HI-SPEED INDUSTRIAL SERVICE

MILLINGTON, TN

May 31, 2021

Penn A Kem

Subject: May 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,

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Senior Reliability Specialists
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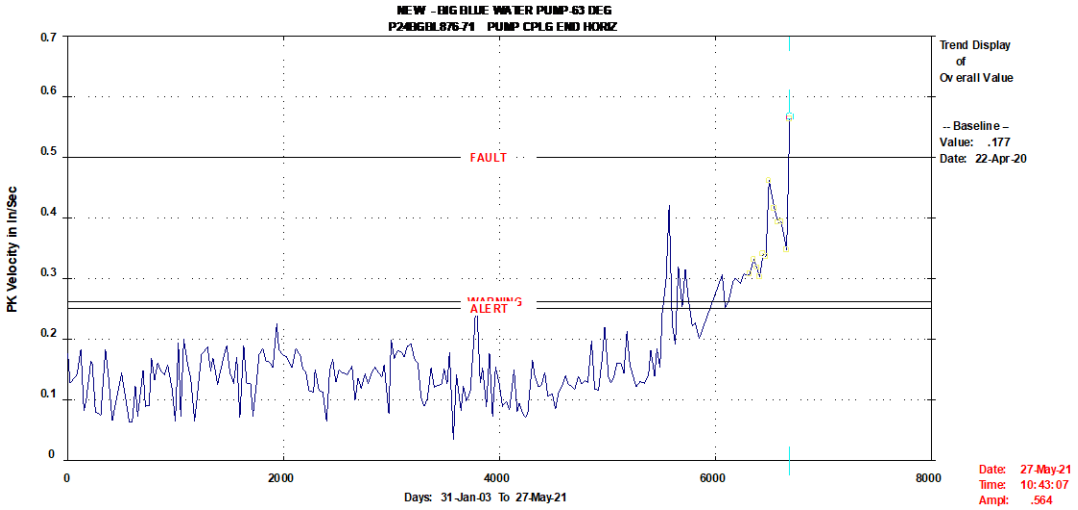
Observations

P 24 Big Blue Water Pump

The pump data still indicates possible looseness in the bearing fits as well as wear in the pump, such as imbalance, and vane pass, which we suspect is 5x RPM. The pump trend is above ½" per second velocity peak and is at the highest in almost 20 years. The motor data for the inboard bearing shows what we believe to be bearing fundamental outer race defect frequency and harmonics. **Rated a Class III Defect due to the jump in pump vibrations this survey.**



P24-85 Degree Pump South

The pump axial vibration is elevated. Shaft speed harmonics are in the data. The acceleration trend is over 4 g's RMS but looks to be some cavitation noise. Ensure the pump is running at BOP. Check all fasteners, shaft alignment, and coupling installation. Please note that this is the second data since last June. **Rated a Class I Defect.**

CHLR45-1 20 Ton Trane Chiller

The West compressor was running and vibrating at over 1.0"/sec velocity peak at 60 Hz shaft speed. Vibrations at these levels in either unit will likely cause a reduced lifespan. Have the unit checked for compliance with the manufacture's specification. **Rated a Class I Defect.**

P 48-7B Rotojet High Pressure Pump

The pump vibrations are up at vane pass and harmonics. Check the operational parameters.
Rated a Class I Defect.

R48-2 Reactor Agitator Motor and Gearbox
The overall motor vibrations are above 0.5"/sec velocity peak and are dominated by a 4.8 Hz peak. Check the agitator shaft and drive train for wear and run out, and the fasteners and frame as time allows. **Rated a Class II Defect.**

R53-301 Reactor Agitator Motor and Gearbox
The motor vibrations are still almost all near 0.5"/sec velocity peak. The vibrations are dominated by shaft speed and the first two harmonics. This usually indicates a coupling and/or an alignment issue. We recommend inspecting the motor and coupling, and check the shaft alignment, fasteners and frame as time allows. **Rated a Class II Defect.**

C67-51 Twin Screw Axial Compressor Motor
Vibration data for the outboard motor bearing still shows synchronous and non-synchronous peaks. We suspect outer race bearing defect frequencies are present. Overall acceleration is near 4 g's RMS. No immediate action is required; however, we are keeping this a **Class II Defect for now.**

C67-51 Twin Screw Axial Compressor section
The lobe pass vibrations at 2x and 4x input speed have jumped up since blower replacement due to running with no oil. Ensure the rotor lobes are timed properly. Loading could also affect vibrations. **Rated a Class II Defect.**

R80-10 Agitator Motor and Gearbox
The motor overall vibrations are low due to the slow rotation speeds; however, the raw data suggest the bearings are in severe distress. The gearbox has some similar vibrations, but we believe they are from the motor**. We recommend replacing the motor and inspecting the coupling and gearbox at the very next opportunity.** **Rated a Class IV Defect.**

B82-101A Southwest FD Fan (Outside)
The motor axial still has a sub-synchronous vibration at near half speed of the shaft. This could be a rub or possible looseness or an issue with the fan wheel. We recommend cleaning and inspecting the fan wheel/hub and check all fasteners. **Rated a Class I Defect.**

Abbreviated Last Measurement Summary

Database: penn.rbm
Station: PENNAKEM NEW CURRENT DATABASE
Route No. 4: HYDRO
Report Date: 01-Jun-21 10:05

MEASUREMENT POINT	OVERALL LEVEL	HFD / VHFD	MACHINE SPEED
C42-4 - AXIAL TWIN SCREW COMPRESSOR (27-May-21)			
	OVERALL LEVEL	1-20 KHZ	
11	.165 In/Sec	.301 G-s	1750.0 RPM
12	.077 In/Sec	1.119 G-s	
13	.098 In/Sec	.576 G-s	
21	.168 In/Sec	.546 G-s	
22	.078 In/Sec	1.048 G-s	
23	.152 In/Sec	.590 G-s	
71	.101 In/Sec	1.196 G-s	3570.0 RPM
72	.104 In/Sec	.473 G-s	
73	.112 In/Sec	2.394 G-s	
71F	.160 In/Sec	.921 G-s	
72F	.063 In/Sec	.478 G-s	
73F	.124 In/Sec	2.232 G-s	
81	.102 In/Sec	.606 G-s	
82	.053 In/Sec	.773 G-s	
83	.091 In/Sec	.817 G-s	
81F	.161 In/Sec	.847 G-s	
82F	.077 In/Sec	.267 G-s	
83F	.149 In/Sec	1.552 G-s	
P42-4A - CENTRIFUGAL HOT OIL PUMP 5HP (27-May-21)			
	OVERALL LEVEL	1-20 KHZ	
11	.036 In/Sec	.075 G-s	1760.0 RPM
21	.024 In/Sec	.055 G-s	
23	.036 In/Sec	.049 G-s	
71	.030 In/Sec	.264 G-s	
P42-4B - CENTRIFUGAL HOT OIL PUMP 5HP (27-May-21)			
	OVERALL LEVEL	1-20 KHZ	
11	.039 In/Sec	.051 G-s	1760.0 RPM
21	.027 In/Sec	.059 G-s	
23	.071 In/Sec	.040 G-s	
71	.021 In/Sec	.123 G-s	
CHLR67-1N - 240T TRANE CHILLER NORTH (27-May-21)			
	OVERALL LEVEL		
11	.083 In/Sec		3570.0 RPM
12	.142 In/Sec		
13	.079 In/Sec		
21	.077 In/Sec		
22	.122 In/Sec		
71	.048 In/Sec		
72	.084 In/Sec		
81	.103 In/Sec		

	82	.095 In/Sec		

CHLR67-1W - 240T TRANE CHILLER WEST (27-May-21)

	OVERALL LEVEL		
11	.187 In/Sec		3570.0 RPM
12	.183 In/Sec		
13	.177 In/Sec		
21	.143 In/Sec		
22	.151 In/Sec		
71	.083 In/Sec		
72	.089 In/Sec		
81	.128 In/Sec		
82	.166 In/Sec		

CHLR67-1E - 240T TRANE CHILLER EAST (27-May-21)

	OVERALL LEVEL		
11	.115 In/Sec		3570.0 RPM
12	.118 In/Sec		
13	.077 In/Sec		
21	.112 In/Sec		
22	.094 In/Sec		
71	.099 In/Sec		
72	.071 In/Sec		
81	.089 In/Sec		
82	.138 In/Sec		

C67-51 - AXIAL TWIN SCREW COMPRESSOR (27-May-21)

	OVERALL LEVEL	1-20 KHZ	
11	.102 In/Sec	3.257 G-s	1750.0 RPM
12	.093 In/Sec	3.884 G-s	
13	.144 In/Sec	.289 G-s	
21	.085 In/Sec	1.273 G-s	
22	.140 In/Sec	2.622 G-s	
23	.137 In/Sec	1.054 G-s	
71	.228 In/Sec	.209 G-s	3570.0 RPM
72	.168 In/Sec	.036 G-s	
73	.232 In/Sec	.312 G-s	
71F	.384 In/Sec	.184 G-s	
72F	.225 In/Sec	.108 G-s	
73F	.224 In/Sec	1.021 G-s	
81	.217 In/Sec	.323 G-s	
82	.236 In/Sec	.012 G-s	
83	.187 In/Sec	.721 G-s	
81F	.408 In/Sec	.168 G-s	
82F	.344 In/Sec	.196 G-s	
83F	.235 In/Sec	.657 G-s	

P67-54 - HOT OIL CIRC PMP CENT 15HP (27-May-21)

	OVERALL LEVEL	1-20 KHZ	
71	.086 In/Sec	.202 G-s	1750.0 RPM

P67-504 - HOT OIL CIRC PMP CENT 50HP (27-May-21)

	OVERALL LEVEL	1-20 KHZ	
11	.101 In/Sec	.126 G-s	1750.0 RPM
12	.037 In/Sec	.410 G-s	
13	.165 In/Sec	.118 G-s	
21	.109 In/Sec	.145 G-s	

22	.130 In/Sec	.169 G-s	
23	.199 In/Sec	.139 G-s	
71	.274 In/Sec	.594 G-s	
72	.182 In/Sec	.339 G-s	
73	.149 In/Sec	.308 G-s	
81	.162 In/Sec	.347 G-s	
82	.103 In/Sec	.217 G-s	

B82-101A - FAN FORCED DRAFT 10HP SOUTH (27-May-21)

	OVERALL LEVEL	1-20 KHZ	
11	.151 In/Sec	.060 G-s	1800.0 RPM
12	.203 In/Sec	.120 G-s	
21	.228 In/Sec	.165 G-s	
22	.335 In/Sec	.082 G-s	
23	.335 In/Sec	.132 G-s	

B82-102 - INDUCED DRAFT 150 HP (27-May-21)

	OVERALL LEVEL	1-20 KHZ	
11	.053 In/Sec	.198 G-s	1800.0 RPM
12	.034 In/Sec	.087 G-s	
21	.037 In/Sec	.573 G-s	
22	.050 In/Sec	.427 G-s	
23	.039 In/Sec	.090 G-s	
31	.047 In/Sec	.151 G-s	
32	.041 In/Sec	.548 G-s	
33	.031 In/Sec	.197 G-s	
41	.028 In/Sec	.091 G-s	
42	.027 In/Sec	.275 G-s	

C53-301A - C-301A RECIP COMPRESSOR (27-May-21)

	OVERALL LEVEL	1-20 KHZ	
11	.079 In/Sec	1.044 G-s	1800.0 RPM
12	.075 In/Sec	.216 G-s	
13	.198 In/Sec	.096 G-s	
21	.096 In/Sec	.431 G-s	
22	.130 In/Sec	.055 G-s	
23	.112 In/Sec	.509 G-s	
71	.093 In/Sec	.160 G-s	325.0 RPM
72	.084 In/Sec	.133 G-s	
73	.217 In/Sec	.191 G-s	
81	.102 In/Sec	.327 G-s	
82	.076 In/Sec	.119 G-s	

P48-7B - ROTOJET HIGH PRESS PUMP 15HP (27-May-21)

	OVERALL LEVEL	1-20 KHZ	
11	.076 In/Sec	.563 G-s	1750.0 RPM
12	.247 In/Sec	.379 G-s	
21	.102 In/Sec	.852 G-s	
22	.121 In/Sec	.740 G-s	
23	.155 In/Sec	.285 G-s	
71	.395 In/Sec	1.234 G-s	
72	.284 In/Sec	1.110 G-s	
73	.131 In/Sec	.340 G-s	
81	.277 In/Sec	.409 G-s	
82	.166 In/Sec	.740 G-s	

R48-2 - AGITATOR GEARBOX FAULK 15HP (27-May-21)

	OVERALL LEVEL		
11	.415 In/Sec		1760.0 RPM
12	.589 In/Sec		
21	.428 In/Sec		
22	.552 In/Sec		
23	.099 In/Sec		
31	.349 In/Sec		1775.0 RPM
32	.415 In/Sec		1760.0 RPM
41	.373 In/Sec		100.0 RPM
42	.469 In/Sec		
51	.181 In/Sec		

R53-301 - AGITATOR GBX CHEMINEER 15HP (27-May-21)

	OVERALL LEVEL		
11	.489 In/Sec		1760.0 RPM
12	.269 In/Sec		
21	.497 In/Sec		
22	.330 In/Sec		
23	.401 In/Sec		
31	.344 In/Sec		
32	.051 In/Sec		
33	.307 In/Sec		
41	.270 In/Sec		
42	.064 In/Sec		
51	.269 In/Sec		
61	.157 In/Sec		
63	.066 In/Sec		
71	.031 In/Sec		

P53-310A - GRUNDFOSS VERT PUMP 10HP (27-May-21)

	OVERALL LEVEL	1-20 KHZ	
11	.177 In/Sec	.154 G-s	1750.0 RPM
12	.111 In/Sec	.103 G-s	
21	.092 In/Sec	.348 G-s	
22	.063 In/Sec	.118 G-s	
23	.061 In/Sec	.116 G-s	
71	.199 In/Sec	.135 G-s	
72	.139 In/Sec	.093 G-s	
73	.036 In/Sec	.041 G-s	
81	.223 In/Sec	.065 G-s	
82	.022 In/Sec	.125 G-s	

P53-301 - ANSI CENTRIFUGAL PUMP 50 HP (27-May-21)

	OVERALL LEVEL	1-20 KHZ	
11	.098 In/Sec	.157 G-s	1750.0 RPM
12	.064 In/Sec	.144 G-s	
21	.126 In/Sec	.225 G-s	
22	.110 In/Sec	.284 G-s	
23	.117 In/Sec	.817 G-s	
71	.089 In/Sec	.351 G-s	
72	.140 In/Sec	.246 G-s	
73	.110 In/Sec	.461 G-s	
81	.057 In/Sec	.532 G-s	
82	.101 In/Sec	.478 G-s	

Clarification Of Vibration Units:

Acc --> G-s PK
Vel --> In/Sec PK Abbreviated Last Measurement Summary

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Database: penn.rbm
Station: PENNAKEM NEW CURRENT DATABASE
Route No. 5: UPI-FURAN
Report Date: 01-Jun-21 10:05

MEASUREMENT POINT	OVERALL LEVEL	HFD / VHFD	MACHINE SPEED
C54--115 - COMP 2CYL 2 STAGE 75 HP	(27-May-21)		
	OVERALL LEVEL	1-20 KHZ	
11	.048 In/Sec	.511 G-s	1800.0 RPM
12	.151 In/Sec	.398 G-s	
21	.050 In/Sec	.669 G-s	
22	.048 In/Sec	.354 G-s	
23	.168 In/Sec	.231 G-s	
71	.025 In/Sec	.060 G-s	
72	.026 In/Sec	.071 G-s	
73	.045 In/Sec	.097 G-s	
81	.040 In/Sec	.061 G-s	
82	.022 In/Sec	.029 G-s	
P54-112 - CANNED MOTOR CENTRIFUG PUMP	(27-May-21)		
	OVERALL LEVEL	1-20 KHZ	
11	.039 In/Sec	.018 G-s	1800.0 RPM
12	.018 In/Sec	.037 G-s	
13	.018 In/Sec	.016 G-s	
21	.025 In/Sec	.118 G-s	
22	.015 In/Sec	.102 G-s	
71	.021 In/Sec	.076 G-s	
72	.010 In/Sec	.078 G-s	
81	.022 In/Sec	.013 G-s	
82	.019 In/Sec	.067 G-s	

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

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Database: penn.rbm
Station: PENNAKEM NEW CURRENT DATABASE
Route No. 6: BOILER
Report Date: 01-Jun-21 10:05

MEASUREMENT POINT	OVERALL LEVEL	HFD / VHFD	MACHINE SPEED
B4C101-877 - ZURN BOILER BLOWER	(27-May-21)		
	OVERALL LEVEL	1-20 KHZ	
11	.192 In/Sec	.251 G-s	1180.0 RPM
12	.100 In/Sec	.152 G-s	

13	.143 In/Sec	.365 G-s	
21	.212 In/Sec	.394 G-s	
22	.135 In/Sec	.754 G-s	
23	.137 In/Sec	.398 G-s	
71	.220 In/Sec	.651 G-s	
72	.165 In/Sec	.363 G-s	
73	.143 In/Sec	.504 G-s	
81	.161 In/Sec	.699 G-s	
82	.117 In/Sec	.516 G-s	
83	.157 In/Sec	.399 G-s	

P4C-102B - BOILER FEEDWATER PUMP (27-May-21)

	OVERALL LEVEL	1-20 KHZ	
11	.083 In/Sec	.397 G-s	3570.0 RPM
12	.045 In/Sec	.635 G-s	
21	.145 In/Sec	.424 G-s	
22	.053 In/Sec	.327 G-s	
23	.068 In/Sec	.431 G-s	
71	.052 In/Sec	1.161 G-s	
72	.079 In/Sec	.903 G-s	
73	.072 In/Sec	2.005 G-s	
81	.074 In/Sec	.487 G-s	
82	.053 In/Sec	.626 G-s	
83	.135 In/Sec	1.127 G-s	

P24-63DEGN - 63 DEG N WATER PUMP (27-May-21)

	OVERALL LEVEL	1-20 KHZ	
11	.058 In/Sec	.517 G-s	1750.0 RPM
12	.039 In/Sec	.585 G-s	
21	.064 In/Sec	.457 G-s	
22	.057 In/Sec	.367 G-s	
23	.051 In/Sec	.366 G-s	
71	.070 In/Sec	.683 G-s	
72	.045 In/Sec	1.132 G-s	
73	.149 In/Sec	3.136 G-s	
81	.079 In/Sec	.853 G-s	
82	.032 In/Sec	1.177 G-s	
83	.120 In/Sec	2.481 G-s	

P24-63DEGS - 63 DEG S WATER PUMP (27-May-21)

	OVERALL LEVEL	1-20 KHZ	
11	.064 In/Sec	.308 G-s	1750.0 RPM
12	.088 In/Sec	.218 G-s	
21	.148 In/Sec	.480 G-s	
22	.052 In/Sec	.558 G-s	
23	.172 In/Sec	.396 G-s	
71	.088 In/Sec	.141 G-s	
72	.078 In/Sec	.362 G-s	
73	.092 In/Sec	1.084 G-s	
81	.081 In/Sec	.404 G-s	
82	.055 In/Sec	.343 G-s	
83	.087 In/Sec	1.111 G-s	

P24-85DEGS - 85 DEG S WATER CIRC PUMP 125 (27-May-21)

	OVERALL LEVEL	1-20 KHZ	
11	.099 In/Sec	1.003 G-s	1750.0 RPM
12	.189 In/Sec	.514 G-s	

21	.094 In/Sec	.690 G-s	
22	.113 In/Sec	.383 G-s	
23	.076 In/Sec	.461 G-s	
71	.321 In/Sec	2.428 G-s	
72	.242 In/Sec	2.118 G-s	
73	.457 In/Sec	4.544 G-s	
81	.190 In/Sec	2.339 G-s	
82	.191 In/Sec	1.826 G-s	
83	.342 In/Sec	2.480 G-s	

P24BGBL876 - BIG BLUE WATER PUMP-63 DEG (27-May-21)

	OVERALL LEVEL	1-20 KHZ	
11	.241 In/Sec	1.236 G-s	1180.0 RPM
12	.053 In/Sec	2.016 G-s	
21	.314 In/Sec	1.654 G-s	
22	.066 In/Sec	1.932 G-s	
23	.088 In/Sec	.877 G-s	
71	.564 In/Sec	.414 G-s	
72	.222 In/Sec	.443 G-s	
73	.266 In/Sec	.236 G-s	
81	.447 In/Sec	.377 G-s	
82	.196 In/Sec	.769 G-s	
83	.173 In/Sec	.906 G-s	

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

Abbreviated Last Measurement Summary

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Database: penn.rbm
Station: PENNAKEM NEW CURRENT DATABASE
Route No. 7: B55-FINE CHME
Report Date: 01-Jun-21 10:05

MEASUREMENT POINT	OVERALL LEVEL	HFD / VHFD	MACHINE SPEED

R55-102 - REACTOR AGIT R-102 (27-May-21)

	OVERALL LEVEL	1-20 KHZ	
11	.067 In/Sec	.247 G-s	1760.0 RPM
12	.072 In/Sec	.172 G-s	
21	.036 In/Sec	.336 G-s	
22	.045 In/Sec	.310 G-s	
23	.049 In/Sec	.266 G-s	
31	.033 In/Sec		
32	.017 In/Sec		
33	.051 In/Sec		
41	.045 In/Sec		
42	.024 In/Sec		
51	.027 In/Sec		
51L	.037 In/Sec		56.00 RPM
61	.023 In/Sec		1760.0 RPM
63	.016 In/Sec		
71	.012 In/Sec		

R55-104 - REACTOR AGIT R-104 (B55) (27-May-21)

	OVERALL LEVEL	1-20 KHZ	
11	.061 In/Sec	.821 G-s	1760.0 RPM
12	.036 In/Sec	.158 G-s	
21	.056 In/Sec	.587 G-s	
22	.031 In/Sec	.160 G-s	
23	.038 In/Sec	.303 G-s	
31	.036 In/Sec		
32	.013 In/Sec		
33	.038 In/Sec		
41	.037 In/Sec		
42	.019 In/Sec		
51	.054 In/Sec		
51L	.039 In/Sec		56.00 RPM
53	.019 In/Sec		1760.0 RPM
61	.031 In/Sec		
63	.014 In/Sec		
71	.018 In/Sec		

P36-905C - N COOL TWR-EAST PUMP (27-May-21)

	OVERALL LEVEL	1-20 KHZ	
11	.050 In/Sec	.263 G-s	1780.0 RPM
12	.027 In/Sec	.263 G-s	
21	.055 In/Sec	.458 G-s	
22	.029 In/Sec	.380 G-s	
23	.051 In/Sec	.039 G-s	
71	.137 In/Sec	.944 G-s	
72	.130 In/Sec	1.077 G-s	
73	.241 In/Sec	.298 G-s	
81	.117 In/Sec	.474 G-s	
82	.148 In/Sec	.582 G-s	
83	.195 In/Sec	.832 G-s	

P36-905A - N COOL TWR-NORTH PUMP (27-May-21)

	OVERALL LEVEL	1-20 KHZ	
11	.096 In/Sec	.246 G-s	1780.0 RPM
12	.050 In/Sec	.485 G-s	
21	.094 In/Sec	.282 G-s	
22	.081 In/Sec	.236 G-s	
23	.069 In/Sec	.079 G-s	
71	.079 In/Sec	1.077 G-s	
72	.085 In/Sec	1.235 G-s	
73	.107 In/Sec	.843 G-s	
81	.110 In/Sec	1.213 G-s	
82	.104 In/Sec	1.373 G-s	
83	.203 In/Sec	2.216 G-s	

C36-SOUTH - UTILITY AIRCOMP ROTARY 150HP (27-May-21)

	OVERALL LEVEL	1-20 KHZ	
11	.109 In/Sec	.585 G-s	1750.0 RPM
12	.055 In/Sec	.948 G-s	
21	.062 In/Sec	.685 G-s	
22	.089 In/Sec	.379 G-s	
23	.088 In/Sec	1.848 G-s	
71	.063 In/Sec	.656 G-s	3570.0 RPM
72	.103 In/Sec	1.270 G-s	
73	.092 In/Sec	1.288 G-s	

81	.096 In/Sec	1.260 G-s	
82	.067 In/Sec	.988 G-s	
71F	.087 In/Sec	1.868 G-s	
72F	.090 In/Sec	1.551 G-s	
81F	.078 In/Sec	1.038 G-s	
82F	.114 In/Sec	1.174 G-s	

R80-10 - AGITATOR GBX (27-May-21)

	OVERALL LEVEL	
11	.104 In/Sec	1760.0 RPM
12	.134 In/Sec	
13	.089 In/Sec	
21	.071 In/Sec	
22	.074 In/Sec	
23	.078 In/Sec	
31	.051 In/Sec	
32	.048 In/Sec	
33	.071 In/Sec	
41	.062 In/Sec	
42	.060 In/Sec	
43	.060 In/Sec	
51	.070 In/Sec	
52	.061 In/Sec	
61	.081 In/Sec	
62	.046 In/Sec	
63	.052 In/Sec	
71	.034 In/Sec	

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

Abbreviated Last Measurement Summary

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Database: penn.rbm
Station: PENNAKEM NEW CURRENT DATABASE
Route No. 8: PILOT-GUARD
Report Date: 01-Jun-21 10:05

MEASUREMENT POINT	OVERALL LEVEL	HFD / VHFD	MACHINE SPEED

CHLR45-1 - 20T TRANE CHILLER (27-May-21)

	OVERALL LEVEL	
11W	1.170 In/Sec	3570.0 RPM
12W	.468 In/Sec	
13W	.192 In/Sec	

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