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TO: US NUCLEAR REGULATORY COMMISSION  
DSHOOD

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TRANSMITTAL NUMBER: 166779

PROCEDURE NUMBER: TECH SPECS

TITLE: PALISADES PLANT TECHNICAL SPECIFICATIONS  
AND BASES

TRANSMITTAL: LISTED BELOW ARE NEW/REVISED PROCEDURES WHICH MUST BE  
IMMEDIATELY INSERTED INTO OR DISCARDED FROM YOUR PROCEDURE  
MANUAL.

Action Required

Section or Description

MAKE CHANGER PER THE  
ATTACHED INSTRUCTIONS

TECHNICAL SPECIFICATIONS BASES

**SIGN, DATE, AND RETURN THE ACKNOWLEDGEMENT FORM WITHIN 10 DAYS TO THE PALISADES  
PLANT DOCUMENT CONTROL.**

SIGNATURE OR INITIALS

DATE

A001

**PALISADES PLANT**

**TECHNICAL SPECIFICATIONS**  
**BASES REVISION**

**Page Change Instructions**

These revised pages update the Technical Specifications Bases for SR 3.3.1.4.

Revise your copies of the Technical Specifications and Technical Specifications Bases by  
*Removing and Replacing the Pages Identified below.*

**TECHNICAL SPECIFICATIONS BASES**

**REVISE AS FOLLOWS**

**REMOVE PAGES**

List of effective pages,  
Pages 1 & 2

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B 3.3.1-29/3.3.1/30

**INSERT PAGES**

List of effective pages,  
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PALISADES PLANT  
FACILITY OPERATING LICENSE DPR-20  
APPENDIX A

**TECHNICAL SPECIFICATIONS**  
**BASES**

As Amended Through Amendment No. 190  
Revised 10/24/2000

## BASES

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### SURVEILLANCE REQUIREMENTS (continued)

#### SR 3.3.1.1 (continued)

Agreement criteria are determined by the plant staff based on a combination of the channel instrument uncertainties, including indication and readability. If a channel is outside the criteria, it may be an indication that the transmitter or the signal processing equipment has drifted outside its limits.

The Containment High Pressure and Loss of Load channels are pressure switch actuated. As such, they have no associated control room indicator and do not require a CHANNEL CHECK.

The Frequency, about once every shift, is based on operating experience that demonstrates the rarity of channel failure. Since the probability of two random failures in redundant channels in any 12 hour period is extremely low, the CHANNEL CHECK minimizes the chance of loss of protective function due to failure of redundant channels. The CHANNEL CHECK supplements less formal, but more frequent, checks of channel OPERABILITY during normal operational use of the displays associated with the LCO required channels.

#### SR 3.3.1.2

This SR verifies that the control room ambient air temperature is within the environmental qualification temperature limits for the most restrictive RPS components, which are the Thermal Margin Monitors. These monitors provide input to both the VHPT Function and the TM/LP Trip Function. The 12 hour Frequency is reasonable based on engineering judgement and plant operating experience.

#### SR 3.3.1.3

A daily calibration (heat balance) is performed when THERMAL POWER is  $\geq 15\%$ . The daily calibration consists of adjusting the "nuclear power calibrate" potentiometers to agree with the calorimetric calculation if the absolute difference is  $\geq 1.5\%$ . Nuclear power is adjusted via a potentiometer, or THERMAL POWER is adjusted via a Thermal Margin Monitor bias number, as necessary, in accordance with the daily calibration (heat balance) procedure. Performance of the daily calibration ensures that the two inputs to the Q power measurement are indicating accurately with respect to the much more accurate secondary calorimetric calculation.

## BASES

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### SURVEILLANCE REQUIREMENTS (continued)

#### SR 3.3.1.3 (continued)

The Frequency of 24 hours is based on plant operating experience and takes into account indications and alarms located in the control room to detect deviations in channel outputs.

The Frequency is modified by a Note indicating this Surveillance must be performed within 12 hours after THERMAL POWER is  $\geq 15\%$  RTP. The secondary calorimetric is inaccurate at lower power levels. The 12 hours allows time requirements for plant stabilization, data taking, and instrument calibration.

#### SR 3.3.1.4

It is necessary to calibrate the power range excore channel upper and lower subchannel amplifiers such that the measured ASI reflects the true core power distribution as determined by the incore detectors. ASI is utilized as an input to the TM/LP trip function where it is used to ensure that the measured axial power profiles are bounded by the axial power profiles used in the development of the  $T_{inlet}$  limitation of LCO 3.4.1. An adjustment of the excore channel is necessary only if reactor power is greater than 25% RTP and individual excore channel ASI differs from AXIAL OFFSET, as measured by the incores, by greater than:

- 0.02 if power is  $\geq 80\%$  RTP, and all rods are fully withdrawn,
- 0.04 if power is  $\geq 80\%$  RTP, and not all rods are fully withdrawn,
- 0.08 if power is  $< 80\%$  RTP, and all rods are fully withdrawn, and
- 0.10 if power is  $< 80\%$  RTP, and not all rods are fully withdrawn.

Below 25% RTP any difference between ASI and AXIAL OFFSET is acceptable. A Note indicates the Surveillance is not required to have been performed until 12 hours after THERMAL POWER is  $\geq 25\%$  RTP. Uncertainties in the excore and incore measurement process make it impractical to calibrate when THERMAL POWER is  $< 25\%$  RTP. The 12 hours allows time for plant stabilization, data taking, and instrument calibration.

The 31 day Frequency is adequate, based on operating experience of the excore linear amplifiers and the slow burnup of the detectors. The excore readings are a strong function of the power produced in the peripheral fuel bundles and do not represent an integrated reading across the core. Slow changes in neutron flux during the fuel cycle can also be detected at this Frequency.