



**QualiTest® Diagnostics**

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October 7, 2022

St Jude Research Hospital  
Memphis TN

The following is a summary of findings from the annual AHU vibration survey at the DTRC building. 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.

## **DTRC Building Air Handlers**

### **AHU 1A SF-A**

Measured vibration data is all within acceptable limits. No work is recommended at this time.

### **AHU 1A SF-B**

Measured vibration data is all within acceptable limits. No work is recommended at this time.

### **AHU 1A SF-C**

Measured vibration data is all within acceptable limits. No work is recommended at this time.

### **AHU 1A SF-D**

Measured vibration data is all within acceptable limits. No work is recommended at this time.

### **AHU 1B SF-E**

Measured vibration data is all within acceptable limits. No work is recommended at this time.

### **AHU 1B SF-F**

Measured vibration data is all within acceptable limits. No work is recommended at this time.

### **AHU 1B SF-G**

Measured vibration data is all within acceptable limits. No work is recommended at this time.

### **AHU 1B SF-H**

Measured vibration data is all within acceptable limits. No work is recommended at this time.

### **AHU 2A SF-A**

Measured vibration data is all within acceptable limits. No work is recommended at this time.

### **AHU 2A SF B**

Measured vibration data is all within acceptable limits. No work is recommended at this time.

### **AHU 2A SF-C**

Measured vibration data is all within acceptable limits. No work is recommended at this time.

### **AHU 2A SF-D**

Measured vibration data is all within acceptable limits. No work is recommended at this time.

### **AHU 2B SF-E**

Measured vibration data is all within acceptable limits. No work is recommended at this time.

### **AHU 2B SF-F**

Measured vibration data is all within acceptable limits. No work is recommended at this time.

### **AHU 2B SF-G**

Measured vibration data is all within acceptable limits. No work is recommended at this time.

### **AHU 2B SF-H**

Measured vibration data is all within acceptable limits. No work is recommended at this time.

### **AHU 3A SF-A**

Measured vibration data is all within acceptable limits. No work is recommended at this time.

**AHU 3A SF-B**

Measured vibration data is all within acceptable limits. No work is recommended at this time.

**AHU 3A SF-C**

Measured vibration data is all within acceptable limits. No work is recommended at this time.

**AHU 3A SF-D**

Measured vibration data is all within acceptable limits. No work is recommended at this time.

**AHU 3B SF-E**

Measured vibration data is all within acceptable limits. No work is recommended at this time.

**AHU 3B SF-F**

Measured vibration data is all within acceptable limits. No work is recommended at this time.

**AHU 3B SF-G**

Measured vibration data is all within acceptable limits. No work is recommended at this time.

**AHU 3B SF-H**

Measured vibration data is all within acceptable limits. No work is recommended at this time.

**AHU 4A SF A**

Measured vibration data is all within acceptable limits. No work is recommended at this time.

**AHU 4A SF B**

Measured vibration data is all within acceptable limits. No work is recommended at this time.

**AHU 4A SF C**

Measured vibration data is all within acceptable limits. No work is recommended at this time.

**AHU 4A SF D**

Measured vibration data is all within acceptable limits. No work is recommended at this time.

**AHU 4B SF E**

Measured vibration data is all within acceptable limits. No work is recommended at this time.

**AHU 4B SF F**

Measured vibration data is all within acceptable limits. No work is recommended at this time.

**AHU 4B SF G**

Measured vibration data is all within acceptable limits. No work is recommended at this time.

**AHU 4B SF H**

Measured vibration data is all within acceptable limits. No work is recommended at this time.

**AHU 5 SF A**

Measured vibration data is all within acceptable limits. No work is recommended at this time.

**AHU 5 SF B**

Measured vibration data is all within acceptable limits. No work is recommended at this time.

Abbreviated Last Measurement Summary  
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Database: stjude~1.rbm  
Station: DTRC AHU

MEASUREMENT POINT -----	OVERALL LEVEL -----	HFD / VHFD -----
SF1A-A - AHU 1A-A	(07-Oct-22)	
	OVERALL LEVEL	1 - 20 KHz
MOH	.018 In/Sec	.355 G-s
MOV	.031 In/Sec	.209 G-s
MIH	.027 In/Sec	.239 G-s
MIV	.025 In/Sec	.275 G-s
MIA	.029 In/Sec	.171 G-s
SF1A-B - AHU 1A-B	(07-Oct-22)	
	OVERALL LEVEL	1 - 20 KHz
MOH	.015 In/Sec	.386 G-s
MOV	.028 In/Sec	.662 G-s
MIH	.033 In/Sec	.242 G-s
MIV	.023 In/Sec	.261 G-s
MIA	.027 In/Sec	.426 G-s
SF1A-C - AHU 1A-C	(07-Oct-22)	
	OVERALL LEVEL	1 - 20 KHz
MOH	.024 In/Sec	.395 G-s
MOV	.054 In/Sec	.534 G-s
MIH	.024 In/Sec	.495 G-s
MIV	.032 In/Sec	.184 G-s
MIA	.033 In/Sec	.139 G-s
SF1A-D - AHU 1A-D	(07-Oct-22)	
	OVERALL LEVEL	1 - 20 KHz
MOH	.030 In/Sec	.297 G-s
MOV	.039 In/Sec	.358 G-s
MIH	.027 In/Sec	.475 G-s
MIV	.038 In/Sec	.280 G-s
MIA	.026 In/Sec	.303 G-s
SF1B-E - AHU 1B-E	(07-Oct-22)	
	OVERALL LEVEL	1 - 20 KHz
MOH	.033 In/Sec	1.187 G-s
MOV	.030 In/Sec	1.210 G-s
MIH	.026 In/Sec	1.642 G-s
MIV	.025 In/Sec	1.261 G-s
MIA	.028 In/Sec	1.540 G-s
SF1B-F - AHU 1B-F	(07-Oct-22)	
	OVERALL LEVEL	1 - 20 KHz
MOH	.026 In/Sec	2.023 G-s
MOV	.033 In/Sec	1.455 G-s
MIH	.037 In/Sec	1.728 G-s
MIV	.043 In/Sec	1.962 G-s
MIA	.033 In/Sec	.926 G-s
SF1B-G - AHU 1B-G	(07-Oct-22)	
	OVERALL LEVEL	1 - 20 KHz
MOH	.039 In/Sec	.975 G-s
MOV	.030 In/Sec	1.304 G-s
MIH	.034 In/Sec	1.568 G-s
MIV	.037 In/Sec	1.595 G-s
MIA	.044 In/Sec	.698 G-s
SF1B-H - AHU 1B-H	(07-Oct-22)	
	OVERALL LEVEL	1 - 20 KHz
MOH	.024 In/Sec	1.415 G-s

MOV	.034 In/Sec	1.361 G-s
MIH	.026 In/Sec	2.820 G-s
MIV	.029 In/Sec	2.324 G-s
MIA	.027 In/Sec	1.849 G-s
SF2A-A	- AHU 2A-A	(07-Oct-22)
	OVERALL LEVEL	1 - 20 KHz
MOH	.017 In/Sec	2.044 G-s
MOV	.029 In/Sec	1.245 G-s
MIH	.023 In/Sec	2.142 G-s
MIV	.027 In/Sec	1.710 G-s
MIA	.025 In/Sec	1.975 G-s
SF2A-B	- AHU 2A-B	(07-Oct-22)
	OVERALL LEVEL	1 - 20 KHz
MOH	.025 In/Sec	1.594 G-s
MOV	.025 In/Sec	1.676 G-s
MIH	.020 In/Sec	1.878 G-s
MIV	.021 In/Sec	2.394 G-s
MIA	.027 In/Sec	2.630 G-s
SF2A-C	- AHU 2A-C	(07-Oct-22)
	OVERALL LEVEL	1 - 20 KHz
MOH	.036 In/Sec	1.426 G-s
MOV	.049 In/Sec	1.250 G-s
MIH	.041 In/Sec	1.876 G-s
MIV	.053 In/Sec	4.332 G-s
MIA	.042 In/Sec	1.239 G-s
SF2A-D	- AHU 2A-D	(07-Oct-22)
	OVERALL LEVEL	1 - 20 KHz
MOH	.026 In/Sec	1.386 G-s
MOV	.039 In/Sec	1.865 G-s
MIH	.036 In/Sec	1.993 G-s
MIV	.027 In/Sec	1.639 G-s
MIA	.052 In/Sec	.838 G-s
SF2B-E	- AHU 2B-E	(07-Oct-22)
	OVERALL LEVEL	1 - 20 KHz
MOH	.021 In/Sec	1.024 G-s
MOV	.039 In/Sec	1.859 G-s
MIH	.015 In/Sec	1.235 G-s
MIV	.026 In/Sec	1.572 G-s
MIA	.030 In/Sec	.895 G-s
SF2B-F	- AHU 2B-F	(07-Oct-22)
	OVERALL LEVEL	1 - 20 KHz
MOH	.023 In/Sec	1.500 G-s
MOV	.031 In/Sec	1.638 G-s
MIH	.022 In/Sec	1.052 G-s
MIV	.027 In/Sec	2.311 G-s
MIA	.024 In/Sec	.905 G-s
SF2B-G	- AHU 2B-G	(07-Oct-22)
	OVERALL LEVEL	1 - 20 KHz
MOH	.018 In/Sec	1.291 G-s
MOV	.035 In/Sec	1.249 G-s
MIH	.023 In/Sec	1.168 G-s
MIV	.036 In/Sec	.799 G-s
MIA	.040 In/Sec	.836 G-s
SF2B-H	- AHU 2B-H	(07-Oct-22)
	OVERALL LEVEL	1 - 20 KHz
MOH	.030 In/Sec	2.184 G-s
MOV	.041 In/Sec	1.953 G-s
MIH	.026 In/Sec	1.789 G-s
MIV	.042 In/Sec	1.577 G-s
MIA	.025 In/Sec	2.589 G-s
SF3A-A	- AHU 3A-A	(07-Oct-22)

		OVERALL LEVEL	1 - 20 KHz
MOH		.033 In/Sec	1.948 G-s
MOV		.027 In/Sec	2.258 G-s
MIH		.027 In/Sec	1.323 G-s
MIV		.028 In/Sec	1.526 G-s
MIA		.035 In/Sec	.811 G-s
SF3A-B	- AHU 3A-B	(07-Oct-22)	
		OVERALL LEVEL	1 - 20 KHz
MOH		.025 In/Sec	1.211 G-s
MOV		.027 In/Sec	2.170 G-s
MIH		.021 In/Sec	1.904 G-s
MIV		.024 In/Sec	1.392 G-s
MIA		.032 In/Sec	.939 G-s
SF3A-C	- AHU 3A-C	(07-Oct-22)	
		OVERALL LEVEL	1 - 20 KHz
MOH		.021 In/Sec	1.306 G-s
MOV		.034 In/Sec	2.109 G-s
MIH		.025 In/Sec	1.421 G-s
MIV		.047 In/Sec	2.320 G-s
MIA		.036 In/Sec	.986 G-s
SF3A-D	- AHU 3A-D	(07-Oct-22)	
		OVERALL LEVEL	1 - 20 KHz
MOH		.025 In/Sec	.996 G-s
MOV		.023 In/Sec	1.645 G-s
MIH		.024 In/Sec	1.363 G-s
MIV		.038 In/Sec	.996 G-s
MIA		.031 In/Sec	1.652 G-s
SF3B-E	- AHU 3B-E	(07-Oct-22)	
		OVERALL LEVEL	1 - 20 KHz
MOH		.021 In/Sec	1.859 G-s
MOV		.019 In/Sec	1.720 G-s
MIH		.018 In/Sec	.858 G-s
MIV		.020 In/Sec	1.218 G-s
MIA		.037 In/Sec	.715 G-s
SF3B-F	- AHU 3B-F	(07-Oct-22)	
		OVERALL LEVEL	1 - 20 KHz
MOH		.022 In/Sec	1.165 G-s
MOV		.031 In/Sec	1.241 G-s
MIH		.025 In/Sec	1.347 G-s
MIV		.024 In/Sec	1.482 G-s
MIA		.027 In/Sec	.808 G-s
SF3B-G	- AHU 3B-G	(07-Oct-22)	
		OVERALL LEVEL	1 - 20 KHz
MOH		.032 In/Sec	.986 G-s
MOV		.034 In/Sec	1.322 G-s
MIH		.031 In/Sec	1.450 G-s
MIV		.046 In/Sec	.894 G-s
MIA		.034 In/Sec	.407 G-s
SF3B-H	- AHU 3B-H	(07-Oct-22)	
		OVERALL LEVEL	1 - 20 KHz
MOH		.024 In/Sec	.886 G-s
MOV		.034 In/Sec	1.340 G-s
MIH		.035 In/Sec	1.731 G-s
MIV		.047 In/Sec	1.240 G-s
MIA		.037 In/Sec	1.180 G-s
SF4A-A	- AHU 4A-A	(07-Oct-22)	
		OVERALL LEVEL	1 - 20 KHz
MOH		.021 In/Sec	1.053 G-s
MOV		.024 In/Sec	1.043 G-s
MIH		.025 In/Sec	.860 G-s
MIV		.027 In/Sec	1.475 G-s
MIA		.034 In/Sec	.663 G-s

SF4A-B	- AHU 4A-B	(07-Oct-22)
	OVERALL LEVEL	1 - 20 KHz
MOH	.026 In/Sec	1.221 G-s
MOV	.025 In/Sec	.941 G-s
MIH	.018 In/Sec	1.465 G-s
MIV	.024 In/Sec	1.391 G-s
MIA	.027 In/Sec	.725 G-s
SF4A-C	- AHU 4A-C	(07-Oct-22)
	OVERALL LEVEL	1 - 20 KHz
MOH	.018 In/Sec	1.321 G-s
MOV	.022 In/Sec	1.209 G-s
MIH	.028 In/Sec	1.291 G-s
MIV	.032 In/Sec	1.054 G-s
MIA	.030 In/Sec	.652 G-s
SF4A-D	- AHU 4A-D	(07-Oct-22)
	OVERALL LEVEL	1 - 20 KHz
MOH	.034 In/Sec	1.168 G-s
MOV	.028 In/Sec	1.058 G-s
MIH	.035 In/Sec	1.166 G-s
MIV	.033 In/Sec	1.027 G-s
MIA	.032 In/Sec	.525 G-s
SF4B-E	- AHU 4B-E	(07-Oct-22)
	OVERALL LEVEL	1 - 20 KHz
MOH	.025 In/Sec	1.272 G-s
MOV	.045 In/Sec	1.828 G-s
MIH	.035 In/Sec	1.324 G-s
MIV	.033 In/Sec	1.219 G-s
MIA	.040 In/Sec	.988 G-s
SF4B-F	- AHU 4B-F	(07-Oct-22)
	OVERALL LEVEL	1 - 20 KHz
MOH	.020 In/Sec	1.476 G-s
MOV	.022 In/Sec	1.887 G-s
MIH	.024 In/Sec	1.089 G-s
MIV	.030 In/Sec	1.699 G-s
MIA	.036 In/Sec	1.035 G-s
SF4B-G	- AHU 4B-G	(07-Oct-22)
	OVERALL LEVEL	1 - 20 KHz
MOH	.023 In/Sec	1.102 G-s
MOV	.025 In/Sec	1.862 G-s
MIH	.030 In/Sec	1.139 G-s
MIV	.037 In/Sec	1.575 G-s
MIA	.045 In/Sec	.867 G-s
SF4B-H	- AHU 4B-H	(07-Oct-22)
	OVERALL LEVEL	1 - 20 KHz
MOH	.024 In/Sec	1.348 G-s
MOV	.039 In/Sec	1.305 G-s
MIH	.021 In/Sec	1.351 G-s
MIV	.027 In/Sec	1.055 G-s
MIA	.033 In/Sec	1.419 G-s
SF5-A	- AHU 5-A	(07-Oct-22)
	OVERALL LEVEL	1 - 20 KHz
MOH	.030 In/Sec	1.285 G-s
MOV	.044 In/Sec	.766 G-s
MIH	.025 In/Sec	.626 G-s
MIV	.050 In/Sec	.771 G-s
MIA	.061 In/Sec	1.015 G-s
SF5-B	- AHU 5-B	(07-Oct-22)
	OVERALL LEVEL	1 - 20 KHz
MOH	.062 In/Sec	.908 G-s
MIH	.057 In/Sec	.743 G-s
MIA	.069 In/Sec	.619 G-s

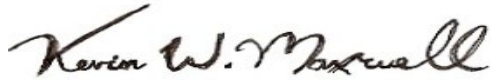
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Clarification Of Vibration Units:

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

As always, it has been a pleasure to serve St. Jude Research Hospital. If there are any comments or questions, do not hesitate to contact us.

Sincerely,



ISO Certified Vibration Analyst, Category III



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