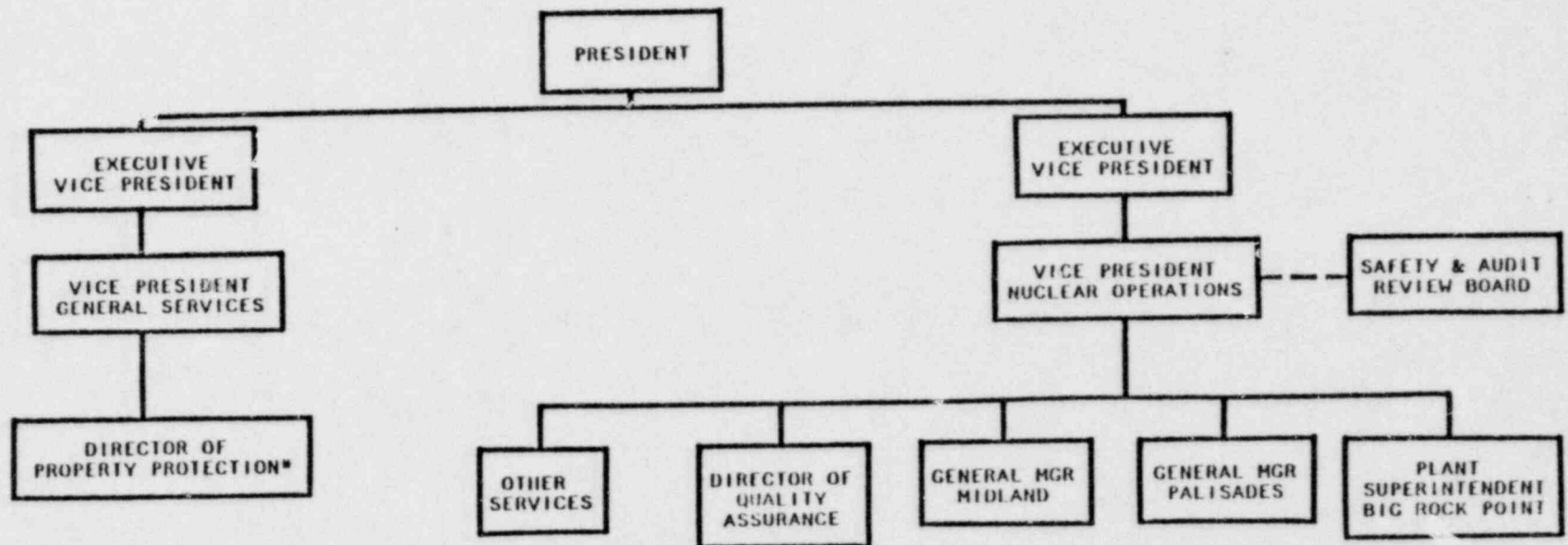
#### 6.5.1.2 COMPOSITION

The PRC shall be composed of the:

Chairman:	Plant Superintendent or Designated Alternate
Member:	Operations and Maintenance Superintendent
Member:	Technical Superintendent
Member:	Maintenance Superintendent or Engineer
Member:	Operations Superintendent or Supervisor
Member:	Instrument and Control Supervisor or Engineer
Member:	Reactor Engineer
Member:	Health Physicist
Member:	Shift Supervisor
Member:	Technical Engineer or Nuclear Safety Technical Engineer
Member:	Shift Technical Advisor

- (1) for the purpose of this section, "Equivalent," as utilized in Regulatory Guide 1.8 for the bachelor's degree requirement, may be met with four years of any one or combination of the following: (a) formal schooling in science or engineering, or (b) operational or technical experience/training in nuclear power.

CONSUMERS POWER COMPANY  
OFF-SITE ORGANIZATION

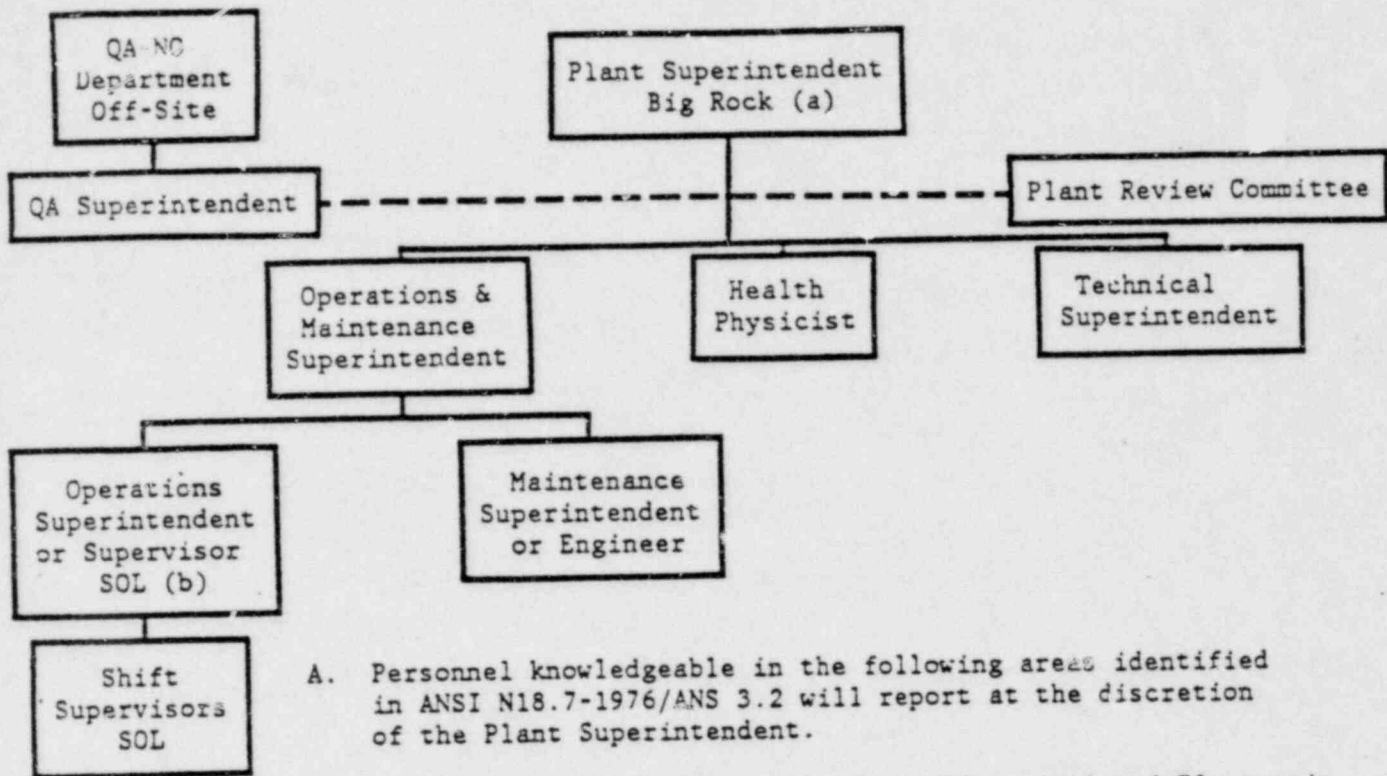


\*Responsible for Overall  
Fire Protection Program

Figure 6.2-1



CONSUMERS POWER COMPANY  
Plant Organization



A. Personnel knowledgeable in the following areas identified in ANSI N18.7-1976/ANS 3.2 will report at the discretion of the Plant Superintendent.

1. Nuclear Power Plant Mechanical, Electrical and Electronic Systems.
2. Nuclear Engineering.
3. Chemistry and Radiochemistry.
4. Radiation Protection (reports to the Health Physicist).

A single individual may be qualified and perform in more than one discipline.

B. The Security force will be supervised as described in the Plant Security Plan.

C. Quality Control activities will be in accordance with the Consumers Power Quality Assurance Program Policies.

(a) Responsible for the Plant Fire Protection Program implementation.

(b) Either the Operations Superintendent or the Operations Supervisor will hold an SOL and meet the other requirements of 6.3.1 of these Technical Specifications (as applicable to Operations Manager in ANSI N18.1). The individual holding an SOL shall be responsible for directing the activities of licensed operators.

(SOL - Senior Operator Licensee)

Figure 6.2-2

TABLE 6.2-1

Minimum Shift Crew Composition

The minimum shift crew shall be as follows except when plant conditions specified in paragraph (a) or (b) below have been established (see Note (1) below) or when an unexpected absence occurs (see Note (2) below):

- 1 Shift Supervisor - SOL
- 2 Operators - OL
- 1 Operator - Nonlicensed
- 1 Shift Technical Advisor (STA) - Nonlicensed

a. Cold Shutdown and Shutdown (As Defined by Section 1.2)

- 1 Shift Supervisor - SOL
- 1 Operator - OL
- 1 Operator - Nonlicensed

b. Refueling Operations (See Note (3) Below)

- 1 Shift Supervisor - SOL
- 1 Operator - OL
- 2 Operators - Nonlicensed

SOL - Senior Operator Licensed in accordance with 10 CFR 55.  
 OL - Operator Licensed in accordance with 10 CFR 55.

- (1) During control rod motion associated with reactor start-up (to a power level  $\geq 5$  percent), one licensed Operator shall observe the control rod manipulation to ensure established control rod withdrawal procedures are adhered to.
- (2) In the event that any member of a minimum shift crew is absent or incapacitated due to illness or injury, a qualified replacement shall report on site within two hours.
- (3) Does not include additional personnel required when core alterations are being conducted. See 6.2.2.a.



#### 6.4 TRAINING

- 6.4.1 A retraining and replacement training program for the plant staff shall be maintained under the direction of the Plant Superintendent and shall meet or exceed the requirements and recommendations of Section 5.5 of ANSI N18.1-1971 and Appendix "A" of 10 CFR, Part 55.
- 6.4.2 A training program for the Fire Brigade shall be maintained under the direction of the Plant Training Coordinator and shall meet or exceed the requirements of Section 27 of the NFPA Code-1975 except for Fire Brigade training sessions which shall be held at least quarterly.

#### 6.5 REVIEW AND AUDIT

##### 6.5.1 PLANT REVIEW COMMITTEE (PRC)

- 6.5.1.1 The Plant Review Committee (PRC) shall function to advise the Plant Superintendent on all matters related to nuclear safety.

##### 6.5.1.2 COMPOSITION

The PRC shall be composed of the:

Chairman: Plant Superintendent  
Member: Operations Superintendent\*  
Member: Technical Superintendent  
Member: Maintenance Superintendent\*  
Member: Operations Supervisor  
Member: Instrument and Control Supervisor  
Member: Reactor Engineer  
Member: Health Physicist  
Member: Shift Supervisor  
Member: Maintenance Engineer

\*When these positions are combined in accordance with the Plant Organization, Figure 6.2-2, the individual holding both positions serves as a single voting member of the PRC.

#### 6.5.1.3 ALTERNATES

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

#### 6.5.1.4 MEETING FREQUENCY

The PRC shall meet at least once per calendar month with special PRC meetings as required.

#### 6.5.1.5 QUORUM

A quorum of the PRC shall consist of the Chairman and four members (including alternates).

#### 6.5.1.6 RESPONSIBILITIES

The PRC shall be responsible for:

- a. Review of: (1) All procedures required by Technical Specification 6.8 and changes thereto, and (2) any other proposed procedures or changes thereto as determined by the PRC Chairman to affect nuclear safety.
- b. Review of all proposed tests and experiments that affect nuclear safety.
- c. Review of all proposed changes to the Technical Specifications.
- d. Review of all proposed changes or modifications to plant systems or equipment that affect nuclear safety.
- e. Investigation of all violations of the Technical Specifications. A report shall be prepared covering evaluation and recommendations to prevent recurrence and forwarded to the Vice President-Nuclear Operations (NO) and to the Chairman of the Safety and Audit Review Board (SARB).
- f. Review of plant operations to detect potential nuclear safety hazards.
- g. Performance of special reviews and investigations and reports thereon as requested by the Chairman of SARB.
- h. Review of the plant Emergency Plan and implementing procedures and shall submit recommended changes to the Emergency Plan to the Chairman of SARB.
- i. Review of all events which are required by NRC Regulations or Technical Specifications to be reported to the NRC within 24 hours.

#### 6.5.1.7 AUTHORITY

The PRC shall:

- a. Recommend in writing to the Plant Superintendent approval or disapproval of items considered under 6.5.1.6(a) through (d) above.
- b. Render determinations in writing with regard to whether or not each item considered under 6.5.1.6(a) through (e) above constitutes an unreviewed safety question.
- c. Provide within 24 hours written notification to the Vice President-Nuclear Operations and the Chairman of SARB of disagreements between the PRC and the Plant Superintendent. However, the Plant Superintendent shall have responsibility for resolution of such disagreements pursuant to 6.1.1 above.

#### 6.5.1.8 RECORDS

The PRC shall maintain written minutes of each meeting and copies shall be provided to the Vice President-Nuclear Operations and the Chairman of SARB, PRC members and alternates.

#### 6.5.2 SAFETY AND AUDIT REVIEW BOARD (SARB)

##### 6.5.2.1 RESPONSIBILITIES

SARB is responsible for maintaining a continuing examination of designated plant activities. In all cases, where a matter is formally considered by SARB, its findings and recommendations are communicated in writing to the Vice President-Nuclear Operations (NO) and other appropriate levels of management. A written charter is prepared and approved by the Vice President-NO which designates the membership, authority and rules for conducting the meetings. SARB membership, qualifications, meeting frequency, quorum, responsibilities, authority and records are in accordance with the nuclear plant Technical Specifications and ANSI N18.7-1976.

##### 6.5.2.2 FUNCTION

SARB shall function to provide independent review of designated activities in the areas specified in 6.5.2.3.

#### 6.5.2.3 COMPOSITION AND QUALIFICATIONS

Collectively, the personnel appointed for SARB by the Vice President-NO shall be competent to conduct reviews in the following areas:

- a. Nuclear Power Plant Operations
- b. Nuclear Engineering
- c. Chemistry and Radiochemistry
- d. Metallurgy
- e. Instrumentation and Control
- f. Radiological Safety
- g. Mechanical and Electrical Engineering
- h. Quality Assurance Practices

An individual appointed to SARB may possess expertise in more than one of the above specialties. He should, in general, have had professional experience at or above the Senior Engineer level in his specialty.

#### 6.5.2.4 ALTERNATE MEMBERS

Alternate members may be appointed by the Vice President-NO to act in place of members during any legitimate and unavoidable absences including a conflict-of-interest determination. The qualifications of alternate members shall be similar to those members for whom they will substitute.

#### 6.5.2.5 CONSULTANTS

Consultants shall be utilized as determined by SARB members and/or the Chairman to provide expert advice to SARB. SARB members are not restricted as to sources of technical input and may call for separate investigation from any competent source.

#### 6.5.2.6 MEETING FREQUENCY

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

#### 6.5.2.7 QUORUM

A quorum of SARB shall consist of the Chairman or his designated alternate and four (4) members or their alternates. No more than a minority of the quorum shall have line responsibility for operation of the facility. It is the responsibility of the Chairman to ensure that the quorum convened for a SARB meeting contains appropriately qualified members or has at its disposal consultants sufficient to carry out the review functions required by the meeting agenda.

#### 6.5.2.8 REVIEW

SARB shall review:

- a. Proposed tests or changes to procedures, equipment and systems which are deemed to involve an unreviewed safety question as defined in 10 CFR 50.59.
- b. Proposed changes in Technical Specifications or licenses.
- c. Significant operating abnormalities or deviations from normal and expected performance of plant equipment that affect nuclear safety.
- d. All events which are required by regulations or Technical Specifications to be reported to NRC in writing within 24 hours and other violations (of applicable statutes, codes, regulations, orders, Technical Specifications, license requirements or of internal procedures or instructions) having nuclear safety significance.
- e. Reports and meeting minutes of the PRC including safety evaluations for changes to procedures, equipment or systems and tests or experiments completed under the provisions of 10 CFR 50.59 to verify that such actions did not constitute an unreviewed safety question.
- f. The results of actions taken to correct deficiencies identified by the audit program specified in Section 6.5.2.9 at least once every six months.



#### 6.5.2.9 AUDITS

Audits of operational nuclear safety-related facility activities shall be performed under the cognizance of SARB. These audits shall encompass:

- a. The conformance of facility operation to provisions contained within the Technical Specifications and applicable license conditions at least once per 12 months.
- b. The performance, training and qualifications of the entire facility staff at least once per 12 months.
- c. The performance of activities required by the Operational Quality Assurance Program to meet the criteria of Appendix "B," 10 CFR 50, at least once per 24 months.
- d. The facility Site Emergency Plan and implementing procedures at least once per 24 months.
- e. The facility Security Plan and implementing procedures (as required by the Security Plan) at least once per 24 months.
- f. Any other area of facility operation considered appropriate by SARB or the Vice President-NO.
- g. The facility Fire Protection Program and implementing procedures at least once per 24 months.
- h. An independent fire protection and loss prevention inspection and audit shall be performed annually utilizing either qualified off-site licensee personnel or an outside fire protection firm.
- i. An inspection and audit of the fire protection and loss prevention program shall be performed by an outside qualified fire consultant at intervals no greater than 3 years.

Audit reports encompassed by 6.5.2.9 above shall be forwarded to the Vice President-NO and management positions responsible for the areas audited within thirty (30) days after completion of the audit.

#### 6.5.2.10 AUTHORITY

SARB shall report to and advise the Vice President-NO on those areas of responsibility specified in Sections 6.5.2.8 and 6.5.2.9.

#### 6.5.2.11 RECORDS

Records of SARB activities shall be prepared and distributed as indicated below:

- a. Minutes of each SARB meeting shall be prepared and forwarded to the Vice President-NO and each SARB member within approximately two weeks following the meeting. Minutes shall be approved at or before the next regularly scheduled meeting following the distribution of the minutes.



- b. If not included in SARB meeting minutes, reports of reviews encompassed by Section 6.5.2.8 above shall be prepared and forwarded to the Vice President NO within approximately two weeks following completion of the review.

6.6 (Deleted)

#### 6.7 SAFETY LIMIT VIOLATION

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

- a. The reactor shall be shut down immediately and not restarted until the Commission authorizes resumption of operation (10 CFR 50.36(c)(1)(i)).
- b. The Safety Limit violation shall be reported within 1 hour to the Commission in accordance with 10 CFR 50.36 to the Vice President-NO and to SARB.
- c. A report shall be prepared in accordance with 10 CFR 50.36 and 6.9 of this specification. The Safety Limit violation and the report shall be reviewed by the PRC.
- d. The report shall be submitted within 14 days to the Commission (in accordance with the requirements of 10 CFR 50.36) and to the Vice President-NO and to SARB.

#### 6.8 PROCEDURES

- 6.8.1 Written procedures shall be established, implemented and maintained for all structures, systems, components and safety actions defined in the Big Rock Point Quality List. These procedures shall meet or exceed the requirements of ANSI N18.7-1976.

6.8.2 Each procedure and administrative policy of 6.8.1 above and changes thereto shall be reviewed by the PRC (except for security procedures which are reviewed by the Company Property Protection Department) and approved by the Plant Superintendent prior to implementation.

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

- a. The intent of the original procedure is not altered.
- b. The change is approved by two members (or designated alternates) of the PRC, at least one of whom holds a Senior Reactor Operator's license.
- c. The change is documented, reviewed by the PRC at the next regularly scheduled meeting and approved by the Plant Superintendent.

#### 6.9 REPORTING REQUIREMENTS

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

##### 6.9.1 ROUTINE REPORTS

- a. Start-Up Report - A summary report of plant start-up and power escalation testing shall 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. The report shall address each of the tests identified in the Hazards Summary Report and shall, in general, 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 required in license conditions based on other commitments shall be included in this report.

Start-Up Reports shall be submitted within: (1) 90 days following completion of the start-up 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 Start-Up Report does not cover all three events (ie, initial criticality, completion of start-up 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.