



BRUCE RASH
Vice President
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**Palo Verde
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102-07610-BJR/DJH
November 8, 2017

ATTN: Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Dear Sirs:

Subject: **Palo Verde Nuclear Generating Station (PVNGS) Units 1, 2, and 3
Docket No. STN 50-528, STN 50-529, and STN 50-530
License No. NPF 41, NPF 51, and NPF 74
Final Part 21 Report for Westinghouse 1000 Horsepower Motor**

Enclosed, please find written notification for a defect identified on a refurbished Westinghouse 1000 horsepower electrical motor. This report is being submitted pursuant to 10 CFR 21.21(d)(3).

In accordance with 10 CFR 50.4, copies of this notification are being forwarded to the NRC Regional Office, NRC Region IV and the Senior Resident Inspector.

Arizona Public Service Company makes no commitments in this letter. If you have questions regarding this submittal, please contact Matthew Kura, Nuclear Regulatory Affairs Department Leader, at (623) 393-5379.

Sincerely,

A handwritten signature in black ink, appearing to read "Bruce Rash", written in a cursive style.

BJR/DJH

Enclosure: Final Part 21 Report for a Westinghouse 1000 Horsepower Electric Motor

cc: K. M. Kennedy NRC Region IV Regional Administrator
S. P. Lingam NRC NRR Project Manager for PVNGS
C. A. Peabody NRC Senior Resident Inspector PVNGS

Enclosure

**Final Part 21 Report for a Westinghouse 1000
Horsepower Electric Motor**

Enclosure
Final Part 21.21(d)(4) Report for Westinghouse 1000 Horsepower Electric Motor

On August 25, 2017, a 1000 horsepower (hp), high pressure safety injection critical spare pump motor was discovered to have a gouge in the insulation in one of the three primary leads providing three-phase power to the motor. This deviation was identified by Palo Verde electrical maintenance staff during a pre-storage inspection. The gouge was inside the main terminal box close to the (T2) terminal landing and was deep enough to expose the internal conductive wire.

This motor was received by Arizona Public Service Company (APS) on April 5, 2017, following refurbishment at the Westinghouse, Waltz Mill, Pennsylvania, facility.

On October 11, 2017, APS completed an evaluation of this deviation and concluded this condition represents a significant safety hazard. As a result, this condition is a defect and is reportable pursuant to 10 CFR 21.21(d)(4).

(i) Name and address of the individual or individuals informing the Commission.

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(ii) Identification of the facility, the activity, or the basic component supplied for such facility or such activity within the United States which fails to comply or contains a defect.

Facility:

Palo Verde Nuclear Generating Station (PVNGS) Units 1, 2, and 3
Docket No. STN 50-528, STN 50-529, and STN 50-530
License No. NPF 41, NPF 51, and NPF 74

Basic Component:

Motor Data: Westinghouse motor, 1000 hp,
3557 RPM full load 3600 sync.,
4000 VAC, 3 phase, 60 Hz
Serial No: 76F60563

(iii) Identification of the firm constructing the facility or supplying the basic component which fails to comply or contains a defect.

Westinghouse
Interstate 70
Madison Exit 54, Madison, PA 15663

(iv) Nature of the defect or failure to comply and the safety hazard which is created or could be created by such defect or failure to comply.

A recently overhauled Westinghouse 1000 hp electric motor was discovered to have a gouge in the insulation in one of the three primary leads providing three-phase power to the motor. This deviation was identified by Palo Verde electrical maintenance staff during a pre-storage inspection. The gouge was inside the main terminal box, close to the (T2) terminal landing and was deep enough to expose the internal conductive wire. As a result, APS determined that a substantial safety hazard could have been created had the motor been installed with the defect uncorrected. Specifically, the defect may have caused

Enclosure
Final Part 21.21(d)(4) Report for Westinghouse 1000 Horsepower Electric Motor

the high pressure safety injection pump to trip on ground fault when called upon to perform its safety function of providing borated reactor coolant makeup water following a loss of coolant accident.

- (v) The date on which the information of such defect or failure to comply was obtained.**

This defect was evaluated according to PVNGS Part 21 reporting process. The evaluation was completed on October 11, 2017, and the reporting officer was informed on October 17, 2017. The defect was initially reported to the NRC by way of the Emergency Notification System on October 18, 2017 (ENS 53023).

- (vi) In the case of a basic component which contains a defect or fails to comply, the number and location of these components in use at, supplied for, being supplied for, or may be supplied for, manufactured, or being manufactured for one or more facilities or activities subject to the regulations in this part.**

This motor was overhauled at the Waltz Mill service center in Madison, Pennsylvania, and received and inspected by APS on April 5, 2017. APS owns 7 of these motors. Two motors are currently installed in each unit (total 6) in the Class 1E 4.16 kV systems. This motor is the critical spare that is maintained in the Palo Verde warehouse.

APS does not know if other licensees use these motors in safety-related applications.

- (vii) The corrective action which has been, is being, or will be taken; the name of the individual or organization responsible for the action; and the length of time that has been or will be taken to complete the action.**

Westinghouse reports that this deficiency was documented in their corrective action program. The defective motor has been returned to the Westinghouse Waltz Mill facility for repair.

Enclosure
Final Part 21.21(d)(4) Report for Westinghouse 1000 Horsepower Electric Motor

Individual Responsible for Actions:

Christina Braun
OPB Products and Services
Quality Manager
Westinghouse Waltz Mill Site

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Operations Manager US Shops & RES
Westinghouse Electric Company

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(viii) Any advice related to the defect or failure to comply about the facility, activity, or basic component that has been, is being, or will be given to purchasers or licensees.

None.

(ix) In the case of an early site permit, the entities to whom an early site permit was transferred.

This event does not involve an early site permit.