HI-SPEED INDUSTRIAL SERVICE

MILLINGTON, TN

June 4, 2020

ADM Flour Milling

Subject: June vibration service report

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.

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

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

Class III; 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.

Class IV; 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,

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Detailed Defects

Bailer 1 Fan (Near fan unit)
Vibration data indicates an issue with the fan shaft and components. Check for shaft run out, misalignment and sheave/belt wear. Check the structure for cracks**. Rated a Class III Defect.**

Hammer Mill Fan
Data for the sheave end fan bearing suggests mechanical looseness. There are also other possibilities. The bearings will most likely need to be changed. The motor bearing are also showing signs of distress. Inspect the full drive train for defects and wear. Check the sheave alignment too. Acceleration is almost 5 g's RMS. **Rated a Class III Defect.**

Bolted Mill Filter Fan 1707
Strong harmonics in the spectrum and impacting in the time domain of the inboard fan bearing indicate severe component distress. Inspect the bearings and all associated components as soon as possible to avoid secondary damage**. Rated a Class IV Defect.**

Fan 227
Data indicates the bearings are in poor shape. Replace the bearings and any other components worn during repairs. **Rated a Class IV Defect.**

Bin 26 Fan
High axial vibration data indicated an issue with fan shaft, but we found a large through crack in the bearing support leg. There could some wear in the bearings though too. Fix the crack now and monitor the bearing as time allows. **Rated a Class IV Defect.**

Observations

Fan 224
The unit has what appears to be a fan shaft speed vibration in the motor, or possibly a belt vibration or harmonic at near 1"/sec velocity peak. Check the sheaves for wear, run out and alignment. Replace all worn components, as necessary. **Rated a Class II Defect.**

Fan 22
The unit has a dominant vibration at just below 60 Hz for all measurements. We suspect the fan is shaking the unit. Clean and inspect the fan wheel and check all fasteners and structures for defects. **Rated a Class II Defect.**

Fan 267
The fan sheaves were noted to be worn during the survey. Vibration data shows what appears to be wear in the bearings. Expect to replace the bearings and sheaves after inspection. **Rated a Class II Defect.**

Bin 23 Fan
Inspect the unit for belt and sheave issues as well as structural cracks and alignment. **Rated a Class II Defect.**

North Line Shaft Bearing 1
This bearing shows signs of wear, but at a lower level than the South unit. **Rated a Class II Defect.**

Bailer 2 Fan behind unit.
Clean and inspect the fan wheel and associated components. **Rated a Class I Defect.**