Arizona Nuclear Power Project
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February 15, 1985
ANPP-31942-TDS/TRB

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

Attention: Mr. D. F. Kirsch, Acting Director
Division of Reactor Safety and Projects

Subject: Final Report - DER 84-28
A 50.55(e) Reportable Condition Relating to Diesel Generator Fuel Lines in Unit 3
File: 85-019-026; D.4.33.2

Reference: A) Telephone Conversation between P. Narbut and T. Bradish on May 11, 1984
B) ANPP-29696, dated June 7, 1984 (Interim Report)
C) ANPP-30447, dated September 6, 1984 (Time Extension)
D) ANPP-30870, dated October 17, 1984 (Time Extension)
E) ANPP 31524, dated December 18, 1984 (Interim Report)
F) ANPP-31791, dated January 24, 1985 (Time Extension)

Dear Sir:

Attached is our final written report which has been determined to be Not Reportable under the requirements of 10CFR50.55(e), referenced above.

Very truly yours,

E. E. Van Brunt

E. E. Van Brunt, Jr.
APS Vice President
Nuclear Production
ANPP Project Director

EEVB/TRB/nj

Attachment

cc: See Page Two

1/1 IE-27

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

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FINAL REPORT - DER 84-28
DEFICIENCY EVALUATION 50.55(e)
ARIZONA PUBLIC SERVICE COMPANY (APS)
PVNGS UNIT 3

I. Description of Deficiency

While attempting to erect connecting piping in the diesel generator fuel oil storage tank vault, two diesel fuel oil lines, 3-DF-024-HBCB-2" and 3-DF-037-HBCB-2", were found to be off location and beyond tolerances at the penetrations to the vault. Both lines come into the penetrations from underground, and both are welded together inside the diesel generator storage tank valve vault. Line 3-DF-037 is resting on the bottom of the penetration at the outside edge and is skewed upward as it passes into the vault. Line 3-DF-024 is only skewed and off-center as it passes through the penetration. These conditions were reported on NCR PY-8274.

Evaluation

An interim disposition was made to NCR PY-8274 to obtain the configuration of the buried portion of the two pipes. The soil around the pipe was excavated and pipe position measurements were recorded for a number of locations. From these measurements, line 3-DF-037 was found to be higher than design elevation but in the correct configuration. Line 3-DF-024 was found to slope such that a low point pocket exists outside the valve vault penetration.

Engineering has evaluated this condition considering a number of possible root causes, e.g., defective/bent pipe, incorrect excavation, incorrectly located vault, and pipe deformed during backfilling. The root cause analysis which resulted in the most detrimental effect on the piping system was assuming the pipe was deformed during the backfilling process. The piping in the valve vault is not affected since it is not yet attached to the subject lines. Line 3-DF-024 was analyzed for additional stresses due to the maximum deflection determined from the data provided in NCR PY-8274. Engineering calculation 13-MC-ZZ-584 shows the additional stresses induced result in levels well below the maximum allowables.

The low point pocket located in line 3-DF-024 will not affect the normal function of the diesel fuel oil supply system.

The pipes were also evaluated to see what effect the off-centering in the penetration would have on the system. Both pipes will experience no movements (thermal or seismic) since they are buried adjacent to the penetration. Any further settlement of the valve vault will help alleviate the situation since line 3-DF-037 is resting on the bottom of the penetration.

The low point could act as a trap for sediment or water. This possibility, however, is considered negligible for the following reasons:

1. The fuel oil is sampled for water and sediment at least every 90 days per ASTM D-975.

2. Water and sediment that might accumulate would be pumped toward the fuel oil tank where they would be trapped by filters provided downstream of the low point.

The same installation in Units 1 and 2 have been examined and the installations have been found to be acceptable; therefore, this condition is evaluated as an isolated case limited to this installation.

II. Analysis of Safety Implications

Based on the above, this condition is evaluated as not reportable under the requirements of 10CFR50.55(e); since if this condition were to remain uncorrected, it would not present a significant safety condition. This project also has evaluated this condition as not reportable under 10CFR Part 21, since this condition does not present a substantial safety hazard.

III. Corrective Action

NCR PY-8274 will be dispositioned "Use-As-Is" concerning the underground portions of the pipe and repair concerning the portion of the Pipe within the valve vault to allow modification of the attaching pipe to match the existing conditions.