

December 8, 2020

Arvin Sango

Subject: December bi-annual vibration survey

Most of the machines surveyed were found to be in good condition with the exception of the following:

QualiTest® uses a four step rating system for defects.

<u>Class I:</u> Defect is present, but effect on reliability is not clear; no immediate action is required. Continue to normally monitor.

**<u>Class II</u>**: Defect (s) present that may cause problem in long term (2-6 months.). Repair during normal maintenance scheduling. Continue to monitor.

**<u>Class III</u>**: Defect (s) present that may cause failure in short term (less than 2 months.). This should be addressed as soon as practical, with a high maintenance priority. Increase monitoring frequency.

<u>Class IV</u>; Defect (s) present that makes continued reliability unpredictable, and possibility of secondary damage is high. Repairs should be made ASAP. An unscheduled shutdown should be considered for repairs

*Hi-Speed* Industrial Service tests and inspects industrial machinery and equipment and makes recommendations concerning maintenance and repairs based on its experience in the field of industrial repair and maintenance. The information contained herein is provided as an opinion only, not as a guaranty or warranty of the matters discussed herein.

This completes our assessment of your equipment for this survey. Thank you for your business and don't hesitate to call if you have any comments or questions.

Sincerely,

David W. Shook Service Manager QualiTest® Diagnostics Division of Hi-Speed Industrial Service dshook@gohispeed.com

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## **OLD Dust Collector Fan**

The motor vibration data shows motor speed, fan speed and possible belt or 2x belt speed vibrations in the velocity spectrum for the outboard bearing. Check the following as time allows. Sheaves out of alignment, worn sheaves, worn belts, eccentric shaft or sheave, loose fasteners, and possible frame cracks or loose bolts. Clean and inspect the fan wheel if time allows. **Rated a Class I Defect.** 

## Air compressor A (WEST)

Air compressor seems to show an elevated synchronous vibration at 3x RPM that could be associated with the lobe passing frequency. If the unit motor is coupled with an insert, that could also possibly be an issue since some couplers have a 3x component. Ensure the coupler if equipped is operating properly. **Rated a Class I Defect for now.** 

## New West Dust Collector.

The unit has a dominant vibration at 28.55 Hz. We would assume this is fan speed except if the unit is on a drive. Inspect all aspect of the drive train for issues. Ensure the frame is not in a bind. It might need a trim balance if all other maintenance does not reduce the vibration. **Rated a Class II Defect.** 

## North East Chiller Pump

Top Bearing acceleration is down slightly. Keep up on the lubrication schedule. No other actions warranted.