



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

Advance Copy

March 16, 1990

Docket Nos 50-528
50-529
50-530

Arizona Public Service Company
Attn: Mr. O. M. DeMichele, President
and Chief Executive Officer
Post Office Box 52304
Phoenix, Arizona 85072-2304

Dear Mr. DeMichele:

SUBJECT: DIAGNOSTIC EVALUATION TEAM REPORT FOR PALO VERDE NUCLEAR GENERATING STATION

This letter forwards the Diagnostic Evaluation Team Report for Palo Verde Nuclear Generating Station (Palo Verde). The onsite evaluation was conducted over the period November 6-17 and December 4-8, 1989, by a team of Nuclear Regulatory Commission (NRC) headquarters and regional evaluators with team leadership and support provided by the Office for Analysis and Evaluation of Operational Data. This is an NRC evaluation program that is intended to provide an independent assessment of licensee safety performance. Following the conclusion of the onsite evaluation, the preliminary findings were discussed at an exit meeting on January 24, 1990, with you and other Arizona Public Service Company (APS) corporate and Palo Verde managers.

The NRC effort involved a broad-based evaluation of overall plant operations. It addressed the capability of Palo Verde management and programs, and the policies, leadership, and direction provided by APS to support and improve the operating performance at Palo Verde. Particular attention was directed in the areas of management and organization, operations, maintenance, surveillance and testing, quality programs, and design and engineering support.

Based upon an extensive evaluation onsite and thorough subsequent analysis, the team found that Palo Verde had several substantial management, organizational and technical problems that were caused by a number of longstanding deficiencies, which over a period of time became more evident. Also, the team observed several positive attributes and strengths. The team concluded that the root causes for Palo Verde's performance problems were: (1) insufficient technical and management depth to support startup and operation of a three-unit facility, (2) during startup, management and technical resources were focused on the next unit to go on line at the expense of the operational units resulting in a backlog of technical and programmatic issues, and (3) the 1987 reorganization compounded management deficiencies rather than contributed towards improvement.

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Overall the team concluded that APS had a good understanding of the major performance problems affecting Palo Verde and that the recent management changes combined with the numerous initiatives underway were beginning to show some progress in resolving known management issues. Many of these initiatives, however, had not been in place long enough to achieve the desired results. In addition, the rate at which major issues were being resolved was being limited by a number of factors. These included: (1) insufficient top level improvement program integration, (2) a lack of systematic/complete programs, plans and implementing strategies for all issues, (3) insufficient management oversight of improvement efforts, and (4) organizational instability, uncertainty, and insecurity. Further, additional management attention is needed to resolve Engineering and Maintenance programmatic issues which continue to adversely affect adequate root cause analysis and timely corrective actions for problems. In particular, attention is needed for the Palo Verde motor-operated valve program and check valve program to ensure long-term reliability of these components. Finally, increased attention to the Plant Review Board will be required to raise the overall effectiveness of this organization.

The team evaluation results, which include findings and conclusions and root cause analysis, are provided in Section 2 of the enclosed report. Section 3 of the report provides the detailed evaluation results. It is important that you and Palo Verde management carefully review the enclosed report, with special emphasis on the areas identified above. As part of your evaluation, I believe that it is essential that APS define its own priorities and balance its resources in an integrated manner which will provide the most rapid and sustained improvement in Palo Verde's safety performance. It is also requested that within 60 days of the date of this letter, you provide my office with a summary of your integrated action plan, including priorities and projected schedules, giving due consideration to the results identified in Section 2 of the report.

In accordance with 10 CFR 2.790(a), a copy of this letter and the enclosure will be placed in the NRC Public Document Room. Should you have any questions concerning this evaluation, we would be pleased to discuss them with you.

Sincerely,


James M. Taylor
Executive Director for Operations

Enclosure:
Diagnostic Evaluation Team Report
for Palo Verde Nuclear
Generating Station, Units 1, 2 and 3

Mr. O. M. DeMichele

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cc w/encl:

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Mr. O. M. DeMichele

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