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Josh Cavitt Sonoco Memphis, TN

Josh,

The following is a summary of findings from the quarterly vibration survey performed at your facility. Please let us know if there are any questions or comments.

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.

Defects



CLASS II P8 Oven Fan

Fan inboard bearing data is showing several fan rpm harmonics present in the fan bearing data. This is an indication of mechanical fit looseness. Inspect fan bearings for looseness as time allows. Ensure fan shaft does not have excessive run out.



CLASS II P10 Oven Fan Fan inboard vertical bearing data shows several fan rpm harmonics present in the fan bearing data. There are also sub-synchronous peaks present which may be belt frequencies. This is an indication of mechanical fit looseness and belt/sheaves issues. Inspect fan bearings for looseness as time allows. Ensure fan shaft does not have excessive run out and ensure belts and sheaves are in good shape.



CLASS II Zone 3 Supply Fan

Motor drive end axial data shows a high 1 x fan rpm vibration. This may be due to an issue with the motor base, sheave and/or belts. Inspect motor base for looseness, fan sheave for run-out, and ensure sheaves are aligned and belts are tensioned properly.



CLASS II Zone 5 Supply Fan

Fan inboard (DE) bearing data shows non-synchronous harmonics in the spectrum. Trend data is showing some increase in high frequency amplitude. These are indications of bearing defects. Inspect fan bearings for defects and wear as scheduling allows.



CLASS III Zone 6 Supply Fan

Trend data shows an increase in motor outboard horizontal velocity amplitude. Spectral data shows some subsynchronous vibrations are present in the motor. These peaks are likely harmonics of either fan speed or belts. For now, inspect sheaves for wear, face run-out, and misalignment. Ensure belts are in good order and properly tightened. Inspect motor base/structure for looseness also. As always, it has been a pleasure to serve Sonoco. If there are any comments or questions, do not hesitate to contact us.

Sincerely,

Kevin W. Maxuell

ISO Certified Vibration Analyst, Category III



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