

April 29, 1988

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MEMORANDUM FOR: Frank J. Miraglia, Jr.
Associate Director for Projects
Office of Nuclear Reactor Regulation

FROM: Dennis M. Crutchfield, Director
Division of Reactor Projects - III,
IV, V and Special Projects
Office of Nuclear Reactor Regulation

SUBJECT: PALO VERDE UNIT 2 SHAFT CRACKING RESULTS

Results of RCP shaft cracking measurements on Palo Verde Unit 2 were discussed with the licensee via conference call on April 28. Table 1 attached shows the depth measurements.

The licensee made the following points during the conversation:

1. The quantity of cracks found on Unit 2 is less than that experienced on Unit 1.
2. The Unit 2 data does not indicate a different root cause.
3. While the 12.7 mm depth crack on the 2A pump is somewhat surprising, it is not totally unexpected. The deepest crack on a Unit 1 pump was 15.2 mm.
4. After 1 1/2 years of operation, the licensees feel that the cracks on the Unit 2 RCP shafts are minor.

The staff concurs with the licensees' findings and does not feel that changes to the Unit 3 vibration monitoring program are necessary at this time. No interruption of Unit 3 operation for RCP shaft inspection is necessary at this time.

Furthermore, the licensee stated that information from German plants indicates that the removal of chrome from high stress areas appears to have fixed the problem. This information will be forwarded to the staff.

Original signed by: *[Signature]*

Dennis M. Crutchfield, Director
Division of Reactor Projects - III,
IV, V and Special Projects
Office of Nuclear Reactor Regulation

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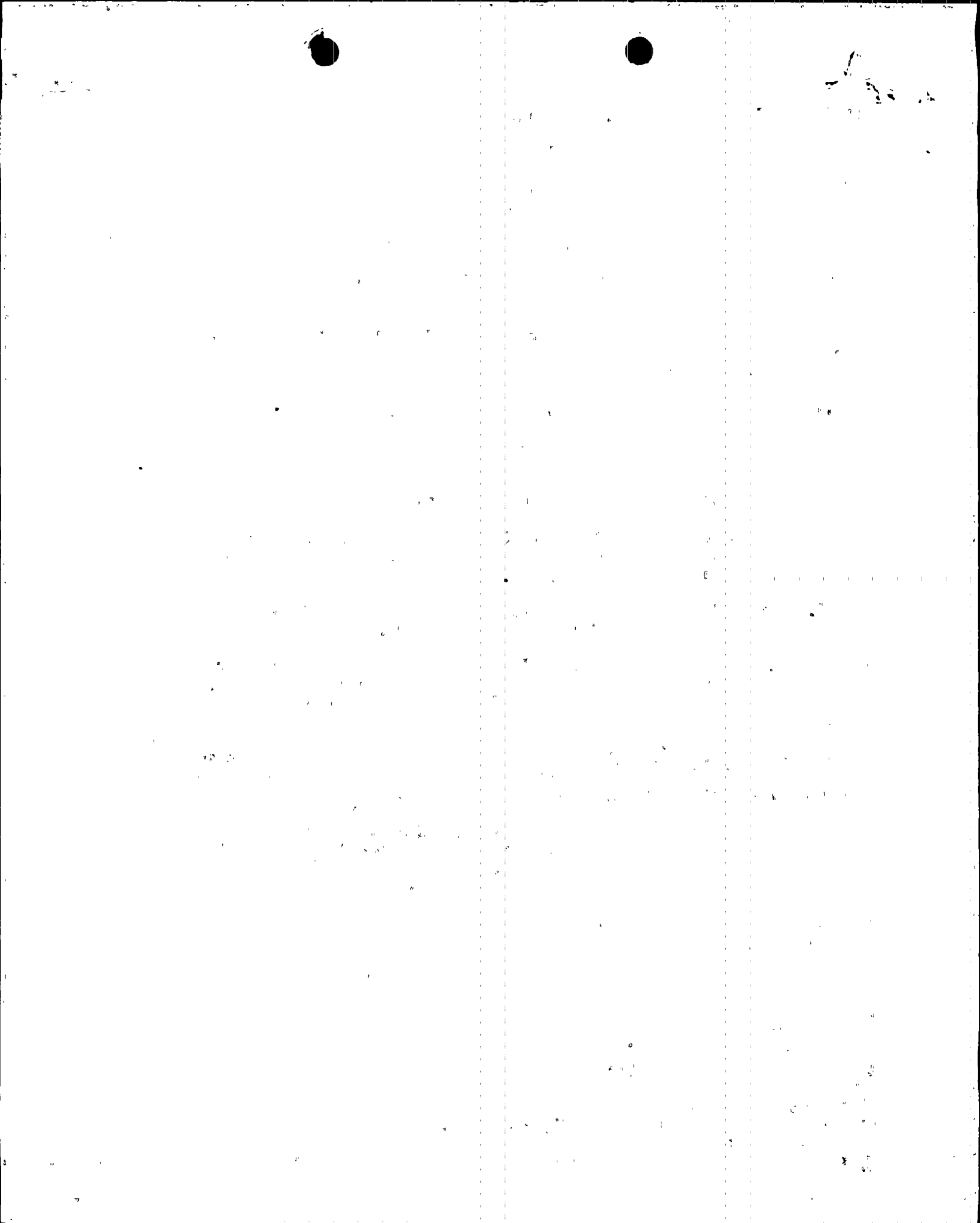


TABLE 1

Pump Number	Approximate Hours Operation	Keyway	Depth millimeters	Measurement Method
1A	15,900	0° 180°	0 1.6*	Wet fluorescent magnetic particle exam (MT) downside of keyway
1B	15,800	0° 180°	0 0	
2A	15,200	0° 180°	0 12.7	
2B	15,100	0° 180°	1.6 1.6	

* Dimension shown is the length of the indication along the side of the keyway.



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