APS

Palo Verde Nuclear
Generating Station

David Mauldin
Vice President
Nuclear Engineering
and Support

TEL (623) 393-5553
FAX (623) 393-6077

Mail Station 7605
P.O. Box 52034
Phoenix, AZ 85072-2034

10 CFR 50.90
10 CFR 50.91

102-04556-CDM/SAB/RJR
April 4, 2001

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Mail Station P1-37
Washington, DC 20555

Reference: Letter number 102-04539 dated February 28, 2001, "License Amendment Request Technical Specification 1.1, Definitions" from C. D. Mauldin, Vice President, Nuclear Engineering and Support, APS, to the USNRC.

Dear Sirs:

SUBJECT: **Palo Verde Nuclear Generating Station (PVNGS)**
Units 1, 2, and 3
Docket Nos. STN 50-528, 50-529, 50-530
License Amendment Request Technical Specification 1.1, Definitions; Bases Replacement Pages

In the referenced letter to implement TSTF 368, TS Bases pages were included for information. Based on conversations with members of the NRC staff, we agreed to modify the bases wording on pages B3.3.1-39, B3.3.2-15, and B3.3.5-27 to remove 3 administrative changes that were not included as part of TSTF 368. We are providing revised TS Bases pages for your information. The changes to the TS Bases, as modified by the pages attached to this letter, will be incorporated in the PVNGS Technical Specification Bases as part of the implementation of the approved amendment on Response Time Testing.

Additionally, the NRC staff requested the current configuration of the Reactor Protection System (RPS) pressure transmitters. Subsequent to the submittal of CE Topical Report NPSD-1167, PVNGS replaced RPS Transmitter, Pressurizer Pressure High (Unit 2), Barton Model 763A. This pressure sensor, shown on page 7 of the December 5, 2000, NRC Safety Evaluation for the CE topical report, has been replaced with a Rosemount transmitter, Model 1154, Range Code 9. The replacement was performed in accordance with plant procedures which require response time testing for new or reworked sensors. The replacement of this transmitter was performed following the replacement criteria on page 5 of the December 5, 2000, NRC Safety Evaluation. This is the only change that has been made to the table of NRC-approved Palo Verde Units 1, 2, and 3 transmitters that appear on page 7 of the December 5, 2000, NRC Safety Evaluation.

A001

For the replacement discussed above, any allocated response time used in future testing will be based on a vendor-supplied response time value or upon historical data for that transmitter type and model and will be developed following the replacement criteria presented on page 5 of the December 5, 2000, NRC Safety Evaluation .

It has been determined that this letter does not revise the significant hazard considerations per 10 CFR 50.92 that was included in the our original submittal application for this amendment. As such, the proposed amendment still meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9).

No commitments are being made to the NRC by this letter.

Should you have any questions, please contact Scott A. Bauer at (623) 393-5978.

Sincerely,

David D Mauldin

CDM/SAB/RJR/kg

Enclosure

cc: E. W. Merschoff (NRC Region IV) (all w/Enclosure)
J. N. Donohew (NRR Project Manager)
J. H. Moorman (NRC Resident Inspector)
A. V. Godwin (ARRA)

Revised Pages To The PVNGS Technical Specification Bases

(Information Only)

BASES

SURVEILLANCE REQUIREMENTS (continued)

SR 3.3.1.12

SR 3.3.1.12 is a CHANNEL FUNCTIONAL TEST similar to SR 3.3.1.7, except SR 3.3.1.12 is applicable only to operating bypass functions and is performed once within 92 days prior to each startup. Proper operation of operating bypass permissives is critical during plant startup because the operating bypasses must be in place to allow startup operation and must be automatically removed at the appropriate points during power ascent to enable certain reactor trips. Consequently, the appropriate time to verify operating bypass removal function OPERABILITY is just prior to startup. The allowance to conduct this Surveillance within 92 days of startup is based on the reliability analysis presented in topical report CEN-327, "RPS/ESFAS Extended Test Interval Evaluation" (Ref. 9). Once the operating bypasses are removed, the bypasses must not fail in such a way that the associated trip Function gets inadvertently bypassed. This feature is verified by the trip Function CHANNEL FUNCTIONAL TEST, SR 3.3.1.7. Therefore, further testing of the operating bypass function after startup is unnecessary.

SR 3.3.1.13

This SR ensures that the RPS RESPONSE TIMES are verified to be less than or equal to the maximum values assumed in the safety analysis. Individual component response times are not modeled in the analyses. The analyses model the overall or total elapsed time, from the point at which the parameter exceeds the trip setpoint value at the sensor to the point at which the RTCBs open. Response times are conducted on an 18 month STAGGERED TEST BASIS. This results in the interval between successive surveillances of a given channel of n x 18 months, where n is the number of channels in the function. The Frequency of 18 months is based upon operating experience, which has shown that random failures of instrumentation components causing serious response time degradation, but not channel failure, are infrequent occurrences. Response time testing may be performed at power on a single channel or during plant outages when the equipment is not required to be operable. Testing may be performed in one measurement or in overlapping segments, with verification that all components are tested.

(continued)

BASES

SURVEILLANCE REQUIREMENTS

SR 3.3.2.4 (continued)

because of the difficulty of simulating a meaningful signal. Slow changes in detector sensitivity are compensated for by performing the daily calorimetric calibration (SR 3.3.1.4).

SR 3.3.2.5

This SR ensures that the RPS RESPONSE TIMES are verified to be less than or equal to the maximum values assumed in the safety analysis. Individual component response times are not modeled in the analyses. The analyses model the overall or total elapsed time, from the point at which the parameter exceeds the trip setpoint value at the sensor to the point at which the RTCBs open. Response times are conducted on an 18 month STAGGERED TEST BASIS. This results in the interval between successive tests of a given channel of n x 18 months, where n is the number of channels in the Function. The 18 month Frequency is based upon operating experience, which has shown that random failures of instrumentation components causing serious response time degradation, but not channel failure, are infrequent occurrences. Response time testing may be performed at power on a single channel or during plant outages when the equipment is not required to be operable. Testing may be performed in one measurement or in overlapping segments, with verification that all components are tested.

Response time may be verified by any series of sequential, overlapping or total channel measurements, including allocated sensor response time, such that the response time is verified. Allocations for sensor response times may be obtained from records of test results, vendor test data, or vendor engineering specifications. Topical Report CE NPSD-1167-A, "Elimination of Pressure Sensor Response Time Testing Requirements," (Ref. 7) provides the basis and methodology for using allocated sensor response times in the overall verification of the channel response time for specific sensors identified in the Topical Report. Response time verification for other sensor types must be demonstrated by test. The allocation of sensor response times must be verified prior to placing a new component in operation and reverified after maintenance that may adversely affect the sensor response time.

A Note is added to indicate that the neutron detectors are excluded from RPS RESPONSE TIME testing because they are

(continued)

BASES

1167-A, "Elimination of Pressure Sensor Response Time Testing Requirements," (Ref. 10) provides the basis and methodology for using allocated sensor response times in the overall verification of the channel response time for specific sensors identified in the Topical Report. Response time verification for other sensor types must be demonstrated by test. The allocation of sensor response times must be verified prior to placing a new component in operation and re-verified after maintenance that may adversely affect the sensor response time.

ESF RESPONSE TIME tests are conducted on a STAGGERED TEST BASIS of once every 18 months. The 18 month Frequency is consistent with the typical industry refueling cycle and is based upon plant operating experience, which shows that random failures of instrumentation components causing serious response time degradation, but not channel failure, are infrequent occurrences.

(continued)