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U.S. Nuclear Regulatory Commission
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STARTUP READINESS
SUPPLEMENTAL INFORMATION
HOPE CREEK GENERATING STATION
FACILITY OPERATING LICENSE NO. NPF-57
DOCKET NO. 50-354

This letter forwards PSEG Nuclear's (PSEG) response to Nuclear Regulatory Commission (NRC) follow up question regarding the 'B' Recirculation Pump vibration setpoints. Attachment 1 contains the response to the NRC's question. The response supplements the information provided in enclosure 3 of PSEG Letter LR-N04-0599, dated December 29, 2004.

If you have any questions or require additional information, please contact Brian Thomas at (856) 339-2022.

Sincerely,

Christina L. Perino
Director – Licensing and Nuclear Safety

Attachment

JE26

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'B' Reactor Recirculation Pump
NRC Question 01/07/05

1) **What is the basis for the 11 mils and the 16 mils reactor recirculation pump vibration setpoints?**

Response: Originally, Hope Creek station used 11 mils and 16 mils as reactor recirculation pump vibration setpoints based on a station calculation that utilized 25 mils as a vendor recommended vibration limit. This 25 mils was obtained from Flowserve TechNote No. 9309-08-022. A Flowserve field technician also confirmed the use of this TechNote to define the reactor recirculation pump vibration limit. In recent discussions with Flowserve, Hope Creek station learned that the TechNote was actually prepared for PWR Reactor Coolant Pumps, and not BWR Reactor Recirculation Pumps. At this point, the original 11 mils and 16 mils vibration setpoints were discussed with Flowserve and they concurred with these setpoints.

In discussions with Flowserve regarding the reactor recirculation pump vibration setpoints, they provided the following reasons for using the 11 mils and 16 mils setpoints.

The vibration levels are based on the vendors experience with this style reactor recirculation pump and other similar pumps. Specific considerations are the pump internal clearances, the expected impeller mechanical loading and expected axial coupling forces. A vibration level of 11 mils indicates a pump, which is operating outside its expected vibration band. A vibration level of 16 mils indicates a pump, which is entering a required action zone.

These vibration levels are as indicated to the operators, and the values do not need to be adjusted to allow for instrument inaccuracies.

At 11 mils, Flowserve recommends beginning increased pump monitoring, such as continuous vibration monitoring.

At 16 mils, Flowserve recommends taking operator action to lower vibration levels below 16 mils.

Flowserve is documenting the above basis and recommended actions in a letter to PSEG, which is scheduled to arrive on Monday, January 10, 2005.

Hope Creek station currently has approved procedures in place providing the operators with direction in the event the pump vibrations exceed 11 mils or 16 mils. If pump vibration levels reach 11 mils the operators are to lower pump speed to lower vibration levels below 11 mils. We believe this is a conservative action based on the above Flowserve recommended actions. If the pump vibration levels reach 16 mils the operators are to remove the pump from service. We also believe this is a conservative action based on the above Flowserve recommended actions. Therefore, the 11mils and 16 mils vibration setpoints are acceptable.