

November 15, 2021

IFF

Subject: MSP November vibration 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 feel free to call if you have any comments or questions.

Sincerely,

David W Shook

David W. Shook
Senior Reliability Specialists

Hi-Speed Industrial Service
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MSP 11-15-21 Download

11-5304 PH1 PACKER SURGE BIN ASP FAN

Increase in 3x fan speed vibration in the inboard fan bearing. Inspect the units' fasteners, base, and belt and sheaves for wear and alignment. Check the fan bearings for excessive clearance with a dial indicator lift check. **Rated a Class II Defect.**

14-3108 SULFITE WORK TANK DISCH PUMP

Apparent data taken on non-running machine.

14-3141 #1 1ST EXTRACTION CENTRIFUGE

The C2A overall measurement is strong at almost 0.7"/second velocity peak at 2x RPM. We suspect some kind of misalignment or coupling issue. Inspect soon. **Rated a Class II Defect.** The centrifuge bearings show a few shaft speed harmonics. Inspect for mechanical looseness in the bearings and alignment.

The motor is still showing strong non-synchronous harmonics which we now believe to be possible race defects. **Rated a Class II Defect.**

14-3149 #4 1^{3rd} EXTRACTION CENTRIFUGE SHARPLE

The centrifuge bearings show a strong shaft speed vibration and a few harmonics. Clean and flush the unit. Inspect for mechanical looseness in the bearings and alignment. Check all fasteners and structures. **Rated a Class II Defect.**

14-3151 #2 1ST EXT CENTRIFUGE SHARPLE

The centrifuge bearings show possible mechanical looseness in the bearing or fits. It is stronger on the input. Check the fasteners, inspect for excessive clearances, run out and drive train alignment. Clean and flush. **Rated a Class II Defect.**

14-3161 #3 1ST EXTRACTION CENTRIFUGE SHARPLE

The centrifuge bearing vibrations have dropped. Check the fasteners, inspect for excessive clearances, run out and drive train alignment. Clean and flush. **Rated a Class II Defect.**

14-3171 #5 2nd EXTRACTION CENTRIFUGE SHARPLE

The centrifuge bearings show 1x and harmonic vibrations. It could have run out or some misalignment in the drivetrain. Check the fasteners, inspect for excessive clearances, run out and drive train alignment. Clean and flush. The motor has slight bearing wear. **Rated a Class II Defect.**

14-3179 #4 Centrifuge 2nd Extraction Defoamer Pump

Motor data still shows elevated dominant 1x RPM vibration with a smaller 2x Vibration also. Inspect the unit base and all fasteners. Check the coupling and alignment. **Rated a Class II Defect.**

14-3207 #3 1st Ext Def Pump

No issues.

14-3246 C30 #1 WASHING CENTRIFUGE

Large drop in centrifuge vibrations. Clean, Motor axial vibration at motor speed is up. Inspect the drive train for wear, run out and alignment. Check all fasteners and structures. **Rated a Class II Defect.**

14-3256 C30 #2 WASHING CENTRIFUGE

Large drop in vibrations. No issues.

14-3266 C30 #3 WASHING CENTRIFUGE

Large drop in vibrations. No issues.

14-3276 C30 #4 WASHING CENTRIFUGE

Motor has possible very early bearing defects. No actions required.

14-3289 WEST WASHING RESLURRY PUMP

Pump vibrations have jumped up at what appears to be 2x RPM. Inspect for shaft run out, alignment and coupling issues. Inspect the base and all fasteners. Inspect for pipe strain. **Rated a Class II Defect.**

14-3296 #8 CON CENTRIFUGE SHARPLE

Slightly elevated vibrations in centrifuge with shaft speed dominant. Clean and flush. **Rated a Class I Defect.**

14-3304 #6 CON CENTRIFUGE SHARPLE

Centrifuge has a strong 1x RPM vibration in the inboard bearing. There are also multiple harmonics in the bearings which could indicate mechanical looseness. Clean and flush the unit. Inspect the bearings, fasteners, structure, and shaft for defects wear and alignment soon. **Rated a Class III Defect.**

14-3320 #7 CON CENTRIFUGE SHARPLE

Centrifuge still has a strong 1x RPM vibration and a few harmonics. Inspect for mechanical looseness and alignment. Clean and Flush. **Rated a Class II Defect.**

14-3425 MSP-EAST IDN TANK PUMP

No issues.

14-3550 N BOGEY VACUUMIZER DIS PUMP

No recent data.

14-3608 Cooling Ring Intake Fan

Motor speed vibration has jumped up is very large and dominant in most measurements. Inspect the unit for drive train component wear and alignment. Check all fasteners and structures. **Rated a Class IV Defect.**

14-3617 DRYER SE CS FILTER BLOWER

The blower outboard horizontal is showing an increased vibration at what looks like 50 orders and the inboard has an increase at shaft speed. Higher loading could possibly increase a gear mesh. Check the drive train and ensure the blower has oil. **Rated a Class II Defect.**

14-3618 Spray Dryer East Exhaust Fan

The Motor vibration data shows a marked improvement. Some vibrations are elevated in the fan. Vibration peaks do not match up to shaft speeds. Please confirm speeds when taking readings. Recommend inspecting the drive train for buildup in sheaves, alignment, fasteners, and belt tension. **Rated a Class I Defect.**

14-3627 DRYER NE CS FILTER BLOWER

Blower vibrations have dropped. No action required.

14-3634 DRYER SW CS FILTER BLOWER

Blower vibrations have dropped in half but are still elevated. Inspect the unit for loose fasteners, sheave build up, damage, or wear. **Rated a Class II Defect.**

14-3636 SPRAY DRYER WEST EXHAUST FAN

Fan and motor vibrations are about the same, possible at shaft speed. Low amplitude harmonics are also present. Still shows some drivetrain issues Recommend inspecting the drive train for buildup in sheaves. Check alignment, fasteners, and belt tension. **Rated a Class I Defect.** Please confirm speeds when taking readings.

14-3642 DRYER NW CS FILTER BLOWER

Motor has an increase in blower 1x speed Blower vibrations are lower. Inspect the unit. Check all fasteners, structure, and drive train components. **Rated a Class I Defect.**

14-3649 PRODUCT COLLECTOR FAN

No issues at this time.

14-3710 MSP RIBBON BLENDER

No issues at this time.

14-3712

No recent data.

14-3800 DOUBLE PADDLE MIXER CONVEYOR

No current data.

14-3806 FEED DRYER DISCH TRAN BLOWER

No current data.

14-3828 FEED DRYER RECYCLE BLOWER

No current data.

14-3836 DRY FEED RECEIVER ASP FAN

No current data.

14-3843 S INLET BURNER 1 PROCESS FAN

No current data.

14-3844 S BURNER #1 COMBUSTION FAN

No current data.

14-3863 MSP-FEED DRYER EXHAUST FAN

No current data.

14-4085 #9 CON CENTRIFUGE SHARPLE

Centrifuge still has a strong 1x and 2x RPM dominant vibrations and many harmonics which could indicate misalignment and or mechanical looseness. Inspect the bearings, fasteners, structure, and shaft for defects wear and alignment soon. **Rated a Class II Defect.**

14-4095 MSP-#4 CURD POT GRINDER

Slight drop in vibrations. No action required.

14-4203 HOT WATER PUMP TO H-HEATER

No current data.

14-4208 90DEGREE PROCESS WTR PUMP

No current data.

14-4209 90D PROCESS STANDBY WTR PUMP

No current data.

14-5376 BLENDER DIS XFER BLOWER

Blower data shows harmonics throughout the spectrum. The blower could be excessively loaded or somewhat worn. We only have 3 sets of data to go by. Inspect the unit as time allows for excessive backlash and lobe wear. **Rated a Class II Defect.**