



MILLINGTON, TN

September 26, 2019

AECI Dell Power

Subject: September 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
Senior Reliability Specialist
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Detailed Defects

Cooling tower fan motor 6

The data shows the motor is vibrating at near fan speed. It has jumped after the tower rebuild. Inspect the unit for defects associated with the fan and drive train. Inspect the structure and fasteners. Motor shows highest rotor bar passing vibration also, probably increasing from greater load.

Rated a Class II Defect.

Circulating Water Pump 1A

The pump unit is vibrating at high levels at the fundamental speed. Vibrations are somewhat directional which is typical for vertical pumps generally due to stiffness from piping. We suspect something has damaged the pump or is stuck in it. Vibrations at the amplitudes are damaging to the unit. Inspect the unit as soon as possible. **Rated a Class IV Defect.**

Observations

Cooling Tower Fan Motors

Vibration data for most of the cooling tower fan motors show a rotor bar vibration; for which the amplitude is low and not a concern to the continued health of the motor at this time. No actions are warranted **Rated a Class I Defect.**

Cooling tower fan motor 5

The data shows the data shows the motor is vibrating at near fan speed. It has stayed about the same even after the rebuild. Inspect the unit for defects associated with the fan and drive train. Inspect the structure and fasteners. **Rated a Class II Defect.**

LP Recirculating Pump Unit 1

Unit data shows bearing defects are still present in the motor bearings. The motor will need to be changed at some time in the future. **Rated a Class II Defect.**

Vacuum Pump 1

The unit pump vibrations have leveled off at around 0.4"/sec velocity peak. This unit seems to be an issue when both pumps are running; allowing the pump to cavitate, which will cause undue wear in the unit. **Rated a Class II Defect.**

STG Condensate Pump C

Data still shows a clean 3x RPM vibration modulating the shaft speed fundamental of about the same amplitude. The 3x RPM vibration has not changed much recently. Ensure the pump is running near optimal point in the curve. Inspect the pump coupling and shaft as time allows. **Rated a Class 1 Defect.**

Abbreviated Last Measurement Summary *****

Database: AECI Dell Power Plant.rbm
Area: Cooling Tower
Report Date: 26-Sep-19 12:05

MEASUREMENT POINT -----	OVERALL LEVEL -----	HFD / VHFD -----
CTW1 - Cooling Tower Fan 1	(23-Sep-19)	
	OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal	.259 In/Sec	3.093 G-s
MOP - Motor Outboard Horz Peakvue	.125 G-s	
MOV - Motor Outboard Vertical	.202 In/Sec	1.631 G-s
MIH - Motor Inboard Horizontal	.172 In/Sec	.378 G-s
MIP - Motor Inboard Horz Peakvue	.144 G-s	
MIV - Motor Inboard Vertical	.196 In/Sec	1.255 G-s
MIA - Motor Inboard Axial	.209 In/Sec	.501 G-s
CTW2 - Cooling Tower Fan 2	(23-Sep-19)	
	OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal	.340 In/Sec	3.232 G-s
MOP - Motor Outboard Horz Peakvue	.096 G-s	
MOV - Motor Outboard Vertical	.167 In/Sec	.487 G-s
MIH - Motor Inboard Horizontal	.181 In/Sec	2.472 G-s
MIP - Motor Inboard Horz Peakvue	1.006 G-s	
MIV - Motor Inboard Vertical	.254 In/Sec	1.341 G-s
MIA - Motor Inboard Axial	.249 In/Sec	.461 G-s
CTW3 - Cooling Tower Fan 3	(23-Sep-19)	
	OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal	.265 In/Sec	1.670 G-s
MOP - Motor Outboard Horz Peakvue	.083 G-s	
MOV - Motor Outboard Vertical	.161 In/Sec	.995 G-s
MIH - Motor Inboard Horizontal	.137 In/Sec	.311 G-s
MIP - Motor Inboard Horz Peakvue	.136 G-s	
MIV - Motor Inboard Vertical	.264 In/Sec	.554 G-s
MIA - Motor Inboard Axial	.449 In/Sec	.539 G-s
CTW4 - Cooling Tower Fan 4	(23-Sep-19)	
	OVERALL LEVEL	1K-20kHz

MOH - Motor Outboard Horizontal	.238 In/Sec	2.267 G-s
MOP - Motor Outboard Horz Peakvue	.114 G-s	
MOV - Motor Outboard Vertical	.182 In/Sec	2.088 G-s
MIH - Motor Inboard Horizontal	.142 In/Sec	.356 G-s
MIP - Motor Inboard Horz Peakvue	.082 G-s	
MIV - Motor Inboard Vertical	.200 In/Sec	.832 G-s
MIA - Motor Inboard Axial	.303 In/Sec	.230 G-s
CTW5 - Cooling Tower Fan 5		
	(23-Sep-19)	
	OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal	.257 In/Sec	1.632 G-s
MOP - Motor Outboard Horz Peakvue	.070 G-s	
MOV - Motor Outboard Vertical	.228 In/Sec	1.979 G-s
MIH - Motor Inboard Horizontal	.184 In/Sec	.535 G-s
MIP - Motor Inboard Horz Peakvue	.155 G-s	
MIV - Motor Inboard Vertical	.173 In/Sec	1.141 G-s
MIA - Motor Inboard Axial	.457 In/Sec	.301 G-s
CTW6 - Cooling Tower Fan 6		
	(23-Sep-19)	
	OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal	.327 In/Sec	4.149 G-s
MOP - Motor Outboard Horz Peakvue	.080 G-s	
MOV - Motor Outboard Vertical	.219 In/Sec	1.303 G-s
MIH - Motor Inboard Horizontal	.198 In/Sec	.564 G-s
MIP - Motor Inboard Horz Peakvue	.210 G-s	
MIV - Motor Inboard Vertical	.216 In/Sec	.873 G-s
MIA - Motor Inboard Axial	.309 In/Sec	.482 G-s
CTW7 - Cooling Tower Fan 7		
	(23-Sep-19)	
	OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal	.201 In/Sec	1.017 G-s
MOP - Motor Outboard Horz Peakvue	.331 G-s	
MOV - Motor Outboard Vertical	.400 In/Sec	2.170 G-s
MIH - Motor Inboard Horizontal	.172 In/Sec	1.433 G-s
MIP - Motor Inboard Horz Peakvue	1.050 G-s	
MIV - Motor Inboard Vertical	.239 In/Sec	.797 G-s
MIA - Motor Inboard Axial	.239 In/Sec	.583 G-s
CTW8 - Cooling Tower Fan 8		
	(23-Sep-19)	
	OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal	.348 In/Sec	2.753 G-s
MOP - Motor Outboard Horz Peakvue	.051 G-s	
MOV - Motor Outboard Vertical	.257 In/Sec	2.091 G-s
MIH - Motor Inboard Horizontal	.145 In/Sec	.434 G-s
MIP - Motor Inboard Horz Peakvue	.146 G-s	
MIV - Motor Inboard Vertical	.232 In/Sec	.849 G-s
MIA - Motor Inboard Axial	.372 In/Sec	1.520 G-s
CTW9 - Cooling Tower Fan 9		
	(23-Sep-19)	
	OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal	.601 In/Sec	4.778 G-s
MOP - Motor Outboard Horz Peakvue	.138 G-s	
MOV - Motor Outboard Vertical	.338 In/Sec	1.852 G-s
MIH - Motor Inboard Horizontal	.449 In/Sec	.602 G-s
MIP - Motor Inboard Horz Peakvue	.179 G-s	
MIV - Motor Inboard Vertical	.258 In/Sec	1.247 G-s
MIA - Motor Inboard Axial	.480 In/Sec	2.200 G-s

CTW10	- Cooling Tower Fan 10	(23-Sep-19)	
		OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal		.426 In/Sec	1.927 G-s
MOP - Motor Outboard Horz Peakvue		.062 G-s	
MOV - Motor Outboard Vertical		.271 In/Sec	.725 G-s
MIH - Motor Inboard Horizontal		.243 In/Sec	.466 G-s
MIP - Motor Inboard Horz Peakvue		.217 G-s	
MIV - Motor Inboard Vertical		.321 In/Sec	1.242 G-s
MIA - Motor Inboard Axial		.496 In/Sec	.281 G-s
CTW11	- Cooling Tower Fan 11	(23-Sep-19)	
		OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal		.266 In/Sec	3.480 G-s
MOP - Motor Outboard Horz Peakvue		.043 G-s	
MOV - Motor Outboard Vertical		.260 In/Sec	3.836 G-s
MIH - Motor Inboard Horizontal		.137 In/Sec	.465 G-s
MIP - Motor Inboard Horz Peakvue		.072 G-s	
MIV - Motor Inboard Vertical		.244 In/Sec	3.453 G-s
MIA - Motor Inboard Axial		.184 In/Sec	1.762 G-s
3CW-P-001	- Circ Water Pump 1A	(23-Sep-19)	
		OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal		1.686 In/Sec	.179 G-s
MOP - Motor Outboard Horz Peakvue		.081 G-s	
MOV - Motor Outboard Vertical		1.163 In/Sec	.368 G-s
MIH - Motor Inboard Horizontal		1.099 In/Sec	.213 G-s
MIP - Motor Inboard Horz Peakvue		.108 G-s	
MIV - Motor Inboard Vertical		.249 In/Sec	.506 G-s
MIA - Motor Inboard Axial		.216 In/Sec	.534 G-s
		OVERALL LEVEL	1K-20kHz
PIH - Pump Inboard Horizontal		.278 In/Sec	.264 G-s
PIP - Pump Inboard Horz Peakvue		.046 G-s	
3CW-P-002	- Circ Water Pump 1B	(23-Sep-19)	
		OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal		.157 In/Sec	.277 G-s
MOP - Motor Outboard Horz Peakvue		.127 G-s	
MOV - Motor Outboard Vertical		.103 In/Sec	.289 G-s
MIH - Motor Inboard Horizontal		.094 In/Sec	.382 G-s
MIP - Motor Inboard Horz Peakvue		.198 G-s	
MIV - Motor Inboard Vertical		.037 In/Sec	.283 G-s
MIA - Motor Inboard Axial		.041 In/Sec	.527 G-s
		OVERALL LEVEL	1K-20kHz
PIH - Pump Inboard Horizontal		.059 In/Sec	.275 G-s
PIP - Pump Inboard Horz Peakvue		.065 G-s	
LFAA1	- LFAA 1A	(23-Sep-19)	
		OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal		.152 In/Sec	.360 G-s
MOP - Motor Outboard Horz Peakvue		.218 G-s	
MOV - Motor Outboard Vertical		.203 In/Sec	.376 G-s
MIH - Motor Inboard Horizontal		.050 In/Sec	.272 G-s
MIP - Motor Inboard Horz Peakvue		.039 G-s	
MIV - Motor Inboard Vertical		.088 In/Sec	.192 G-s
MIA - Motor Inboard Axial		.088 In/Sec	.264 G-s
		OVERALL LEVEL	1K-20kHz

PIH - Pump Inboard Horizontal	.014 In/Sec	.095 G-s
PIP - Pump Inboard Horz Peakvue	.011 G-s	

Clarification Of Vibration Units:

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

Abbreviated Last Measurement

Summary

Database: AECI Dell Power Plant.rbm

Area: UNIT 1

Report Date: 26-Sep-19 12:05

MEASUREMENT POINT	OVERALL LEVEL	HFD / VHFD
-----	-----	-----
LP #1 - LP recirc unit #1	(23-Sep-19)	
	OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal	.089 In/Sec	.736 G-s
MOP - Motor Outboard Horz Peakvue	.185 G-s	
MOV - Motor Outboard Vertical	.067 In/Sec	1.226 G-s
MIH - Motor Inboard Horizontal	.123 In/Sec	1.689 G-s
MIP - Motor Inboard Horz Peakvue	.625 G-s	
MIV - Motor Inboard Vertical	.157 In/Sec	1.902 G-s
MIA - Motor Inboard Axial	.113 In/Sec	3.146 G-s
	OVERALL LEVEL	1K-20KHz
PIH - Pump Inboard Horizontal	.209 In/Sec	.596 G-s
PIP - Pump Inboard Horz Peakvue	.285 G-s	
PIV - Pump Inboard Vertical	.170 In/Sec	.649 G-s
POH - Pump Outboard Horizontal	.078 In/Sec	.512 G-s
POP - Pump Outboard Horz Peakvue	.275 G-s	
POV - Pump Outboard Vertical	.108 In/Sec	.326 G-s
POA - Pump Outboard Axial	.136 In/Sec	.246 G-s
1FD-P-001A - Boiler Feed Water 1A	(23-Sep-19)	
	OVERALL LEVEL	1K-20KHz
MOH - Motor Outboard Horizontal	.077 In/Sec	.297 G-s
MOP - Motor Outboard Horz Peakvue	.049 G-s	
MOV - Motor Outboard Vertical	.134 In/Sec	.527 G-s
MIH - Motor Inboard Horizontal	.078 In/Sec	.165 G-s
MIP - Motor Inboard Horz Peakvue	.031 G-s	
MIV - Motor Inboard Vertical	.133 In/Sec	.314 G-s
MIA - Motor Inboard Axial	.042 In/Sec	.327 G-s
	OVERALL LEVEL	1K-20kHz
NIA - NELSON INBOARD AXIAL	.084 In/Sec	.683 G-s
NIH - NELSON INBOARD HORIZONTAL	.088 In/Sec	.811 G-s
NIV - NELSON INBOARD VERTICAL	.057 In/Sec	.530 G-s
NOV - NELSON OUTBOARD VERTICAL	.108 In/Sec	.781 G-s
NOH - NELSON OUTBOARD HORIZONTAL	.122 In/Sec	.377 G-s
NOA - NELSON OUTBOARD AXIAL	.095 In/Sec	.539 G-s
	OVERALL LEVEL	1K-20KHz
BFA - BOILER FEEDWATER PUMP AXIAL	.046 In/Sec	.295 G-s
PIH - BFWP INBOARD HORIZONTAL	.056 In/Sec	.128 G-s
PIV - BFWP INBOARD VERTICAL	.063 In/Sec	.136 G-s
POV - BFWP OUTBOARD VERTICAL	.067 In/Sec	.083 G-s
POH - BFWP OUTBOARD HORIZONTAL	.085 In/Sec	.128 G-s

CT1	- CT Lube Oil Pump 1	(23-Sep-19)	
		OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal		.050 In/Sec	.192 G-s
MOP - Motor Outboard Horz Peakvue		.069 G-s	
MIH - Motor Inboard Horizontal		.028 In/Sec	.193 G-s
MIP - Motor Inboard Horz Peakvue		.084 G-s	
MIA - Motor Inboard Axial		.037 In/Sec	.232 G-s
S01	- CT Seal Oil 1	(23-Sep-19)	
		OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal		.784 In/Sec	.072 G-s BAD
READING			
MOP - Motor Outboard Horz Peakvue		.030 G-s	
MOV - Motor Outboard Vertical		.023 In/Sec	.079 G-s
MIH - Motor Inboard Horizontal		.037 In/Sec	.193 G-s
MIP - Motor Inboard Horz Peakvue		.075 G-s	
MIV - Motor Inboard Vertical		.039 In/Sec	.047 G-s
MIA - Motor Inboard Axial		.090 In/Sec	.248 G-s
CTHYD !	- CT Hyd Pump 1	(23-Sep-19)	
		OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal		.405 In/Sec	.729 G-s
MOP - Motor Outboard Horz Peakvue		.094 G-s	
MIH - Motor Inboard Horizontal		.052 In/Sec	.828 G-s
MIP - Motor Inboard Horz Peakvue		.328 G-s	
MIA - Motor Inboard Axial		.092 In/Sec	.202 G-s
		OVERALL LEVEL	1K-20kHz
PIH - Pump Inboard Horizontal		.170 In/Sec	.580 G-s
PIP - Pump Inboard Horz Peakvue		.180 G-s	

Clarification Of Vibration Units:

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

Summary

Database: AECI Dell Power Plant.rbm
Area: UNIT 2
Report Date: 26-Sep-19 12:06

MEASUREMENT POINT	OVERALL LEVEL	HFD / VHFD
-----	-----	-----
LP #2	(23-Sep-19)	
	OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal	.098 In/Sec	.387 G-s
MOP - Motor Outboard Horz Peakvue	.019 G-s	
MOV - Motor Outboard Vertical	.073 In/Sec	.104 G-s
MIH - Motor Inboard Horizontal	.118 In/Sec	.274 G-s
MIP - Motor Inboard Horz Peakvue	.089 G-s	
MIV - Motor Inboard Vertical	.118 In/Sec	.345 G-s
MIA - Motor Inboard Axial	.156 In/Sec	.202 G-s
	OVERALL LEVEL	1K-20kHz
PIH - Pump Inboard Horizontal	.210 In/Sec	.444 G-s
PIP - Pump Inboard Horz Peakvue	.240 G-s	

PIV - Pump Inboard Vertical	.088 In/Sec	.378 G-s
POH - Pump Outboard Horizontal	.072 In/Sec	.404 G-s
POP - Pump Outboard Horz Peakvue	.222 G-s	
POV - Pump Outboard Vertical	.070 In/Sec	.057 G-s
POA - Pump Outboard Axial	.081 In/Sec	.188 G-s
2FD-P-002B - Boiler Feed Water 2B	(23-Sep-19)	
	OVERALL LEVEL	1K-20KHz
MOH - Motor Outboard Horizontal	.044 In/Sec	.801 G-s
MOP - Motor Outboard Horz Peakvue	.530 G-s	
MOV - Motor Outboard Vertical	.023 In/Sec	.229 G-s
MIH - Motor Inboard Horizontal	1.313 In/Sec	.208 G-s BAD
READING		
MIP - Motor Inboard Horz Peakvue	.094 G-s	
MIV - Motor Inboard Vertical	.264 In/Sec	.127 G-s
MIA - Motor Inboard Axial	.029 In/Sec	1.579 G-s
	OVERALL LEVEL	1K-20kHz
NIA - NELSON INBOARD AXIAL	.081 In/Sec	.443 G-s
NIH - NELSON INBOARD HORIZONTAL	.171 In/Sec	.328 G-s
NIV - NELSON INBOARD VERTICAL	.079 In/Sec	.745 G-s
NOV - NELSON OUTBOARD VERTICAL	.096 In/Sec	.307 G-s
NOH - NELSON OUTBOARD HORIZONTAL	.115 In/Sec	.317 G-s
NOA - NELSON OUTBOARD AXIAL	.111 In/Sec	.585 G-s
	OVERALL LEVEL	1K-20KHz
BFA - BOILER FEEDWATER PUMP AXIAL	.114 In/Sec	.305 G-s
PIH - BFWP INBOARD HORIZONTAL	.070 In/Sec	.476 G-s
PIV - BFWP INBOARD VERTICAL	.076 In/Sec	.151 G-s
POV - BFWP OUTBOARD VERTICAL	.076 In/Sec	.118 G-s
POH - BFWP OUTBOARD HORIZONTAL	.108 In/Sec	.166 G-s
CT1 - CT Lube Oil Pump 1	(23-Sep-19)	
	OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal	.073 In/Sec	.262 G-s
MOP - Motor Outboard Horz Peakvue	.072 G-s	
MIH - Motor Inboard Horizontal	.046 In/Sec	.150 G-s
MIP - Motor Inboard Horz Peakvue	.018 G-s	
MIA - Motor Inboard Axial	.045 In/Sec	.339 G-s
SO1 - CT Seal Oil 1	(23-Sep-19)	
	OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal	.029 In/Sec	.039 G-s
MOP - Motor Outboard Horz Peakvue	.0045 G-s	
MOV - Motor Outboard Vertical	.023 In/Sec	.052 G-s
MIH - Motor Inboard Horizontal	.025 In/Sec	.035 G-s
MIP - Motor Inboard Horz Peakvue	.0074 G-s	
MIV - Motor Inboard Vertical	.021 In/Sec	.160 G-s
MIA - Motor Inboard Axial	.027 In/Sec	.101 G-s
CTHYD !1 - CT Hyd Pump 2	(23-Sep-19)	
	OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal	.063 In/Sec	.268 G-s
CTHYD ! - CT Hyd Pump 1	(23-Sep-19)	
	OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal	.076 In/Sec	.247 G-s
MOP - Motor Outboard Horz Peakvue	.068 G-s	
MIH - Motor Inboard Horizontal	.022 In/Sec	.483 G-s

MIP - Motor Inboard Horz Peakvue	.292 G-s	
MIA - Motor Inboard Axial	.052 In/Sec	.872 G-s
	OVERALL LEVEL	1K-20KHz
PIH - Pump Inboard Horizontal	.063 In/Sec	.668 G-s
PIP - Pump Inboard Horz Peakvue	.208 G-s	
ABF - Aux Boiler Fan	(23-Sep-19)	
	OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal	.146 In/Sec	.271 G-s
MOP - Motor Outboard Horz Peakvue	.061 G-s	
MOV - Motor Outboard Vertical	.257 In/Sec	.632 G-s
MIH - Motor Inboard Horizontal	.063 In/Sec	.337 G-s
MIP - Motor Inboard Horz Peakvue	.085 G-s	
MIT - Motor Inboard Vertical	.103 In/Sec	.326 G-s
MIA - Motor Inboard Axial	.130 In/Sec	.089 G-s

Clarification Of Vibration Units:

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

Abbreviated Last Measurement

Summary

Database: AECI Dell Power Plant.rbm
Area: UNIT STEAM TURBINE
Report Date: 26-Sep-19 12:06

MEASUREMENT POINT -----	OVERALL LEVEL -----	HFD / VHFD -----
3CW-P-003 - CCW Booster Pump 1	(23-Sep-19)	
	OVERALL LEVEL	
MOP - Motor Outboard Horz Peakvue	.030 G-s	
3CW-P-004 - CCW Booster Pump 2	(23-Sep-19)	
	OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal	.054 In/Sec	.115 G-s
MOP - Motor Outboard Horz Peakvue	.028 G-s	
MOV - Motor Outboard Vertical	.082 In/Sec	.196 G-s
MIH - Motor Inboard Horizontal	.057 In/Sec	.161 G-s
MIP - Motor Inboard Horz Peakvue	.044 G-s	
MIV - Motor Inboard Vertical	.051 In/Sec	.093 G-s
MIA - Motor Inboard Axial	.075 In/Sec	.070 G-s
	OVERALL LEVEL	1K-20KHz
PIH - Pump Inboard Horizontal	.105 In/Sec	.314 G-s
PIP - Pump Inboard Horz Peakvue	.053 G-s	
PIV - Pump Inboard Vertical	.058 In/Sec	.674 G-s
PIA - Pump Inboard Axial	.046 In/Sec	.212 G-s
OCC-P-002 - CLOsed Cooling Water 2	(23-Sep-19)	
	OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal	.085 In/Sec	.313 G-s
MOP - Motor Outboard Horz Peakvue	.033 G-s	
MOV - Motor Outboard Vertical	.034 In/Sec	.234 G-s
MIH - Motor Inboard Horizontal	.099 In/Sec	.234 G-s
MIP - Motor Inboard Horz Peakvue	.065 G-s	
MIV - Motor Inboard Vertical	.034 In/Sec	.201 G-s

MIA - Motor Inboard Axial	.031 In/Sec	.226 G-s
	OVERALL LEVEL	1K-20KHz
PIH - Pump Inboard Horizontal	.072 In/Sec	.366 G-s
PIP - Pump Inboard Horz Peakvue	.027 G-s	
POH - Pump Outboard Horizontal	.087 In/Sec	.246 G-s
POP - Pump Outboard Horz Peakvue	.053 G-s	
POV - Pump Outboard Vertical	.081 In/Sec	.349 G-s
POA - Pump Outboard Axial	.064 In/Sec	.390 G-s
3CH-P-001A - Condensate Pump A	(23-Sep-19)	
	OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal	.122 In/Sec	.108 G-s
MOP - Motor Outboard Horz Peakvue	.021 G-s	
MOV - Motor Outboard Vertical	.139 In/Sec	.291 G-s
MIH - Motor Inboard Horizontal	.069 In/Sec	.028 G-s
MIP - Motor Inboard Horz Peakvue	.011 G-s	
MIV - Motor Inboard Vertical	.046 In/Sec	.230 G-s
MIA - Motor Inboard Axial	.046 In/Sec	.263 G-s
	OVERALL LEVEL	1K-20KHz
PIH - Pump Inboard Horizontal	.037 In/Sec	.188 G-s
PIP - Pump Inboard Horz Peakvue	.129 G-s	
3CH-P-001C - Condensate PumpC	(23-Sep-19)	
	OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal	.300 In/Sec	.211 G-s
MOP - Motor Outboard Horz Peakvue	.061 G-s	
MOV - Motor Outboard Vertical	.348 In/Sec	.235 G-s
MIH - Motor Inboard Horizontal	.218 In/Sec	.352 G-s
MIP - Motor Inboard Horz Peakvue	.152 G-s	
MIV - Motor Inboard Vertical	.139 In/Sec	.470 G-s
MIA - Motor Inboard Axial	.066 In/Sec	.546 G-s
	OVERALL LEVEL	1K-20KHz
PIH - Pump Inboard Horizontal	.041 In/Sec	.386 G-s
PIP - Pump Inboard Horz Peakvue	.201 G-s	
3AE-P-002 - Vacuum Pump 2	(23-Sep-19)	
	OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal	.066 In/Sec	.397 G-s
MOP - Motor Outboard Horz Peakvue	.157 G-s	
MOV - Motor Outboard Vertical	.062 In/Sec	.305 G-s
MIH - Motor Inboard Horizontal	.088 In/Sec	.122 G-s
MIP - Motor Inboard Horz Peakvue	.049 G-s	
MIV - Motor Inboard Vertical	.128 In/Sec	.232 G-s
MIA - Motor Inboard Axial	.096 In/Sec	.128 G-s
	OVERALL LEVEL	1K-20KHz
PIH - Pump Inboard Horizontal	.112 In/Sec	.325 G-s
PIP - Pump Inboard Horz Peakvue	.209 G-s	
PIV - Pump Inboard Vertical	.151 In/Sec	.306 G-s
POH - Pump Outboard Horizontal	.120 In/Sec	.177 G-s
POP - Pump Outboard Horz Peakvue	.085 G-s	
POV - Pump Outboard Vertical	.120 In/Sec	.256 G-s
POA - Pump Outboard Axial	.101 In/Sec	.715 G-s
3AE-P-001 - Vacuum Pump 1	(23-Sep-19)	
	OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal	.163 In/Sec	.413 G-s
MOP - Motor Outboard Horz Peakvue	.171 G-s	

MOV - Motor Outboard Vertical	.110 In/Sec	.400 G-s
MIH - Motor Inboard Horizontal	.163 In/Sec	.186 G-s
MIP - Motor Inboard Horz Peakvue	.086 G-s	
MIV - Motor Inboard Vertical	.305 In/Sec	.353 G-s
MIA - Motor Inboard Axial	.251 In/Sec	.245 G-s
	OVERALL LEVEL	1K-20KHz
PIH - Pump Inboard Horizontal	.195 In/Sec	.850 G-s
PIP - Pump Inboard Horz Peakvue	1.038 G-s	
PIV - Pump Inboard Vertical	.319 In/Sec	1.457 G-s
POH - Pump Outboard Horizontal	.245 In/Sec	.706 G-s
POP - Pump Outboard Horz Peakvue	.454 G-s	
POV - Pump Outboard Vertical	.390 In/Sec	1.358 G-s
POA - Pump Outboard Axial	.176 In/Sec	1.848 G-s
STG1 - STG Lube Oil Pump 1 (23-Sep-19)		
	OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal	.068 In/Sec	.221 G-s
MOP - Motor Outboard Horz Peakvue	.072 G-s	
MOV - Motor Outboard Vertical	.051 In/Sec	.121 G-s
MIH - Motor Inboard Horizontal	.030 In/Sec	.111 G-s
MIP - Motor Inboard Horz Peakvue	.058 G-s	
MIV - Motor Inboard Vertical	.036 In/Sec	.118 G-s
MIA - Motor Inboard Axial	.075 In/Sec	.203 G-s
STGHyd1 - STG Hyd Pump 1 (23-Sep-19)		
	OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal	.095 In/Sec	.720 G-s
MOP - Motor Outboard Horz Peakvue	.143 G-s	
MOV - Motor Outboard Vertical	.092 In/Sec	.906 G-s
MIH - Motor Inboard Horizontal	.077 In/Sec	1.360 G-s
MIP - Motor Inboard Horz Peakvue	.460 G-s	
MIV - Motor Inboard Vertical	.080 In/Sec	.808 G-s
MIA - Motor Inboard Axial	.076 In/Sec	.134 G-s
	OVERALL LEVEL	1K-20KHz
PIH - Pump Inboard Horizontal	.136 In/Sec	1.511 G-s
PIP - Pump Inboard Horz Peakvue	1.010 G-s	
PIV - Pump Inboard Vertical	.104 In/Sec	1.065 G-s
PIA - Pump Inboard Axial	.305 In/Sec	1.885 G-s

Clarification Of Vibration Units:

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

Summary

Database: AECI Dell Power Plant.rbm
Area: WATER PUMPS AND VACUUM PUMPS
Report Date: 26-Sep-19 12:06

MEASUREMENT POINT	OVERALL LEVEL	HFD / VHFD
-----	-----	-----
OSW-P-001B - Service Water Pump 1B	(23-Sep-19)	
	OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal	.145 In/Sec	.267 G-s
MOP - Motor Outboard Horz Peakvue	.061 G-s	

MOV - Motor Outboard Vertical	.036 In/Sec	.355 G-s
MIH - Motor Inboard Horizontal	.177 In/Sec	.239 G-s
MIP - Motor Inboard Horz Peakvue	.066 G-s	
MIV - Motor Inboard Vertical	.090 In/Sec	.254 G-s
MIA - Motor Inboard Axial	.049 In/Sec	.426 G-s
	OVERALL LEVEL	1K-20KHz
PIH - Pump Inboard Horizontal	.181 In/Sec	1.151 G-s
PIP - Pump Inboard Horz Peakvue	.504 G-s	
PIV - Pump Inboard Vertical	.155 In/Sec	.678 G-s
POH - Pump Outboard Horizontal	.183 In/Sec	.946 G-s
POP - Pump Outboard Horz Peakvue	.531 G-s	
POV - Pump Outboard Vertical	.198 In/Sec	1.043 G-s
POA - Pump Outboard Axial	.135 In/Sec	2.493 G-s

ORW-P-001B - Deep Well Pump B	(23-Sep-19)	
	OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal	.075 In/Sec	.101 G-s
MOP - Motor Outboard Horz Peakvue	.038 G-s	
MOV - Motor Outboard Vertical	.080 In/Sec	.088 G-s
MIH - Motor Inboard Horizontal	.031 In/Sec	.049 G-s
MIP - Motor Inboard Horz Peakvue	.034 G-s	
MIV - Motor Inboard Vertical	.055 In/Sec	.048 G-s
MIA - Motor Inboard Axial	.028 In/Sec	.094 G-s
	OVERALL LEVEL	1K-20KHz
PIH - Pump Inboard Horizontal	.013 In/Sec	.065 G-s
PIP - Pump Inboard Horz Peakvue	.039 G-s	

ORW-P-001C - Deep Well Pump C	(23-Sep-19)	
	OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal	.270 In/Sec	.229 G-s
MOP - Motor Outboard Horz Peakvue	.120 G-s	
MOV - Motor Outboard Vertical	.218 In/Sec	.188 G-s
MIH - Motor Inboard Horizontal	.106 In/Sec	.199 G-s
MIP - Motor Inboard Horz Peakvue	.114 G-s	
MIV - Motor Inboard Vertical	.060 In/Sec	.224 G-s
MIA - Motor Inboard Axial	.136 In/Sec	.176 G-s
	OVERALL LEVEL	1K-20KHz
PIH - Pump Inboard Horizontal	.139 In/Sec	.069 G-s
PIP - Pump Inboard Horz Peakvue	.018 G-s	

Clarification Of Vibration Units:

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

Abbreviated Last Measurement

Summary

Database: AECI Dell Power Plant.rbm
Area: Chiller Module 2
Report Date: 26-Sep-19 12:06

MEASUREMENT POINT	OVERALL LEVEL	HFD / VHFD
-----	-----	-----
TWP 201 - Chiller Cooling Tower Pump 1	(23-Sep-19)	
	OVERALL LEVEL	1K-20kHz

MOH - Motor Outboard Horizontal	5.560 In/Sec	1.455 G-S bad
reading		
MOP - Motor Outboard Horz Peakvue	.996 G-s	
MOV - Motor Outboard Vertical	4.299 In/Sec	1.522 G-s bad
reading		
MIH - Motor Inboard Horizontal	.056 In/Sec	.379 G-s
MIV - Motor Inboard Vertical	.048 In/Sec	.323 G-s
MIA - Motor Inboard Axial	.051 In/Sec	.248 G-s
	OVERALL LEVEL	1K-20KHz
PIH - Pump Inboard Horizontal	.048 In/Sec	.358 G-s
PIP - Pump Inboard Horz Peakvue	.241 G-s	
CHWP 202 - Chilled Water Pump 2	(23-Sep-19)	
	OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal	.202 In/Sec	.762 G-s
MOP - Motor Outboard Horz Peakvue	.029 G-s	
MOV - Motor Outboard Vertical	.245 In/Sec	.356 G-s
MIH - Motor Inboard Horizontal	.044 In/Sec	.200 G-s
MIP - Motor Inboard Horz Peakvue	.079 G-s	
MIV - Motor Inboard Vertical	.063 In/Sec	.255 G-s
MIA - Motor Inboard Axial	.080 In/Sec	.175 G-s
	OVERALL LEVEL	1K-20KHz
PIH - Pump Inboard Horizontal	.071 In/Sec	.233 G-s
PIP - Pump Inboard Horz Peakvue	.055 G-s	
Comp A - Chiller compressor Mtr. A	(23-Sep-19)	
	OVERALL LEVEL	1K-20kHz
M1H - Motor Outboard Horizontal	.060 In/Sec	.242 G-s
M1P - Motor Outboard Horz Peakvue	.0090 G-s	
M1V - Motor Outboard Vertical	.043 In/Sec	.253 G-s
M2H - Motor Inboard Horizontal	.040 In/Sec	.365 G-s
M2P - Motor Inboard Horz Peakvue	.013 G-s	
M2V - Motor Inboard Vertical	.213 In/Sec	.482 G-s
M2A - Motor Inboard Axial	.071 In/Sec	1.217 G-s
C1H - Compressor Inboard Horizontal	.036 In/Sec	
C1P - Compressor Inboard Horz Peakvue	.045 G-s	
C1V - Compressor Inboard Vertical	.030 In/Sec	
C1A - Compressor Inboard Axial	.043 In/Sec	
C2H - Compressor Outboard Horizontal	.046 In/Sec	
C2P - Compressor Outboard Horz Peakvue	.030 G-s	
C2V - Compressor Outboard Vertical	.037 In/Sec	

Clarification Of Vibration Units:

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