Arizona Nuclear Power Project
P.O. BOX 52034 • PHOENIX, ARIZONA 85072-2034

March 7, 1986
ANPP-35473-EEVBJ/LAS/DRL-92.11

U. S. Nuclear Regulatory Commission
Region V
1450 Maria Lane - Suite 210
Walnut Creek, CA 94596-5368

Attention: Mr. D. F. Kirsch, Acting Director
Division of Reactor Safety and Projects
Palo Verde Nuclear Generating Station (PVNGS)
Unit 3
Docket No. 50/530

Subject: Interim Report -DER 86-04
A 50.55(e) Potentially Reportable Deficiency Relating To
Lack of Supports for BISCO Seals
File: 86-019-026; D.4.33.2; 86-056-026

Reference: Telephone Conversation between R. C. Sorenson and D. R. Larkin on February 7, 1986 (DER 86-04 - Initial Reportability)

Dear Sir:

The NRC was notified of a potentially reportable deficiency in the referenced telephone conversation. At that time, it was estimated that a determination of reportability would be made within thirty (30) days. (March 10, 1986)

Due to the extensive investigation and evaluation required, an Interim Report is attached. It is now expected that this information will be finalized by April 1, 1986, at which time a complete report will be submitted.

Very truly yours,

E. E. Van Brunt

E. E. Van Brunt, Jr.
Executive Vice President
Project Director

EEVB/DRL/ldf

Attachment(s)

cc: See Page Two

cc: Richard De Young, Director
Office of Inspection and Enforcement
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

A. C. Gehr (4141)
R. P. Zimmerman (6241)

Records Center
Institute of Nuclear Power Operations
1100 Circle 75 Parkway - Suite 1500
Atlanta, Georgia 30339

INTERIM REPORT - DER 86-04
POTENTIAL REPORTABLE DEFICIENCY
ARIZONA NUCLEAR POWER PROJECT
PVNGS UNIT 3

I. Potential Problem

In Unit 2, penetration seals constructed of BISCO SF-150-NH material or of 250 pounds-per-cubic-feet density material were installed without supports based on the subcontractor's (Brand Industrial Services, Inc./BISCO) position that the bonding characteristics of the seal material to the seal sleeve was adequate to support the weight of the seal.

Penetration Seal Number 435/49, located on the floor of the Heat Exchanger Room A106 in the Unit 2 Auxiliary Building, was observed to have moved approximately 9" in a downward direction. This indicates a potential for the heavy weight, high density material to fall completely out of the sleeve. This condition may occur on other similar seal configurations in the future due to aging of the material, building vibration or a seismic event. The potential exists that the displaced sealing material may cause damage to safety-related penetrating items by imposing loads in excess of the design loads of the penetrating item and its supports. Also, this may cause damage to safety-related equipment located in the path of the falling seal.

II. Approach To and Status Of Proposed Resolution

Engineering Evaluation Request (EER) 86-ZA-001 was initiated to evaluate the need for additional supports in Units 1 and 2. Calculation 13-CC-ZA-140 was performed to develop criteria to determine which seals require the addition of supports.

A. Unit 1

The majority of penetration seals in Unit 1 were installed by a former contractor whose design required structural supports. The seals installed by BISCO have been evaluated and six (6) seals were found to require additional supports based on weight and configuration as determined by the above calculation. For these six seals, the consequences of a seal failure was also analyzed to determine the impact to components in the general area of the seal, in particular, safety-related systems. The analysis showed no safety-related system would be affected. Work Request No. 178747 was generated and the supports will be added at the earliest, convenient time.

B. Units 2 and 3

A total of forty-two (42) seals were identified in each Unit as having the potential to become displaced from the penetration sleeve, based on weight and configuration considerations. A walkdown was conducted to identify the type of penetrating item (pipe, tray, conduit, duct) and to evaluate the as-built condition in the vicinity of the seal location, to identify any safety-related equipment which could be damaged in the event that the seal material became displaced from the penetration sleeve. A total of thirty-three (33) seals were identified as safety-related.

1. Five (5) seals contain safety-related conduit or wiring in cable trays which are not designed to support the weight of the seal.

2. Three (3) seals have safety-related equipment in the vicinity of the seal, which could be damaged in the event of a seal failure.

3. Twenty-five (25) seals contain safety-related piping which is not designed to carry the weight of the seal.

For Unit 2, supports for all forty-two (42) seals identified as having potential for failing will be added. Support details have been developed to satisfy the various field configurations. Work Request No. 178748 has been generated to add the supports in Unit 2.

For Unit 3, Field Change Request No. FCR 97,510-C has been initiated to incorporate supports to all forty-two (42) seals identified as having a potential for failing.

III. Projected Completion of Corrective Action and Submittal of the Final Report

The complete evaluation and Final Report are forecast to be completed by April 1, 1986.