Mr. Kurt M. Haas
Plant Safety and Licensing Director
Palisades Plant
27780 Blue Star Memorial Highway
Covert, MI 49043

April 20, 1995

SUBJECT: PALISADES PLANT - ISSUANCE OF AMENDMENT RE: ONE-TIME DEFERRAL OF REFUELING INTERVAL SURVEILLANCES (TAC NO. M91548)

Dear Mr. Haas:

The Commission has issued the enclosed Amendment No. 164 to Facility Operating License No. DPR-20 for the Palisades Plant. The amendment consists of changes to the Technical Specifications (TS) in response to your application dated February 10, 1995, as supplemented March 27 and 30, 1995.

The amendment revises the TS to allow a one-time deferral of several 18-month interval surveillance tests until the upcoming scheduled refueling outage to avoid the necessity of imposing a plant shutdown solely for the sake of their performance. The surveillances include channel calibrations for the containment humidity monitor, containment isolation radiation monitors, feedwater flow and temperature, safety injection refueling water tank level, pressurizer pressure, subcooled margin monitor, steam generator level and pressure, primary coolant system flow, and functional tests of one mechanical and two hydraulic snubbers. In your letter of March 30, 1995, you indicated that the following deferrals requested in the February 10, 1995, submittal are not necessary: containment pressure detector testing, calibration of the containment atmospheric radioactive gas monitor, and channel functional testing of the boric acid tank low level alarm switches. The request for deferral of these tests was formally withdrawn in the March 30, 1995, letter.

A copy of our Safety Evaluation is also enclosed. The notice of issuance will be included in the Commission's biweekly Federal Register notice.

Sincerely,

Original signed by

Janet L. Kennedy, Project Manager
Project Directorate III-1
Division of Reactor Projects - III/IV
Office of Nuclear Reactor Regulation

Docket No. 50-255

Enclosures: 1. Amendment No. 164 to DPR-20
2. Safety Evaluation
cc w/encls: See next page
FILENAME: G:\WPDOCS\PALISADE\PAL91548.AMD

OFFICE	LA:PD31	PM:PD31	OGC	AD:PD31
NAME	CJamerson	JKennedy JK	R Bachmann	CCarpenter
DATE	4/15/95	4/5/95	4/19/95	4/17/95

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Palisades Plant

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DATED: April 20, 1995

AMENDMENT NO. 164 TO FACILITY OPERATING LICENSE NO. DPR-20-PALISADES

Docket File
PUBLIC
PDIII-1 Reading
E. Adensam (E-Mail)
J. Hannon
C. Carpenter
C. Jamerson
J. Kennedy
OGC-WF
G. Hill (2)
C. Grimes, O-11F23
E. Lee, O-8H3
A. Lee, O-7E23
ACRS (4)
OPA
OC/LFDCB
W. Kropp, RIII
SEDB

cc: Plant Service list

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

CONSUMERS POWER COMPANY

DOCKET NO. 50-255

PALISADES PLANT

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 164
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 February 10, 1995, as supplemented March 27 and March 30, 1995, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;

   B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;

   C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public; and (ii) that such activities will be conducted in compliance with the Commission's regulations;

   D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public;

   E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to the license amendment and Paragraph 2.C.(2) of Facility Operating License No. DPR-20 is hereby amended to read as follows:

Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 164 , and the Environmental Protection Plan contained in Appendix B are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

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

FOR THE NUCLEAR REGULATORY COMMISSION

Janet L. Kennedy

Janet L. Kennedy, Project Manager
Project Directorate III-1
Division of Reactor Projects - III/IV
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical Specifications

Date of Issuance: April 20, 1995

ATTACHMENT TO LICENSE AMENDMENT NO. 164

FACILITY OPERATING LICENSE NO. DPR-20

DOCKET NO. 50-255

Revise Appendix A Technical Specifications by removing the pages identified below and inserting the attached pages. The revised pages are identified by amendment number and contain vertical lines indicating the areas of change.

REMOVE	INSERT
4-6	4-6
4-71	4-71
4-71a	--
4-72	4-72
4-73	4-73
4-74	4-74
4-74a	4-74a
4-76	4-76
4-77	4-77
4-78	4-78
4-79	4-79
4-80	4-80
4-81	4-81
4-82	4-82

4.1 OVERPRESSURE PROTECTION SYSTEM TESTS

Surveillance Requirements

In addition to the requirements of Specification 4.0.5, each PORV flow path shall be demonstrated OPERABLE by:

1. Testing the PORVs in accordance with the inservice inspection requirements for ASME Boiler and Pressure Vessel Code, Section XI, Section IWV, Category B valves.

2. Performance of a CHANNEL CALIBRATION on the PORV actuation channel at least once per 18 months*.

3. When the PORV flow path is required to be OPERABLE by Specification 3.1.8.1:

   (a) Performing a complete cycle of the PORV with the plant above COLD SHUTDOWN at least once per 18 months.

   (b) Performing a complete cycle of the block valve prior to heatup from COLD SHUTDOWN, if not cycled within 92 days.

4. When the PORV flow path is required to be OPERABLE by Specification 3.1.8.2:

   (a) Performance of a CHANNEL FUNCTIONAL TEST on the PORV actuation channel, but excluding valve operation, at least once per 31 days.

   (b) Verifying the associated block valve is open at least once per 72 hours.

5. Both High Pressure Safety Injection pumps shall be verified incapable of injection into the PCS at least once per 12 hours, unless the reactor head is removed, when either PCS cold leg temperature is <300°F, or when both shutdown cooling suction valves, MO-3015 and MO-3016, are open.

Basis

With the reactor vessel head installed when the PCS cold leg temperature is less than 300°F, or if the shutdown cooling system isolation valves MO-3015 and MO-3016 are open, the start of one HPSI pump could cause the Appendix G or the shutdown cooling system pressure limits to be exceeded; therefore, both pumps are rendered inoperable.

* For Cycle 11 only, this surveillance need not be performed until prior to startup for Cycle 12.

Amendment No. ~~130, 149, 160~~, ~~162~~, ~~163~~ 164,

4.16 INSERVICE INSPECTION PROGRAM FOR SHOCK SUPPRESSORS (Snubbers)

Applicability

Applies to periodic surveillance of safety-related snubbers as described per Specification 3.20.

4.16.1 Specifications

Each snubber shall be demonstrated OPERABLE by performance of the following augmented inservice inspection program in addition to the requirements of Specification 4.0.5. As used in this specification, "type of snubber" shall mean snubbers of the same design and manufacturer, irrespective of capacity.

a. Visual Inspection

Snubbers are categorized as inaccessible or accessible during reactor operation. Each of these categories (inaccessible and accessible) may be inspected independently according to the following paragraph:

If one or more unacceptable snubbers are found, the next inspection interval shall be 2/3 (-25%) of the previous interval. If no unacceptable snubbers are found, the next interval may be doubled (-25%), but not to exceed 48 months. The interval extension provisions of Technical Specification 4.0.2 are applicable for all inspection intervals up to and including 48 months.

Inspections performed before the interval has elapsed may be used as a new reference point to determine the next inspection. However, the results of such early inspections, performed before the original required time interval has elapsed (nominal time less 25%), may not be used to lengthen the required inspection interval. Any inspection whose results require a shorter inspection interval will override the previous schedule.

b. Visual Inspection Acceptance Criteria

Visual inspection shall verify that (1) the snubber has no visible indications of damage or impaired OPERABILITY, (2) attachments to the foundation or supporting structure are functional, and (3) fasteners for the attachment of the snubber to the component and to the snubber anchorage are functional. Snubbers which appear inoperable as a result of visual inspections shall be classified as unacceptable and may be reclassified acceptable for the purpose of establishing the next visual inspection interval, provided that (1) the cause of the rejection is clearly established and remedied for that particular snubber and for other snubbers, irrespective of type, that may be generically susceptible; and (2) the affected snubber is functionally tested in the as-found condition and determined OPERABLE per Technical Specification 4.16.1d or 4.16.1e, as applicable. All snubbers found connected to an inoperable common hydraulic fluid reservoir shall be counted as unacceptable for determining the next inspection interval.

4.16 INSERVICE INSPECTION PROGRAM FOR SHOCK SUPPRESSORS (Snubbers)

4.16.1 b. Visual Inspection Acceptance Criteria (continued)

A review and evaluation shall be performed and documented to justify continued operation with an unacceptable snubber. If continued operation cannot be justified, the snubber shall be declared inoperable and the action requirements shall be met.

c. Functional Tests*

At least once per 18 months during shutdown, a representative sample (10% of the total safety-related snubbers in use at the plant) shall be functionally tested either in place or in a bench test. The test shall verify the snubber has freedom of movement and is not frozen up. For each snubber which did not meet the functional test acceptance criteria of Specification 4.16.1.d or 4.16.1.e, an additional 10% of the total shall be functionally tested.(1)

The representative sample selected for functional testing shall include the various configurations, operating environments and the range of size and capacity of snubbers. Snubbers identified as especially difficult to remove or in high radiation zones during shutdown shall also be included in the representative sample.(2)

In addition to the regular sample, snubbers which failed the previous functional test shall be retested during the next test period. If a spare snubber has been installed in place of a failed snubber, then both the failed snubber (if it is repaired and installed in another position) and the spare snubber shall be retested. Test results of these snubbers may not be included for the resampling.

If any snubber selected for functional testing either fails to lockup or fails to move, i.e., frozen in place, the cause will be evaluated and, if caused by manufacturer or design deficiency, all snubbers of the same design subject to the same defect shall be functionally tested. This testing requirement shall be independent of the requirements stated above for snubbers not meeting the functional test acceptance criteria.

1 Snubbers of rated capacity greater than 50,000 pounds are not to be included when defining the total number of safety-related snubbers in use at the plant.

2 Permanent or other exemptions from functional testing for individual snubbers may be granted by the Commission only if a justifiable basis for exemption is presented and/or snubber life destructive testing was performed to qualify snubber operability for all design conditions at either the completion of their fabrication or at a subsequent date.

* For Cycle 11 only, this surveillance need not be performed until prior to startup for Cycle 12.

4.16 INSERVICE INSPECTION PROGRAM FOR SHOCK SUPPRESSORS (Snubbers)

4.16.1 c. Functional Tests* (continued)

Snubbers of rated capacity greater than 50,000 pounds will be functionally tested in lots comprising 25% of their total during each refueling outage. In the event of one snubber failure out of the four tested, no additional snubbers will be tested provided the problem is non-generic. For each additional snubber failure, however, two additional snubbers will be tested until no further snubber failures are identified or all snubbers have been tested. Generic failures will be handled as the specific circumstances require.

For the snubber(s) found inoperable, an engineering evaluation shall be performed on the components which are suppressed by the snubber(s). The purpose of this engineering evaluation shall be to determine if the components suppressed by the snubber(s) were adversely affected by the inoperability of the snubber(s) in order to ensure that the suppressed component remains capable of meeting the designed service.

d. Hydraulic Snubbers Functional Test Acceptance Criteria

The hydraulic snubber functional test shall verify that:

1. Activation (restraining action) is achieved within the specified range of velocity or acceleration in both tension and compression.

2. Snubber bleed, or release rate, where required, is within the specified range in compression or tension. For snubbers specifically required not to displace under continuous load, the ability of the snubber to withstand load without displacement shall be verified.

e. Mechanical Snubbers Functional Test Acceptance Criteria

The mechanical snubber functional test shall verify that:

1. The force that initiates free movement of the snubber rod in either tension or compression is less than the specified maximum drag force (break away friction).

2. Activation (restraining action) is achieved within the specified range of velocity or acceleration in both tension and compression.

3. Snubber release rate, where required, is within the specified range in compression or tension. For snubbers specifically required not to displace under continuous load, the ability of the snubber to withstand load without displacement shall be verified.

* For Cycle 11 only, this surveillance need not be performed until prior to startup for Cycle 12.

4.16 INSERVICE INSPECTION PROGRAM FOR SHOCK SUPPRESSORS (Snubbers)

4.16.1 f. Snubber Service Life Monitoring

A record of the service life of each snubber, the date at which the designated service life commences and the installation and maintenance records on which the designated service life is based shall be maintained as required by Specification 6.10.2.1.

Concurrent with the first inservice visual inspection and at least once per 18 months thereafter, the installation and maintenance records for each safety related snubber in use in the plant shall be reviewed to verify that the indicated service life has not been exceeded or will not be exceeded prior to the next scheduled service life review. If the indicated service life will be exceeded prior to the next scheduled snubber service life review, the snubber service life shall be reevaluated or the snubber shall be replaced or reconditioned so as to extend its service life beyond the date of the next scheduled service life review. This re-evaluation, replacement or reconditioning shall be indicated in the records.

4.16 INSERVICE INSPECTION PROGRAM FOR SHOCK SUPPRESSORS (Snubbers)

4.16 Basis

The visual inspection frequency is based upon maintaining a constant level of snubber protection to systems. Therefore, the required inspection interval varies inversely with the observed snubber failures and is determined by the number of inoperable snubbers found during an inspection. Inspections performed before that interval has elapsed may be used as a new reference point to determine the next inspection. However, the results of such early inspections, performed before the original required time interval has elapsed (nominal time less 25%) may not be used to lengthen the required inspection interval. Any inspection whose results require a shorter inspection interval will override the previous schedule.

When the cause of the rejection of a snubber is clearly established and remedied for the snubber and for any other snubbers that may be generically susceptible, and verified by inservice functional testing, that snubber may be exempted from being counted as inoperable. Generically susceptible snubbers are those which are of a specific make or model and have the same design features directly related to rejection of the snubber by visual inspection, or are similarly located or exposed to the same environmental conditions such as temperature, radiation and vibration.

When a snubber is found inoperable, an engineering evaluation is performed, in addition to the determination of the snubber mode of failure, in order to determine if any safety-related component or system has been adversely affected by the inoperability of the snubber. The engineering evaluation shall determine whether or not the snubber mode of failure has imparted a significant effect or degradation on the supported component or system.

To provide assurance of snubber functional reliability, a representative sample of the installed snubbers, excluding snubbers of rated capacity greater than 50,000 pounds, will be functionally tested at 18 month intervals. A representative sample of snubbers of rated capacity greater than 50,000 pounds will be functionally tested each refueling outage.

Hydraulic snubbers and mechanical snubbers may each be treated as a different entity for the above surveillance programs.

The service life of a snubber is evaluated via manufacturer input and information through consideration of the snubber service conditions and associated installation and maintenance records (newly installed snubber, seal replaced, spring replaced, in high radiation area, in high-temperature area, etc. . .). The requirement to monitor the snubber service life is included to ensure that the snubbers periodically undergo a performance evaluation in view of their age and operating conditions. These records will provide statistical bases for future consideration of snubber service life. The requirements for the maintenance of records and the snubber service life review are not intended to affect plant operation.

4.17 INSTRUMENTATION SYSTEMS TESTS

Table 4.17.1

Instrumentation Surveillance Requirements for Reactor Protective System

	Functional Unit	CHANNEL CHECK	CHANNEL FUNCTIONAL TEST	CHANNEL CALIBRATION
1.	Manual Trip	NA	(a)	NA
2.	Variable High Power	12 hours	31 days	(b, c, & d)
3.	High Start Up Rate	12 hours	(a)	18 months[e]
4.	Thermal Margin/ Low Pressure	12 hours	31 days	18 months*
5.	High Pressurizer Pressure	12 hours	31 days	18 months*
6.	Low RCS Flow	12 hours	31 days	18 months*
7.	Loss of Load	NA	(a)	18 months
8.	Low "A" SG Level	12 hours	31 days	18 months*
9.	Low "B" SG Level	12 hours	31 days	18 months*
10.	Low "A" SG Pressure	12 hours	31 days	18 months*
11.	Low "B" SG Pressure	12 hours	31 days	18 months*
12.	High Containment Pressure	NA	31 days	18 months
13.	RPS Matrix Logic	NA	31 days	NA
14.	RPS Initiation Logic	NA	31 days	NA
15.	Thermal Margin Monitor; Verify constants each 92 days.			

(a) Once within 7 days prior to each reactor startup.

(b) Calibrate with Heat Balance each 24 hours, when > 15% RATED POWER.

(c) Calibrate Excores channels with test signal each 31 days.

(d) CHANNEL CALIBRATION each 18 months.

(e) Include verification of automatic Zero Power Mode Bypass removal.

* For Cycle 11 only, this surveillance need not be performed until prior to startup for Cycle 12.

Amendment No. ~~118~~, ~~130~~, ~~136~~, ~~150~~, ~~162~~, 164

Table 4.17.2
Instrumentation Surveillance Requirements for
Engineered Safety Features

	Functional Unit	CHANNEL CHECK	CHANNEL FUNCTIONAL TEST	CHANNEL CALIBRATION
1.	Safety Injection Signal (SIS)			
a.	Manual Initiation	NA	18 months	NA
b.	SIS Logic (Initiation, Actuation, and low pressure block auto reset)	NA	(a)	NA
c.	CHP Signal SIS initiation (5P Relay Output)	NA	18 months	NA
d.	Pressurizer Pressure Instrument Channels	12 hours	31 days	18 months*
2.	Recirculation Actuation Signal (RAS)			
a.	Manual Initiation	NA	18 months	NA
b.	RAS Logic	NA	18 months*	NA
c.	SIRWT Level Switches	NA	18 months*	18 months*
3.	Auxiliary Feedwater Actuation Signal (AFAS)			
a.	Manual Initiation	NA	18 months	NA
b.	AFAS Logic	NA	92 days	NA
c.	"A" SG Level	12 hours	31 days	18 months*
d.	"B" SG Level	12 hours	31 days	18 months*
4.	Emergency Power Sequencers			
a.	DBA Sequencer	NA	92 days	18 months
b.	Normal Shutdown Sequencer	NA	18 Months	18 months

(a) Test normal and emergency power functions using test circuits each 92 days. Verify all automatic actuations and automatic resetting of low pressure block each 18 months.

* For Cycle 11 only, this surveillance need not be performed until prior to startup for Cycle 12.

Amendment No. ~~162~~, 164

Table 4.17.3

Instrumentation Surveillance Requirements for Isolation Functions

Functional Unit	CHANNEL CHECK	CHANNEL FUNCTIONAL TEST	CHANNEL CALIBRATION
1. Containment High Pressure (CHP)			
a. CHP logic Trains	NA	18 months	NA
b. Containment Pressure Switches - Left Train	NA	31 days	18 months
c. Containment Pressure Switches - Right Train	NA	31 days	18 months
2. Containment High Radiation (CHR)			
a. Manual Initiation	NA	18 months	NA
b. CHR Logic Trains	NA	18 months	NA
c. Containment Area Radiation Monitors	12 hours	31 days	18 months*
3. Steam Generator Low Pressure (SGLP)			
a. Manual Actuation	NA	18 months	NA
b. SGLP Logic Trains	NA	18 months	NA
c. "A" Steam Generator Pressure	12 hours	31 days	18 months*
d. "B" Steam Generator Pressure	12 hours	31 days	18 months*
4. Engineered Safeguards Pump Room High Radiation			
a. East Room Monitor	12 hours	31 days	18 months
b. West Room Monitor	12 hours	31 days	18 months

* For Cycle 11 only, this surveillance need not be performed until prior to startup for Cycle 12.

Amendment No. ~~162~~, 164

Table 4.17.4

Instrumentation Surveillance Requirements for Accident Monitoring

	Instrument	CHANNEL CHECK	CHANNEL CALIBRATION
1.	Wide Range T_H	31 days	18 months
2.	Wide Range T_C	31 days	18 months
3.	Wide Range Flux	31 days	18 months
4.	Containment Floor Water Level	31 days	18 months
5.	Subcooled Margin Monitor	31 days	18 months*
6.	Wide Range Pressurizer Level	31 days	18 months
7.	Containment H_2 Concentration	31 days	18 months
8.	Condensate Storage Tank Level	31 days	18 months
9.	Wide Range Pressurizer Pressure	31 days	18 months*
10.	Wide Range Containment Pressure	31 days	18 months
11.	Wide Range "A" SG Level	31 days	18 months*
12.	Wide Range "B" SG Level	31 days	18 months*
13.	Narrow Range "A" SG Pressure	31 days	18 months*
14.	Narrow Range "B" SG Pressure	31 days	18 months*
15.	Position Indication for each Containment Isolation Valve	31 days	18 months
16.	Core Exit Thermocouples (CET) Quadrant 1	31 days	18 months[a]
17.	Core Exit Thermocouples (CET) Quadrant 2	31 days	18 months[a]
18.	Core Exit Thermocouples (CET) Quadrant 3	31 days	18 months[a]
19.	Core Exit Thermocouples (CET) Quadrant 4	31 days	18 months[a]
20.	Reactor Vessel Water Level (RVWL)	31 days	18 months
21.	High Range Containment Radiation	31 days	18 months*

(a) Calibrate by substituting a known voltage for thermocouple.

* For Cycle 11 only, this surveillance need not be performed until prior to startup for Cycle 12.

Amendment No. ~~162~~, 164

Table 4.17.5

Instrumentation Surveillance Requirements for Alternate Shutdown System

	Instrument or Control	CHANNEL CHECK	CHANNEL FUNCTIONAL TEST	CHANNEL CALIBRATION
1.	Start-up Range Flux	(a)	(a)	18 months
2.	Pressurizer Pressure	92 days	NA	18 months*
3.	Pressurizer Level	92 days	NA	18 months
4.	#1 Hot Leg Temperature	92 days	NA	18 months
5.	#2 Hot Leg Temperature	92 days	NA	18 months
6.	#1 Cold Leg Temperature	92 days	NA	18 months
7.	#2 Cold Leg Temperature	92 days	NA	18 months
8.	"A" SG Pressure	92 days	NA	18 months*
9.	"B" SG Pressure	92 days	NA	18 months*
10.	"A" SG Level	92 days	NA	18 months*
11.	"B" SG Level	92 days	NA	18 months*
12.	SIRW Tank Level	92 days	NA	18 months
13.	P-8B Flow to "A" SG	18 months	18 months	18 months
14.	P-8B Flow to "B" SG	18 months	18 months	18 months
15.	P-8B Low Suction Alarm	NA	18 months	18 months
16.	P-8B Steam Valve Control	NA	18 months	NA
17.	AFW Flow Control "A" SG	NA	18 months	NA
18.	AFW Flow Control "B" SG	NA	18 months	NA
19.	Transfer Switches, C-150	NA	18 months	NA
20.	Transfer Switch, C-150A	NA	18 months	NA

(a) Once within 7 days prior to each reactor startup.

* For Cycle 11 only, this surveillance need not be performed until prior to startup for Cycle 12.

Amendment No. ~~122~~, ~~136~~, ~~162~~, 164

Table 4.17.6

Instrumentation Surveillance Requirements for Other Safety Functions

	Instrument	CHANNEL CHECK	CHANNEL FUNCTIONAL TEST	CHANNEL CALIBRATION
1.	Neutron Flux Monitoring	12 hours	(a)	18 months
2.	Rod Position Indication	12 hours	(b)	18 months
3.	SIRW Tank Temperature	12 hours	NA	18 months
4.	Main Feedwater Flow	12 hours	Not Required	18 months*
5.	Main Feedwater Temp.	12 hours	Not Required	18 months*
6.	AFW Flow Indication	12 hours	18 months	18 months
7.	PCS Leakage Detection:			
	a. Sump Level	12 hours	18 months	18 months
	b. Atmos. Gas Monitor	12 hours	18 months	18 months
	c. Humidity Monitor	12 hours	18 months	18 months*
	d. Air Cooler Condensate Flow Switch	NA	18 months	Not Required
8a.	Primary Safety Valve acoustical monitor	NA	18 months	18 months
8b/ 9a.	Safety Valve / PORV[c] tailpipe temperature	12 hours	18 months	18 months
9b.	PORV Acoustical Monitor	NA	18 months	18 months
9c.	PORV Stem Position	12 hours	18 months	18 months
10.	PORV Block Valve Position Indication	12 hours	NA	18 months

(a) Once within 7 days prior to each reactor startup.

(b) Verification of Regulating Rod Withdrawal and Shutdown Rod Insertion interlocks OPERABILITY only, once within 92 days prior to each reactor startup AND once prior to startup after each refueling.

(c) The tailpipe temperature indicator is common to the safety valves and PORVs

* For Cycle 11 only, this surveillance need not be performed until prior to startup for Cycle 12.

(continued)

Table 4.17.6 (continued)

Instrumentation Surveillance Requirements for Other Safety Functions

	Instrument	CHANNEL CHECK	CHANNEL FUNCTIONAL TEST	CHANNEL CALIBRATION
11.	SWS Break Detector	NA	18 months	18 months
12.	Flux - ΔT Comparator	12 hours	31 days	18 months
13.	Rod Group Sequence Control/Alarm	NA	18 months	18 months
14.	BAT Low Level Alarm	NA	18 months	Not Required
15.	Excore Deviation Alarm	NA	18 months	18 months
16.	ASI Alarm	NA	18 months	18 months
17.	SDC Suction Interlocks	NA	18 months*	18 months*
18.	PDIL Alarm	NA	31 days[d]	18 months
19.	Fuel Pool Rad Monitor	24 hours	31 days	18 months
20.	Containment Refueling Radiation Monitor	24 hours	31 days	18 months

(d) Setpoint verification only.

* For Cycle 11 only, this surveillance need not be performed until prior to startup for Cycle 12.

Amendment No. ~~162~~, 164

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 164 TO FACILITY OPERATING LICENSE NO. DPR-20

CONSUMERS POWER COMPANY

PALISADES PLANT

DOCKET NO. 50-255

1.0 INTRODUCTION

By letter dated February 10, 1995, Consumers Power Company (the licensee) requested an amendment to the Technical Specifications (TS) appended to Facility Operating License No. DPR-20 for the Palisades Plant. The proposed amendment would revise the TS to allow a one-time deferral of several 18-month interval surveillance tests until the upcoming scheduled refueling outage to avoid the necessity of imposing a plant shutdown solely for the sake of their performance. The surveillance tests include channel functional and channel calibration tests for certain instrument surveillances, as well as three surveillance requirements for plant snubbers. Currently, the plant is scheduled to enter hot standby on May 28, 1995, and be in cold shutdown by June 1, 1995. All of the requested surveillance extensions are associated with surveillances normally performed during refueling outages. The current cycle will be lengthened by approximately 5 weeks due to the number of days of continuous operation without a forced outage.

In a letter dated March 27, 1995, the licensee provided additional information on instrument drift observed during previous performances of the instrument surveillance tests, calculated estimates of the maximum expected drift which might occur if the surveillance tests were delayed, and short discussions of the instruments and test methods involved. In addition, the March 27, 1995, letter noted that the following surveillance tests which were originally identified as needing deferral until the upcoming refueling outage no longer needed relief:

1. The containment pressure detector testing that was scheduled to take place on April 24, 1995, is a preliminary test which only records the as-found settings. The actual calibration of these pressure switches will not become due until after the scheduled start of the upcoming refueling outage.

2. Calibration of the containment atmospheric radioactive gas monitor can be done while the plant is in operation and has been completed.

3. The channel functional testing of the boric acid tank low level alarm switches will be completed as scheduled.

In a letter dated March 30, 1995, the licensee formally withdrew its request for deferral of the above surveillance requirements.

The March 27 and 30, 1995, letters provided clarifying information which was within the scope of the initial notice and did not affect the staff's original proposed no significant hazards consideration determination.

2.0 EVALUATION

2.1 Instrumentation Surveillance Requirements

The surveillance instruments associated with this request for a one-time only extension are in the instrumentation surveillance groups of the reactor protective system (RPS), engineered safety features (ESF), isolation functions (IF), accident monitoring (AM), alternate shutdown system (ASS), and other safety functions (OSF). By letter dated March 27, 1995, the licensee provided additional information on the results of analyses on each of the instruments associated with this extension based on as-found and as-left values recorded during the past two surveillance tests to show that this TS change will not involve a significant hazard.

The staff followed guidance in Generic Letter (GL) 91-04, "Changes in Technical Specifications Surveillance Intervals to Accommodate a 24-Month Fuel Cycle." GL 91-04 provides guidance to licensees wishing to take advantage of improvements in reactor fuels to increase the duration of the fuel cycle for their facilities. Although Consumer Power Company requested only a one-time surveillance extension, not a permanent change to a 24-month fuel cycle, some of the guidance of GL 91-04 does apply. The staff applied the following statements in GL 91-04 during its review:

> The NRC staff has reviewed a number of requests to extend 18-month surveillances to the end of a fuel cycle and a few requests for changes in surveillance intervals to accommodate a 24-month fuel cycle. The staff has found that the effect on safety is small because safety systems use redundant electrical and mechanical components and because licensees perform other surveillances during plant operation that confirm that these systems and components can perform their safety functions. Nevertheless, licensees should evaluate the effect on safety of an increase in 18-month surveillance intervals to accommodate a 24-month fuel cycle. This evaluation should support a conclusion that the effect on safety is small. Licensees should confirm that historical plant maintenance and surveillance data support this conclusion.

Table 1 identifies the list of TS sections and functional units that are affected by this amendment request:

TABLE 1

SYSTEM	AFFECTED TS	AFFECTED FUNCTIONAL UNITS
RPS	4.17.1 (Nos. 4, 5, 6, 8, 9, 10, 11)	Thermal Margin/Low Pressure, High Pressurizer Pressure, Low PCS Flow, Low "A" steam generator (SG) Level, Low "B" SG Level, Low "A" SG Pressure, Low "B" SG Pressure
ESF	4.17.2 (Nos. 1.d, 2.b & c, 3.c & d)	Safety Injection Signal Pressurizer Pressure, Recirculation Actuation Signal Logic & SIRWT Level Switches, Auxiliary Feedwater Actuation Signal "A" SG Level & "B" SG Level.
IF	4.17.3 (Nos. 2.c, 3.c & d)	Containment Area High Radiation Monitor, SG Low Pressure for "A" SG & "B" SG
AM	4.17.4 (Nos. 5, 9, 10, 11, 12, 13, 14, 21)	Subcooled Margin Monitor, Wide Range Pressurizer Pressure, Wide Range Containment Pressure, Wide Range "A" SG Level, Wide Range "B" SG Level, Narrow Range "A" SG Pressure, Narrow Range "B" SG Pressure, High Range Containment Radiation
ASS	4.17.5 (Nos. 2, 8, 9, 10, 11)	Pressurizer Pressure, "A" SG Pressure, "B" SG Pressure, "A" SG Level, "B" SG Level.
OSF	4.17.6 (Nos. 4, 5, 7.c, 17, 18)	Main Feedwater Flow, Main Feedwater Temp., PCS Leakage Detection: Humidity Monitor, SDC Suction Interlocks, PDIL Alarm.

The licensee requested an extension for selected instrument surveillances because on-line surveillance tests are not possible because of the following reasons: (1) the instrument is located in an inaccessible area, (2) the instrument is located in a high radiation area, or (3) the instrument is located in a high-noise area during operation. In addition, performance of some of these surveillance tests on-line may cause unwanted plant conditions and danger to plant personnel. Attachment 2 of the March 27, 1995, letter provides additional reasons for not performing each surveillance.

The licensee stated in its February 10, 1995, letter that most of the affected instrumentation is monitored each shift by channel check which would disclose major failures or significant drift. In addition, the deferral of these surveillance tests will not introduce any new operating conditions or change equipment operating procedures, plant systems, or equipment. Therefore, operation of the facility in accordance with the proposed TS would not involve a significant reduction in a safety margin.

By letter dated March 27, 1995, in response to a staff request for additional information, the licensee reported the analyses, which included calculations, it performed to project the expected drift of each instrument. The licensee stated that for these analyses, only the as-found and as-left measurements recorded during the past two surveillance intervals were used to project the

instrument drift because the earlier test data are not readily comparable to the later data because of a change in the Palisades testing methodology which occurred in 1991.

The licensee projected the future observed value of each instrument by linearly extrapolating the as-found and as-left measurements recorded during the past two surveillance intervals to June 1, 1995, the cold shutdown date. Except for a few instruments, two projections were made for each instrument. The first projection is based on as-found and as-left data recorded during the first surveillance interval (10/18/90 - 4/2/92), and the second projection is based on as-found and as-left data recorded during the second surveillance interval (4/2/92 - 7/8/93). The licensee stated that only the overpressure protection system (TS 3.1.8.2 and 4.1) is required to be operable when the plant is in cold shutdown. The licensee projected 178 future observation values for the 97 instruments and found that the results fell within 5 categories: (1) instrument drift is expected to fall within the required tolerance, (2) instrument drift is expected to fall outside the required tolerance, but the drift is in the conservative direction, (3) instrument drift is expected to fall outside the required tolerance and the drift is in the less conservative direction, (4) instrument drift is expected to exceed the TS required setpoint, or (5) instrument drift is expected to fall outside the tolerance limits, but the instrument is used for indication only purposes.

2.1.a Instrument Drift Within the Required Tolerance

Of the 97 instruments, 79 instruments were calculated to have drift that fell within the required tolerance. These instruments include low temperature overpressure protection (LTOP) arming temperature input, LTOP setpoint computer temperature input, LTOP wide range pressure input, thermal margin/low pressure input to the reactor trip, pressurizer pressure, flow input to the low primary coolant system (PCS) flow reactor trip, SG pressure, containment area radiation monitors, subcooled margin monitor, SG level indication, and main feedwater flow and temperature. Based on a review of the licensee's expected drift calculations, and explanations of these instruments, the staff concluded that a one-time surveillance extension for these 79 instruments is acceptable.

2.1.b Instrument Drift Outside Tolerance - Conservative Direction

The second category of instruments were those whose drift was expected to fall outside the required tolerance, but the drift would occur in the conservative direction. The following instruments fall within this category:

1. I/E 0104A/B, narrow range pressure input to the LTOP computer
2. FA-0102A, flow input to the low PCS flow reactor trip
3. LA-0751C, SG A level input to the low SG level reactor trip
4. LA-0752B/C, SG B level input to the low SG level reactor trip
5. LS-0752B, SG B level input to the auxiliary feedwater initiation
6. PS-0104A/B, PCS pressure input to the shutdown cooling (SDC) interlock

The licensee stated that for instruments whose drift is expected to exceed the required tolerance, but the drift is in the conservative direction, actuating

the safety system earlier than the designed setpoint will not compromise the instrument function and would not affect the operability of any other safety function. Based on a review of the licensee's expected drift calculations, explanations, and an analysis of these instruments, the staff concluded that a one-time surveillance extension is acceptable.

2.1.c Instrument Drift Outside Tolerance - Non-Conservative Direction

The licensee projected that two SG level instruments would drift beyond the tolerance limits in a non-conservative direction. The projected future observed values, however, were well within the TS setting limits. For these channels, the licensee examined the SG level instrument electric bistable switches' input signal which represents the monitored plant conditions, such as level or pressure, and performed additional analysis to show that these channel instruments would drift within the tolerance limits.

LS-0751A, 0751B, 0751C, and 0751D for SG "A" and LS-0752A, 075B 0752C, and 0752D for SG "B" are electronic bistable switches which receive their input signals from differential pressure transmitters located in the containment air room. These transmitters supply the input signal for the low SG level auxiliary feedwater initiation. The licensee projected that the input signals for LS-0751A and LS-0752C would drift beyond their tolerance limits in a non-conservative direction.

The input to SG level instrument LS-0751A is projected to drift beyond the tolerance limits: (1) in a conservative direction if the projection is based on data from the first interval, and (2) in a non-conservative direction if the projection is based on data from the second interval. The licensee measured the input to another bistable (LA-0751A) in the same transmitter circuit and performed an analysis to show that the excessive drift in the same transmitter does not appear to be occurring during this operating cycle.

The input to SG level instrument LS-0752C is also projected to drift slightly beyond the tolerance band in the non-conservative direction. The licensee stated that this slight deviation from the normal tolerance is of no safety significance because the projected drift based on data from the first interval is only 0.2% of the allowed tolerance span, and the projected drift based on data from the second interval is within the tolerance band. The projected drift based on the average of the two projections is within the tolerance band. In addition, the projected drifts for LS-0752C are well within the TS setting requirements.

The requested TS change extends the SG level surveillance interval by only 7 days. The Palisades TS allow continued operation with an inoperable SG level channel for that same period (TS 3.17.2, Action Statement 2). Based on the licensee's analysis, the staff concludes that a one-time deferral of the subject surveillance tests is acceptable.

2.1.d Instrument Drift Beyond the TS Requirements

The three instruments that are projected to drift beyond the TS limits are one PCS pressure instrument (PA-102CL) and two SG level instruments, one for a low

SG level reactor trip (LA-0751A), and the other for auxiliary feedwater initiation (LS-0752A). The licensee examined the pressure instruments and SG level instruments electric bistable switches' input signals and performed additional analyses to show that these channel instruments would not drift beyond the tolerance band.

The input to PCS pressure instrument PA-102CL is projected to drift very little if the projection is based on the data from the first historical interval, and beyond the TS limits if the projection is based on data from the second interval. In order to determine the instrument drift during the current operating cycle, the licensee measured the actual input signals being sent to PA-0102CL and to its redundant channels. The measured input signal to PA-102CL is less than the average input signal of its redundant channel by 0.2% of total tolerance allowed. A large signal difference represents a larger drift in PCS pressure instrument PA-102CL drift. Based on this analysis, the licensee concluded that excessive drift of the input to PA-0102CL is not as significant as the first projection. The licensee also stated that it verifies the bistable device setting during the monthly channel functional test.

Low SG level reactor trip instrument LA-0751A is predicted to drift beyond the tolerance limits in a conservative direction if the prediction is based on the data from the first historical interval, and beyond the TS limits in a non-conservative direction if the prediction is based on the second historical interval. The licensee performed measurements similar to those taken for PA-0102CL and showed that the input signal to LS-0752A differs from the average input signal of its redundant channels by 0.6% of the total tolerance allowed. Based on these measurements and the analysis, the licensee concluded that excess drift of the input to LA-0751A is not occurring as predicted in this operating cycle.

One of the two projections for the input to SG level instrument LS-0752A projects it to drift below the TS limit, but only because an actual component failure, a faulty power supply, occurred within the historical data period being examined. The licensee stated that this prediction is invalid because the prediction is based on the large drift caused by a faulty power supply. The licensee corrected the faulty power supply and stated that the projected drift based on the corrected power supply is well within the tolerance limits.

For the SG level instruments, Palisades TS allow continued operation with one channel inoperable for 7 days (TS 3.17.2, Action Statement 2). The proposed TS amendment only requests a 7-day extension. Based on the licensee's analysis and the current TS requirements, the staff concluded that the request for a one-time extension of the three surveillance tests is acceptable.

2.1.e Instrument Drift Outside Tolerance - Indication Only Instrumentation

Four instruments are projected to drift beyond the tolerance limits. These include the subcooled margin monitor (SMM) temperature input, two containment atmosphere humidity indications, and one wide range pressurizer level indication. The licensee stated that these instruments only provide

information to a plant operator. No automatic initiations or interlocks are actuated by these instruments.

The loop 1 temperature input to the SMM instrument, I/I-0112CC, is predicted to drift in a conservative direction. The I/I's provide the SMM computers with reference PCS temperatures which the SMM computers use the highest temperature in each SMM channel to determine corresponding saturation pressure. The PCS pressure input is subtracted from the calculated saturation pressure. The resultant pressure can be displayed by the SMM computer. All projected values fell within the drift tolerance except for the projected 1991-1992 drift for I/I-0112CC. Because the SMM's do not provide a protective function or equipment actuation, and the instrument drift is in the conservative direction, the staff concluded that a one-time extension of this surveillance requirement is acceptable.

Two out of four containment atmosphere humidity indications, HI-1813 and HI-1814, are predicted to drift beyond the tolerance band when containment humidity is near 100%. However, HI-1813 and HI-1814 are expected to drift within tolerance limits if the containment humidity is not near 100%. The normal containment humidity is about 20% to 30% near the SGs. The licensee stated that because the containment humidity detectors' main function is to inform of short-term trends in containment humidity for detecting any leaks, neither slow drift nor small calibration errors would detract from their functions. In addition, the licensee stated that Palisades has three other type of leakage detection instruments, and a PCS inventory check is performed as an indication of system integrity.

Wide range pressurizer level indicators, PI-0105A and PI-0105B, are analog pressure indicators. All calculated expected drifts for PI-0105A and PI-0105B were within the drift tolerance limits, except for the projected drift for PI-0105B. In order to determine if drift is actually occurring, the licensee compared the PI-0105B's actual pressure indication, which was checked on March 17, 1995, with the four narrow range pressurizer pressure indicators. The results were as follows:

PI-0105B	2060 psia
PIA-0102ALL	2060 psia
PIA-0102BLL	2060 psia
PIA-0102CLL	2060 psia
PIA-0102DLL	2060 psia

The licensee stated that the above comparison shows that there has not been any significant drift in the "B" wide range pressurizer pressure indication since the last calibration.

Based on the licensee's analysis and explanations, the staff concluded that the request for a one-time surveillance extension for the SMM, containment atmosphere humidity indicators, and wide range pressurizer level indicator is acceptable and the overall effect on safety is negligible.

2.2 Snubber Surveillances

According to the licensee, Palisades' snubber functional testing was performed during the last refueling outage (June 4, 1993, to November 8, 1993). Because of intervening maintenance outages early in the cycle, the start of the upcoming refueling outage, currently scheduled on May 28, 1995, will occur about 2 months past the TS surveillance interval (18 months plus 25% grace period) after the last performance of some of the tests.

In its February 10, 1995 letter, the licensee stated that recent snubber testing experience shows no failures since an enhanced rebuilding and replacement program was initiated in 1988. The testing to be deferred involves one mechanical snubber and two hydraulic snubbers out of a total of five and ten in the plant, respectively.

The mechanical snubber (SNB-71) is located on the outlet of safety injection tank T-82D. It was originally installed new in 1988 and was tested, inspected and regreased in 1990. There has been no mechanical snubber test failures at Palisades since inspection and regreasing was initiated in 1988. The two hydraulic snubbers are both located inside the containment; one is on the low pressure safety injection (LPSI) line and the other on the letdown line. Both of these snubbers were originally installed new in 1990, and their service life is conservatively limited to May 1996. There have been no hydraulic snubber test failures at Palisades since the licensee implemented snubber replacement instead of re-building in 1988.

The Palisades TS require a service life monitoring program for snubbers to ensure that they will not remain in service past their recommended service life. The installation and maintenance records for each safety-related snubber in the plant are reviewed to verify that the indicated service life has not been exceeded or will not be exceeded prior to the next scheduled service life review. If the indicated service life is projected to be exceeded prior to the next scheduled snubber service life review, the service life will be reevaluated or the snubber will be replaced or reconditioned.

Based on the results of the past snubber tests and the implementation of the snubber service life monitoring program at Palisades, the staff determined that even with the proposed one-time deferral, it is unlikely that snubber conditions will exceed conditions allowed by the TS. Based on this and the fact that the surveillances would only be extended approximately 1 month, the staff concluded that permitting a one-time deferral of the 18-month surveillance tests for the three identified snubbers until the next scheduled refueling outage is acceptable.

2.3 Editorial Changes

In the February 10, 1995, letter, the licensee noted that the following changes to the TS would be accomplished in this TS change request:

a. The text of Specification 4.16 has been rearranged on pages 4-71 through 4-74a to eliminate empty spaces; page 4-71a has been eliminated; and the sole existing footnotes, numbers 3 and 4, have been renumbered as 1 and 2.

b. The reference to footnote "c" in line 18 of Table 4.17.6 (page 4-82) and the footnote identifier were changed from "c" to "d".

Change "a" eliminates an unnecessary page and rearranges the text more neatly on the remaining pages. The footnotes were renumbered following the former deletion of footnotes 1 and 2. Change "b" re-letters the footnote on the second page of Table 4.17.6 to avoid having two different footnotes for that table that are each identified as "footnote (c)". These changes are editorial in nature and serve to clarify and simplify the Palisades TS and are therefore acceptable.

3.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Michigan State official was notified of the proposed issuance of the amendment. The Michigan State official had no comments.

4.0 ENVIRONMENTAL CONSIDERATION

The amendment changes surveillance requirements. The staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendment involves no significant hazards consideration and there has been no public comment on such finding (60 FR 11131). Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendment.

5.0 CONCLUSION

The staff has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

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