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

March 28, 1986
ANPP-35774-EEVBJr/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 86-09
A 50.55(e) Potentially Reportable Deficiency Relating To
Post Accident Sampling System (PASS)
File: 86-006-216; D.4.33.2; 86-056-026

Reference: Telephone Conversation between A. Hon and D. R. Larkin on
February 26, 1986. (Initial Reportability - DER 86-09)

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 28, 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 30, 1986, at which time a complete report will be submitted.

Very truly yours,

EEVan Brunt Jr/JH

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

EEVB/DRL/ldf

ldf/001/IntRP09

Attachment

cc: See Page Two

IE-27

cc: J. M. Taylor, Director
Office of Inspection and Enforcement
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

A. C. Gehr
R. P. Zimmerman

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

INTERIM REPORT - DER 86-09

POTENTIAL REPORTABLE DEFICIENCY

ARIZONA NUCLEAR POWER PROJECT

PVNGS UNIT 3

I. Potential Problem

In the gas sampling portion of the Post Accident Sampling System (PASS), there are two (2) identical gas pumps (Thomas Industries, Inc. Model 2737CM390 Cylinder Diaphragm Compressor/Vacuum Pumps) which are piped in parallel to draw an air sample from the Containment through the sample conditioning equipment and the remote grab sample unit, and then return the sample to the Containment Building (Figure 1). NUREG 0737 requires that after the decision is made to take samples following a postulated accident, the PASS must be capable of providing grab samples and chemical and radiological analysis must be performed within three (3) hours. To satisfy this requirement, the subject pumps must be capable of providing a Containment air grab sample at the time the Containment air pressure and temperature is as high as 30 psig and 250° F, respectively.

A confirmatory test was conducted to ascertain if the subject pumps could function as required. This test showed that the pumps performed satisfactorily if their suction pressure was maintained between 0 to 10 psig. However, it was discovered that with discharge pressure at 30 psig, and when the inlet pressure raises above 10 psig, the pump motor starts to draw excessive electrical power and trips on thermal overload. As installed, the pumps would not be capable of drawing a Containment air sample if the Containment air pressure is $\geq$ 16 psig. It is estimated that under postulated accident conditions, the pumps would be inoperable for the first twenty-two (22) hours of accident.

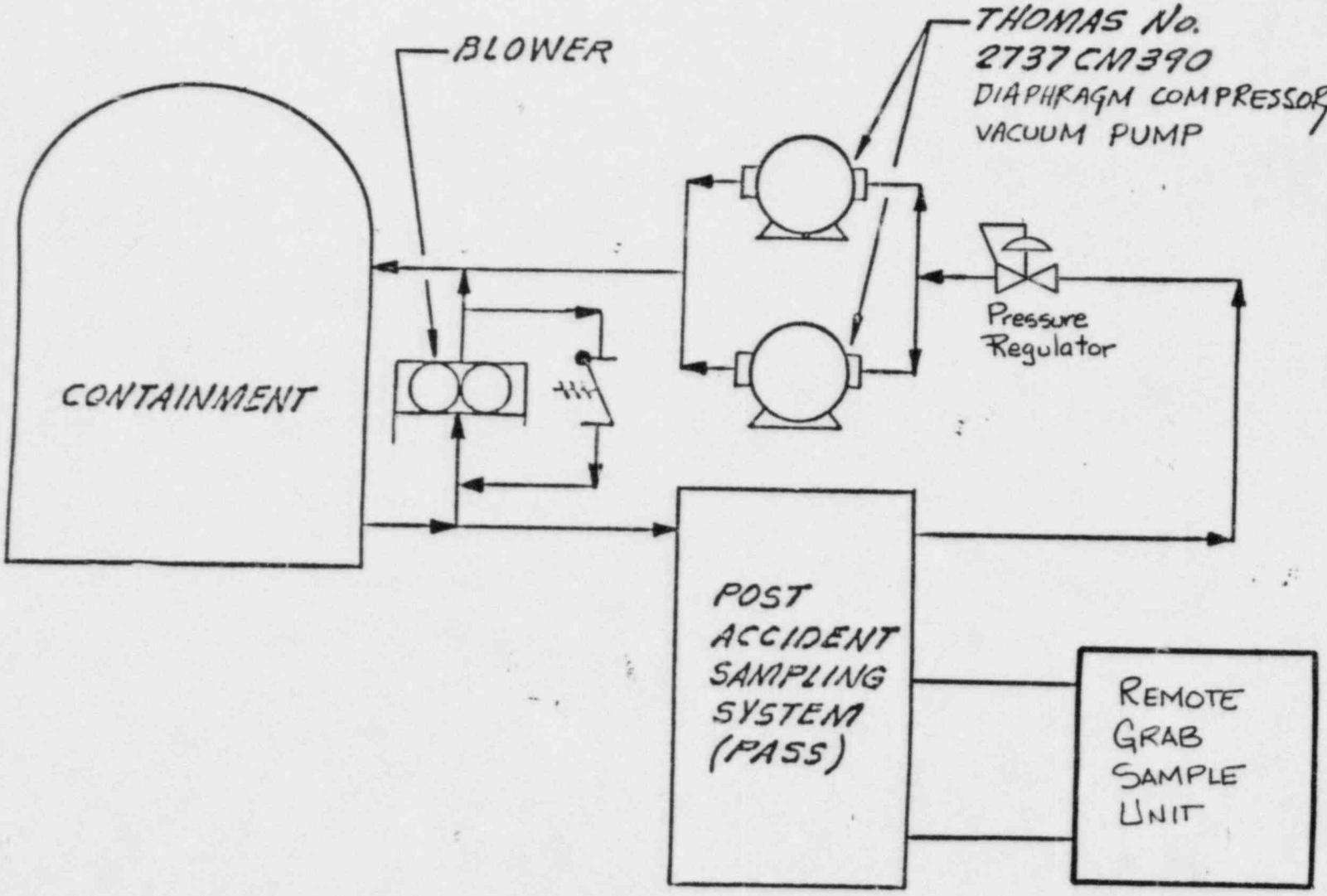
II. Approach To and Status Of Proposed Resolution

Since it was believed that these pumps could pump against a 30 psig discharge pressure with lower suction pressure, the confirmatory test set-up was changed to include a pressure regulator installed at the inlet of the pumps. Tests were rerun to reduce the pump inlet pressure between 1 and 2.5 psig and then the pumps were operable against a 30 psig simulated Containment pressure at an air temperature of 250° F.

Confirmatory retests are presently completed and a detailed Engineering evaluation is on-going. Preliminary results indicate that with the pump inlet pressure regulator set at 1.0 psig, the pumps will be operable during both normal and post-accident conditions. DCP's 1, 2, 3-OJ-RZ-023 were issued to implement this change for Units 1, 2 and 3. The DCP will be implemented in Unit 2 prior to exceeding 5% power. The effect of the failure of the PASS pump to be operable in worst case condition in Unit 1 is further discussed in LER 86-023-00.

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

The evaluation and Final Report are forecast to be completed by April 30, 1986. This Report will include an evaluation of root cause, Corrective Action to address root cause, and Corrective Action completion commitments.



Attachment to DER 86-09

F. # 1