U. S. NUCLEAR REGULATORY COMMISSION

REGION V

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| Report Nos. | 50-529/86-07 and 50-530/86-06 |
| Docket Nos. | 50-529 and 50-530 |
| License No. | NPF-46 |
| Construction Permit No. | CPPR-143 |
| Licensee: | Arizona Nuclear Power Project<br>P. O. Box 52034<br>Phoenix, Arizona 85072-2034 |
| Facility Name: | Palo Verde Nuclear Generating Station - Units 2 and 3 |
| Inspection at: | Palo Verde Site, Wintersburg, Arizona |
| Inspection conducted: | February 24 - March 5, 1986 |

Inspector: R C Sorensen — 3/12/86
R. C. Sorensen, Reactor Inspector — Date Signed

Approved By: for R C Sorensen — 3/12/86
for L. F. Miller, Jr., Chief — Date Signed
Reactor Projects Section 2

Summary:

Inspection on February 24 - March 5, 1986 (Report Nos. 50-529/86-07 and 50-530/86-06)

Areas Inspected: Unannounced inspection by a regional based inspector of TMI Action Plan items, LERs, and verification of licensee action on license conditions, all in Unit 2, and implementation of the startup program in Unit 3. NRC Inspection Procedures 25401B, 30703, 92700, 94300, 70302, and 71707 were covered during this inspection. The inspection of Units 2 and 3 involved 35 inspector hours onsite by one NRC inspector.

Results: Of the areas inspected, one violation was identified. (LER reporting violation, paragraph 5)

## DETAILS

1. Persons Contacted:

Arizona Nuclear Power Project (ANPP)

*E. E. Van Brunt, Executive Vice President
*W. Ide, Director, Corporate QA/QC
*J. Bynum, PVNGS Plant Manager
*W. Quinn, Licensing Manager
*T. Shriver, Compliance Manager
R. Ozment, Startup Administration Manager
D. Janecke, Startup Administration
*S. Penick, Quality Monitoring Supervisor
C. Gross, Compliance Supervisor

The inspectors also talked with other licensee and contractor personnel during the course of the inspection.

*Attended Exit Meeting of February 28, 1986.

2. Verification of License Conditions

The inspector verified the licensee's disposition of item 3 of Attachment 1 to the Unit 2 operating license. This license condition required APS to fulfill their commitment concerning all close proximity supports (e.g., pipe supports located near a critical component such as a pump nozzle) prior to initial entry into Mode 2. This commitment was documented in ANPP letter 31473-EEVB/ACR date December 14, 1984. This commitment allowed ANPP to provide the necessary calculations to justify the as-built gaps on close proximity supports in Unit 2.

The licensee opted to go ahead and install shims on all of these "proximate" supports, in lieu of calculations, to ensure a gap between pipe and pipe support of < 1/16". Design Change Package (DCP) 205-SI-166 accomplished this task. 72 "proximate" supports in Unit 2 were shimmed. The inspector physically measured the gaps of a 10 percent sample of these pipe supports. All were found to be within the tolerance specified in the DCP.

The inspector was satisfied that the licensee had met the requirement imposed by this license condition.

No violations or deviations were identified.

3. Implementation of the Startup Program in Unit 3

The inspector evaluated the implementation of portions of the licensee's program for preoperational testing in Unit 3. Three separate aspects were examined, as follows:

a. The inspector selected at random the qualification records of four startup engineers and compared them to qualification commitments made in the FSAR. No deviations were identified. Also, the

licensee stated that the qualifications for about 340 people in the startup department had recently been reverified by the licensee as a result of allegations concerning qualifications of some startup engineers. This had been accomplished by contacting educational institutions and previous employers and verifying information contained in resumes. Consequently, the licensee's qualification records were observed to be well-organized.

b. The inspector examined the training records for the same four individuals mentioned above. Records indicated that training had been given on administrative control procedures used by the startup department. In addition, training was given on regulatory requirements concerning construction deficiencies, Part 21 reporting and quality assurance. Startup engineers were given one week to complete this training of which portions were classroom training and portions were self-study.

No violations or deviations were identified.

c. The inspector selected a random sample of systems for which preoperational testing had been committed to in the FSAR. The inspector reviewed testing schedules to determine if preoperational testing was scheduled to be performed for these systems or had already been performed. The inspector was satisfied that the licensee was properly implementing the startup program in this regard.

No violations or deviations were identified.

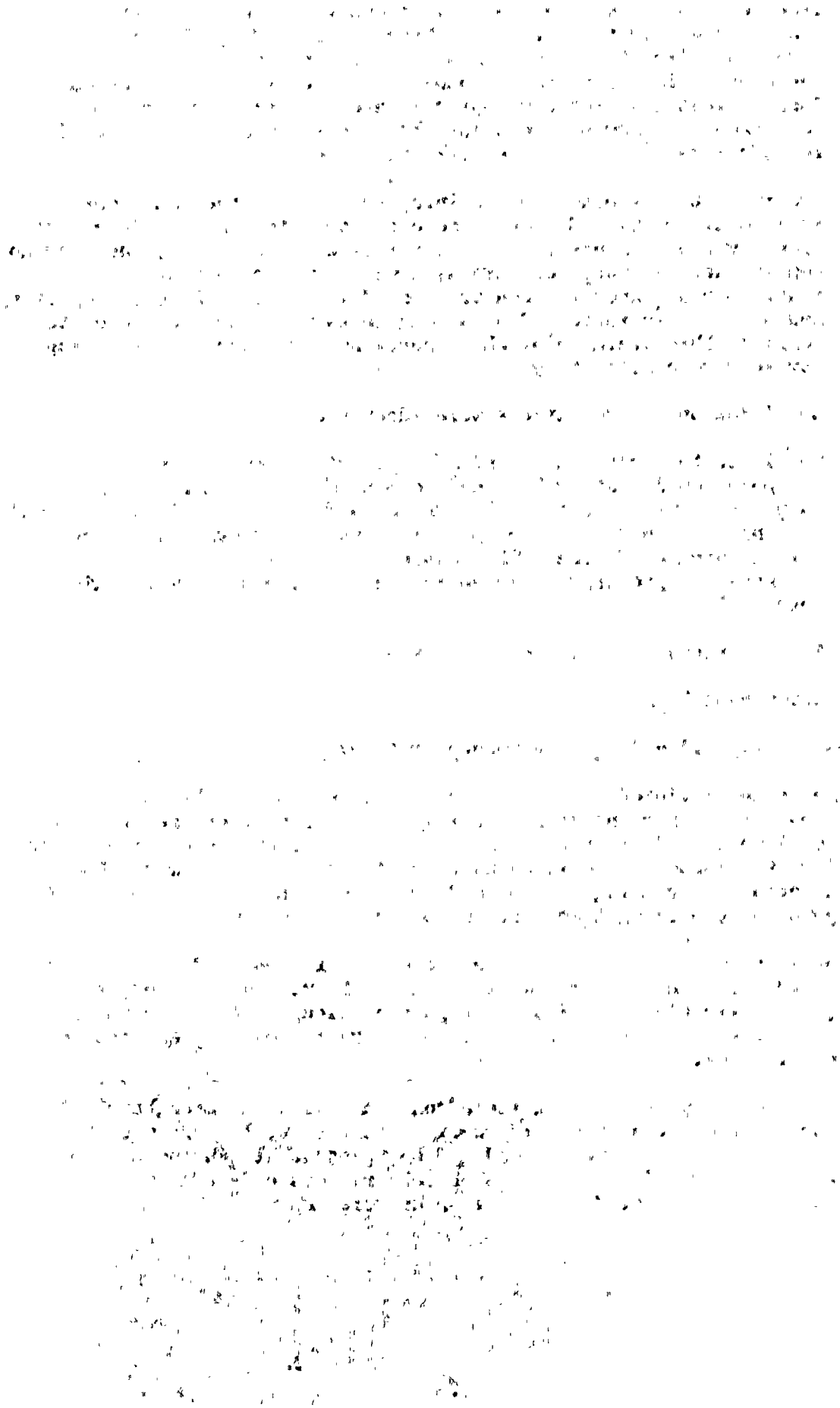
4. TMI Action Plan Items

(Closed) II.E.1.1 - Auxiliary Feedwater (AFW) System Evaluation

The inspector reviewed the generic recommendations for this system that were developed after the events at TMI-2. The inspector then reviewed the commitments made in the licensee's response letter dated May 1, 1981. Finally, the inspector verified that the licensee's commitments had been implemented by reviewing records and drawings, interviewing personnel, and physically walking down portions of the AFW system.

It appeared that the AFW system had been constructed, and was operated, in accordance with the commitments made in the response letter of May 1, 1981, as applicable. The inspector paid particular attention to valves upstream of the AFW pumps to ensure they were locked open as required by Technical Specifications.

However, the inspector identified a concern, which was brought up with licensee management at the exit meeting. Excessive leakage was observed from flanges near the suction side of both essential AFW pumps. The flanges were part of spool pieces where strainers had been installed. In addition, bolts and studs in the flanges were rusty.



The inspector noted that a preventative maintenance instruction existed to inspect systems in the Main Steam Support Structure, including the AFW system, on a quarterly basis for excessive rust and corrosion and verify no system leakage. This was pointed out to licensee management and the inspector recommended the licensee take steps to correct the problem to ensure the integrity of the AFW system.

No violations or deviations were identified.

5. Licensee Event Reports (LERs)

The inspector assessed the licensee's reports of reportable events in Unit 2 per 10 CFR 50.73 and verified corrective action. Three LERs were examined as follows:

(Closed) LER 85-01 and 85-04

These LERs reported identical events, namely, spurious ESF actuations of the Control Room Essential Filtration Actuation System (CREFAS). The licensee determined that these spurious actuations were caused by power supply spikes resulting from electrical noise generated by an unused pair of contacts on a control room radiation monitor.

As a corrective action, permanent hardware changes were made to determinate the unused pair of contacts to prevent electrical noise. This work was accomplished for both control room noble gas monitors. The work was accomplished per Work Orders #125940 (RU-29) and #125439 (RU-30).

The inspector was satisfied that the reports contained all information required by 50.73 and was also satisfied with the corrective action.

These LERs are closed.

(Closed) LER 85-05

This reportable event involved control room ventilation recirculation being discontinued due to operator error. Technical Specification 3.3.3.1, Action Statement 26 requires the control room essential ventilation system be operated in the recirculation mode when both trains of control room noble gas radiation monitors are inoperable.

One train, RU-30, had been declared inoperable and removed from service when the ESF load sequencer was removed from service rendering the other train, RU-29, inoperable. The control room essential ventilation system was placed in the recirculation mode and then taken out of the recirculation mode by a licensed operator when the load sequencer was replaced. However, no time response testing of the load sequencer had yet been performed; therefore, it was still inoperable, and consequently, so was RU-29.

As corrective actions, control room essential ventilation was restored to the recirculation mode and the shift operations personnel were counselled on Technical Specification compliance and on the proper interpretation of Technical Specification 3.3.3.1, Action Statement 26. The inspector examined objective evidence of this counselling of shift operations personnel.

However, LER 85-05 did not contain all information required by 10 CFR 50.73 in regard to personnel errors. Procedural aspects of the personnel error are required to be discussed in the LER as stated in 10 CFR 50.73, Section (b)(ii)J(2)(ii). Failure to discuss the procedural aspects of the personnel error is an apparent violation of 10 CFR 50.73 (Violation 50-529/86-07-01).

Since corrective action for the reportable event itself has been completed, LER 85-05 is closed.

6. Exit Meeting

The inspector met with the licensee representatives denoted in paragraph 1 on February 28, 1986. The scope of the inspection and the inspector's findings as noted in this report were discussed.