October 27, 2021

Victor Foster

IFF

Memphis, TN

Subject: October 2021 PHASE 1 Vibration Report

Victor,

Below is a summary from the October 2021 monthly vibration survey of PHASE 1.

***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.

**Observations**

**P1 DRYER**

**Product Collector Exhaust Fan 11-1103**

Increase in 1 x rpm vibration in the motor verticals. The high vertical vibration could be caused by the unit being mounted on a somewhat flexible structure. High 1 x rpm vibration indicates imbalance of the fan wheel. **Fan wheel needs to be removed and dynamically balanced**. Rated as a **CLASS III** defect.

**11-1035 North Exhaust Fan**

Fan vibration has increased. This fan has had issues with build-up causing high vibration. Fan bearings are also showing signs of internal looseness. Clean fan soon and check fan bearings for looseness and wear. Rated as a **CLASS II** defect.

**Northeast Blowback Fan 11-1021**

***Equipment was down this survey however, the following likely still applies*:** Motor has elevated 1 x rpm vibration at the motor verticals. This is likely due to imbalance. It is difficult to field balance these units due to flexible base and inadequate fasteners to the concrete. It is recommended to replace fan wheel with newly dynamically balance wheel or remove this wheel and dynamically balance the wheel in shop during a downtime. Rated as a **CLASS II** defect.

**Southwest Blow-Back Fan 11-1081**

Motor data continues to show rpm harmonics which indicate mechanical looseness either in the motor fits or fan hub fit. Base bolts being loose can also cause this type of vibration. Fan is also showing signs of imbalance. Inspect motor/fan for looseness and balance as scheduling allows. Rated as a **CLASS II** defect.

**P1 CURD**

**Extraction Tank Discharge Pump 11-4170**

Motor still has a high 1 x vibration. This is likely due to the fact that the motor is flange mounted and has no foot support. There is a base under the motor, but it appears to be for a previous design. There could also be a coupling issue. Motor needs support and inspect coupling as soon as practical. Rated as a **CLASS III** defect.

**C30 #1 Washing Centrifuge 11-4380**

**Vibration is lower this month but still high overall.** This may be a structural or sheave/belt issue. Inspect all motor fasteners/motor base for looseness, belts and sheaves for wear/defects. Ensure sheaves are properly aligned with minimal face run-out and belts are tensioned properly ASAP. Rated as a **CLASS III** defect.

**Decanter 3rd Extraction NX438 11-0715**

Main drive motor still has high inboard vertical 1 x rpm vibration. Motor at the back of the unit also has high vibration. Bowl may have imbalance causing some of this vibration. Inspect the belts for wear and proper tension, ensure all motor and motor base fasteners are tight, and inspect outboard smaller motor and coupling assemblies for looseness/wear and misalignment SOON. Rated as a **CLASS III** defect.

**1st Extraction NX438 11-0714**

Centrifuge has high 1 x rpm vibration this month likely imbalance of the unit. Feed tube also had a lot of vibration in it.**There is also still a high vibration the back drive motor. Data of this motor shows looseness either in the motor or coupling. Inspect for these issues ASAP.** Rated as a **CLASS III** defect.

**Curd Pot Wet Grinder 11-4557**

Grinder data show heavy impacting within the grinder unit. Spectral data shows extremely high noise floor indicating severe defect within the unit. Replace unit ASAP. Rated as a **CLASS IV** defect.

**Bogey Discharge Pump 11-4845**

Motor vibration has increased significantly since replacing the pump. Alignment is good, but data shows some type of looseness in the motor. This may be loose coupling or bad motor fits. Inspect/replace motor/coupling ASAP. Rated as a **CLASS IV** defect.

**Heat Recovery Pump 11-4535**

Pump is currently not on route; however off route analysis showed pump to have severe defects. Also the pump appears to have no oil in oil bulb. Pump needs to be replaced ASAP. **CLASS IV** defect.

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

Sincerely,

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