



**QualiTest® Diagnostics**

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Cascades Tissue  
Memphis, TN

The following is a summary of defects that were found during the December vibration survey of the **Deinking Area**. Please let us know if there are any questions or comments.

**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.

## **Defects**

### **Disperger**

There seems to be some non-synchronous vibration peaks that are becoming apparent in the motor spectra. There are also several gearbox related peaks being transferred across the coupling which makes this difficult to analyze. Gearbox is also starting to show some gear related vibration in the gearbox. We will continue to monitor this closely. Rated as a **CLASS I** defect.

### **TWPO Conveyor 104A UPPER LEVEL**

The unit is still physically rocking back and forth. Data of this unit indicates a possible bent or bowed conveyor drive shaft. The shaft has visible vertical movement. It is recommended to inspect the shaft for excessive run-out soon. This is rated as a **CLASS II** defect.

### **Accept Rejecter Sorter Pump**

Pump vibration has increased this month. Data indicates either a coupling issue or internal pump issue such as looseness. Inspect unit as time allows. Rated as a **CLASS II** defect.

### **16 Ft. Pulper Oil Pump**

Motor appears to have the higher vibration, but both motor and pump have numerous rpm harmonics with the MIH having the highest vibration. This type of vibration suggest internal wear of the pump and or drive components. Inspect unit SOON. Rated as a **CLASS III** defect.

### **16' Pulper GEARBOX**

Gearbox vibration is higher than normal for a newly reconditioned gearbox. Spectral data shows sidebands of output speed around gear mesh frequencies. This may be due to gear backlash, gear eccentricity, or excessive bearing clearances. We will monitor this closely. Rated as a **CLASS II** defect.

### **De-Trasher Hydrapurge**

Gear drive is showing some signs of internal wear. Gear drive unit should be inspected for signs of wear as scheduling allows. Ensure oil is in good condition and at proper level. We will monitor the gear drive wear closely. Rated as a **CLASS II** defect.

### **20' Pulper**

Data of the gearbox is showing some low level amplitude non-synchronous peaks along with a slightly elevated Gear Mesh input shaft vibration. We will monitor this closely. Rated as a **CLASS I** defect for now.

### **Grey Water Chest #1 Pump**

Spectral data indicates an issue with the pump. This could be a combination of process flow and internal pump defects. The impeller could be worn along with other pump internals. It is recommended to inspect the pump soon. Pump may need to be replaced during the next major downtime. Rated as a **CLASS II** defect for now.

### **AGIT113 Mixing Chest Agitator**

ODE agitator data is showing signs of bearing issues. Agitator may need attention soon. We will monitor this closely. Rated as a **CLASS II** defect.

### Poseipompe

Motor is running HOT. Could be from overtightened belt. Pump drive end data suggests possible sheave issue such as wear or misalignment. Belt may also be causing some of this vibration. Ensure sheaves/bushings are tight and in good shape and aligned properly and inspect belt for wear. ENSURE BELT IS NOT TOO TIGHT. Rated as a **CLASS II** defect.

### AGIT116 and AGIT 117 Hi Con. Bleach Tower Agitator

MOH has some high 1 x rpm vibration. This could be due to some heavy process or possible bent shaft of the agitator, or structural issues such as cracks, loose fasteners. Inspect the unit as scheduling allows. Rated as a **CLASS II** defect.

### Floatation Cell #1 Blower

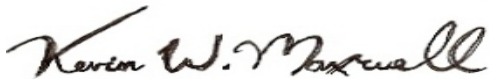
Data indicates internal wear/defects of the blower. Blower should be inspected as time allows. Ensure unit is operating properly and not causing an overload condition of the motor. Rated as a **CLASS II** defect.

### Floatation Cell #1 Turbine

Motor axial has increased 1 x rpm vibration. Idle shaft outboard (opposite drive end) bearing data is showing some issue taking place in the bearing. Inspect sheaves for proper alignment and check sheave/bushing for proper installation. Rated as a **CLASS II** defect.

As always, it has been a pleasure to serve the Cascades Tissue Memphis, TN Plant. If there are any comments or questions, do not hesitate to contact us.

Sincerely,



ISO Certified Vibration Analyst, Category III



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