



Excellent Customer Service for the Holidays

Norm Moore of the North Tahoe Public Utility District stands with a Vaughan chopper pump.

The North Tahoe Public Utility District (NTPUD) in California serves residents and vacationers in the Lake Tahoe area. Vaughan Co. provided a 50-hp, 1,750-rpm model PE4P6CS-118 vertical pedestal chopper pump for the Carnelian Bay Pump Station to replace an existing pedestal pump that was having difficulty with ragging.

The Vaughan pump was intended to be driven by a variable-frequency drive (VFD) to provide 1,150 gal per minute at 84 ft total dynamic head at less than 1,750 rpm, but because of costs, the VFD was eliminated from the project.

During startup, Vaughan's representative, Rockwell Eng. & Equipment, found that the pump was vibrating because it was operating in high-flow cavitation. With no installed VFD, the pump could not be slowed down to reduce

head and flow.

With all organizations working together—Vaughan, Rockwell, Resource Development, Kennedy/Jenks Consultants and NTPUD—static pressure gauge readings showed that the discharge elevation established in the 1950s was off by 14 ft. This resulted in less static head than expected, causing the pump to operate in a cavitation region of the head/flow curve. This critical pump was operating in a severely vibrating condition because operating conditions were different from those specified—just five days before Christmas. Overflowing the lift station into Lake Tahoe was certainly not an option.

Vaughan recommended the impeller diameter be changed from the installed 11.8 in. to a smaller 10.9 in. Because Vaughan chopper pump impellers are not

machinable—they are heat-treated to 60 Rockwell C for good wear resistance—the company quickly arranged to take a factory stock impeller and grind it down to a custom 10.9 in. The order for the impeller was received in late morning, and the impeller was ground down, balanced and shipped out by the end of the same day. The part was received in Reno before 10 a.m. the following day. Bob Evans of Resource Development then drove the impeller to the Carnelian Bay Pump Station, installed it and restarted a now smooth-running pump before noon. The problem was identified and resolved within 24 hours of its discovery.

“We just don't see this kind of service way out here,” said Norm Moore of NTPUD. **WWD**

For more information, write in 1110 on this issue's reader service form on page 66.