



MILLINGTON, TN

July 26, 2019

Protein Products

Subject: July 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,

David W. Shook
Service Manager

QualiTest® Diagnostics

Division of **Hi-Speed Industrial Service**

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Route 1

FRONT SUMP PUMP

Vibrations have dropped substantially since the last survey. All collected vibration data is within acceptable limits now.

C-1 GEARBOX

All collected vibration data is within acceptable limits.

C-2 GEARBOX

Vibrations have dropped substantially since the last survey. All collected vibration data is within acceptable limits now.

C-3 GEARBOX

Data still shows what looks to gear mesh and multiple harmonics, indicative of early wear. No immediate concern yet. The belt sheaves look to be out of alignment. Adjust the sheaves as time allows. **Rated a Class II Defect.**

C-4 GEARBOX****

Data not collected

C-5 GEARBOX****

Data not collected

C-6 GEARBOX****

Data not collected

FRONT WASTE WATER TRANSFER PUMP

Vibration at shaft speed is still almost 1/2"/second velocity peak in the motor. Check the coupling and insert for wear or other issues. **Rated a Class I Defect.**

FISH PUMP #1****

Not running at time of survey

FISH PUMP #2

All collected vibration data is within acceptable limits.

P-9 FISH PUMP (SOUTH)

All collected vibration data is within acceptable limits.

P-10 FISH PUMP (WEST)

All collected vibration data is within acceptable limits.

NORTH FISH SEDIMENTER PUMP*****

Not running at time of survey

SOUTH FISH SEDIMENTER PUMP

The data for the motor bearings still indicates they are in distress. Now the pump bearings are showing signs of wear. Be prepared to repair or replace. **Rated a Class II Defect.**

WEST FISH CENTRIFUGE

Vibration amplitudes have increased to levels of around 0.5 and 0.8"/sec peak for the arbor. Inspect as time allows. **Rated a Class II Defect.**

EAST FISH CENTRIFUGE

Not running at time of survey

FISH PRESS FINES PUMP

Data still indicates distress in the motor bearings. Have a spare motor available. **Rated a Class II Defect.**

FISH PRESS 3

All collected vibration data is within acceptable limits.

FISH PRESS 2

All collected vibration data is within acceptable limits.

FISH PRESS 1

Not running at time of survey

WASTE HEAT PUMP

Inspect the drivetrain between the motor and pump for defects. Axial vibrations are above 0.4"/sec velocity peak. **Rated a Class I Defect.**

EVAP RECIRCULATION PUMP (Barometric?)

Not running at time of survey

90 COOKER HPCR PUMP*****

Data not collected

90 COOKER*****

Data not collected

100 COOKER

The motor vibration data still indicates possible slight outer race defect in the drive end bearing. No immediate issue. Arbor bearings look OK. **Rated a Class I Defect.**

100 COOKER FEED PUMP

Data not collected

100 COOKER HPCR PUMP

The vibrations in the pump at 1x and 2x shaft speed have decreased; however, we still suspect some wear in the pump or possibly an alignment and/or a coupling issue. **Rated a Class II Defect.**

P-17 CONCENTRATE PUMP*****

Data not collected, too slow.

SOUTH WAREHOUSE AIR COMPRESSOR

Not running at time of survey.

NORTH WAREHOUSE AIR COMPRESSOR

All collected vibration data is within acceptable limits.

Route 2**REAR 6 IN SUMP PUMP**

We see a large increase in the pump axial vibration at twice shaft speed. The unit could be suffering from a coupling or alignment problem. **Rated a Class II Defect.**

REAR 3 IN SUMP PUMP

Not running at time of survey.

50 HP SCRUBBER FAN ON PLATFORM

All collected vibration data is within acceptable limits.

SCRUBBER PUMP

All collected vibration data is within acceptable limits.

75 HP SCRUBBER FAN

Ensure motor base and fasteners are secure. Check the belts and sheaves. **Rated a Class II Defect.**

SPRAY TOWER PUMP

Not running at time of survey.

SCRUBBER FAN #2

High axial vibration in the motor. Inspect for loose fasteners and a drive train issue.

Rated a Class II Defect.

CENTRAL CONDENSATE PUMP 1

Not running at time of survey.

CENTRAL CONDENSATE PUMP 2

Not running at time of survey.

CENTRAL CONDENSATE PUMP 3

All collected vibration data is within acceptable limits.

1200 BOILER FAN

All collected vibration data is within acceptable limits.

1500 BOILER FAN

Not running at time of survey.

1 DA PUMP MOTOR

All collected vibration data is within acceptable limits.

2 DA PUMP MOTOR

Not running at time of survey.

3 DA PUMP MOTOR

Not running at time of survey.

WEST DA FEED PUMP

All collected vibration data is within acceptable limits.

EAST DA FEED PUMP

Not running at time of survey.

5 LAGOON SOUTH PUMP

All collected vibration data is within acceptable limits.

5 LAGOON NORTH PUMP

Data still indicates the pump bearings are in distress, although cavitation could be a concern. Inspect/repair as time allows. **Rated a Class I Defect.**

6 LAGOON WEST PUMP

Not running at time of survey.

6 LAGOON EAST PUMP

All collected vibration data is within acceptable limits.

RIVER PUMP

Not running at time of survey.

NORTH FISH CAGE MILL

Vibration data for the motor axial has dropped below 1"/sec velocity peak. Still check the belt drive for wear and alignment. Unit still shows noise floor in the inboard arbor bearing. Inspect the bearing as time allows.. **Rated a Class II Defect.**

SOUTH FISH CAGE MILL

Vibration data for the mill outboard horizontal is still near 0.7"/sec velocity peak and mainly harmonic. Check the belt drive for wear and alignment and looseness in the bearings. **Rated a Class II Defect.**

END