



**QualiTest® Diagnostics**

7030 Ryburn Dr. Millington, TN

Phone: (901) 873-5300

Fax: (901) 873-5301

[www.gohispeed.com](http://www.gohispeed.com)

July 24, 2019

Tom Cowing  
St Jude Research Hospital  
Memphis TN

The following is a summary of findings from the semi-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 3

Vibration data of the fan bearings are showing defects are present in the bearings. Bearings need to be replaced in the near future. Rated as **CLASS II** defect.

### AHU 4-1

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

### AHU 4-2

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

### AHU 4-3

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

### AHU 4-4

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

### AHU 5A-1

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

### AHU 5A-2

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

### AHU 5A-3

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

### AHU 5A-4

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

### AHU 5B

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

### AHU 6

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

### AHU 7

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

### AHU 8A

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

### AHU 8B

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

### AHU 9

Drive end fan bearing is still showing defects and wear. Time waveform data shows heavy impacting. Fan bearings need to be replaced soon. Rated as a **CLASS III** defect.

### AHU 10

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

#### AHU 11

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

#### AHU 12

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

#### AHU 13

A high 1 x rpm vibration remains at the outboard bearing. Ensure all fasteners are tight and check shaft for run-out. If all looks good, then the fan wheel may have imbalance. Rated as a **CLASS II** defect.

#### AHU 14

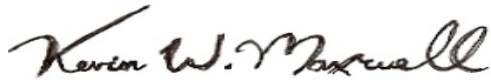
Measured vibration data is all within acceptable limits. No work is recommended at this time.

#### AHU 15

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

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



**QualiTest® Diagnostics**

Cell: 901-486-4565

Email: [kwilliam@gohispeed.com](mailto:kwilliam@gohispeed.com)