

DATE					
SURNAME					
OFFICE					

by the regulations have not been repeated in your technical specifications.

We request that you use the formats presented in the appendices to Regulatory Guide 1.16, Revision 4, for reporting operating information and that you report events of the type described under the section "Events of Potential Public Interest". Instructions for using these reporting formats are contained in Regulatory Guide 1.16 (a copy is enclosed for your use), and AEC report CCR-82-CO1 titled "Instructions for Preparation of Data Entry Sheets for License Event Report (LER) File" (a copy of which was provided you previously). This report is modified by updated instructions dated August 21, 1975 which are enclosed. Copy requirements are summarized in Regulatory Guide 1.16.1, "Compilation of Reporting Requirements for Persons Subject to NRC Regulations", a copy of which is also enclosed. This Guide will assist you in identifying reports that are required by the Commission's regulations set forth in Title 10 Code of Federal Regulations but are not contained in your technical specifications. Reports that are required

Confidential

In addition to the above, this amendment deletes figures 3-4 and 3-5 of the technical specifications (and related text) which specify the pressure-temperature relationship of the reactor coolant system for heatup and cooldown for the first 4.9x10⁵ MW(t) since these figures are now obsolete.

The amendment incorporates into the Fallisades Plant technical specifications changes to the Administrative Controls. Changes to your proposal were necessary to meet our requirements. These have been discussed with your staff. The technical specifications are based on the regulatory positions described in guides 1.6, "Personnel Selection and Training"; 1.16, "Reporting of Operating Information - Appendix A Technical Specifications"; Revision 4; and 1.33, "Quality Assurance Program Requirements".

In addition to the above, this amendment deletes figures 3-4 and 3-5 of the technical specifications (and related text) which specify the pressure-temperature relationship of the reactor coolant system for heatup and cooldown for the first 4.9x10⁵ MW(t) since these figures are now obsolete.

The Commission has issued the enclosed Amendment No. 16 to Provisional Operating License No. DFR-20 for the Fallisades Plant. This amendment includes Change No. 20 to the technical specifications and is in response to your request dated January 15, 1975.

Gentlemen:

Consumers Power Company
 Attn: Mr. R. B. Sewell
 Nuclear Licensing Administrator
 212 West Michigan Avenue
 Jackson, Michigan 49201

NOV 12 1975

Packet No. 50-255

NOV 12 1975

- 2 -

Copies of the related Safety Evaluation and the Federal Register Notice also are enclosed.

Sincerely,

Original signed by

R. A. Purple

Robert A. Purple, Chief
Operating Reactors Branch #1
Division of Reactor Licensing

Enclosures:

1. Amendment No. 16
2. Regulatory Guide 1.16
3. Updated Instructions
4. Regulatory Guide 10.1
5. Safety Evaluation
6. Federal Register Notice

cc w/enclosures:

See next page

DISTRIBUTION
 Docket File
 NRC PDR
 Local PDR
 ORB#1 Reading
 TBabernathy, TIC
 KR戈lier
 JMcGhough
 JJCarter
 RAPurple
 CMTammell
 SMSheppard
 Disenhut
 SVarga
 SKari
 NDube
 PCollins
 JSaltzman
 AEsteen
 CHbron
 BJones (4)
 BScharf (15)
 ACRS (16)
 OIEE (3)
 OELD
 MSlater (2)

Ken Baker, USNRC
 Federal Bldg, Rm 104
 175 Terminal Rd.
 Benton Harbor, MI
 49022

OFFICE	RI:ORB#1	OELD	RI:ORB#1	10/12/75	10/ /75	10/30/75
SURNAME	See attached	memo	MEMORANDUM			
DATE						

November 12, 1975

cc w/enclosures:

M. I. Miller, Esquire
Isham, Lincoln & Beale
Suite 4200
One First National Plaza
Chicago, Illinois 60670

J. L. Bacon, Esquire
Consumers Power Company
212 West Michigan Avenue
Jackson, Michigan 49201

Paul A. Perry, Secretary
Consumers Power Company
212 West Michigan Avenue
Jackson, Michigan 49201

Kalamazoo Public Library
315 South Rose Street
Kalamazoo, Michigan 49006

Mr. Jerry Sarno
Township Supervisor
Covert County
Route 1, Box 10
Van Buren County, Michigan 49043

cc w/enclosures & incoming:
Mr. John D. Beck (2 cys)
Division of Intergovernmental
Relations
Executive Office of the Governor
Lewis Cass Building, 2nd Floor
Lansing, Michigan 48913

Mr. Gary Williams
Environmental Protection Agency
Federal Activities Branch
One North Wacker Drive, Room 822
Chicago, Illinois 60606

Myron M. Cherry, Esquire
Suite 4501
One IBM Plaza
Chicago, Illinois 60611

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

CONSUMERS POWER COMPANY

DOCKET NO. 50-255

PALISADES PLANT

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 18
License No. DPR-20

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Consumers Power Company (the licensee) dated January 15, 1975, 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; and
 - 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.
2. Accordingly, the license is amended by a change to the Technical Specifications as indicated in the attachment to this license amendment and Paragraph 3.B of Facility License No. DPR-20 is hereby amended to read as follows:



"B. Technical Specifications

The Technical Specifications contained in Appendices A, B, and C, as revised, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications, as revised by issued changes thereto through Change No. 2 0."

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

FOR THE NUCLEAR REGULATORY COMMISSION

Original signed by
R. A. Purple

Robert A. Purple, Chief
Operating Reactors Branch #1
Division of Reactor Licensing

Attachment:
Change No. 2 0 to the
Technical Specifications

Date of Issuance: NOV 12 1975

OFFICE ➤						
SURNAME ➤						
DATE ➤						

ATTACHMENT TO LICENSE AMENDMENT NO. 16
CHANGE NO. 20 TO THE TECHNICAL SPECIFICATIONS

PROVISIONAL OPERATING LICENSE NO. DPR-20

DOCKET NO. 50-255

Revise Appendix A as follows:

1. Remove pp. 3-13 (Figure 3-4) and 3-14 (Figure 3-5)
2. Remove and replace identically numbered pages:

iii	4-29c
1-4	4-50
3-5	4-55b
3-8	4-58a
3-9	
3-12	
3. Remove Section 4.13 (4 unnumbered pages following page 4-64) and insert new numbered pages 4-65 through 4-67.
4. Remove old pages 4-65 and 4-66 (Section 4.14) and replace with new pages 4-68 and 4-69.
5. Remove pp. 6-1 through 6-21 and replace with new pages numbered 6-1 through 6-32.
6. Remove the third page in Appendix B (Following the title page) and replace with new page B-2.

TABLE OF CONTENTS (Cont'd)

<u>Section</u>	<u>Description</u>	<u>Page</u>
4.12	Augmented Inservice Inspection Program for High Energy Lines Outside of Containment	4-60
4.13	Reactor Internals Vibration Monitoring	4-65
4.14	Augmented Inservice Inspection Program for Steam Generators	4-68
5.0	DESIGN FEATURES	5-1
5.1	Site	5-1
5.2	Containment Design Features	5-1
5.3	Nuclear Steam Supply System (NSSS)	5-2
5.4	Fuel Storage	5-3
6.0	ADMINISTRATIVE CONTROLS.	6-1
6.1	Responsibility	6-1
6.2	Organization	6-1
6.3	Plant Staff Qualifications	6-1
6.4	Training	6-1
6.5	Review and Audit	6-5
6.6	(deleted)	6-9
6.7	Safety Limit Violation	6-9
6.8	Procedures	6-10
6.9	Reporting Requirements	6-11
6.10	Record Retention	6-26
6.11	Radiation Protection Program	6-27
6.12'	Respiratory Protection Program	6-28
S	SPECIAL TECHNICAL SPECIFICATIONS PURSUANT TO AGREEMENT	S-1
S-1	Condenser Cooling System Modification	S-2
S-2	Liquid Radwaste System Modification	S-5
S-3	Reservations	S-9
S-4	Legal Validity	S-10
S-5	Reporting Requirements	S-13

20

20

1.4 MISCELLANEOUS DEFINITIONS (Contd)

- a. All nonautomatic containment isolation valves and blind flanges are closed.
- b. The equipment door is properly closed and sealed.
- c. At least one door in each personnel air lock is properly closed and sealed.
- d. All automatic containment isolation valves are operable or are locked closed.
- e. The uncontrolled containment leakage satisfies Specification 4.5.1.

Safety

Safety as used in these Technical Specifications refers to those safety issues related to the nuclear process and for example does not encompass OSHA considerations.

PRIMARY COOLANT SYSTEM (Contd)

at the reactor vessel beltline for 40 years at 2540 MWt and an 80% load factor. The predicted transition temperature increase for the end of the new period shall then be obtained from Figure 3-3, using the curve specified in 3.1.2a above.

- (3) The limit lines in Figure 3-1 and Figure 3-2 shall be moved parallel to the temperature axis (horizontal) in the direction of increasing temperature a distance equivalent to the transition temperature increase during the period since the curves were last constructed. The lower vertical and intermediate vertical limit lines shall remain at 80°F and 110°F, respectively, as they are set by the NDTT of the reactor vessel flange, steam generator and pressurizer manway covers, respectively, and are not subject to fast neutron flux. The sloping portions of the limit lines shall extend at constant slope to a temperature 140°F below NDFF. At still lower temperatures, the limit lines shall be parallel to the temperature axis (horizontal) and shall intercept the sloping portions of the limit lines at NDTT -140°F.

Basis

All components in the primary coolant system are designed to withstand the effects of cyclic loads due to primary system temperature and pressure changes.⁽¹⁾ These cyclic loads are introduced by normal unit load transients, reactor trips and start-up and shutdown operation. During unit start-up and shutdown, the rates of temperature and pressure changes are limited. The maximum plant heatup and cool-down rate of 100°F per hour is consistent with the design number of cycles and satisfies stress limits for cyclic operation.⁽²⁾

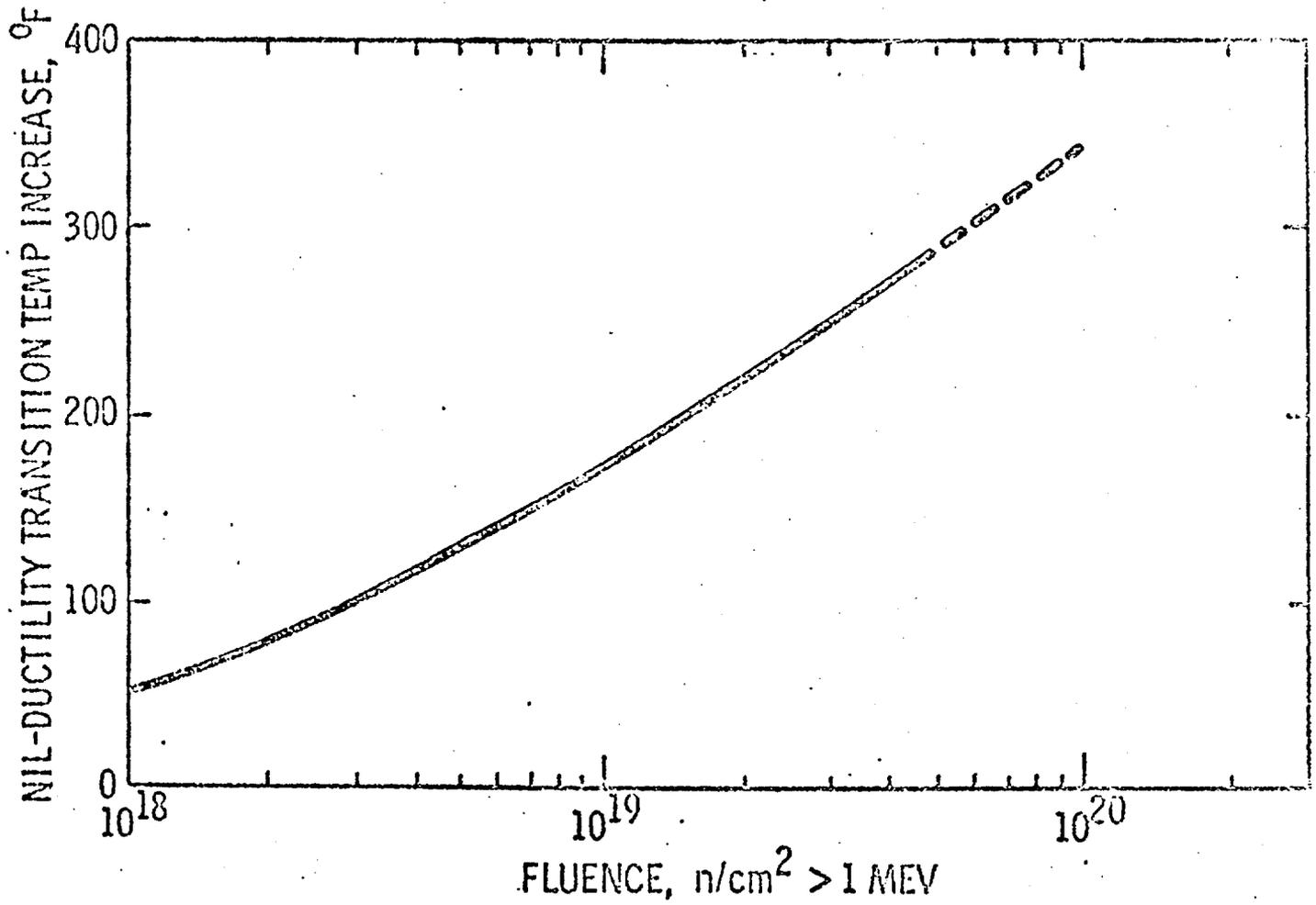
3.1 PRIMARY COOLANT SYSTEM (Contd)

For heatup, the thermal stresses are reversed and the location of the limiting stress is a function of the heatup rate. The limit lines for heatup rates are shown on Figure 3-1.

Figures 3-1 and 3-2 define stress limitations only. For normal operation other inherent plant characteristics, eg, pump parameters, pressurizer heater capacity, may limit the heatup and cooldown rates that can be achieved over certain pressure ranges. The normal maximum heatup and cooldown rate for the primary coolant system is approximately 60°F per hour.

PRIMARY COOLANT SYSTEM (Contd)References

- (1) FSAR, Section 4.2.2.
- (2) ASME Boiler and Pressure Vessel Code, Section III, N-415.
- (3) FSAR, Section 4.2.4.
- (4) ASME Boiler and Pressure Vessel Code, Section III, N-331.
- (5) FSAR, Section 4.3.1.
- (6) FSAR, Section 4.4.1.
- (7) FSAR, Amendment 15.
- (8) Technical Paper - WAPD-BT18 Bettis Technical Review, Reactor Technology Section, April 1960 - Application of Stress Concentration Factors by B. F. Langer.



Design Curve of NDTT Increase
(550° F Irradiation)

Palisades
Technical Specifications

Figure
3-3

4.5 CONTAINMENT TESTS (Contd)

h. Acceptance criteria shall be as follows:

1. The measure of the lift-off force per tendon shall not be more than 815 kips per tendon nor less than 584 kips per tendon for dome tendons, or 615 kips per tendon for hoop and vertical tendons.

If one sample tendon fails to meet these criteria, an adjacent tendon on each side of that tendon shall also be tested. If both of these tendons meet the criteria, then the inspection program shall proceed considering the single deficiency as unique and acceptable. However, if either adjacent tendon fails to meet the criteria or if more than one tendon out of the original sample population failed to meet the criteria, the Commission shall be notified in accordance with Paragraph 4.5.4.i.

2. Inspection wires shall indicate no significant loss of section by corrosion or pitting.
 3. Tensile test specimens cut from inspection wires shall be tested for ultimate strength. Failure at less than 11.78 kips of any one of the test samples requires the Commission be notified in accordance with Paragraph 4.5.4.i.
 4. Tendon anchorage hardware shall be free of significant corrosion, pitting, cracks or other deleterious effects.
- i. If any element of the prestressing system fails to meet the acceptance criteria of Paragraph 4.5.4.h, the reporting provision of 6.9.3 shall apply except that the initial report may be made within 14 days of the completion of the surveillance requirements of this specification and the final report within 90 days of completion of testing.

Reactor Internals Vibration MonitoringApplicability

Applies to the reactor internals vibration monitoring.

Objective

To specify the minimum frequency and type of surveillance to be applied to the structural and hydraulic interactions of the reactor internals.

SpecificationA. Description of Testing

The surveillance testing shall be comprised of a minimum of two measurement phases.

1. Phase 1

This testing shall be conducted while operating under steady-state power operation conditions. This testing shall comprise the recording of the noise component of the operating power range excore detector signals. The data shall be examined for the gross amplitude of core movement by determining the amplitude probability distribution, sigma (the standard deviation for the measured set of data) and the root-mean-square. Baseline Phase 1 measurements and analyses shall be made at 25%, 50%, 75% and 100% power levels during the plant start-up following the spring 1974 reactor internals modifications.

2. Phase 2

This testing shall be conducted under steady-state conditions. Overall noise characteristics including amplitude power distribution, frequency content, and Azimuthal relationships among signals shall be analyzed by determining the following:

- a. The power spectral density.
- b. Coherence and phase plots.

Baseline Phase 2 measurements and analyses shall be made simultaneously with the Phase 1 measurements during the plant start-up at 25%, 50%, 75% and 100% power levels. An action level shall be established to be an M sigma noise level. In any subsequent Phase 1 measurement, if the M sigma action level is exceeded,

4.13 Reactor Internals Vibration Monitoring (Contd)

A. Description of Testing (Contd)

2. Phase 2 (Contd)

as determined by data recorder traces, subsequent Phase 2 analysis shall be performed within two weeks. An action level of N sigma shall be established to require plant operational restrictions to reduce the noise level. M and N shall be determined from the baseline Phase 2 analysis, with reference to as-built tolerances and structural limits. N may be specified as frequency dependent.

B. Measurement Frequency

As a minimum, Phase 1 measurements shall be recorded daily and analyzed weekly and Phase 2 measurements shall be recorded monthly and analyzed monthly during start-up and normal plant operations. When Phase 1 test signals exceed the first action level (M sigma noise level), Phase 1 data shall be recorded and analyzed daily and Phase 2 data shall be recorded daily and analyzed weekly.

C. Report of Test Results

1. The baseline data and analyses and the plant action levels selected shall be reported to the Director of the USNRC, Region III Office, with a copy to the Director of Reactor Licensing, USNRC, within one month after completing plant start-up following the spring 1974 core internals modifications.
2. When the M sigma action level is exceeded, the data and analyses shall be reported in writing to the USNRC, Region III Office, within 30 days and every 30 days thereafter as long as the action level is exceeded.
3. When the N sigma action level is exceeded, the occurrence shall be reported to the USNRC in accordance with the procedures for a reportable occurrence as specified in Section 6.9.2.
4. All periodic Phase 1 and Phase 2 tests shall be the subject of a technical report submitted to the Director of the USNRC, Region III Office, with a copy to the Director of Reactor Licensing, USNRC, on a semiannual basis. The report shall be entitled "Reactor Internals Noise Monitoring Tests."

4.13 Reactor Internals Vibration Monitoring (Contd)

Basis

The Palisades Plant reported neutron noise that was felt to be indicative of core barrel motion in June of 1973. A subsequent reactor internals inspection revealed internals wear due to a loss of the core barrel clamping force. Modifications were made to provide a greater clamping force on the reactor internals. The inspection results and a description of the modifications were included in CEN-5(P) transmitted by letter dated March 18, 1974. The surveillance program included in this specification is to assure the integrity of the modifications. This surveillance program will be reevaluated following the first visual inspection to verify the performance of the reactor vessel internals and proposed changes will be submitted, if appropriate.

4.14 Augmented In-Service Inspection Program for Steam Generators

Applicability

Applies to the tubes within both steam generators.

Objective

To provide assurance of continued integrity of the steam generator tubes over their service lifetime.

Specification

- 4.14.1 At the end of no more than 135 effective full power days or no more than 9 calendar months from the date of initial criticality after February 1975, whichever occurs first, an inspection of the steam generator tubes shall be conducted in accordance with the requirements of Regulatory Guide 1.83, "In-Service Inspection of Pressurized Water Reactor Steam Generator Tubes," (issued July 1975) as it applies to inspections after the baseline inspection.
- 4.14.2 Subsequent inspections will be made thereafter at a frequency no less than the inspection intervals specified in Regulatory Guide 1.83 (issued July 1975).* Tube sampling requirements will be as identified in Regulatory Guide 1.83 (issued July 1975).
- 4.14.3 Any steam generator tubes with eddy current indications of 50% or more wall thinning shall be removed from service by plugging. Such indications may be confirmed by averaging during a given inspection, but such average shall be based on not less than three readings, in which case an average indication of 50% or more wall thinning shall result in tube plugging.

*Inspection intervals specified in Regulatory Guide 1.83 are not subject to the 25% extension otherwise permitted by Paragraph 4.0.2.

4.14 Augmented Inservice Inspection Program for Steam Generators (Contd)

Basis

There exists reasonable assurance that the change from coordinated phosphate to volatile chemistry control for the secondary side of the steam generators, in conjunction with the steam generator tube plugging that has taken place, will significantly reduce the previous corrosion rate that has taken place. This surveillance program provides a means for verifying that the corrosion has been arrested, or quickly identifying any additional corrosion, should it occur.

The surveillance program calls for inspection intervals somewhat shorter than those recommended in Regulatory Guide 1.83 (issued July 1975) for the initial two inspections, although tube sampling and acceptance criteria recommended in Regulatory Guide 1.83 will be implemented. Subsequent inspections will fully conform to Regulatory Guide 1.83 (issued July 1975).

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 for this responsibility during his absence. | 20

6.2 ORGANIZATION

6.2.1' OFFSITE

The offsite 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 (through 15% power), scheduled reactor shutdown and during recovery from reactor trips. | 20
- d. An individual qualified in radiation protection procedures shall be on site when fuel is in the reactor.
- c. All core alterations after the initial fuel loading shall either be performed by a licensed Reactor Operator under the general supervision of a Senior Reactor Operator or directly supervised by a licensed Senior Reactor Operator (or Senior Operator Limited to Fuel Handling) who has no other concurrent responsibilities during this operation. | 20

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.

6.4 TRAINING

- 6.4.1 A retraining and replacement training program for the plant staff shall be maintained under the direction of the Nuclear Training Administrator 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.

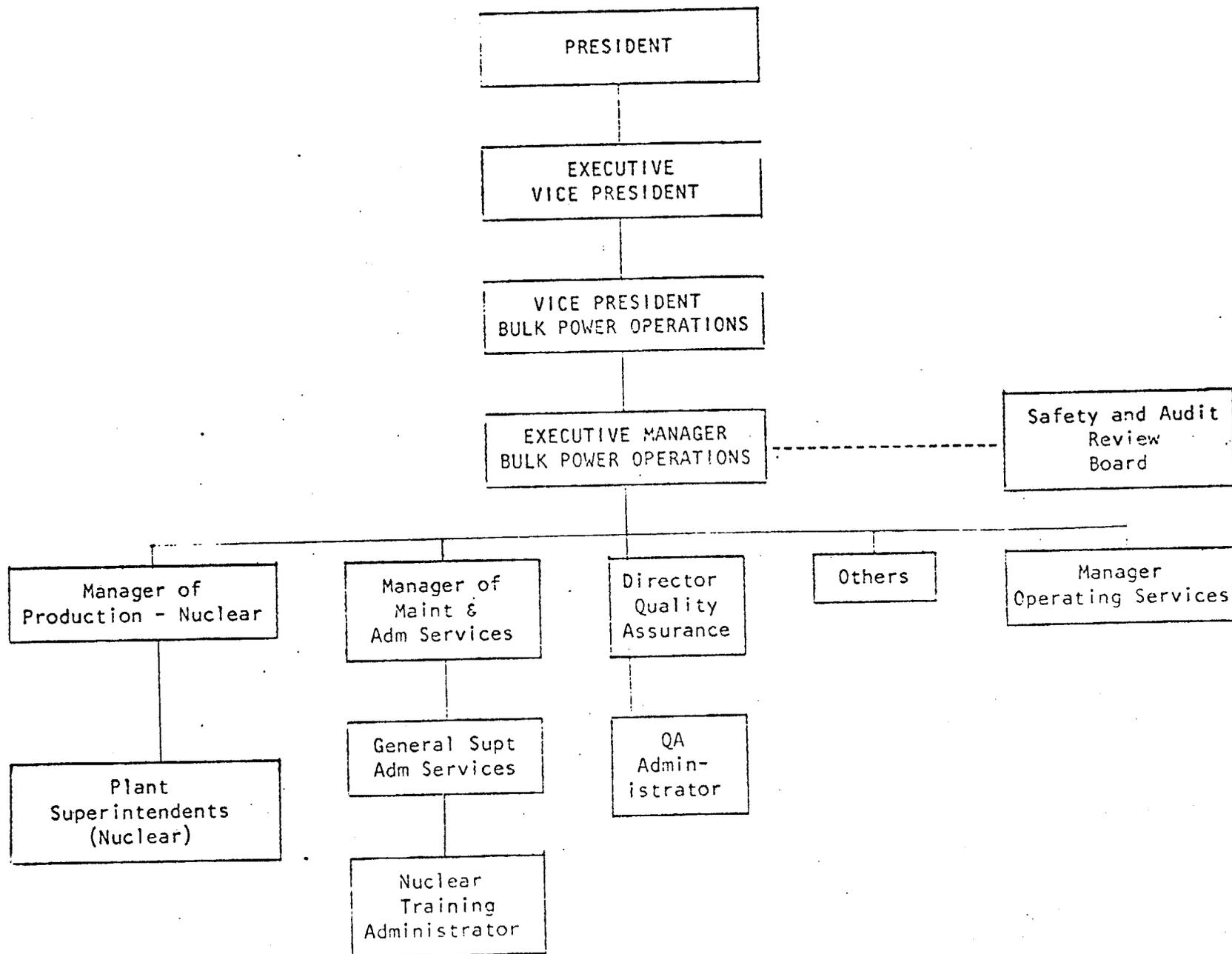
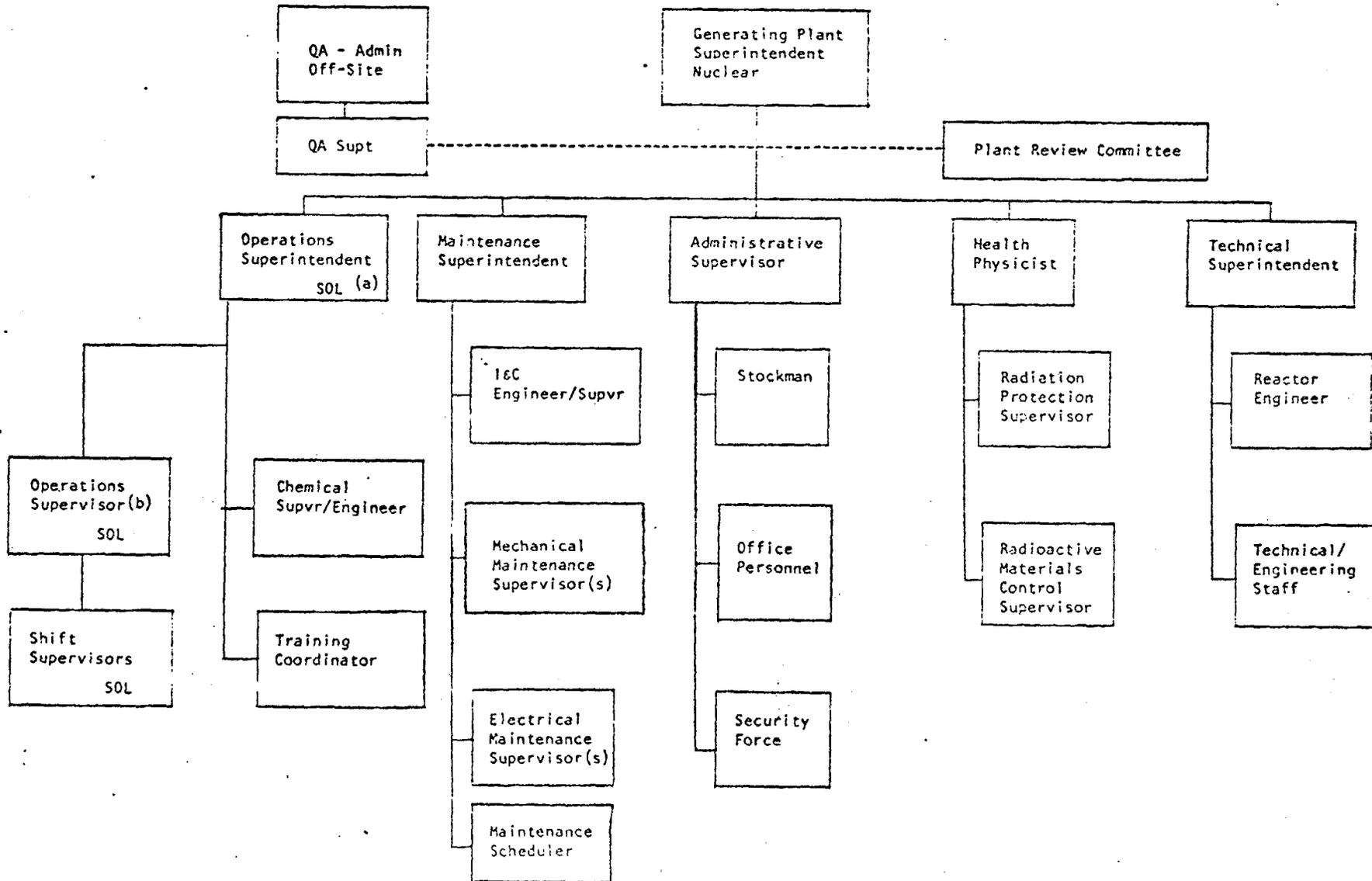


Figure 6.2-1

CONSUMERS POWER COMPANY
Palisades Plant Organization



SOL - Senior Operator Licensee

(a) The Operations Superintendent need not hold an SOL provided he meets the other requirements of 6.3.1 of these specifications and the position of "Operations Supervisor" is filled. Under these conditions, the Operations Supervisor shall be responsible for directing the activities of licensed operators.

(b) This position need not be filled if the Operations Superintendent holds an SOL.

TABLE 6.2-1

Minimum Shift Crew Composition

Minimum shift crew shall be as follows except when the plant conditions specified in paragraph(a) and (b) below have been established:

20

Shift Supervisor - SOL

Control Operators (2) - OL

20

Auxiliary Operators (2)

(a) Cold Shutdown Condition or Refueling Shutdown Condition

20

Shift Supervisor - SOL

Control Operator - OL

Auxiliary Operators (2)

(b) Refueling Operation*

Shift Supervisor - SOL

Control Operator - OL

20

Auxiliary Operators (2)

*Does not include additional personnel required when core alterations are being conducted. See paragraph 6.2.2.e.

20

SOL - Senior Reactor Operator
OL - Reactor Operator

6.5 REVIEW AND AUDIT

6.5.1 PLANT REVIEW COMMITTEE (PRC)

6.5.1.1 FUNCTION

The 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 Superintendent
Member: Technical Superintendent
Member: Maintenance Superintendent
Member: Plant Instrument and Control Engineer or Supervisor
Member: Plant Reactor Engineer
Member: Health Physicist
Member: Chemical Engineer or Supervisor

Member: Shift Supervisor (One)

Member: Senior or General Engineer (One)

20

20

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 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 meetings as required.

6.5.1.5 QUORUM

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

20

6.5.1.6 RESPONSIBILITIES

The PRC shall be responsible for:

a. Review of 1) all procedures required by Specification 6.8 and changes thereto, 2) any other proposed procedures or changes thereto as determined by the Plant Superintendent 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 Manager of Production - Nuclear and to the Chairman of the Safety and Audit Review Board (SARB). | 20
- f. Review of plant operations to detect potential nuclear safety hazards. | 20
- g. Performance of special reviews, investigations and/or reports thereof as requested by the Chairman of SARB.
- h. Review of all events which are required by NRC Regulations or Technical Specifications to be reported to the NRC within 24 hours. | 20

6.5.1.7 AUTHORITY

The PRC shall:

- a. Recommend to the Plant Superintendent written approval or disapproval of items considered under 6.5.1.6.a through d. above.
- b. Render determinations in writing with regard to whether or not each item considered under 6.5.1.6.a through e. above constitutes an unreviewed safety question.
- c. Provide immediate written notification to the Manager of Production - Nuclear and the Chairman of SARB of disagreement 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. | 20

6.5.1.8 RECORDS

The PRC shall maintain written minutes of each meeting. Copies shall be provided to the Manager of Production - Nuclear, the Chairman of SARB, PRC members, and alternates. | 20

6.5.2 SAFETY AND AUDIT REVIEW BOARD (SARB)

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 Executive Manager - Bulk Power Operations (BPO) and other appropriate levels of management. A written charter is prepared and approved by the Vice President - BPO 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 N18.7-1972. | 20

6.5.2.1 FUNCTION

SARB shall function to provide independent review of designated activities affecting nuclear safety-related components, systems and structures designated on the plant's Safety-Related Quality List contained in Consumers Power Company's Quality Assurance Program.

6.5.2.2 COMPOSITION AND QUALIFICATIONS

Collectively, the personnel appointed for SARB by the Executive Manager - BPO shall be competent to conduct reviews and technical audits 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.

6.5.2.3 ALTERNATE MEMBERS

Alternate members may be appointed by the Executive Manager - BPO 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.

6.5.2.4 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.

6.5.2.5 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.

6.5.2.6 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.

20

6.5.2.7 REVIEW

SARB shall review:

- a. Proposed tests or changes to procedures, equipment, 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. Reportable Occurrences (RO) as defined in Section 6.9.2 of these Technical Specifications 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 Section 50.59 to verify that such actions did not constitute an unreviewed safety question.
- f. Operational and major modification Quality Assurance Program audit reports.
- g. Technical audit reports.
- h. The status of deficiencies identified by the Quality Assurance Program, including the effectiveness of the corrective actions completed and implemented, at least once every six (6) months.
- i. Audits of the security program required by the Nuclear Power Plant Security Plan.

6.5.2.8 AUDITS

Audits of safety-related facility activities during operations are performed by the Quality Assurance Department - Bulk Power Operations in accordance with the policies and procedures of Consumers Power Company's Quality Assurance Program. Quality assurance audit reports are sent to SARB for review. In addition, technical audits are the responsibility of the Operating Services Department and shall be reviewed by SARB. These technical audits encompass:

- a. The conformance of facility operation to all provisions contained within the Technical Specifications and applicable license conditions at least once per year.
- b. The performance, training and qualifications of the entire facility staff at least once per year.
- c. The Facility Emergency Plan and implementing procedures at least once per two years.
- d. Any other area of facility operation considered appropriate by SARB or the Executive Manager - BPO.

6.5.2.9 AUTHORITY

SARB shall report to and advise the Executive Manager - BPO on those areas of responsibility specified in Sections 6.5.2.7 and 6.5.2.8. | 20

6.5.2.10 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 Executive Manager - BPO 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. | 20
- b. If not included in SARB meeting minutes, reports of reviews encompassed by Section 6.5.2.7 shall be prepared and forwarded to the Executive Manager - BPO within approximately two weeks following completion of the review. | 20
- c. Audit reports encompassed by Section 6.5.2.8 above, shall be forwarded to the Executive Manager - BPO and management positions responsible for the areas audited within 30 days after completion of the audit.

6.6 (Deleted) | 20

6.7 SAFETY LIMIT VIOLATION

6.7.1 The following actions shall be taken in the event a Safety Limit is violated (Ref: Sections 2.1 and 2.2):

- a. The reactor shall be shut down until the Commission authorizes resumption of operation [10 CFR 50.36(c)(1)(i)].

- b. The safety limit violation shall be immediately reported to the Commission (in accordance with 10 CFR 50.36) to the Manager of Production - Nuclear and to SARB Chairman or Vice Chairman.
- c. A report shall be prepared in accordance with 10 CFR 50.36. The safety limit violation and the report shall be reviewed by the PRC.
- d. The report shall be submitted to the Commission (in accordance with requirements of 10 CFR 50.36), to SARB and to the Manager of Production - Nuclear within 10 days.

20

6.8 PROCEDURES

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

- a. The applicable procedures recommended in Appendix "A" of Regulatory Guide 1.33 (November 1972).
- b. Refueling Operations.
- c. Surveillance and testing activities of safety-related equipment.
- d. Emergency plan implementation.

6.8.2 Each procedure and administrative policy of 6.8.1 above, and changes thereto, shall be reviewed by the PRC 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 or disapproved by the Plant Superintendent.

6.8.4 Written procedures shall be established and maintained covering implementation of the security plan. These procedures and changes thereto shall be reviewed and approved in accordance with Consumers Power Company's Nuclear Power Plant Security Plan.

20

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. Startup Report. A summary report of plant startup 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 required tests 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.

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.

- b. Annual Operating Report.^{1/} Routine operating reports covering the operation of the unit during the previous calendar year should be submitted prior to March 1 of each year. The initial report shall be submitted prior to March 1 of the year following initial criticality.

The annual operating reports made by licensees shall provide a comprehensive summary of the operating experience gained during the year, even though some repetition of

previously reported information may be involved. References in the annual operating report to previously submitted reports shall be clear.

Each annual operating report shall include:

- (1) A narrative summary of operating experience during the report period relating to safe operation of the facility, including safety-related maintenance not covered in item (2)(e) below.
- (2) For each outage or forced reduction in power^{2/} of over twenty percent of design power level where the reduction extends for greater than four hours:
 - (a) the proximate cause and the system and major component involved (if the outage or forced reduction in power involved equipment malfunction);
 - (b) a brief discussion of (or reference to reports of) any reportable occurrences pertaining to the outage or power reduction;
 - (c) corrective action taken to reduce the probability of recurrence, if appropriate;
 - (d) operating time lost as a result of the outage or power^{3/} reduction (for scheduled or forced outages, use the generator off-line hours; for forced reductions in power, use the approximate duration of operation at reduced power);
 - (e) a description of major safety-related corrective maintenance performed during the outage or power reduction, including the system and component involved and identification of the critical path activity dictating the length of the outage or power reduction; and
 - (f) a report of any release of radioactivity associated with the outage or forced reduction in power which accounts for more than 10% of the allowable annual values specified in 10 CFR 20.
 - (g) a report of any accumulated radiation exposure specifically associated with the outage or forced reduction in power when the accumulated exposure exceeds an average of 1.2 rem (averaged over the work force involved in the outage).

- (3) A tabulation on an annual basis of the number of station, utility and other personnel (including contractors) receiving exposures greater than 100 mrem/yr and their associated, ⁴⁷man 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 assignment to various duty functions may be estimates based on pocket dosimeter, TLD, or film badge measurements. Small exposures totalling less than 20% of the individual total dose need not be accounted for. In the aggregate, at least 80% of the total whole body dose received from external sources shall be assigned to specific major work functions.
- (4) Indications of failed fuel resulting from irradiated fuel examinations, including eddy current tests, ultrasonic tests, or visual examinations completed during the report period.

- c. Monthly Operating Report. Routine reports of operating statistics and shutdown experience shall be submitted on a monthly basis to the Office of Inspection and Enforcement U.S. Nuclear Regulatory Commission, Washington, D.C. 20555, with a copy to the appropriate Regional Office, to arrive no later than the tenth of each month following the calendar month covered by the report.

6.9.2. Reportable Occurrences

Reportable occurrences, including corrective actions and measures to prevent reoccurrence, shall be reported to the NRC. Supplemental reports may be required to fully describe final resolution of occurrence. In case of corrected or supplemental reports, a licensee event report shall be completed and reference shall be made to the original report date.

- a. Prompt Notification With Written Followup. The types of events listed below shall be reported as expeditiously as possible, but within 24 hours Verbally and confirmed by telegraph, mailgram, or facsimile transmission to the Director of the appropriate Regional Office, or his designate no later than the first working day following the event, with a written followup report within two weeks. The written followup report shall include, as a minimum, a completed copy of a licensee event report form. Information provided on the licensee event report form shall be supplemented, as needed, by additional narrative material to provide complete explanation of the circumstances surrounding the event.

- (1) Failure of the reactor protection system or other systems subject to limiting safety system settings to initiate the required protective function by the time a monitored parameter reaches the setpoint specified as the limiting safety system setting in the technical specifications or failure to complete the required protective function.

Note: Instrument drift discovered as a result of testing need not be reported under this item but may be reportable under items a(5), a(6), or b(1) below.

- (2) Operation of the unit or affected systems when any parameter or operation subject to a limiting condition is less conservative than the least conservative aspect of the limiting condition for operation established in the technical specifications.

Note: If specified action is taken when a system is found to be operating between the most conservative and the least conservative aspects of a limiting condition for operation listed in the technical specifications, the limiting condition for operation is not considered to have been violated and need not be reported under this item, but it may be reportable under item b(2) below.

- (3) Abnormal degradation discovered in fuel cladding, reactor coolant pressure boundary, or primary containment.

Note: Leakage of valve packing or gaskets within the limits for identified leakage set forth in technical specifications need not be reported under this item.

(4) Reactivity anomalies involving disagreement with the predicted value of reactivity balance under steady state conditions greater than or equal to 1% $\Delta k/k$ calculated reactivity balance indicating a shutdown margin less conservative than specified in the technical specifications; short-term reactivity increases that correspond to a reactor period of less than 5 seconds or, if subcritical, an unplanned reactivity insertion of more than 0.5% $\Delta k/k$; or occurrence of any unplanned criticality.

(5) Failure or malfunction of one or more components which prevents or could prevent, by itself, the fulfillment of the functional requirements of system(s) used to cope with accidents analyzed in the SAR.

(6) Personnel error or procedural inadequacy which prevents or could prevent, by itself, the fulfillment of the functional requirements of systems required to cope with accidents analyzed in the SAR.

Note: For items a(5) and a(6) reduced redundancy that does not result in a loss of system function need not be reported under this section but may be reportable under items b(2) and b(3) below.

(7) Conditions arising from natural or man-made events that, as a direct result of the event require plant shutdown, operation of safety systems, or other protective measures required by technical specifications.

(8) Errors discovered in the transient or accident analyses or in the methods used for such analyses as described in the safety analysis report or in the bases for the technical specifications that have or could have permitted reactor operation in a manner less conservative than assumed in the analyses.

(9) Performance of structures, systems, or components that requires remedial action or corrective measures to prevent operation in a manner less conservative than assumed in the accident analyses in the safety analysis report or technical specifications bases; or discovery during plant life of conditions not specifically considered in the safety analysis report or technical specifications that require remedial action or corrective measures to prevent the existence or development of an unsafe condition.

Note: This item is intended to provide for reporting of potentially generic problems.

b. Thirty Day Written Reports. The reportable occurrences discussed below shall be the subject of written reports to the Director of the appropriate Regional Office within thirty days of occurrence of the event. The written report shall include, as a minimum, a completed copy of a licensee event report form. Information provided on the licensee event report form shall be supplemented, as needed, by additional narrative material to provide complete explanation of the circumstances surrounding the event.

- (1) Reactor protection system or engineered safety feature instrument settings which are found to be less conservative than those established by the technical specifications but which do not prevent the fulfillment of the functional requirements of affected systems.
- (2) Conditions leading to operation in a degraded mode permitted by a limiting condition for operation or plant shutdown required by a limiting condition for operation.

Note: Routine surveillance testing, instrument calibration, or preventative maintenance which require system configurations as described in items b(1) and b(2) above need not be reported except where test results themselves reveal a degraded mode as described above.

- (3) Observed inadequacies in the implementation of administrative or procedural controls which threaten to cause reduction of degree of redundancy provided in reactor protection systems or engineered safety feature systems.
- (4) Abnormal degradation of systems other than those specified in item a(3) above designed to contain radioactive material resulting from the fission process.

Note: Sealed sources or calibration sources are not included under this item. Leakage of valve packing or gaskets within the limits for identified leakage set forth in technical specifications need not be reported under this item.

FOOTNOTES

1. A single submittal may be made for a multiple unit station. The submittal should combine those sections that are common to all units at the station.
2. The term "forced reduction in power" is normally defined in the electric power industry as the occurrence of a component failure or other condition which requires that the load on the unit be reduced for corrective action immediately or up to and including the very next weekend. Note that routine preventive maintenance, surveillance and calibration activities requiring power reductions are not covered by this section.
3. The term "forced outage" is normally defined in the electric power industry as the occurrence of a component failure or other condition which requires that the unit be removed from service for corrective action immediately or up to and including the very next weekend.
4. This tabulation supplements the requirements of §20.407 of 10 CFR Part 20.

6.9.3.1

Radioactive Effluent Releases

The quantities of liquid, gaseous and solid radioactive effluents released from the facility and the environmental monitoring shall be provided as specified below and reported annually by March 31 for the preceding calendar year:

- (1) Liquid Wastes (Summarized on a Monthly Basis)
 - (a) Total number of gross curies other than tritium released during the reporting period.
 - (b) Total number of curies of tritium released during the reporting period.

6.6

PLANT REPORTING REQUIREMENTS (Contd)

- (c) The MPC used and the isotopic composition, if greater than:
 - 1. 1×10^{-7} $\mu\text{Ci/cc}$ for fission and activation products (except tritium).
 - 2. 3×10^{-3} $\mu\text{Ci/cc}$ for tritium (only if the average concentration for monthly releases exceeds this value).
 - (d) Total estimated annual radioactivity (in curies) released by nuclide (other than tritium) based on representative isotopic analysis.
 - (e) Annual average concentration at point of release (in $\mu\text{Ci/cc}$).
 - (f) Total volume (in gallons) of effluent water (including diluent) during periods of release.
- (2) Gaseous Wastes (Summarized on a Monthly Basis)
- (a) Noble gases radioactivity discharged during the year (in curies).
 - (b) Halogens radioactivity with half-lives greater than eight days discharged during the year (in curies).
 - (c) Particulates radioactivity with half-lives greater than eight days discharged during the year (in curies).
 - (d) The MPC used if greater than:
 - 1. 3×10^{-8} $\mu\text{Ci/cc}$ for noble gases.
 - 2. 1×10^{-10} $\mu\text{Ci/cc}$ for (b) above.
 - 3. 3×10^{-11} $\mu\text{Ci/cc}$ for (c) above.
 - (e) Estimated annual radioactivity discharged during the year (in curies) released by each halogen or particulate nuclide, based on representative isotopic analysis.
- (3) Solid Wastes
- (a) The estimated total amount of solid waste stored on site (in cubic feet).
 - (b) The total activity involved (in curies).
 - (c) The dates of shipment and disposition (if shipped off site).

PLANT REPORTING REQUIREMENTS (Contd)(4) Environmental Monitoring

- (a) A narrative summary of the results of off-site airborne environmental surveys performed during the report period as described in Specification 4.11.
- (b) For each medium sampled during the year, a list of the sampling locations, the total number of samples, and the highest, lowest, and the average concentrations for the highest location.
- (c) If levels of radioactive materials in environmental media due to plant origin indicate the likelihood of public exposure in excess of 5% of those that would result from continuous exposure to the concentration values listed in Appendix B, Table II, estimates of the likely resultant exposure to individuals and to population groups and assumptions on which estimates are made.

6.9.3.2 Nonradioactive Aquatic Monitoring Program

Results of aquatic environmental monitoring shall be provided as specified below:

- (1) The data and a narrative summary of the results of off-site environmental surveys performed during the report period as described in Specification 4.11.
- (2) For each medium sampled during the year, a list and map of the sampling locations and the total number of samples shall be included.

(Intentionally Blank)

6-21 through 6-25

NOV 10 1975

6.9.3.3. Special Reports

Special reports shall be submitted covering the activities identified below pursuant to the requirements of the applicable referenced specification:

<u>Area</u>	<u>Specification Reference</u>	
Prestressing, Anchorage, Liner and Penetration Tests	4.5.4 4.5.5	90 Days After Completion of the Test*
Primary System Surveillance Evaluation and Review	4.3	Five Years

*A test is considered to be complete after all associated mechanical, chemical, etc., tests have been completed.

6.10 RECORD RETENTION

(Records not previously required to be retained shall be retained as required below commencing with the effective date of Technical Specification Change No. 20. A system for efficient record retrieval shall be in effect not later than June 1976.)

6.10.1 The following records shall be retained for at least five years:

- a. Records and logs of facility operation covering time interval at each power level.
- b. Records and logs of principal maintenance activities, inspections, repair and replacement of principal items of equipment related to nuclear safety.
- c. Reportable Occurrences.
- d. Records of surveillance activities, inspections and calibrations required by these Technical Specifications.

- e. Records of training and qualification for current members of the plant staff.
- f. Records of reactor tests and experiments.
- g. Records of changes made to Operating Procedures.
- h. Records of radioactive shipments.
- i. Records of sealed source leak tests and results.
- j. Records of annual physical inventory of all source material of record.
- k. Chlorine treatment records.

6.10.2 The following records shall be retained for the duration of the Facility Operating License:

- a. Record and drawing changes reflecting facility design modifications made to systems and equipment described in the Final Safety Analysis Report.
- b. Records of new and irradiated fuel inventory, fuel transfers and assembly burnup histories.
- c. Records of monthly radiation exposure for all individuals entering radiation control areas.
- d. Records of gaseous and liquid radioactive material released to the environs.
- e. Records of transient or operational cycles for those facility components designed for a limited number of transients or cycles.
- f. Records of inservice inspections performed pursuant to these Technical Specifications.
- g. Records of Quality Assurance activities required by the QA Manual to be retained for the duration of the facility operating license.
- h. Records of reviews performed for changes made to procedures or equipment or reviews of tests and experiments pursuant to 10 CFR 50.59.
- i. Records of meetings of the PRC and SARB.
- j. Records of monthly facility radiation and contamination surveys.

6.11 RADIATION PROTECTION PROGRAM

6.11.1 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 RESPIRATORY PROTECTION PROGRAM

6.12.1 ALLOWANCE

Pursuant to 10 CFR 20.103(c)(1) and (3), allowance may be made for the use of respiratory protective equipment in conjunction with activities authorized by the operating license for this facility in determining whether individuals in restricted areas are exposed to concentrations in excess of the limits specified in Appendix B, Table I, Column 1, of 10 CFR 20, subject to the following conditions and limitations:

- a. The limits provided in Section 20.103(a) and (b) shall not be exceeded.
- b. If the radioactive material is of such form that intake through the skin or other additional route is likely, individual exposures to radioactive material shall be controlled so that the radioactive content of any critical organ from all routes of intake averaged over 7 consecutive days does not exceed that which would result from inhaling such radioactive material for 40 hours at the pertinent concentration values provided in Appendix B, Table I, Column 1, of 10 CFR 20.
- c. For radioactive materials designated "Sub" in the "Isotope" column of Appendix B, Table I, Column 1, of 10 CFR 20, the concentration value specified shall be based upon exposure to the material as an external radiation source. Individual exposures to these materials shall be accounted for as part of the limitation on individual dose in § 20.101. These materials shall be subject to applicable process and other engineering controls.

6.12.2 PROTECTION PROGRAM

In all operations in which adequate limitation of the inhalation of radioactive material by the use of process or other engineering controls is impracticable, the licensee may permit an individual in a restricted area to use respiratory protective equipment to limit the inhalation of airborne radioactive material, provided:

- a. The limits specified in 6.12.1 above are not exceeded.
- b. Respiratory protective equipment is selected and used so that the peak concentrations of airborne radioactive material inhaled by an individual wearing the equipment do not exceed the pertinent concentration values specified in Appendix B, Table I, Column 1, of 10 CFR 20. For the purposes of this subparagraph, the concentration of radioactive material that is inhaled when respirators are worn may be determined by dividing the ambient airborne concentration by the protection factor specified in Table 6.12-1 for the respirator protective equipment worn. If the intake of radioactivity is later determined by other measurements to have been different than that initially estimated, the later quantity shall be used in evaluating the exposures.

- c. The licensee advises each respirator user that he may leave the area at any time for relief from respirator use in case of equipment malfunction, physical or psychological discomfort, or any other condition that might cause reduction in the protection afforded the wearer.
- d. The licensee maintains a respiratory protective program adequate to assure that the requirements above are met and incorporates practices for respiratory protection consistent with those recommended by the American National Standards Institute (ANSI Z88.2-1969).* Such a program shall include:
- (1) Air sampling and other surveys sufficient to identify the hazard, to evaluate individual exposures, and to permit proper selection of respiratory protective equipment.
 - (2) Written procedures to assure proper selection, supervision and training of personnel using such protective equipment.
 - (3) Written procedures to assure the adequate fitting of respirators and the testing of respiratory protective equipment for operability immediately prior to use.
 - (4) Written procedures for maintenance to assure full effectiveness of respiratory protective equipment, including issuance, cleaning, decontamination, inspection, repair, and storage.
 - (5) Written operational and administrative procedures for proper use of respiratory protective equipment, including provisions for planned limitations on working times as necessitated by operational conditions.
 - (6) Bioassays and/or whole body counts of individuals (and other surveys, as appropriate) to evaluate individual exposures and to assess protection actually provided.
- e. The licensee shall use equipment approved by the US Bureau of Mines under its appropriate Approval Schedules as set forth in Table 6.12-1. Equipment not approved under US Bureau of Mines Approval Schedules shall be used only if the licensee has evaluated the equipment and can demonstrate by testing, or on the basis of reliable test information, that the material and performance characteristics of the equipment are at least equal to those afforded by US Bureau of Mines approved equipment of the same type, as specified in Table 6.12-1.
- f. Unless otherwise authorized by the Commission, the licensee shall not assign protection factors in excess of those specified in Table 6.12-1 in selecting and using respiratory protective equipment.

6.12.3 REVOCATION

The specifications of Section 6.12 shall be revoked in their entirety upon adoption of the proposed change to 10 CFR 20, Section 20.103, which would make such provisions unnecessary.

*The licensee shall be allowed a period of one year from the date of issuance of Technical Specification Change No. 20 to place in effect practices for respiratory protection consistent with this standard.

TABLE 6.12-1
Protection Factors for Respirators

<u>Description</u>	<u>Modes¹</u>	<u>Protection Factors²</u>	<u>Guides to Selection of Equipment</u>
		<u>Particulates and Vapors and Gases Except Tritium Oxide³</u>	<u>Bureau of Mines/ National Institute for Occupational Safety and Health Approvals</u>
I. <u>AIR-PURIFYING RESPIRATORS</u>			
Facepiece, Half-Mask ^{4,7}	NP	5	30 CFR Part 11 Subpart K
Facepiece, Full ⁷	NP	100	30 CFR Part 11 Subpart K
II. <u>ATMOSPHERE-SUPPLYING RESPIRATOR</u>			
1. <u>Air Line Respirator</u>			
Facepiece, Half-Mask	CF	100	30 CFR Part 11 Subpart J
Facepiece, Full	CF	1,000	30 CFR Part 11 Subpart J
Facepiece, Full ⁷	D	100	30 CFR Part 11 Subpart J
Facepiece, Full	PD	1,000	30 CFR Part 11 Subpart J
Hood	CF	5	30 CFR Part 11 Subpart J
Suit	CF	5	6
2. <u>Self-Contained Breathing Apparatus (SCBA)</u>			
Facepiece, Full ⁷	D	100	30 CFR Part 11 Subpart H
Facepiece, Full	PD	1,000	30 CFR Part 11 Subpart H
Facepiece, Full	R	100	30 CFR Part 11 Subpart H
III. <u>COMBINATION RESPIRATOR</u>			
Any Combination of Air- Purifying and Atmosphere- Supplying Respirator		Protection Factor for Type and Mode of Opera- tion as Listed Above	30 CFR Part 11 § 11.63(h)

1, 2, 3, 4, 5, 6, 7 (These notes are on the following pages.)

*Or Schedule Superseding for Equipment of Type Listed

TABLE 6.12-1 (Contd)

¹See the following symbols:

- CF: Continuous Flow
- D: Demand
- NP: Negative Pressure (ie, Negative Phase During Inhalation)
- PD: Pressure Demand (ie, Always Positive Pressure)
- R: Recirculating (Closed Circuit)

²(a) For purposes of this specification the protection factor is a measure of the degree of protection afforded by a respirator, defined as the ratio of the concentration of airborne radioactive material outside the respiratory protective equipment to that inside the equipment (usually inside the face-piece) under conditions of use. It is applied to the ambient airborne concentration to estimate the concentration inhaled by the wearer according to the following formula:

$$\text{Concentration Inhaled} = \frac{\text{Ambient Airborne Concentration}}{\text{Protection Factor}}$$

(b) The protection factors apply:

- (i) Only for trained individuals wearing properly fitted respirators used and maintained under supervision in a well-planned respiratory protective program.
- (ii) For air-purifying respirators only when high efficiency (above 99.9% removal efficiency by US Bureau of Mines type dioctyl phthalate (DOP) test) particulate filters and/or sorbents appropriate to the hazard are used in atmospheres not deficient in oxygen.
- (iii) For atmosphere-supplying respirators only when supplied with adequate respirable air.

TABLE 6.12-1 (Contd)

³Excluding radioactive contaminants that present an absorption or submersion hazard. For tritium oxide, approximately half of the intake occurs by absorption through the skin so that an overall protection factor of not more than approximately 2 is appropriate when atmosphere-supplying respirators are used to protect against tritium oxide. Air-purifying respirators are not recommended for use against tritium oxide. See also Footnote 5, below, concerning supplied-air suits and hoods.

⁴Under chin type only. Not recommended for use where it might be possible for the ambient airborne concentration to reach instantaneous values greater than 50 times the pertinent values in Appendix "B," Table I, Column 1 of 10 CFR, Part 20.

⁵Appropriate protection factors must be determined taking account of the design of the suit or hood and its permeability to the contaminant under conditions of use. No protection factor greater than 1,000 shall be used except as authorized by the Commission.

⁶No approval schedules currently available for this equipment. Equipment must be evaluated by testing or on basis of available test information.

⁷Only for shaven faces.

NOTE 1: Protection factors for respirators, as may be approved by the US Bureau of Mines and/or NIOSH according to approval schedules for respirators to protect against airborne radionuclides, may be used to the extent that they do not exceed the protection factors listed in this table. The protection factors in this table may not be appropriate to circumstances where chemical or other respiratory hazards exist in addition to radioactive hazards. The selection and use of respirators for such circumstances should take into account approvals of the US Bureau of Mines and/or NIOSH in accordance with its applicable schedules.

NOTE 2: Radioactive contaminants for which the concentration values in Appendix B, Table I of this part are based on internal dose due to inhalation may, in addition, present external exposure hazards at higher concentrations. Under such circumstances, limitations on occupancy may have to be governed by external dose limits.

8. Secondary coolant gas radioactivity shall be monitored continuously by the air ejector gas monitor.

Secondary coolant gross radioactivity shall be measured at least twice per week. If the air ejector monitor is not operating, the secondary coolant gross radioactivity shall be measured at least once per day to evaluate steam generator leak tightness.

20

1. Rates of power increase shall not exceed 10% power/hour.
4. Nominal primary system operating pressure shall not exceed 1800 psia.
5. If at the end of a core average burnup of 10,265 MWD/MTU additional information has not been submitted and approved by the Directorate of Licensing, the peak linear power as defined in 3.a shall not exceed 9.0 kW/ft.
6. The data logger can be inoperable for two hours. If at the end of two hours, it is not available, the power level shall not exceed 85% of the kW/ft limit defined in 3.a.
7. Control rod insertion limits will be in accordance with Figure B-1, except for physics tests and CREM exercises.
8. The reactor coolant temperature at the inlet to the reactor vessel shall be no greater than 525 °F during steady state operation above 80% of full power.

DATE					
SURNAME					
OFFICE					

Members of the facility staff should meet the requirements set forth in Guide 1.8, "Personnel Selection and Training" which endorses proposed ANSI N18.1, which was subsequently issued as ANSI N18.1-1971. Provisions for independent review of facility operations should be in accord with Guide 1.53, "Quality Assurance Program Requirements" which endorses proposed standard AMS 3.2, which was subsequently issued as ANSI 18.7-1972. In section 206 of the Energy Reorganization Act of 1974 "abnormal occurrences" is defined as an unscheduled incident or event which the Commission determines is significant from the standpoint of public health or safety. The term "abnormal occurrence" is reserved for usage by NRC. Regulatory Guide 1.16, "Reporting of Operating Information - Appendix A Technical Specifications", Revision 4, enumerates required

The proposed changes would be administrative in nature and would affect the conduct of operation. The proposed changes are intended to provide uniform license requirements. Areas covered by the proposed uniform specifications include licensee staffing qualifications and management procedures involved with operating the reactor, reporting requirements, abnormal occurrence definition change, and a respiratory protection program.

Discussion

By letter dated January 15, 1975, Consumers Power Company (the licensee) proposed changes to the technical specifications appended to Provisional Operating License No. DRB-20, for the Palisades Plant. The proposed changes involve changes to the administrative controls including changes to the reporting requirements.

Introduction

DOCUMENT NO. 50-255

PALISADES PLANT

CONSUMERS POWER COMPANY

CHANGE NO. 2 070 TECHNICAL SPECIFICATIONS

SUPPORTING AGREEMENT NO. 1 6 90 LICENSE NO. DRB-20

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

DATE				
SURNAME				
OFFICE				

The new guidance for reporting operating information does not identify any event as an "abnormal occurrence". The proposed reporting requirements also delete reporting of information no longer required and duplication of reported information. The standardization of required reports and desired format for the information will permit more rapid recognition of potential problems.

Identifying minimum acceptable qualifications for facility personnel should assure capable performance from the facility staff. Other administrative requirements also restated by the specifications assure uniformity and conformance to the desired features in the review, staffing, and procedures. Incorporating the currently accepted respiratory protection program at this time assures that a consistent method of using respirators and procedures. Immediately available whenever needed. Similar changes are being approved for all power reactor licensees, so all licensees will have the same requirements presented in a uniform manner.

During our review of the proposed changes, we found that certain modifications to the proposal were necessary to have conformance with the desired regulatory position. These changes were discussed with the licensee's staff and have been incorporated into the proposal.

We have concluded that the proposal as modified improves the licensee's program for evaluating plant performance and the reporting of the operating information needed by the Commission to assess safety related activities and is acceptable. The facility staff qualifications and training program conform to Guide 1.8 and therefore are acceptable. The administrative procedures and facility review and audit are consistent with Guide 1.33 and are acceptable. The modified reporting program is consistent with the guidance provided by Regulatory Guide 1.16, "Reporting of Operating Information - Appendix A Technical Specifications", Revision 4. The administrative controls are consistent with requirements being incorporated in Technical Specifications for new licensed facilities.

Evaluation

reports consistent with section 208. The proposed change to required reports identifies the reports required of all licensees not already identified by the regulations and those unique to this facility. The proposal would formalize present reporting and would delete any reports no longer needed for assessment of safety related activities. In addition, a radiation protection program delineates use of respiratory equipment in the event personnel are to be exposed to concentrations in excess of Part 20 concentrations.

DATE					
SURNAME					
OFFICE					

Date: NOV 12 1975

We have concluded, based on the considerations discussed above, that: (1) because the change does not involve a significant increase in the probability or consequences of accidents previously considered and does not involve a significant decrease in a safety margin, the change does not involve a significant hazards consideration, (2) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (3) such activities will be conducted in compliance with the Commission's regulations and the issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public.

Conclusion

In addition to the above changes, the licensee has requested that Figures 3-4 and 3-5 of the Technical Specifications be deleted. These figures specify the pressure-temperature relationship of the reactor coolant system for heatup and cooldown, and are applicable only for the first 4.5x10⁵ MWD(t) of reactor operation. Since reactor operating time has now exceeded this value, these curves no longer apply. Heatup and cooldown limits are now governed by the more restrictive limits of Figures 3-1 and 3-2. Deletion of Figures 3-4 and 3-5 is acceptable since they are obsolete and their retention could lead to confusion.

UNITED STATES NUCLEAR REGULATORY COMMISSION

DOCKET NO. 50-255

CONSUMERS POWER COMPANY

NOTICE OF ISSUANCE OF AMENDMENT TO PROVISIONAL
OPERATING LICENSE

Notice is hereby given that the U.S. Nuclear Regulatory Commission (the Commission) has issued Amendment No. 1 to Provisional Operating License No. DPR-20 issued to Consumers Power Company which revised Technical Specifications for operation of the Palisades Plant located in Covert Township, Van Buren County, Michigan. The amendment is effective as of its date of issuance.

This amendment modifies the administrative controls and reporting requirements of the Technical Specifications for the Palisades Plant. In addition, it removes Figures 3-4 and 3-5 of the Technical Specifications relating to the pressure-temperature relationship of the reactor coolant system for heatup and cooldown since these curves are now obsolete.

The application for amendment complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations. The Commission has made appropriate findings as required by the Act and the Commission's rules and regulations in 10 CFR Chapter I, which are set forth in the license amendment. Prior public notice of this amendment is not required since the amendment does not involve a significant hazards consideration.

OFFICE ➤						
SURNAME ➤						
DATE ➤						

For further details with respect to this action, see (1) the application for amendment dated January 15, 1975, (2) Amendment No. 16 to License No. DPR-20 with Change No. 2 and (3) the Commission's related Safety Evaluation. All of these items are available for public inspection at the Commission's Public Document Room, 1717 H Street, NW., Washington, D.C., and at the Kalamazoo Public Library, 315 South Rose Street, Kalamazoo, Michigan.

A copy of items (2) and (3) may be obtained upon request addressed to the U.S. Nuclear Regulatory Commission, Washington, D.C. 20555, Attention: Director, Division of Reactor Licensing.

Dated at Bethesda, Maryland, this NOV 12 1975

FOR THE NUCLEAR REGULATORY COMMISSION

Original signed by
R. A. Purple

Robert A. Purple, Chief
Operating Reactors Branch #1
Division of Reactor Licensing

OFFICE >	RL:ORB#1	OELD	RL:ORB#1		
SURNAME >	CM:James11:dc	See attached James	RAPurple		
DATE >	10/30/75	10/ /75	10/12/75		

1 - Encl
2 - Dist

Chitley

attach a copy
of this to all
others of all
our packages
on this
subject.

ROUTING AND TRANSMITTAL SLIP		ACTION	
1 TO (Name, office symbol or location) OELD - f/concurrences	INITIALS	CIRCULATE	
	DATE	COORDINATION	
2 DLZiemann - f/signatures	INITIALS	FILE	
	DATE	INFORMATION	
3 Reba - for final checks	INITIALS	NOTE AND RETURN	
	DATE	PER CON- VERSION	
4	INITIALS	SEE ME	
	DATE	SIGNATURE	
REMARKS			
<p>Attached for your concurrence are five packages (Dresden Station, Quad Cities Station, Cooper, Pilgrim and Calvert Cliffs) of nine from ORB 2 which incorporate <u>standard reporting requirement sections into the Appendix A Technical Specifications</u>. One package, Pilgrim also revises the entire administrative controls section.</p> <p>It is requested that, in the interest of review consistency, these packages (and the 4 future reporting requirements packages) be assigned to one OELD reviewer.</p> <p>Questions may be directed to the PM for the particular case or to Mike Fletcher, coordinator for reporting (Exts. 7403, 7450)</p>			
<p>Do NOT use this form as a RECORD of approvals, concurrences, disapprovals, clearances, and similar actions</p>			
FROM (Name, office symbol or location) DLZiemann <i>DZ</i>		DATE	11-3-75
		PHONE	7380

11/3/75
No need for OELD concurrence this time on this subject
Submit

RA
11/3