

ATTACHMENT 1

PALO VERDE NUCLEAR GENERATING STATION, UNIT 1
OPERATING LICENSE NPF-41

This attachment identifies items which must be completed to the NRC staff's satisfaction in accordance with the schedule identified below.

Surveillance Program DELETE

1. Prior to entering Mode 1 for the first time, APS shall
 - a. Have completed a review of the surveillance procedures applicable to the change of mode, and determined that the procedures demonstrate the operability of the required systems with respect to all acceptance criteria defined in the Technical Specifications.
 - b. Have dispatched written notification to the NRC Regional Administrator, Region V, that the action defined in (a), above, has been completed for Mode 1.

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2. APS shall implement an augmented vibration monitoring program for each of the four reactor coolant pumps that includes the following elements:
 - a. Every four hours, monitor and record vibration data on each of the four reactor coolant pumps.
 - b. On a daily basis, perform an evaluation of the pump vibration data obtained in a. above, by using an appropriately qualified engineering individual.
 - c. When any one vibration monitor on the reactor coolant pumps indicates a vibration level of 8 mils or greater, the Nuclear Regulatory Commission shall be notified within four hours via the Emergency Notification System. In addition, when the vibration on any pump exceeds 8 mils due to a shaft crack or unknown cause, within four hours the affected pump shall have its orbit and spectra continuously monitored and evaluated by an appropriately qualified individual.
 - d. When any one vibration monitor on the reactor coolant pumps indicates a vibration level of 10 mils or greater, within one hour, initiate action to place the unit in at least HOT STANDBY within the next six hours, and at least COLD SHUTDOWN within the following 30 hours. In addition, the affected pump shall be secured after entering HOT STANDBY.
 - e. On a daily basis a spectrum analysis shall be performed on the reactor coolant pump shaft vibration data and shall be evaluated for trends by using an individual qualified in that technique. The evaluation shall consist of comparing the running speed (1xRPM) and twice running speed (2xRPM) spectral components to limits computed from the baseline vibration. The limits shall be based on the lowest of: (a) 1.6 times the baseline value, (b) the mean plus three standard deviations, (c) 2 mils for the 2xRPM component, or (d) 6 mils for 1xRPM component. 1/ When the amplitude exceeds any limit, further analysis shall be performed. This analysis shall consist of an inspection of the amplitude versus time plots for a steadily increasing trend, and a review of other plant data which might explain the change in amplitude. If it is confirmed that the trend is not caused by plant or pump conditions unrelated to a shaft crack, the trend shall be extrapolated manually and/or by computer to predict the time at which the vibration is expected to reach 10 mils. If the projected time for reaching 10 mils is one week or less, within one hour, initiate action to place the Unit in at least HOT STANDBY within the next six hours and at least COLD SHUTDOWN within the following 30 hours. In addition, the affected pump shall be secured after entering HOT STANDBY.

The Regional Administrator, Region V may relax or rescind, in writing, any of the above vibration monitoring conditions upon a showing by the licensees of good cause.

1/ In the event new limit methods are chosen, they shall be evaluated by the licensee to assure that the new methods are equal to or better than the above method. The Commission shall be advised within one week, if new methods are chosen.



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