



QualiTest® Diagnostics

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July 17th, 2025

Stephen Fisher
Air Liquide
Walnut, MS

Josh,

The following is a summary of findings from the quarterly vibration survey performed at your facility on 7/8/25. Please let us know if there are any questions or comments.

QualiTest® uses a four step rating system for defects.

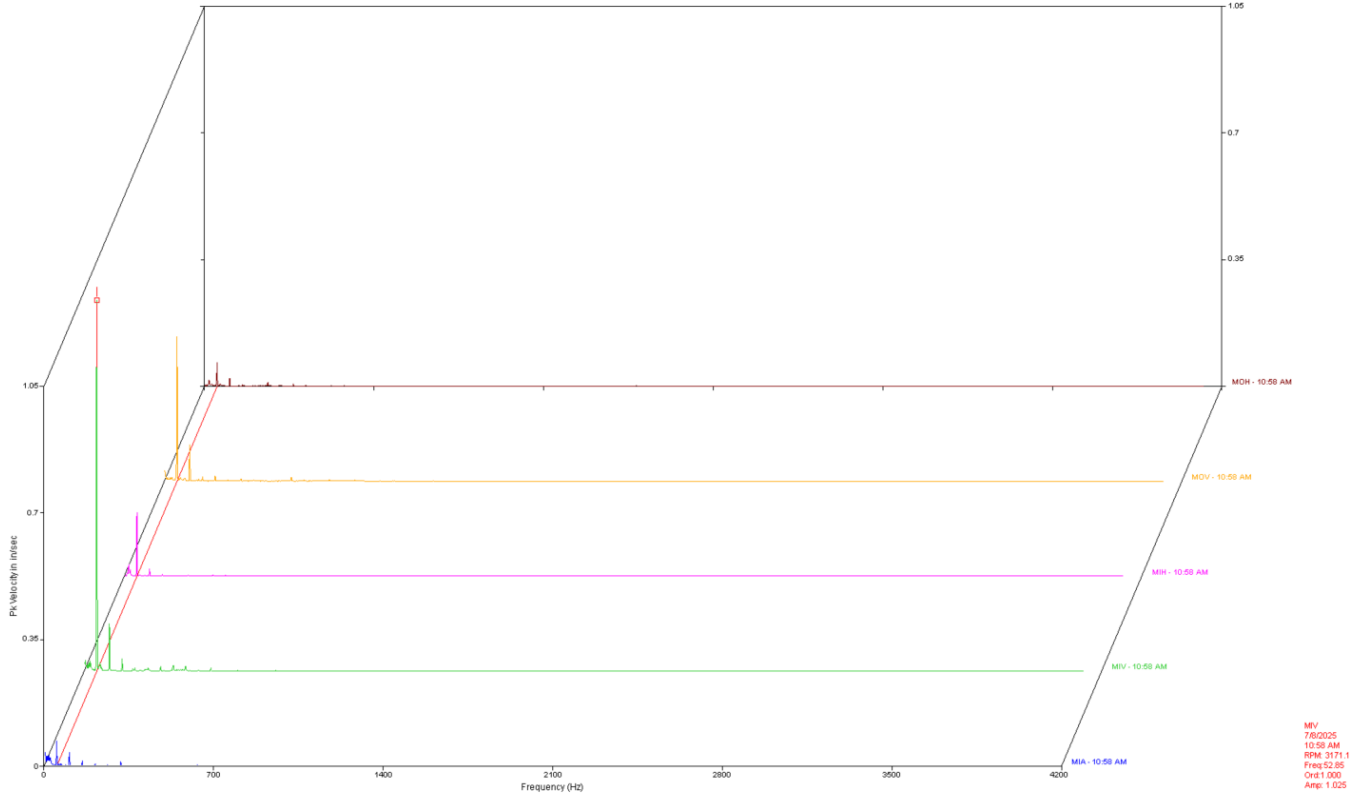
Class I: Defect is present, but effect on reliability is not clear; no immediate action is required. Continue to normally monitor.

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.



Tox Blower Motor **CLASS II**

Multipoint spectra of the motor shows a high vibration in the vertical direction. This may be resonance or a structural issue. This is our first collection, and we need to establish a trend to help determine severity of this issue. For now, inspect the motor base for looseness, flexibility, cracks, etc. soon.

Abbreviated Last Measurement Summary

Database: AIR LIQUIDE WALNUT.rbm
 Area: WALNUT PLANT

MEASUREMENT POINT -----	OVERALL LEVEL -----	HFD / VHFD -----
101-B-100 - INLET BLOWER A (08-Jul-25)		
	OVERALL LEVEL	1K-20KHz
MOH	.232 In/Sec	.728 G-s
MOP	.0070 In/Sec	
MOV	.160 In/Sec	.193 G-s
MIH	.212 In/Sec	1.308 G-s
MIP	.018 In/Sec	
MIV	.132 In/Sec	.206 G-s
MIA	.015 In/Sec	.208 G-s
FIH	.064 In/Sec	.445 G-s
FIP	.0027 In/Sec	
FIV	.101 In/Sec	.137 G-s
FIA	.051 In/Sec	.115 G-s
FOH	.086 In/Sec	.668 G-s
FOP	.013 In/Sec	
FOV	.099 In/Sec	.170 G-s
FOA	.049 In/Sec	.146 G-s
211-C-100 - INLET COMPRESSOR B (08-Jul-25)		
	OVERALL LEVEL	1K-20KHz
MOH	.184 In/Sec	1.088 G-s
MOP	.017 In/Sec	
MOV	.160 In/Sec	.174 G-s
MIH	.140 In/Sec	.326 G-s
MIP	.0041 In/Sec	
MIV	.138 In/Sec	.132 G-s
MIA	.062 In/Sec	.136 G-s
1IH	.097 In/Sec	.468 G-s
1IP	.0035 In/Sec	
1IV	.055 In/Sec	.098 G-s
1IA	.075 In/Sec	.225 G-s
1OH	.086 In/Sec	.666 G-s
1OP	.0082 In/Sec	
1OV	.103 In/Sec	.615 G-s
1OA	.094 In/Sec	.593 G-s
2IH	.059 In/Sec	.737 G-s
2IP	.011 In/Sec	
2IV	.102 In/Sec	.140 G-s
2IA	.105 In/Sec	.212 G-s
2OH	.082 In/Sec	.956 G-s
2OP	.015 In/Sec	
2OV	.082 In/Sec	.532 G-s
2OA	.088 In/Sec	.493 G-s
301-C-100 - 1ST STAGE SALES COMPRESSOR (08-Jul-25)		
	OVERALL LEVEL	1K-20KHz
MOH	.029 In/Sec	.199 G-s
MOV	.039 In/Sec	.110 G-s
MIH	.023 In/Sec	.513 G-s
MIP	.0067 In/Sec	
MIV	.071 In/Sec	.091 G-s
MIA	.025 In/Sec	.175 G-s
1IH	.039 In/Sec	.191 G-s
1IP	.0026 In/Sec	
1IV	.052 In/Sec	.068 G-s
1IA	.056 In/Sec	.072 G-s
1OH	.047 In/Sec	.383 G-s
1OP	.0055 In/Sec	

10V	.049 In/Sec	.065 G-s
10A	.065 In/Sec	.100 G-s
2IH	.038 In/Sec	.285 G-s
2IP	.0043 In/Sec	
2IV	.039 In/Sec	.140 G-s
2IA	.052 In/Sec	.202 G-s
2OH	.055 In/Sec	.341 G-s
2OP	.0044 In/Sec	
2OV	.066 In/Sec	.050 G-s
2OA	.056 In/Sec	.045 G-s

401-C-100 - 2ND STAGE SALES COMPRESSOR (08-Jul-25)

	OVERALL LEVEL	1K-20KHz
MOH	.044 In/Sec	.150 G-s
MOP	.0020 In/Sec	
MOV	.032 In/Sec	.091 G-s
MIH	.040 In/Sec	.254 G-s
MIP	.0035 In/Sec	
MIV	.058 In/Sec	.169 G-s
MIA	.043 In/Sec	.115 G-s
1IH	.123 In/Sec	.582 G-s
1IP	.0084 In/Sec	
1IV	.083 In/Sec	.175 G-s
1IA	.229 In/Sec	.215 G-s
1OH	.128 In/Sec	.953 G-s
1OP	.012 In/Sec	
1OV	.155 In/Sec	.394 G-s
1OA	.207 In/Sec	.299 G-s
2IH	.109 In/Sec	.625 G-s
2IP	.0094 In/Sec	
2IV	.135 In/Sec	.331 G-s
2IA	.248 In/Sec	.446 G-s
2OH	.133 In/Sec	.731 G-s
2OP	.011 In/Sec	
2OV	.162 In/Sec	.455 G-s
2OA	.277 In/Sec	.253 G-s

602-P-101 - GLYCOL PUMP B (08-Jul-25)

	OVERALL LEVEL	1K-20KHz
MOH	.048 In/Sec	.889 G-s
MOP	.014 In/Sec	
MOV	.089 In/Sec	.194 G-s
MIH	.105 In/Sec	.639 G-s
MIP	.011 In/Sec	
MIV	.154 In/Sec	.303 G-s
MIA	.096 In/Sec	.245 G-s
PIH	.374 In/Sec	.215 G-s
PIP	.0028 In/Sec	
PIV	.299 In/Sec	.060 G-s
PIA	.174 In/Sec	.068 G-s
POH	.248 In/Sec	.259 G-s
POP	.0037 In/Sec	
POV	.175 In/Sec	.080 G-s
POA	.150 In/Sec	.072 G-s

111-D-200 - BLOWER SKID AFTER COOL MTR A (08-Jul-25)

	OVERALL LEVEL	1K-20KHz
MOH	.079 In/Sec	1.922 G-s
MOP	.031 In/Sec	
MOV	.068 In/Sec	.446 G-s
MIH	.080 In/Sec	1.955 G-s
MIP	.039 In/Sec	
MIV	.054 In/Sec	.256 G-s
MIA	.045 In/Sec	.370 G-s

111-D-202 - BLOWER SKID AFTER COOL MTR B (08-Jul-25)

	OVERALL LEVEL	1K-20KHz
MOH	.122 In/Sec	2.484 G-s
MOP	.052 In/Sec	
MOV	.077 In/Sec	.846 G-s

MIH	.074 In/Sec	1.632 G-s
MIP	.024 In/Sec	
MIV	.068 In/Sec	.551 G-s
MIA	.050 In/Sec	.356 G-s

602-D-100 - GLYCOL COOLER MOTOR A (08-Jul-25)

	OVERALL LEVEL	1K-20KHz
MOH	.228 In/Sec	1.077 G-s
MOP	.012 In/Sec	
MOV	.152 In/Sec	.449 G-s
MIH	.151 In/Sec	.904 G-s
MIP	.011 In/Sec	
MIV	.156 In/Sec	.238 G-s
MIA	.117 In/Sec	.295 G-s

602-D-101 - GLYCOL COOLER MOTOR B (08-Jul-25)

	OVERALL LEVEL	1K-20KHz
MOH	.182 In/Sec	1.535 G-s
MOP	.013 In/Sec	
MOV	.160 In/Sec	.593 G-s
MIH	.209 In/Sec	1.050 G-s
MIP	.011 In/Sec	
MIV	.124 In/Sec	.520 G-s
MIA	.085 In/Sec	.338 G-s

201-D-100 - INLET COMP AFTER COOL MTR A (08-Jul-25)

	OVERALL LEVEL	1K-20KHz
MOH	.109 In/Sec	.871 G-s
MOP	.0090 In/Sec	
MOV	.241 In/Sec	.136 G-s
MIH	.083 In/Sec	.869 G-s
MIP	.0054 In/Sec	
MIV	.137 In/Sec	.165 G-s
MIA	.079 In/Sec	.432 G-s

201-D-101 - INLET COMP AFTER COOL MTR B (08-Jul-25)

	OVERALL LEVEL	1K-20KHz
MOH	.060 In/Sec	.474 G-s
MOP	.0055 In/Sec	
MOV	.098 In/Sec	.126 G-s
MIH	.060 In/Sec	.796 G-s
MIP	.0096 In/Sec	
MIV	.086 In/Sec	.157 G-s
MIA	.058 In/Sec	.263 G-s

601-B-100 - TOX BLOWER MOTOR (08-Jul-25)

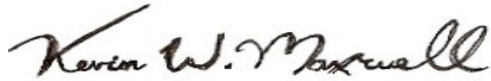
	OVERALL LEVEL	1K-20KHz
MOH	.084 In/Sec	.114 G-s
MOV	.453 In/Sec	.142 G-s
MIH	.198 In/Sec	.130 G-s
MIV	1.124 In/Sec	.167 G-s
MIA	.127 In/Sec	.254 G-s

Clarification Of Vibration Units:

Acc	-->	G-s	RMS
Vel	-->	In/Sec	PK

As always, it has been a pleasure to serve Air Liquide- Walnut, MS. If there are any comments or questions, do not hesitate to contact us.

Sincerely,



Senior Reliability Specialist
ISO Certified Vibration Analyst, Category III



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