



**QualiTest® Diagnostics**

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Cascades Tissue  
Memphis, TN

The following is a summary of defects that were found during the July 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**

### **Washer #3 DNT**

Data shows some motor rpm harmonics which may indicate looseness. First inspect the sheave and bushing ensuring that they are not loose or cracked. If all checks good, then the motor may have an internal looseness issue. Rated as a **CLASS II** defect.

### **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.

### **Thickener #1 Outlet Conveyor Drive**

Motor/gearbox has excessive low frequency vibration and visible movement. Ensure frame, mounts, and base are secure with no cracks or loose fasteners. 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.

### **CLN 109 Tertiary Fine Screen MOTOR**

Screen assembly looks good since changing bearing assembly; however, the motor has an issue with the DE bearing. Data is showing some defects present in the bearing. The motor in place has a ball bearing in the drive end and because this is a belt application, it should have an NU series bearing. We will monitor this closely. Rated as a **CLASS II** defect.

### **AGIT113 Mixing Chest Agitator**

ODE agitator data is starting to show signs of bearing issues. We will monitor this closely. Rated as a **CLASS II** defect.

### **Filtered Water Chest Pump**

Data still shows signs of misalignment, coupling wear, and possible pump impeller issues. Inspect unit for these issues as scheduling allows. Rated as a **CLASS II** defect.

### **Poseipompe**

Pump drive end data suggests possible sheave issue such as wear or misalignment. Belt may also be causing some of this vibration. Ensure sheaves are in good shape and aligned properly and inspect belt for wear. Rated as a **CLASS II** defect.

### **AGIT115 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.

### **Floataction Cell #1 Blower**

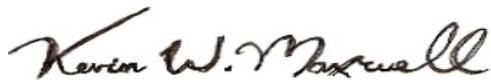
Acceleration in the blower has increased this survey. Data indicates internal wear/defects of the blower. Blower should be inspected soon. Ensure unit is operating properly and not causing an overload condition of the motor. Rated as a **CLASS III** defect.

### **Floataction Cell #1 Turbine**

Motor axial vibration has increased. Check belt and sheave for issues. Idle shaft outboard (opposite drive end) bearing data is starting to show some issue taking place in the bearing. This issue will be monitored closely. 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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