HI-SPEED INDUSTRIAL SERVICE

MILLINGTON, TN

June 5, 2020

Blues City Brewery

Subject: June 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,

Jess White

ISO Certified Vibration Analyst
Hi-Speed **Industrial Service**
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Reportable equipment

Yellow Box Filtered Water Pump
The vibrations for this unit increased substantially in April and have remained at that level this survey. The vibrations in the motor axial and horizontal continue to dominate the data. We suspect a worn coupling, or alignment issue. Repair during next opportunity. **Rated a Class II Defect.**

Service Water Pump 8
The vertical and axial motor 1x vibrations for this unit are very high. This has continued to increase over the few months and the amplitude is high enough to be of concern. Recommend inspecting all foot bolts, the coupling for wear and alignment. **Rated as a Class II Defect.**

Service Water Pump 3
The inboard and outboard horizontal values have reduced to a .3 “”/sec 2x from the previous .4 “/sec 2x. We will continue to monitor this unit closely. **Rated as a Class I Defect.**

RO Water Pump 1, 2
These units still appear to have a vibration at what appears to be vane pass, (5x RPM). There could be wear in the pump, or there could be a flow issue. We recommend further inspection and adjustments of flow related controls, filters, screens or piping. Pump replacement might be considered to reduce the vibration. **Rated a Class II Defect.**

Ammonia Compressor 1
The fundamental and the first three harmonics are still dominant in the data for the motor data. Amplitude hasn’t changed since last checked. We suspect an alignment or coupling issue. Have the coupling inspected and the alignment checked. Ensure all fasteners are torqued. **Rated a Class II Defect.**

Ammonia Compressor 3
Multiple harmonics of run speed dominate the data. Amplitude of the 1x vibration in the Motor Outboard Vertical has almost doubled. Have the coupling inspected and alignment checked. Also ensure that there are no loose fasteners. Recommend doing a vibration check of the motor uncoupled to try and narrow down what this issue is. **Rated as a Class III Defect**.

Sugar Tank Viking Pump 4
The gearbox still shows a large number of harmonics in the data for several points. We suspect the gearbox internals are worn. Inspect the unit couplings first for damage, then the gearbox. **Rated a Class II Defect.**

HVAC Hot Water Circulator Pump
The unit vibrations are still around 0.5"/sec velocity peak. Ensure the coupling and alignment are good, and that there is no soft foot or pipe strain. **Rated a Class II Defect.**

Filter Cellar Chill Water Circulator Pump 1
High vibrations are still at 2x line frequency and could indicate an air gap issue in the motor. Air gap issues are variations in the distance between the surface of the rotor and stator. This could be caused by poor machining of the motor housing and end bells or possibly a soft foot. Unbalanced electrical phases can duplicate the vibration also. Start inspections with a precision alignment and soft foot check, followed by a motor phase and voltage analysis up to and including PDMA if necessary. **Rated a Class II Defect.**

Reported previously, better this survey

Boiler 3 Fan Motor Bearings
"Bearing defect frequencies are still in the motor. 1-20KHZ values have continued to increase. This has increased drastically since March report and have remained there. Expect to change out the motor bearings in the future. **Rated a Class II Defect." This month the vibrations have drastically dropped. Possible maintenance? No Rating This Month.**

Reported prior, but not running this survey

Air Compressor 4
The unit vibrations still seem to be dominated by lobe passing fundamental frequency and harmonics mostly showing in the vertical measurements. Check the fasteners for the motor and compressor just to be sure. We will keep an eye on it closely. **Rated a Class I Defect.**

Service Water Pump 5
This unit has an increased 1x vibration in the motor bearings. Check alignment and inspect coupling. Also check for a soft foot. **Rated as a Class I Defect.**

2nd Floor South Hot Water Pump
Shaft speed vibration dominated the unit vibration data at over ½" per second velocity peak. Inspect the unit base, structure, coupling and fasteners for issues. Have the shaft alignment checked as time allows. **Rated a Class III Defect.**

WORT Transfer Pump A
1x harmonics dominate data for entire unit. Have alignment and coupling checked. Also recommend doing a soft foot check. This could be harmful to motor bearings be prepared to have to replace them in the near future. **Rated as a Class II Defect.**

Abbreviated Last Measurement Summary

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Database: Blues_city.rbm
Station: POWER HOUSE
Report Date: 10-Jun-20 20:14

MEASUREMENT POINT	OVERALL LEVEL	HFD / VHFD
AIR COMP 3 - COMPRESSOR #3 - 250HP	**(04-Jun-20)**	
	OVERALL LEVEL	1-20 KHZ
11	.173 In/Sec	2.833 G-s
12	.157 In/Sec	.570 G-s
13	.098 In/Sec	.830 G-s
21	.169 In/Sec	2.889 G-s
22	.216 In/Sec	2.461 G-s
23	.076 In/Sec	.985 G-s
71	.176 In/Sec	1.888 G-s
72	.082 In/Sec	1.928 G-s
73	.214 In/Sec	2.405 G-s
81	.116 In/Sec	1.314 G-s
82	.105 In/Sec	1.547 G-s
83	.154 In/Sec	1.700 G-s
AIR COMP 2 - COMPRESSOR #2 - 175HP	**(04-Jun-20)**	
	OVERALL LEVEL	1-20 KHZ
11	.132 In/Sec	2.104 G-s
12	.092 In/Sec	.814 G-s
13	.060 In/Sec	.717 G-s
21	.069 In/Sec	1.330 G-s
22	.127 In/Sec	1.632 G-s
23	.064 In/Sec	.998 G-s
71	.074 In/Sec	2.321 G-s
72	.157 In/Sec	2.822 G-s
73	.181 In/Sec	3.188 G-s
81	.118 In/Sec	2.240 G-s
82	.131 In/Sec	1.968 G-s
83	.141 In/Sec	3.321 G-s
AIR COMP 5 - COMPRESSOR #5	**(04-Jun-20)**	
	OVERALL LEVEL	1-20 KHZ
11	.137 In/Sec	.495 G-s
12	.083 In/Sec	.603 G-s
13	.148 In/Sec	.414 G-s
21	.122 In/Sec	.492 G-s
22	.076 In/Sec	.823 G-s
23	.112 In/Sec	.361 G-s
71	.108 In/Sec	.651 G-s
72	.136 In/Sec	.827 G-s
73	.131 In/Sec	.635 G-s
81	.115 In/Sec	.869 G-s
82	.050 In/Sec	1.562 G-s
83	.099 In/Sec	.878 G-s
BFWPMIDLE2 - BOILER FEED WATER PUMP MID 2	**(04-Jun-20)**	
	OVERALL LEVEL	1-20 KHZ

11	.155 In/Sec	1.101 G-s
12	.096 In/Sec	.614 G-s
21	.097 In/Sec	.793 G-s
22	.067 In/Sec	.909 G-s
23	.063 In/Sec	1.203 G-s
71	.219 In/Sec	1.329 G-s
72	.120 In/Sec	1.430 G-s
73	.060 In/Sec	1.354 G-s
81	.237 In/Sec	1.251 G-s
82	.132 In/Sec	.673 G-s

BFWPSOUTH1 - BOILER FEED WATER PUMP S 1 (04-Jun-20)

	OVERALL LEVEL	1-20 KHZ
11	.067 In/Sec	.127 G-s
12	.083 In/Sec	.179 G-s
21	.080 In/Sec	.416 G-s
22	.063 In/Sec	.371 G-s
23	.055 In/Sec	.641 G-s
71	.134 In/Sec	1.464 G-s
72	.159 In/Sec	1.471 G-s
73	.063 In/Sec	1.536 G-s
81	.150 In/Sec	1.910 G-s
82	.100 In/Sec	1.060 G-s

BOILERFAN3 - BOILER FAN #3 - 1780 RPM Max (04-Jun-20)

	OVERALL LEVEL	1-20 KHZ
11	.074 In/Sec	.448 G-s
12	.039 In/Sec	.642 G-s
21	.067 In/Sec	.583 G-s
22	.059 In/Sec	.445 G-s
23	.067 In/Sec	.328 G-s
71	.079 In/Sec	4.152 G-s
72	.067 In/Sec	1.912 G-s
73	.051 In/Sec	.618 G-s
81	.196 In/Sec	.557 G-s
82	.207 In/Sec	.716 G-s

CR PUMP 1 - CARBON RECIRC PUMP (04-Jun-20)

	OVERALL LEVEL	1-20 KHZ
11	.032 In/Sec	.118 G-s
12	.029 In/Sec	.080 G-s
21	.041 In/Sec	.119 G-s
22	.053 In/Sec	.154 G-s
23	.037 In/Sec	.116 G-s
71	.027 In/Sec	.177 G-s
72	.027 In/Sec	.163 G-s
73	.028 In/Sec	.304 G-s
81	.025 In/Sec	.146 G-s
82	.023 In/Sec	.099 G-s

MAKEUP #1 - CHILLED WATER MAKEUP PUMP 1 (04-Jun-20)

	OVERALL LEVEL	1-20 KHZ
11	.127 In/Sec	1.166 G-s
12	.085 In/Sec	1.095 G-s
21	.158 In/Sec	.618 G-s
22	.137 In/Sec	.660 G-s
23	.157 In/Sec	.234 G-s

71	.232 In/Sec	.706 G-s
72	.168 In/Sec	.686 G-s
73	.099 In/Sec	.944 G-s
81	.273 In/Sec	.258 G-s
82	.165 In/Sec	.326 G-s

YB PUMP 1 - YELLOW BOX FILTERED WATER (04-Jun-20)

	OVERALL LEVEL	1-20 KHZ
11	.167 In/Sec	.173 G-s
12	.128 In/Sec	.795 G-s
21	.182 In/Sec	.791 G-s
22	.237 In/Sec	.644 G-s
23	.276 In/Sec	1.222 G-s
71	.438 In/Sec	.131 G-s
72	.144 In/Sec	.126 G-s
73	.176 In/Sec	.231 G-s
81	.267 In/Sec	.207 G-s
82	.145 In/Sec	.167 G-s

SW PUMP 8 - SERVICE WATER PUMP 8 (04-Jun-20)

	OVERALL LEVEL	1-20 KHZ
11	.341 In/Sec	.133 G-s
12	.518 In/Sec	.399 G-s
21	.316 In/Sec	.712 G-s
22	1.095 In/Sec	.620 G-s
23	.812 In/Sec	.261 G-s
71	.260 In/Sec	.553 G-s
72	.166 In/Sec	.554 G-s
73	.078 In/Sec	.493 G-s
81	.092 In/Sec	.674 G-s
82	.101 In/Sec	.846 G-s

RO 2 - RO WATER PUMP 2 (04-Jun-20)

	OVERALL LEVEL	1-20 KHZ
11	.122 In/Sec	.736 G-s
12	.116 In/Sec	.797 G-s
21	.109 In/Sec	.803 G-s
22	.172 In/Sec	.723 G-s
23	.166 In/Sec	.358 G-s
71	.262 In/Sec	.604 G-s
72	.234 In/Sec	1.076 G-s
73	.327 In/Sec	.446 G-s
81	.146 In/Sec	1.993 G-s
82	.136 In/Sec	1.100 G-s

AMMCOMP 1 - AMMONIA COMP #1 (04-Jun-20)

	OVERALL LEVEL	1-20 KHZ
11	.125 In/Sec	.253 G-s
12	.201 In/Sec	.161 G-s
13	.303 In/Sec	.334 G-s
21	.133 In/Sec	.364 G-s
22	.154 In/Sec	.206 G-s
23	.259 In/Sec	.127 G-s
71	.123 In/Sec	1.156 G-s
72	.129 In/Sec	1.058 G-s
73	.165 In/Sec	1.492 G-s
81	.105 In/Sec	1.697 G-s

82	.123 In/Sec	.758 G-s
83	.168 In/Sec	1.044 G-s
71F	.146 In/Sec	.610 G-s
72F	.089 In/Sec	.704 G-s
73F	.163 In/Sec	1.868 G-s
81F	.099 In/Sec	1.066 G-s
82F	.093 In/Sec	1.124 G-s
83F	.177 In/Sec	1.599 G-s

AMMCOMP 2 - AMMONIA COMP - #2 (04-Jun-20)

	OVERALL LEVEL	1-20 KHZ
11	.072 In/Sec	.208 G-s
12	.085 In/Sec	.158 G-s
13	.058 In/Sec	.027 G-s
21	.080 In/Sec	.095 G-s
22	.072 In/Sec	.128 G-s
23	.106 In/Sec	.284 G-s
71	.124 In/Sec	.571 G-s
72	.126 In/Sec	.564 G-s
73	.118 In/Sec	.536 G-s
81	.107 In/Sec	.652 G-s
82	.146 In/Sec	.451 G-s
83	.113 In/Sec	.543 G-s
71F	.094 In/Sec	.324 G-s
72F	.150 In/Sec	.347 G-s
73F	.172 In/Sec	.256 G-s
81F	.084 In/Sec	.525 G-s
82F	.096 In/Sec	.518 G-s
83F	.126 In/Sec	.565 G-s

AMMCOMP 3 - AMMONIA COMP #3 (04-Jun-20)

	OVERALL LEVEL	1-20 KHZ
11	.199 In/Sec	.509 G-s
11H	.211 In/Sec	.167 G-s
12	.633 In/Sec	.275 G-s
12H	.687 In/Sec	.392 G-s
13	.132 In/Sec	.384 G-s
21	.119 In/Sec	.822 G-s
22	.373 In/Sec	.333 G-s
23	.145 In/Sec	.618 G-s
71	.117 In/Sec	.528 G-s
72	.153 In/Sec	.366 G-s
73	.176 In/Sec	1.386 G-s
81	.140 In/Sec	.730 G-s
82	.124 In/Sec	.606 G-s
83	.160 In/Sec	.463 G-s
71F	.113 In/Sec	.348 G-s
72F	.109 In/Sec	.326 G-s
73F	.179 In/Sec	.660 G-s
81F	.140 In/Sec	.959 G-s
82F	.136 In/Sec	.673 G-s
83F	.186 In/Sec	.459 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: 10-Jun-20 20:15

MEASUREMENT POINT	OVERALL LEVEL	HFD / VHFD

2NHWP - 2ND FLOOR N. HOT WATER PUMP (04-Jun-20)

	OVERALL LEVEL	1-20 KHZ
11	.277 In/Sec	.561 G-s
12	.091 In/Sec	.511 G-s
21	.090 In/Sec	.986 G-s
22	.153 In/Sec	.684 G-s
23	.107 In/Sec	.217 G-s
71	.485 In/Sec	2.002 G-s
72	.169 In/Sec	2.518 G-s
73	.151 In/Sec	2.988 G-s
81	.469 In/Sec	2.808 G-s
82	.111 In/Sec	3.221 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: BREWING 1ST FLOOR
Report Date: 10-Jun-20 20:15

MEASUREMENT POINT	OVERALL LEVEL	HFD / VHFD

*** NO DATA Was Found That Meets the Report Specification ***

Abbreviated Last Measurement Summary

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Database: Blues_city.rbm
Station: BREWING BASEMENT
Report Date: 10-Jun-20 20:15

MEASUREMENT POINT	OVERALL LEVEL	HFD / VHFD

KCP1 - KETTLE CIRC PUMP 1 (04-Jun-20)

	OVERALL LEVEL	1-20 KHZ
11	.081 In/Sec	1.477 G-s
12	.012 In/Sec	5.652 G-s
21	.080 In/Sec	1.082 G-s
22	.020 In/Sec	1.417 G-s
23	.029 In/Sec	1.519 G-s
71	.041 In/Sec	.165 G-s

	72	.057 In/Sec	.120 G-s
	73	.032 In/Sec	.067 G-s
	81	.037 In/Sec	.141 G-s
	82	.031 In/Sec	.117 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: GRAIN TRANSFER
Report Date: 10-Jun-20 20:15

MEASUREMENT POINT	OVERALL LEVEL	HFD / VHFD

*** NO DATA Was Found That Meets the Report Specification ***

Abbreviated Last Measurement Summary

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Database: Blues_city.rbm
Station: SUGAR PUMPS
Report Date: 10-Jun-20 20:15

MEASUREMENT POINT	OVERALL LEVEL	HFD / VHFD

V3 - SUGAR TANK VIKING PUMP #3 (04-Jun-20)

	OVERALL LEVEL	1-20 KHZ
11	.098 In/Sec	.248 G-s
12	.150 In/Sec	.281 G-s
21	.058 In/Sec	.612 G-s
22	.052 In/Sec	.159 G-s
23	.093 In/Sec	.329 G-s
31	.093 In/Sec	1.883 G-s
32	.070 In/Sec	1.063 G-s
33	.062 In/Sec	.612 G-s
61	.112 In/Sec	1.332 G-s
62	.061 In/Sec	.850 G-s
63	.061 In/Sec	.648 G-s
71	.114 In/Sec	.301 G-s
72	.049 In/Sec	.301 G-s
73	.048 In/Sec	.109 G-s
81	.125 In/Sec	.176 G-s

V4 - SUGAR TANK VIKING PUMP #4 (04-Jun-20)

	OVERALL LEVEL	1-20 KHZ
11	.102 In/Sec	.310 G-s
12	.122 In/Sec	.412 G-s
21	.151 In/Sec	.351 G-s
22	.288 In/Sec	.520 G-s
23	.360 In/Sec	.440 G-s
31	.256 In/Sec	.385 G-s
32	.320 In/Sec	.499 G-s

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              33                        .628 In/Sec       .498 G-s
              61                        .176 In/Sec       .605 G-s
              62                        .368 In/Sec       .438 G-s
              63                        .510 In/Sec       .316 G-s
              71                        .185 In/Sec       .400 G-s
              72                        .334 In/Sec       .525 G-s
              73                        .337 In/Sec       .956 G-s
              81                        .277 In/Sec       .163 G-s
              82                        .030 In/Sec       .323 G-s

      V5         - SUGAR TANK VIKING PUMP #5     (04-Jun-20)
                                  OVERALL LEVEL     1-20 KHZ
              11                        .279 In/Sec       .314 G-s
              12                        .061 In/Sec       .283 G-s
              21                        .285 In/Sec       .299 G-s
              22                        .075 In/Sec       .358 G-s
              23                        .186 In/Sec       .287 G-s
              71                        .120 In/Sec       .526 G-s
              72                        .184 In/Sec       .750 G-s
              73                        .136 In/Sec       .447 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:   ALCOHOL PUMP ROOM
                Report Date:  10-Jun-20   20:15

      MEASUREMENT POINT            OVERALL LEVEL       HFD / VHFD
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             ***  NO DATA Was Found That Meets the Report Specification ***
Abbreviated Last Measurement Summary
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                Database:  Blues_city.rbm
                Station:   ADMINISTRATIVE AREA
                Report Date:  10-Jun-20   20:15

      MEASUREMENT POINT            OVERALL LEVEL       HFD / VHFD
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      HVAC COLD  - HVAC COLD GLYCOL CIRC PUMP    (04-Jun-20)
                                  OVERALL LEVEL     1-20 KHZ
              11                        .051 In/Sec       .504 G-s
              12                        .067 In/Sec       .375 G-s
              21                        .103 In/Sec       .358 G-s
              22                        .058 In/Sec       .315 G-s
              23                        .072 In/Sec       .184 G-s
              71                        .165 In/Sec       .624 G-s
              72                        .128 In/Sec       .406 G-s
              73                        .072 In/Sec       .517 G-s
              81                        .190 In/Sec       .413 G-s
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              82                        .116 In/Sec       .756 G-s

      HVAC HOT   - HVAC HOT WATER CIRC PUMP      (04-Jun-20)
                                  OVERALL LEVEL     1-20 KHZ
              11                        .197 In/Sec       .999 G-s
              12                        .255 In/Sec       .950 G-s
              21                        .141 In/Sec       .916 G-s
              22                        .321 In/Sec       .694 G-s
              23                        .472 In/Sec       .583 G-s
              71                        .225 In/Sec       .352 G-s
              72                        .183 In/Sec       .437 G-s
              73                        .410 In/Sec       .991 G-s
              81                        .232 In/Sec       .328 G-s
              82                        .206 In/Sec       .424 G-s

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   Clarification Of Vibration Units:
      Acc      -->  G-s      PK
      Vel      -->  In/Sec   PK                       Abbreviated Last Measurement
Summary
                     ************************************

                Database:  Blues_city.rbm
                Station:   FILTER CELLAR
                Report Date:  10-Jun-20   20:15

      MEASUREMENT POINT             OVERALL LEVEL       HFD / VHFD
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      CHILL 1    - CHILL WATER CIRC PUMP #1      (04-Jun-20)
                                  OVERALL LEVEL     1-20 KHZ
              11                        .996 In/Sec       .514 G-s
              12                        .098 In/Sec       .657 G-s
              21                       1.084 In/Sec      1.118 G-s
              22                        .115 In/Sec       .580 G-s
              23                        .092 In/Sec       .526 G-s
              71                        .313 In/Sec       .821 G-s
              72                        .081 In/Sec       .644 G-s
              73                        .077 In/Sec       .567 G-s
              81                        .144 In/Sec       .624 G-s
              82                        .081 In/Sec       .303 G-s

      WARM GLY 1 - WARM GLYCOL PUMP #1           (04-Jun-20)
                                  OVERALL LEVEL     1-20 KHZ
              11                        .036 In/Sec       .363 G-s
              12                        .049 In/Sec       .400 G-s
              21                        .080 In/Sec       .546 G-s
              22                        .087 In/Sec       .204 G-s
              23                        .105 In/Sec       .151 G-s
              71                        .178 In/Sec       .471 G-s
              72                        .121 In/Sec       .404 G-s
              73                        .122 In/Sec       .431 G-s
              81                        .091 In/Sec       .474 G-s
              82                        .113 In/Sec       .904 G-s

      WARM GLY 2 - WARM GLYCOL PUMP #2           (04-Jun-20)
                                  OVERALL LEVEL     1-20 KHZ
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11	.018 In/Sec	.158 G-s
12	.019 In/Sec	.205 G-s
21	.030 In/Sec	.224 G-s
22	.021 In/Sec	.296 G-s
23	.035 In/Sec	.091 G-s
71	.030 In/Sec	.075 G-s
72	.043 In/Sec	.068 G-s
73	.040 In/Sec	.146 G-s
81	.027 In/Sec	.041 G-s
82	.028 In/Sec	.079 G-s

WARM GLY 3 - WARM GLYCOL PUMP #3 (04-Jun-20)

	OVERALL LEVEL	1-20 KHZ
11	.039 In/Sec	.476 G-s
12	.028 In/Sec	.595 G-s
21	.031 In/Sec	.444 G-s
22	.022 In/Sec	.366 G-s
23	.030 In/Sec	.156 G-s
71	.030 In/Sec	.205 G-s
72	.051 In/Sec	.174 G-s
73	.078 In/Sec	.399 G-s
81	.028 In/Sec	.169 G-s
82	.016 In/Sec	.142 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: GOVERNMENT CELLAR
Report Date: 10-Jun-20 20:15

MEASUREMENT POINT	OVERALL LEVEL	HFD / VHFD

COLD GLY 1 - COLD GLYCOL PUMP #1 (04-Jun-20)

	OVERALL LEVEL	1-20 KHZ
11	.067 In/Sec	.113 G-s
12	.046 In/Sec	.299 G-s
21	.084 In/Sec	.286 G-s
22	.052 In/Sec	.623 G-s
23	.079 In/Sec	.140 G-s
71	.216 In/Sec	2.774 G-s
73	.197 In/Sec	2.403 G-s
81	.165 In/Sec	3.804 G-s

COLD GLY 4 - COLD GLYCOL PUMP #4 (04-Jun-20)

	OVERALL LEVEL	1-20 KHZ
11	.091 In/Sec	.278 G-s
21	.068 In/Sec	.551 G-s
23	.054 In/Sec	.244 G-s
71	.069 In/Sec	1.665 G-s
72	.061 In/Sec	1.614 G-s
73	.050 In/Sec	1.248 G-s

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              81                        .079 In/Sec      2.056 G-s
              82                        .053 In/Sec      2.026 G-s

      COLD GLY 5 - COLD GLYCOL PUMP #5           (04-Jun-20)
                                       OVERALL LEVEL     1-20 KHZ
              11                        .068 In/Sec       .255 G-s
              21                        .082 In/Sec       .322 G-s
              23                        .076 In/Sec       .088 G-s
              71                        .025 In/Sec       .155 G-s
              73                        .038 In/Sec       .154 G-s
              81                        .038 In/Sec       .165 G-s

      COLD GLY 6 - COLD GLYCOL PUMP #6           (04-Jun-20)
                                       OVERALL LEVEL     1-20 KHZ
              11                        .034 In/Sec       .329 G-s
              21                        .115 In/Sec       .563 G-s
              23                        .055 In/Sec       .693 G-s
              71                        .023 In/Sec       .179 G-s
              73                        .033 In/Sec       .136 G-s
              81                        .028 In/Sec       .187 G-s

      PACK GLY 2 - PACKAGING COLD GLYCOL PUMP 2  (04-Jun-20)
                                       OVERALL LEVEL     1-20 KHZ
              11                        .016 In/Sec      1.763 G-s
              21                        .016 In/Sec      2.000 G-s
              23                        .014 In/Sec      1.158 G-s
              71                        .033 In/Sec       .236 G-s
              73                        .032 In/Sec       .123 G-s
              81                        .014 In/Sec       .155 G-s

-------------------------------------------------------------------------------
   Clarification Of Vibration Units:
      Acc      -->  G-s      PK
      Vel      -->  In/Sec   PK                        Abbreviated Last Measurement
Summary
                     ***********************************

                  Database:  Blues_city.rbm
                  Station:   UNUSED / REMOVED
                  Report Date:  10-Jun-20   20:15

      MEASUREMENT POINT             OVERALL LEVEL       HFD / VHFD
      -----------------             -------------       ----------

             ***  NO DATA Was Found That Meets the Report Specification ***
```