

ATTACHMENT 1

**CONSUMERS POWER COMPANY
PALISADES PLANT
DOCKET 50-255**

**ADMINISTRATIVE CONTROLS
TECHNICAL SPECIFICATIONS CHANGE REQUESTS
ADDITIONAL PAGES**

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PALISADES PLANT TECHNICAL SPECIFICATIONS
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4.5 CONTAINMENT TESTS

Basis (continued)

Second is the more frequent testing, at the full accident pressure, of those portions of the containment envelope that are most likely to develop leaks during reactor operation (penetrations and isolation valves) and the low value ($0.60L_a$) of the total leakage that is specified as acceptable from penetrations and isolation valves. Third is the Containment Structural Integrity Surveillance Program which provides assurance that an important part, of the structural integrity of the containment is maintained.

The basis for specification of a total leakage rate of $0.60 L_a$ from penetrations and isolation valves is specified to provide assurance that the integrated leak rate would remain within the specified limits during the intervals between integrated leak rate tests. This value allows for possible deterioration in the intervals between tests.

The basis for specification of an airlock door seal leakage rate of $0.023 L_a$ is to provide assurance that the failure of a single airlock door will not result in the total containment leakage exceeding $0.6 L_a$. The seven (7) day LCO specified for exceeding the airlock door leakage limit is acceptable since it requires that the total containment leakage limit is not exceeded.

A reduction in prestressing force and change in physical conditions are expected for the prestressing system. Allowances have been made in the reactor building design for the reduction and changes. The inspection results for each tendon inspected shall be recorded on the forms provided for that purpose and comparison will be made with previous test results and the initial quality control records.

Force-time records will be established and maintained for each of the tendon groups, dome, hoop and vertical. If the force measured for a tendon is less than the lower bound curve of the force-time graph, two adjacent tendons will be tested. If either of the adjacent or more than one of the original sample population falls below the lower bound of the force-time graph, an investigation will be conducted before the next scheduled surveillance. The investigation shall be made to determine whether the rate of force reduction is indeed occurring for other tendons. If the rate of reduction is confirmed, the investigation shall be extended so as to identify the cause of the rate of force reduction. The extension of the investigation shall determine the needed changes in the surveillance inspection schedule and the criteria and initial planning for corrective action.

If the force measured for a tendon at any time exceeds the upper bound curve of the band on the force-time graph, an investigation shall be made to determine the cause.

If the comparison of corrosion conditions, including chemical tests of the corrosion protection material, indicate a larger than expected change in the conditions from the time of installation or last surveillance inspection, and investigation shall be made to detect and correct the causes.⁽⁶⁾

4.5 CONTAINMENT TESTS

Basis (continued)

The prestressing system is a necessary strength element of the plant safeguards and it is considered desirable to confirm that the allowances are not being exceeded. The technique chosen for surveillance is based upon the rate of change of force and physical conditions so that the surveillance can either confirm that the allowances are sufficient, or require maintenance before minimum levels of force or physical conditions are reached.

The end anchorage concrete is needed to maintain the prestressing forces. The design investigations concluded that the design is adequate. The prestressing sequence has shown that the end anchorage concrete can withstand loads in excess of those which result when the tendons are anchored. At the time of initial pressure testing, the containment building had been subjected to temperature gradients equivalent to those for normal operating conditions while the prestressing tendon loads are at their maximum.

However, after the initial pressure test both concrete creep and prestressing losses increase with the greatest rapidity and result in a redistribution of the stresses and a reduction in end anchor force. Because of the importance of the containment and the fact that the design was new, it was considered prudent to continue the surveillance after the initial period. ⁽⁷⁾

Containment dome delamination inspections performed in 1970 and 1982 have confirmed that no concrete delamination has occurred. The possibility that delamination might occur in the future is remote because dome tendon prestress forces gradually diminish through normal tendon relaxation and concrete strength normally increases over time. To account for this remote possibility, however, an additional delamination inspection will be performed in the event that 5% or more of the installed tendons must be retensioned to compensate for excessive loss of prestress. This inspection would be to confirm that any systematic excessive prestress loss did not result from delamination and that the retensioning process did not result in delamination.

References

- (1) Updated FSAR Section 5.8.2.
- (2) Updated FSAR Section 5.8.8
- (3) Updated FSAR 14.22
- (4) Updated FSAR Section 8.5.1.2
- (5) 10 CFR Part 50, Appendix J.
- (6) Regulatory Guide 1.163, "Performance-Based Containment Leak-Test Program", September 1995.

6.4 PROCEDURES

- 6.4.1 Written procedures shall be established, implemented, and maintained covering the activities referenced below:
- a. The applicable procedures recommended in Appendix "A" of Regulatory Guide 1.33, Revision 2, Appendix A, February 1978.
 - b. Refueling operations.
 - c. Surveillance and test activities of safety-related equipment.
 - d. Site Fire Protection Program implementation.
 - e. All programs specified in Specification 6.5.
 - f. Site Security Plan implementation.
 - g. Site Emergency Plan implementation.
- 6.4.2 Procedures and changes shall be approved prior to implementation by the appropriate* senior department manager predesignated by the Plant General Manager subject to the reviews per Specifications 6.8.1.6 and 6.8.3.
- 6.4.3 Temporary changes to procedures of Specification 6.4.1 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 License.
 - c. The change is documented, subsequently reviewed by Plant Safety and Licensing within 30 days of issuance and approved by the appropriate* senior department manager predesignated by the Plant General Manager.
- * The determination of the appropriate senior department manager is based on the activities addressed by the specific procedure and will be predesignated in writing by the Plant General Manager.

ADMINISTRATIVE CONTROLS

| 6.8 REVIEW AND AUDIT

| 6.8.1 PLANT REVIEW COMMITTEE (PRC)

| 6.8.1.1 FUNCTION

The Plant Review Committee (PRC) shall function to advise the Plant General Manager on all matters related to nuclear safety.

| 6.8.1.2 COMPOSITION

The PRC is composed of nine regular members. The qualification level for PRC members shall be at least equivalent to those described in Section 4.4 of ANSI N18.1-1971. The PRC shall include representatives from the Operations, Radiological Services, Maintenance and Engineering Departments. The Chairman, Alternate Chairmen, and members shall be designated in administrative procedures by the Plant General Manager.

| 6.8.1.3 ALTERNATES

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

ADMINISTRATIVE CONTROLS

6.8.1.4 MEETING FREQUENCY

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

6.8.1.5 QUORUM

A quorum of the PRC shall consist of the Chairman or alternate and four members or alternates.

6.8.1.6 RESPONSIBILITIES

The PRC shall be responsible for nuclear safety review of:

- a. All procedures and programs specified by Specification 6.4 and changes thereto, and any other procedures or changes thereto as determined by the Plant General Manager to affect nuclear safety; all proposed tests or experiments that affect nuclear safety; all proposed changes or modifications to plant systems or equipment that affect nuclear safety; and the Site Emergency Plan.
- b. All proposed changes to Operating License and Technical Specifications.
- c. Results of investigations of all violations of the Technical Specifications. (A report shall be prepared covering evaluation and recommendations to prevent recurrence and be forwarded to the Vice President - NOD and to the Director, Nuclear Performance Assessment Department (NPAD).)
- d. Plant operations to detect potential safety hazards.
- e. Reports of special reviews and investigations as requested by the Plant General Manager or NPAD.
- f. All reportable events as defined in 10 CFR 50.73.
- g. All items identified under Specification 6.8.3.4 as significant to nuclear safety.
- h. Monthly reports from Plant Safety and Licensing.
- i. Nuclear industry operating experience.

PRC review of the above items may be performed by routing, subject to the requirements of Specification 6.8.1.7. PRC may delegate review of item a. to Plant Safety and Licensing as described in Specification 6.8.3.

ADMINISTRATIVE CONTROLS

6.8.1.7 AUTHORITY

The PRC shall:

- a. Recommend in writing to the Plant General Manager approval or disapproval of items considered under Specifications 6.8.1.6.a. through i. above.
- b. Render determinations in writing with regard to whether or not each item considered under Specifications 6.8.1.6.a, b, c and g above constitutes an unreviewed safety question.
- c. Provide written notification within 24 hours to the Vice President - Nuclear Operations and to the Nuclear Performance Assessment Department of any disagreements between the PRC and the Plant General Manager; however, the Plant General Manager shall have responsibility for the resolution of such disagreements pursuant to Specification 6.1.1 above.

The PRC Chairman may recommend to the Plant General Manager approval of those items identified in Specification 6.8.1.6 above based on a routing review provided the following conditions are met: (1) at least five PRC members including the Chairman and no more than 2 alternates, shall review the item, concur with determination as to whether or not the item constitutes an unreviewed safety question, and provide written comments on the item; (2) all comments shall be resolved to the satisfaction of the reviewers providing the comments; and (3) if the PRC Chairman determines that the comments are significant, the item (including comments and resolutions) shall be recirculated to all reviewers for additional comments.

The item shall be reviewed at a PRC meeting in the event that: (1) Comments are not resolved; or (2) the Plant General Manager overrides the recommendations of the PRC; or (3) a proposed change to the Technical Specifications involves a safety limit, a limiting safety system setting or a limiting condition for operation; or (4) the item was reportable to the NRC.

6.8.1.8 RECORDS

The PRC shall maintain written minutes of each PRC meeting and shall provide copies to the NPAD.

ADMINISTRATIVE CONTROLS

6.8.2 NUCLEAR PERFORMANCE ASSESSMENT DEPARTMENT (NPAD)

6.8.2.1 FUNCTION

The Nuclear Performance Assessment Department (NPAD) shall function to provide independent review of activities in the areas of:

- a. Nuclear power plant operation
- b. Nuclear engineering
- c. Chemistry and radiochemistry
- d. Metallurgy
- e. Nondestructive testing
- f. Instrumentation and control
- g. Radiological safety
- h. Mechanical and electrical engineering
- i. Administrative controls and quality assurance practices
- j. Emergency Planning
- k. Training

6.8.2.2 COMPOSITION

The NPAD shall include the Director, who reports to the Vice President - NOD, and a full-time staff of Nuclear Performance Specialists reporting to the Director. The Director and the Nuclear Performance Specialists shall meet or exceed the qualifications described in Section 4.7 of ANSI/ANS 3.1-1987. The NPAD shall have no direct responsibility for activities subject to its review.

6.8.2.3 CONSULTANTS

If sufficient expertise is not available within NPAD to review particular issues, the NPAD shall have the authority to utilize consultants or other qualified organizations for expert advice.

6.8.2.4 RESPONSIBILITIES

6.8.2.4.1 REVIEW

The NPAD shall review:

- a. The safety evaluations for: 1) changes to procedures, equipment or systems, and 2) tests or experiments completed under the provisions of 10 CFR 50.59 to verify that such actions do not constitute an unreviewed safety question.
- b. Proposed changes to procedures, equipment or systems which involve an unreviewed safety question as defined in 10 CFR 50.59.

ADMINISTRATIVE CONTROLS

6.8.2.4.1 REVIEW (Continued)

- c. Proposed tests or experiments which involve an unreviewed safety question as defined in 10 CFR 50.59.
- d. Proposed changes to Technical Specifications or the Operating License.
- e. Violations of codes, regulations, orders, Technical Specifications, license requirements, or of internal procedures or instructions having nuclear safety significance.
- f. Significant operating abnormalities or deviations from normal and expected performance of unit equipment that affects nuclear safety.
- g. All reportable events having nuclear safety significance.
- h. All recognized indications of an unanticipated deficiency in some aspect of design or operation of structures, systems, or components that could affect nuclear safety.
- i. Reports and meeting minutes of the Plant Review Committee.
- j. Fire Protection Program and Implementing Procedure Changes.

6.8.2.4.2 AUDITS

Audits of operational nuclear safety-related facility activities shall be performed by the NPAD staff under the cognizance of the Nuclear Performance Specialists. These audits shall encompass:

- a. The conformance of plant 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 Quality Assurance Program Description for Operational Nuclear Power Plants (CPC-2A) to meet the criteria of 10 CFR 50, Appendix B at least once per 24 months.
- d. The Site Emergency Plan and implementing procedures at least once per 12 months.
- e. The Site Security Plan and implementing procedures (as required by the Site Security Plan) at least once per 12 months.

ADMINISTRATIVE CONTROLS

6.8.2.4.2 AUDITS (Continued)

- f. Any other area of plant operation considered appropriate by NPAD or the Vice President - Nuclear Operations.
- g. The plant Fire Protection Program and implementing procedures at least once per 24 months.
- h. An independent fire protection and loss prevention inspection and audit to be performed annually utilizing either qualified offsite licensee personnel or an outside fire protection firm.
- i. An inspection and audit of the fire protection and loss prevention program to be performed by an outside qualified fire consultant at intervals no greater than 3 years.
- j. Radiological environmental monitoring program and the results thereof at least once per 12 months.
- k. The OFFSITE DOSE CALCULATION MANUAL and implementing procedures for processing and packaging of radioactive wastes at least once per 24 months.
- l. The PROCESS CONTROL PROGRAM and implementing procedures for processing and packaging of radioactive wastes at least once per 24 months.

Audit reports encompassed by Specification 6.8.2.4.2 above shall be forwarded to the Director NPAD, and Management positions responsible for the areas audited within thirty (30) days after completion of the audit.

6.8.2.4.3 NPAD review of the subjects in Specifications 6.8.2.4.1 and 6.8.2.4.2 shall be performed by an assigned Nuclear Performance Specialist selected on the basis of his technical expertise relative to the subject being reviewed. If the assigned Nuclear Performance Specialist determines the need for interdisciplinary review, a committee consisting of the Director, NPAD, or his designate, and at least four Nuclear Performance Specialists, shall be assigned. Such committee shall meet as conditions requiring interdisciplinary review arise, but no less than twice yearly.

6.8.2.5 AUTHORITY

The NPAD shall report to and advise the Vice President - NOD of significant findings associated with those areas of responsibility specified in Sections 6.8.2.4.1 and Section 6.8.2.4.2.

ADMINISTRATIVE CONTROLS

6.8.2.6 RECORDS

Records of NPAD activities shall be maintained. Reports shall be prepared and distributed as indicated below:

- a. The results of reviews, performed pursuant to Section 6.8.2.4.1 and Section 6.8.2.4.2, shall be reported to the Vice President - NOD at least monthly.
- b. A report assessing the overall nuclear safety performance of Palisades shall be provided to senior Consumers Power Company management annually.

6.8.3 PLANT SAFETY AND LICENSING

6.8.3.1 FUNCTION

The Plant Safety and Licensing staff shall review proposed changes in design or operation and such other matters as the PRC may assign to identify issues significant to nuclear safety and recommend nuclear safety improvements.

6.8.3.2 COMPOSITION

The Plant Safety and Licensing staff responsible for the review function shall be an experienced technical staff meeting the qualifications of Section 6.3.

6.8.3.3 RESPONSIBILITIES

The Plant Safety and Licensing staff may provide nuclear safety review as delegated by PRC for:

- a. Procedures, programs and changes thereto identified in Specification 6.4 and any additional procedures and changes thereto identified by the Plant General Manager as significant to nuclear safety.
- b. All proposed tests or experiments.
- c. All proposed changes or modifications to plant systems or equipment.
- d. The Site Emergency Plan.

ADMINISTRATIVE CONTROLS

6.8.3.4 AUTHORITY

The Plant Safety and Licensing staff shall determine those issues significant to nuclear safety which require review by the Plant Review Committee from items considered under Specification 6.8.3.3.a through d. For those items not referred to PRC, Plant Safety and Licensing shall recommend in writing to plant management approval or disapproval of items considered under 6.8.3.3.

6.8.3.5 RECORDS

Reports of Plant Safety and Licensing activities pursuant to Specification 6.8.3.3 shall be submitted monthly to PRC.