HI-SPEED INDUSTRIAL SERVICE

MILLINGTON, TN

December 3, 2020

Most

Subject: December Dust Collector vibration service

Both units need attention, but at different ratings. Supporting data follows.

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.

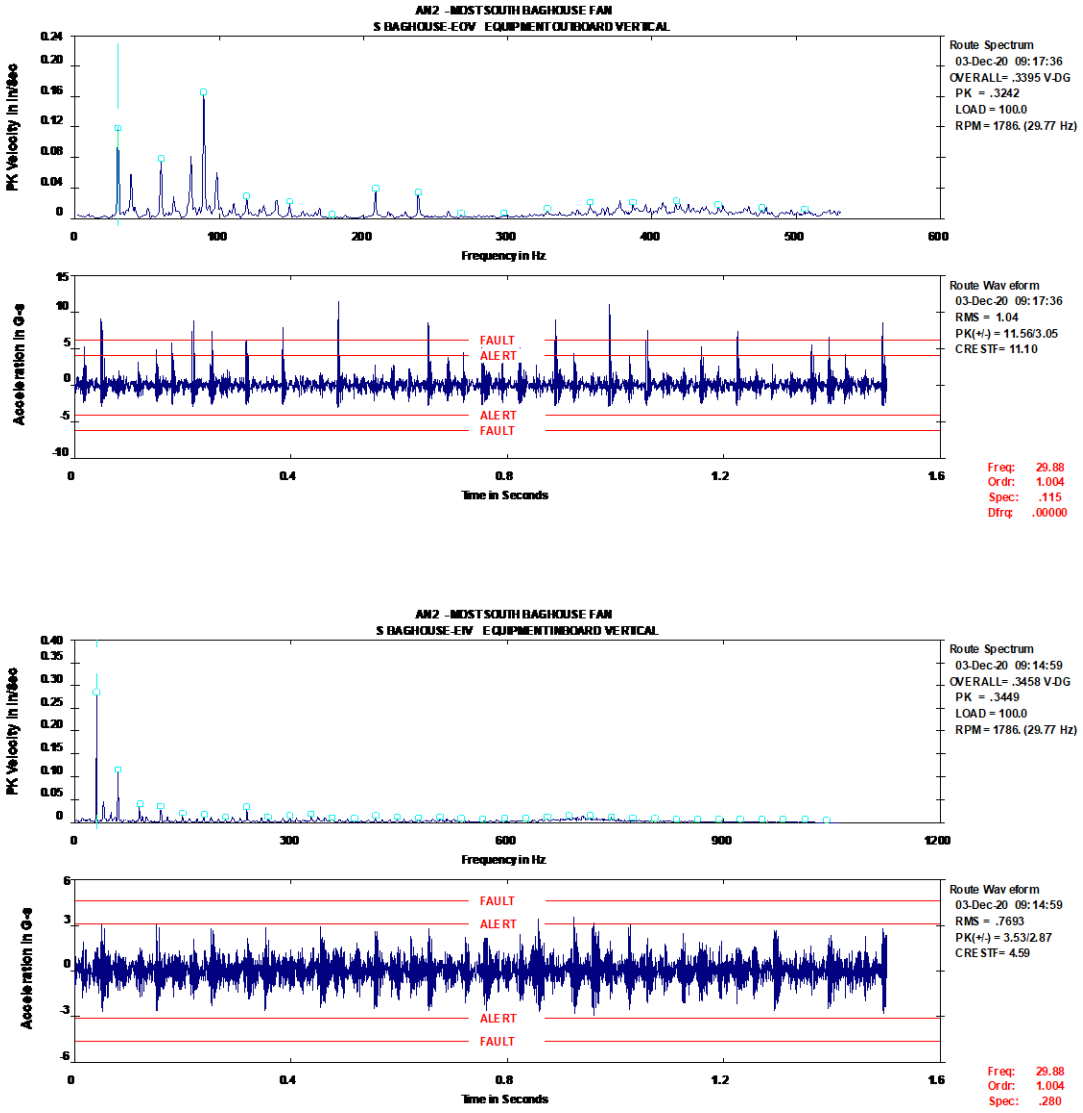
This completes our assessment of your equipment for this survey. Thank you for your business and don't hesitate to call if you have any comments or questions.

Sincerely,

David W. Shook
Senior Reliability Specialists
Hi-Speed **Industrial Service**
dshook@gohispeed.com

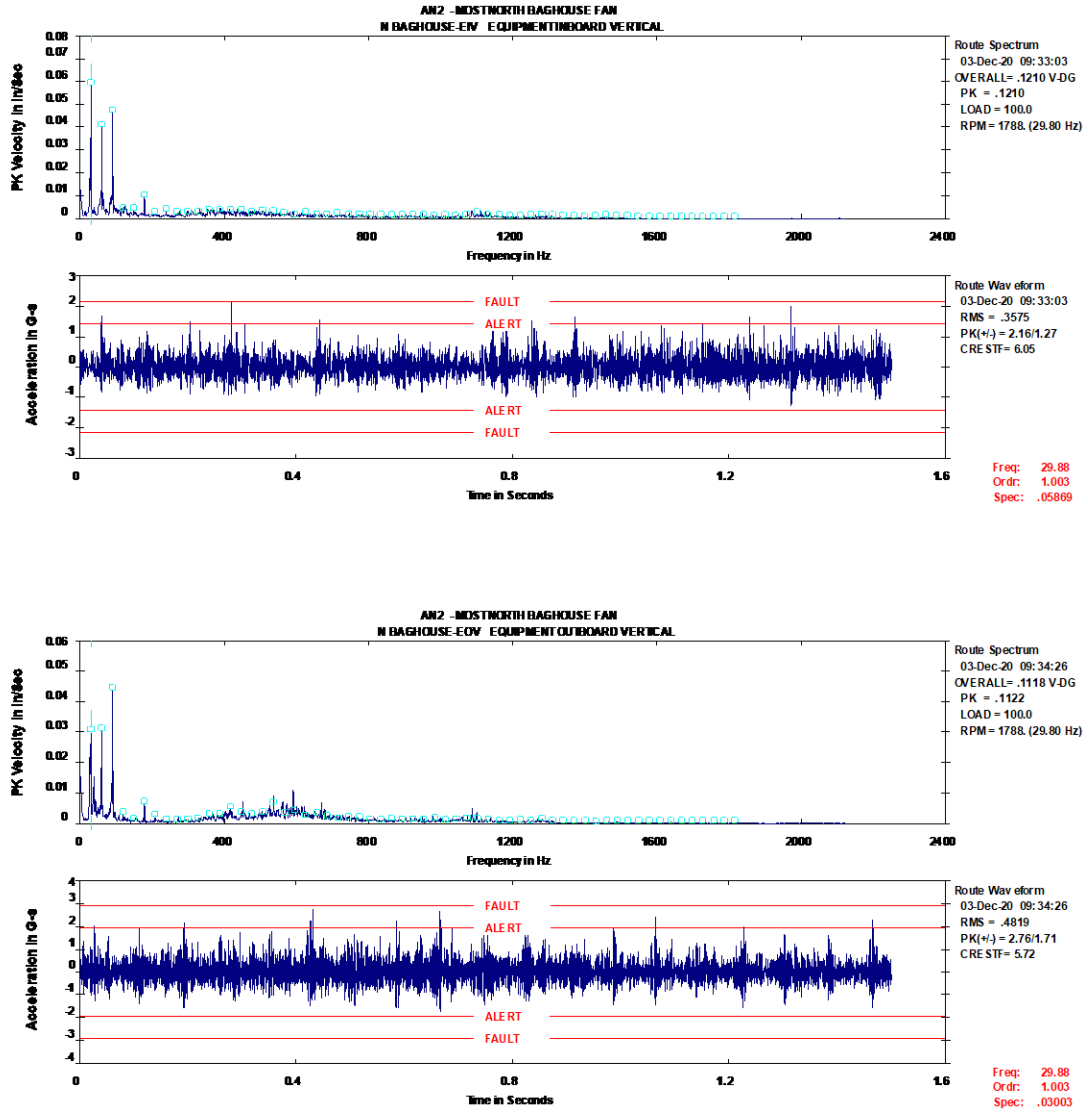
7030 Ryburn Drive
Millington, TN 38053
P. 901-873-5300
F. 901-873-5301

South Dust Collector Fan



The south fan bearings seem to be in distress. Multiple 1/3 order harmonics vibrations plus random impacting and a 1x RPM vibration over 0.3”/second in the horizontals. Fractional harmonics are not good. We believe high vibrations over time have degraded them. Bearing replacement would be prudent due to the duty cycle of these units. **Rated a Class II Defect.**

North Dust Collector Fan



The North fan looks to have some bearing wear and a few normal shaft speed harmonics. Inspect the bearings, purge the grease and re-lubricate s specified by manufacturer. Inspect the coupling, re-lube and have the alignment checked. Rated a Class I Defect

Abbreviated Last Measurement Summary

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Database: Analysis.rbm
Area: ANALYSIS 2
Report Date: 03-Dec-20 13:23

MEASUREMENT POINT	OVERALL LEVEL	HFD / VHFD
S BAGHOUSE - MOST SOUTH BAGHOUSE FAN	(03-Dec-20)	
	OVERALL LEVEL	1K-20KHz
MOH - MOTOR OUTBOARD HORIZONTAL	.130 In/Sec	1.103 G-s
MOV - MOTOR OUTBOARD VERTICAL	.069 In/Sec	.203 G-s
MIH - MOTOR INBOARD HORIZONTAL	.117 In/Sec	.625 G-s
MIV - MOTOR INBOARD VERTICAL	.081 In/Sec	.647 G-s
MIA - MOTOR INBOARD AXIAL	.086 In/Sec	.620 G-s
EIA - EQUIPMENT INBOARD AXIAL	.321 In/Sec	.280 G-s
EIH - EQUIPMENT INBOARD HORIZONTAL	.366 In/Sec	.808 G-s
EIV - EQUIPMENT INBOARD VERTICAL	.346 In/Sec	.138 G-s
EOH - EQUIPMENT OUTBOARD HORIZONTAL	.384 In/Sec	.266 G-s
EOV - EQUIPMENT OUTBOARD VERTICAL	.340 In/Sec	.240 G-s

Clarification Of Vibration Units:
Acc --> G-s RMS
Vel --> In/Sec PK

Abbreviated Last Measurement Summary

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Database: Analysis.rbm
Area: ANALYSIS 2
Report Date: 03-Dec-20 13:25

MEASUREMENT POINT	OVERALL LEVEL	HFD / VHFD
N BAGHOUSE - MOST NORTH BAGHOUSE FAN	(03-Dec-20)	
	OVERALL LEVEL	1K-20KHz
MOH - MOTOR OUTBOARD HORIZONTAL	.059 In/Sec	.394 G-s
MOV - MOTOR OUTBOARD VERTICAL	.039 In/Sec	.446 G-s
MIH - MOTOR INBOARD HORIZONTAL	.051 In/Sec	.110 G-s
MIV - MOTOR INBOARD VERTICAL	.057 In/Sec	.391 G-s
MIA - MOTOR INBOARD AXIAL	.046 In/Sec	.515 G-s
EIA - EQUIPMENT INBOARD AXIAL	.291 In/Sec	.435 G-s
EIH - EQUIPMENT INBOARD HORIZONTAL	.125 In/Sec	.631 G-s
EIV - EQUIPMENT INBOARD VERTICAL	.121 In/Sec	.463 G-s
EOH - EQUIPMENT OUTBOARD HORIZONTAL	.088 In/Sec	.444 G-s
EOV - EQUIPMENT OUTBOARD VERTICAL	.112 In/Sec	.484 G-s

Clarification Of Vibration Units:
Acc --> G-s RMS

Vel --> In/Sec PK Abbreviated Last Measurement Summary

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Database: Analysis.rbm
Area: ANALYSIS 2
Report Date: 03-Dec-20 13:26

MEASUREMENT POINT	OVERALL LEVEL	HFD / VHFD
S BAGHOUSE - MOST SOUTH BAGHOUSE FAN	(03-Dec-20)	
	OVERALL LEVEL	1K-20KHz
MOH - MOTOR OUTBOARD HORIZONTAL	.130 In/Sec	1.103 G-s
MOV - MOTOR OUTBOARD VERTICAL	.069 In/Sec	.203 G-s
MIH - MOTOR INBOARD HORIZONTAL	.117 In/Sec	.625 G-s
MIV - MOTOR INBOARD VERTICAL	.081 In/Sec	.647 G-s
MIA - MOTOR INBOARD AXIAL	.086 In/Sec	.620 G-s
EIA - EQUIPMENT INBOARD AXIAL	.321 In/Sec	.280 G-s
EIH - EQUIPMENT INBOARD HORIZONTAL	.366 In/Sec	.808 G-s
EIV - EQUIPMENT INBOARD VERTICAL	.346 In/Sec	.138 G-s
EOH - EQUIPMENT OUTBOARD HORIZONTAL	.384 In/Sec	.266 G-s
EOV - EQUIPMENT OUTBOARD VERTICAL	.340 In/Sec	.240 G-s

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