HI-SPEED INDUSTRIAL SERVICE

MILLINGTON, TN

February 17, 2022

Blues City Brewery

Subject: February vibration service

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

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Reportable equipment

Middle Boiler Feed Water Pump
Data shows shaft speed vibrations in the pumps. There could be wear causing possible imbalance or run out. No action required. **Rated a Class I Defect.**

Boiler 3 Fan, Motor Bearings
Bearing defect frequencies are still present in the motor vibration data. The acceleration trend has increased this survey. The overalls are 4 g's RMS. Expect to change out the bearings in the future. **Rated a Class II Defect.**

Boiler 3 Fan, Fan Bearings
The inboard fan bearing still shows strong non-synchronous peaks in the acceleration spectrum up around 2500 Hz. Vibrations are over 7 g's RMS overall. Expect to change out the bearings in the future. **Rated a Class II Defect.**

Service Water Pump 8
The shaft speed vibrations in the motor radial and axial are still reportable. Harmonics of shaft speed are present in the pump input bearing which could indicate looseness in the bearing fits. Check for loose fasteners, shaft misalignment, bent shafts, or coupling defects. Perform a lift check on the pump shaft. **Rated a Class II Defect.**

RO Water Pump 1
Data is collected infrequently on this unit. This pump has two vibrations at 128 and 149 Hz that come into and out of phase causing a beat vibration. There could be wear in the pump, damage, or there could be a flow issue. We recommend further inspection and adjustments of flow related controls, filters, screens, or piping and finally internal inspection if needed. **Rated a Class II Defect.**

RO Water Pump 2
This pump has a vibration at 128Hz and one at the first harmonic. There could be a flow issue. We recommend further inspection and adjustments of flow related controls, filters, screens, or piping and finally internal inspection if needed. **Rated a Class II Defect.**

2nd Floor South Hot Water Pump
Shaft speed vibration still dominates the motor axial vibration data at near 0.6" per second velocity peak. A 2x RPM vibration is also present. Inspect the unit base, structure, coupling and fasteners for issues. Have the shaft alignment checked too. **Rated a Class I Defect.**

GF-VP2 GALLERY DA VAC PUMP-SKID 2
Multiple vibrations throughout unit are still above 1”/second at shaft speed. The pump input is almost 2”/second. Inspect the coupling and alignment first. Check the shaft and coupling for run out and alignment. Inspect the structure, fasteners, and feet. The pump could be worn or have stuck vanes. **Rated a Class IV Defect.**

GF-CP2 GALLERY DA CIRC PUMP- SKID 2
Motor vertical shows a 1x and smaller 2x RPM vibration; however this unit is close to the vacuum pump that has a very high vibration. Check the unit fasteners, feet, and structure. Impeller could be worn. **Rated a Class II Defect.**

Sugar Tank Viking Pump #4
Gearbox data still shows multiple low level harmonics that could be early signs of wear and looseness. The Pump was replaced. **Rated a Class II Defect.**

Filter Cellar Chill Water Circulator Pump 1
Vibrations are still at 2x line frequency. Unbalanced electrical phases or poor connections can cause the vibration since it changes in amplitude over time. Perform a motor phase and voltage analysis up to and including PDMA if necessary. Check for soft foot in the motor. **Rated a Class I Defect.**

Abbreviated Last Measurement Summary
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Database: Blues_city.rbm
Station: POWER HOUSE
Report Date: 17-Feb-22 13:18

MEASUREMENT POINT	OVERALL LEVEL	HFD / VHFD	MACHINE SPEED
AIR COMP 2 - COMPRESSOR #2 - 175HP	(16-Feb-22)		
	OVERALL LEVEL	1-20 KHZ	
11	.098 In/Sec	1.430 G-s	1794.0 RPM
12	.085 In/Sec	.500 G-s	
13	.069 In/Sec	.866 G-s	
21	.098 In/Sec	1.947 G-s	
22	.094 In/Sec	1.020 G-s	
23	.052 In/Sec	.552 G-s	
71	.100 In/Sec	.360 G-s	3659.8 RPM
72	.179 In/Sec	3.740 G-s	
73	.152 In/Sec	2.275 G-s	
81	.087 In/Sec	1.434 G-s	
82	.118 In/Sec	2.245 G-s	
83	.107 In/Sec	1.834 G-s	

AIR COMP 4 - COMPRESSOR #4 - 150HP (16-Feb-22)

	OVERALL LEVEL	1-20 KHZ	
11	.073 In/Sec	.514 G-s	1788.0 RPM
12	.091 In/Sec	.309 G-s	
13	.244 In/Sec	.330 G-s	
21	.119 In/Sec	.783 G-s	
22	.361 In/Sec	.709 G-s	
23	.160 In/Sec	.526 G-s	
71	.080 In/Sec	.749 G-s	1785.0 RPM
72	.393 In/Sec	.554 G-s	
73	.179 In/Sec	.419 G-s	
81	.124 In/Sec	.649 G-s	
82	.390 In/Sec	.587 G-s	
83	.139 In/Sec	1.247 G-s	

AIR COMP 5 - COMPRESSOR #5 (16-Feb-22)

	OVERALL LEVEL	1-20 KHZ	
11	.161 In/Sec	.418 G-s	1788.0 RPM
12	.103 In/Sec	.550 G-s	
13	.103 In/Sec	.434 G-s	
21	.082 In/Sec	.316 G-s	
22	.112 In/Sec	.241 G-s	
23	.177 In/Sec	.502 G-s	
71	.218 In/Sec	.524 G-s	1785.0 RPM
72	.116 In/Sec	.865 G-s	
73	.163 In/Sec	.791 G-s	
81	.153 In/Sec	.867 G-s	
82	.051 In/Sec	.954 G-s	
83	.080 In/Sec	.467 G-s	

AIR COMP 6 - COMPRESSOR #6 (16-Feb-22)

	OVERALL LEVEL	1-20 KHZ	
11	.127 In/Sec	.842 G-s	1788.0 RPM
12	.093 In/Sec	1.106 G-s	
13	.071 In/Sec	.318 G-s	
21	.144 In/Sec	.350 G-s	
22	.090 In/Sec	.542 G-s	
23	.077 In/Sec	.309 G-s	
71	.132 In/Sec	.732 G-s	1785.0 RPM
72	.143 In/Sec	.560 G-s	
73	.181 In/Sec	.935 G-s	
81	.121 In/Sec	1.105 G-s	
82	.084 In/Sec	.425 G-s	
83	.110 In/Sec	.633 G-s	

BFWPMIDLE2 - BOILER FEED WATER PUMP MID 2 (16-Feb-22)

	OVERALL LEVEL	1-20 KHZ	
11	.203 In/Sec	.113 G-s	3540.0 RPM
12	.110 In/Sec	.521 G-s	
21	.126 In/Sec	.657 G-s	
22	.057 In/Sec	.609 G-s	
23	.067 In/Sec	.909 G-s	
71	.312 In/Sec	1.549 G-s	
72	.148 In/Sec	1.265 G-s	
73	.067 In/Sec	1.333 G-s	
81	.218 In/Sec	1.957 G-s	

82	.150 In/Sec	.391 G-s	

BFWPSOUTH1 - BOILER FEED WATER PUMP S 1 (16-Feb-22)

	OVERALL LEVEL	1-20 KHZ	
11	.089 In/Sec	.116 G-s	3540.0 RPM
12	.088 In/Sec	.313 G-s	
21	.171 In/Sec	.388 G-s	
22	.088 In/Sec	.637 G-s	
23	.067 In/Sec	.388 G-s	
71	.156 In/Sec	.911 G-s	
72	.126 In/Sec	1.391 G-s	
73	.056 In/Sec	.801 G-s	
81	.215 In/Sec	.998 G-s	
82	.095 In/Sec	.538 G-s	

BOILERFAN3 - BOILER FAN #3 - 1780 RPM Max (16-Feb-22)

	OVERALL LEVEL	1-20 KHZ	
11	.158 In/Sec	2.307 G-s	1780.0 RPM
12	.214 In/Sec	4.304 G-s	
21	.164 In/Sec	2.812 G-s	
22	.211 In/Sec	3.262 G-s	
23	.117 In/Sec	1.246 G-s	
71	.149 In/Sec	7.740 G-s	
72	.101 In/Sec	6.035 G-s	
73	.152 In/Sec	1.731 G-s	

CR PUMP 1 - CARBON RECIRC PUMP (16-Feb-22)

	OVERALL LEVEL	1-20 KHZ	
11	.048 In/Sec	.089 G-s	3545.0 RPM
12	.028 In/Sec	.088 G-s	
21	.049 In/Sec	.148 G-s	
22	.053 In/Sec	.211 G-s	
23	.043 In/Sec	.069 G-s	
71	.028 In/Sec	.281 G-s	
72	.034 In/Sec	.404 G-s	
73	.029 In/Sec	.096 G-s	
81	.025 In/Sec	.209 G-s	
82	.024 In/Sec	.148 G-s	

ROBLUEPUMP - RO BLUE PUMP (16-Feb-22)

	OVERALL LEVEL	1-20 KHZ	
11	.057 In/Sec	.864 G-s	3545.0 RPM
12	.108 In/Sec	.376 G-s	
21	.053 In/Sec	.244 G-s	
22	.081 In/Sec	.345 G-s	
23	.074 In/Sec	.336 G-s	
71	.087 In/Sec	.310 G-s	
72	.099 In/Sec	.510 G-s	
73	.056 In/Sec	.337 G-s	
81	.062 In/Sec	.481 G-s	
82	.082 In/Sec	.710 G-s	

New Pump - NEW PUMP(change name) (16-Feb-22)

	OVERALL LEVEL	1-20 KHZ	
MOH	.121 In/Sec	.951 G-s	3545.0 RPM
MOV	.395 In/Sec	.641 G-s	
MIH	.121 In/Sec	.855 G-s	

MIV	.369 In/Sec	.902 G-s	
MIA	.299 In/Sec	.378 G-s	
EIH	.111 In/Sec	.468 G-s	
EOH	.103 In/Sec	.439 G-s	
EOA	.100 In/Sec	.786 G-s	

SW PUMP 8 - SERVICE WATER PUMP 8 (16-Feb-22)

	OVERALL LEVEL	1-20 KHZ	
11	.086 In/Sec	.325 G-s	3545.0 RPM
12	.285 In/Sec	.536 G-s	
21	.121 In/Sec	.624 G-s	
22	.177 In/Sec	.619 G-s	
23	.579 In/Sec	.800 G-s	
71	.411 In/Sec	.521 G-s	
72	.283 In/Sec	.867 G-s	
73	.101 In/Sec	.689 G-s	
81	.191 In/Sec	.598 G-s	
82	.175 In/Sec	.827 G-s	

SW PUMP 3 - SERVICE WATER PUMP 3 (16-Feb-22)

	OVERALL LEVEL	1-20 KHZ	
11	.230 In/Sec	.520 G-s	3545.0 RPM
12	.162 In/Sec	.461 G-s	
21	.209 In/Sec	.573 G-s	
22	.084 In/Sec	.971 G-s	
23	.099 In/Sec	.172 G-s	
71	.182 In/Sec	1.299 G-s	
72	.188 In/Sec	1.047 G-s	
73	.176 In/Sec	1.700 G-s	
81	.113 In/Sec	1.834 G-s	
82	.090 In/Sec	.703 G-s	

RO 1 - RO WATER PUMP 1 (16-Feb-22)

	OVERALL LEVEL	1-20 KHZ	
11	.040 In/Sec	.392 G-s	1540.0 RPM
12	.131 In/Sec	.510 G-s	3545.0 RPM
21	.070 In/Sec	.421 G-s	
22	.142 In/Sec	.215 G-s	
23	.078 In/Sec	.159 G-s	
71	.387 In/Sec	.190 G-s	
72	.283 In/Sec	.269 G-s	
73	.315 In/Sec	.097 G-s	
81	.187 In/Sec	.351 G-s	
82	.188 In/Sec	.137 G-s	

RO 2 - RO WATER PUMP 2 (16-Feb-22)

	OVERALL LEVEL	1-20 KHZ	
11	.130 In/Sec	.561 G-s	3545.0 RPM
12	.158 In/Sec	.800 G-s	
21	.149 In/Sec	.660 G-s	
22	.206 In/Sec	.436 G-s	
23	.146 In/Sec	.491 G-s	
71	.506 In/Sec	.816 G-s	
72	.265 In/Sec	.971 G-s	
81	.202 In/Sec	1.616 G-s	
82	.205 In/Sec	.493 G-s	

AMMCOMP 2 - AMMONIA COMP - #2 (16-Feb-22)

	OVERALL LEVEL	1-20 KHZ	
11	.039 In/Sec	.057 G-s	3592.0 RPM
12	.080 In/Sec	.113 G-s	
13	.055 In/Sec	.253 G-s	
21	.067 In/Sec	.033 G-s	
22	.058 In/Sec	.086 G-s	
23	.056 In/Sec	.273 G-s	
71	.105 In/Sec	.577 G-s	
72	.176 In/Sec	.766 G-s	
73	.145 In/Sec	.307 G-s	
81	.057 In/Sec	.828 G-s	
82	.108 In/Sec	.620 G-s	
83	.101 In/Sec	.470 G-s	
71F	.110 In/Sec	.734 G-s	
72F	.154 In/Sec	.847 G-s	
73F	.099 In/Sec	.233 G-s	
81F	.073 In/Sec	1.011 G-s	
82F	.134 In/Sec	.883 G-s	
83F	.103 In/Sec	.288 G-s	

AMMCOMP 5 - AMMONIA COMP #5 (16-Feb-22)

	OVERALL LEVEL	1-20 KHZ	
11	.114 In/Sec	.444 G-s	3580.0 RPM
11H	.114 In/Sec	.320 G-s	
12	.084 In/Sec	.728 G-s	
12H	.096 In/Sec	.413 G-s	
13	.100 In/Sec	.623 G-s	
21	.136 In/Sec	.954 G-s	
22	.070 In/Sec	.940 G-s	
23	.128 In/Sec	1.151 G-s	
71	.084 In/Sec	.712 G-s	3592.0 RPM
72	.195 In/Sec	.599 G-s	
73	.057 In/Sec	.658 G-s	
81	.080 In/Sec	.819 G-s	
82	.132 In/Sec	.636 G-s	
83	.134 In/Sec	.924 G-s	
71F	.067 In/Sec	1.092 G-s	
72F	.208 In/Sec	.460 G-s	
73F	.100 In/Sec	.738 G-s	
81F	.094 In/Sec	.193 G-s	
82F	.189 In/Sec	.937 G-s	
83F	.095 In/Sec	.445 G-s	

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

Abbreviated Last Measurement Summary

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Database: Blues_city.rbm
Station: UPPER FLOORS
Report Date: 17-Feb-22 13:18

MEASUREMENT POINT	OVERALL LEVEL	HFD / VHFD	MACHINE SPEED

2SHWP - 2ND FLOOR S. HOT WATER PUMP (16-Feb-22)

	OVERALL LEVEL	1-20 KHZ	
11	.130 In/Sec	.253 G-s	3545.0 RPM
12	.455 In/Sec	.413 G-s	
21	.131 In/Sec	.328 G-s	
22	.354 In/Sec	.350 G-s	
23	.244 In/Sec	1.061 G-s	
71	.098 In/Sec	1.143 G-s	
72	.143 In/Sec	.742 G-s	
73	.123 In/Sec	.677 G-s	
81	.074 In/Sec	.697 G-s	
82	.093 In/Sec	1.960 G-s	

GF-VP2 - GALLERY DA VAC PUMP-SKID 2 (16-Feb-22)

	OVERALL LEVEL	1-20 KHZ	
11	.433 In/Sec	.299 G-s	1770.0 RPM
12	.923 In/Sec	.666 G-s	
21	.266 In/Sec	.415 G-s	
22	1.197 In/Sec	.047 G-s	
23	.559 In/Sec	.164 G-s	
71	.251 In/Sec	2.123 G-s	3610.8 RPM
72	1.667 In/Sec	1.695 G-s	
73	.449 In/Sec	1.493 G-s	
81	1.277 In/Sec	1.311 G-s	
82	1.461 In/Sec	1.266 G-s	

GF-DP2 - GALLERY DA DISCH PUMP-SKID 2 (16-Feb-22)

	OVERALL LEVEL	1-20 KHZ	
11	.195 In/Sec	.191 G-s	3520.0 RPM
12	.274 In/Sec	.410 G-s	
21	.166 In/Sec	.400 G-s	
22	.251 In/Sec	.397 G-s	
23	.207 In/Sec	.323 G-s	

GF-CP2 - GALLERY DA CIRC PUMP- SKID 2 (16-Feb-22)

	OVERALL LEVEL	1-20 KHZ	
11	.227 In/Sec	.138 G-s	3535.0 RPM
12	.499 In/Sec	.339 G-s	
21	.302 In/Sec	.718 G-s	
22	.588 In/Sec	.436 G-s	
23	.303 In/Sec	.450 G-s	

Clarification Of Vibration Units:
Acc --> G-s PK
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Database: Blues_city.rbm
Station: SUGAR PUMPS
Report Date: 17-Feb-22 13:19

MEASUREMENT POINT	OVERALL LEVEL	HFD / VHFD	MACHINE SPEED

V3 - SUGAR TANK VIKING PUMP #3 (16-Feb-22)

	OVERALL LEVEL	1-20 KHZ	

11	.098 In/Sec	.221 G-s	1750.0 RPM
12	.128 In/Sec	.268 G-s	
21	.069 In/Sec	.228 G-s	
22	.091 In/Sec	.335 G-s	
23	.092 In/Sec	.472 G-s	
31	.112 In/Sec	.720 G-s	
32	.111 In/Sec	1.017 G-s	
33	.093 In/Sec	1.131 G-s	
61	.118 In/Sec	.933 G-s	
62	.128 In/Sec	1.332 G-s	
63	.115 In/Sec	.777 G-s	
71	.090 In/Sec	.145 G-s	
72	.121 In/Sec	.145 G-s	
73	.077 In/Sec	.394 G-s	

V4 - SUGAR TANK VIKING PUMP #4 (16-Feb-22)

OVERALL LEVEL 1-20 KHZ

11	.051 In/Sec	.404 G-s	1750.0 RPM
12	.057 In/Sec	.442 G-s	
21	.058 In/Sec	.975 G-s	
22	.137 In/Sec	.533 G-s	
23	.100 In/Sec	.371 G-s	
31	.085 In/Sec	.373 G-s	
32	.109 In/Sec	1.275 G-s	
33	.276 In/Sec	.695 G-s	
61	.089 In/Sec	1.043 G-s	
62	.112 In/Sec	.653 G-s	
63	.285 In/Sec	.696 G-s	
71	.086 In/Sec	.037 G-s	
72	.232 In/Sec	.154 G-s	
73	.159 In/Sec	.326 G-s	

V5 - SUGAR TANK VIKING PUMP #5 (16-Feb-22)

OVERALL LEVEL 1-20 KHZ

11	.171 In/Sec	.512 G-s	1175.0 RPM
12	.028 In/Sec	.517 G-s	
21	.130 In/Sec	.838 G-s	
22	.034 In/Sec	.336 G-s	
23	.040 In/Sec	.676 G-s	
71	.092 In/Sec	.142 G-s	
72	.106 In/Sec	1.023 G-s	
81	.101 In/Sec	.450 G-s	
82	.101 In/Sec	.502 G-s	

Clarification Of Vibration Units:

Acc --> G-s PK

Vel --> In/Sec PK

Abbreviated Last Measurement Summary

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Database: Blues_city.rbm
Station: ALCOHOL PUMP ROOM
Report Date: 17-Feb-22 13:19

MEASUREMENT POINT	OVERALL LEVEL	HFD / VHFD	MACHINE SPEED

SK1 RO1 - SKID 1 - RO PUMP #1 (16-Feb-22)

	OVERALL LEVEL	1-20 KHZ	
11	.063 In/Sec	.364 G-s	3555.0 RPM
12	.053 In/Sec	.504 G-s	
21	.073 In/Sec	.249 G-s	
22	.124 In/Sec	.347 G-s	
23	.101 In/Sec	.473 G-s	

SK1 RO4 - SKID 1 - RO PUMP #4 (16-Feb-22)

	OVERALL LEVEL	1-20 KHZ	
11	.064 In/Sec	.172 G-s	3515.0 RPM
12	.111 In/Sec	.188 G-s	
21	.067 In/Sec	.214 G-s	
22	.077 In/Sec	.286 G-s	
23	.078 In/Sec	.191 G-s	

SK1 RO3 - SKID 1 - RO PUMP #3 (16-Feb-22)

	OVERALL LEVEL	1-20 KHZ	
11	.219 In/Sec	1.191 G-s	3550.0 RPM
12	.229 In/Sec	.823 G-s	
21	.160 In/Sec	.810 G-s	
22	.201 In/Sec	.998 G-s	
23	.157 In/Sec	.519 G-s	
71	.161 In/Sec	1.129 G-s	
72	.180 In/Sec	.888 G-s	
73	.192 In/Sec	.569 G-s	
81	.136 In/Sec	.594 G-s	
82	.171 In/Sec	.816 G-s	

SK1 RO2 - SKID 1 - RO PUMP #2 (16-Feb-22)

	OVERALL LEVEL	1-20 KHZ	
11	.089 In/Sec	.432 G-s	3570.0 RPM
12	.031 In/Sec	.147 G-s	
21	.080 In/Sec	.661 G-s	
22	.043 In/Sec	.873 G-s	
23	.055 In/Sec	.850 G-s	
71	.073 In/Sec	.496 G-s	
72	.039 In/Sec	.618 G-s	
73	.085 In/Sec	.615 G-s	
81	.095 In/Sec	.959 G-s	
82	.063 In/Sec	.688 G-s	

SK2 RO1 - SKID 2 - RO PUMP #1 (16-Feb-22)

	OVERALL LEVEL	1-20 KHZ	
11	.056 In/Sec	.404 G-s	3555.0 RPM
12	.062 In/Sec	.262 G-s	
21	.085 In/Sec	.365 G-s	
22	.142 In/Sec	.581 G-s	
23	.097 In/Sec	.801 G-s	

SK2 RO4 - SKID 2 - RO PUMP #4 (16-Feb-22)

	OVERALL LEVEL	1-20 KHZ	
11	.049 In/Sec	.068 G-s	3515.0 RPM
12	.079 In/Sec	.135 G-s	
21	.044 In/Sec	.133 G-s	
22	.052 In/Sec	.093 G-s	

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       23               .051 In/Sec       .100 G-s

SK2 RO3    - SKID 2 - RO PUMP #3           (16-Feb-22)
                      OVERALL LEVEL     1-20 KHZ
       11               .110 In/Sec       .621 G-s        3550.0 RPM
       12               .298 In/Sec       .724 G-s
       21               .129 In/Sec       .807 G-s
       22               .323 In/Sec       .948 G-s
       23               .137 In/Sec       .364 G-s
       71               .142 In/Sec       .374 G-s
       72               .248 In/Sec       .720 G-s
       73               .152 In/Sec       .469 G-s
       81               .122 In/Sec       .599 G-s
       82               .147 In/Sec       .413 G-s

SK2 RO2    - SKID 2 - RO PUMP #2           (16-Feb-22)
                      OVERALL LEVEL     1-20 KHZ
       11               .040 In/Sec       .222 G-s        3570.0 RPM
       12               .027 In/Sec       .287 G-s
       21               .044 In/Sec      1.055 G-s
       22               .032 In/Sec       .256 G-s
       23               .025 In/Sec       .737 G-s
       71               .051 In/Sec       .317 G-s
       72               .050 In/Sec       .270 G-s
       73               .096 In/Sec       .154 G-s
       81               .085 In/Sec       .362 G-s
       82               .101 In/Sec       .252 G-s

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   Clarification Of Vibration Units:
      Acc      -->  G-s      PK
      Vel      -->  In/Sec   PK                     Abbreviated Last Measurement
Summary
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               Database:  Blues_city.rbm
               Station:   FILTER CELLAR
               Report Date:  17-Feb-22   13:19

 MEASUREMENT POINT     OVERALL LEVEL       HFD / VHFD      MACHINE SPEED
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 CHILL 1    - CHILL WATER CIRC PUMP #1      (16-Feb-22)
                      OVERALL LEVEL     1-20 KHZ
       11               .253 In/Sec       .865 G-s        3600.0 RPM
       12               .127 In/Sec      1.155 G-s
       21               .286 In/Sec       .548 G-s
       22               .147 In/Sec       .520 G-s
       23               .262 In/Sec      1.660 G-s
       71               .127 In/Sec       .733 G-s
       72               .122 In/Sec       .739 G-s
       73               .159 In/Sec       .816 G-s
       81               .079 In/Sec       .750 G-s
       82               .050 In/Sec       .470 G-s

 WARM GLY 1 - WARM GLYCOL PUMP #1           (16-Feb-22)
                      OVERALL LEVEL     1-20 KHZ
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11	.028 In/Sec	.358 G-s	3600.0 RPM
12	.021 In/Sec	.335 G-s	
21	.025 In/Sec	.440 G-s	
22	.015 In/Sec	.505 G-s	
23	.018 In/Sec	.377 G-s	
71	.041 In/Sec	.097 G-s	
72	.036 In/Sec	.118 G-s	
73	.048 In/Sec	.108 G-s	
81	.034 In/Sec	.048 G-s	
82	.017 In/Sec	.066 G-s	

WARM GLY 2 - WARM GLYCOL PUMP #2 (16-Feb-22)

	OVERALL LEVEL	1-20 KHZ	
11	.029 In/Sec	.299 G-s	3600.0 RPM
12	.018 In/Sec	.224 G-s	
21	.047 In/Sec	.282 G-s	
22	.027 In/Sec	.242 G-s	
23	.026 In/Sec	.153 G-s	
71	.025 In/Sec	.045 G-s	
72	.028 In/Sec	.111 G-s	
73	.025 In/Sec	.132 G-s	
81	.030 In/Sec	.061 G-s	
82	.023 In/Sec	.101 G-s	

WARM GLY 3 - WARM GLYCOL PUMP #3 (16-Feb-22)

	OVERALL LEVEL	1-20 KHZ	
11	.028 In/Sec	.413 G-s	3600.0 RPM
12	.035 In/Sec	.495 G-s	
21	.030 In/Sec	.292 G-s	
22	.038 In/Sec	.314 G-s	
23	.044 In/Sec	.292 G-s	
71	.036 In/Sec	.403 G-s	
72	.057 In/Sec	.333 G-s	
73	.023 In/Sec	.232 G-s	
81	.017 In/Sec	.276 G-s	
82	.031 In/Sec	.172 G-s	

Clarification Of Vibration Units:

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