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August 9, 2022

Rick Bolton St. Jude Children's Research Hospital Memphis, TN

Rick,

The following is a summary of findings from the 2022 annual vibration survey at the GMP building. Please let us know if there are any questions or comments.

QualiTest® uses a four-step rating system for defects.

<u>Class I:</u> 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.

**<u>Class IV</u>**; 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

# **GMP BUILDING**

#### <u>EF2 A</u>

All measured vibration data is within acceptable limits. No action required at this time.

# <u>EF2 B</u>

All measured vibration data is within acceptable limits. No action required at this time.

# <u>EF2 C</u>

Motor data indicates slight defect in motor bearings. We will continue to monitor this issue closely in the surveys to come. Rated as a **CLASS I** defect.

# <u>EF3 A</u>

All measured vibration data is within acceptable limits. No action required at this time.

# <u>EF3 B</u>

Motor data indicates defects of the motor bearings. Motor will need attention in the next few months. Rated as a CLASS II defect.

## <u>EF4 A</u>

All measured vibration data is within acceptable limits. No action required at this time.

## <u>EF4 B</u>

All measured vibration data is within acceptable limits. No action required at this time.

## <u>EF4 C</u>

All measured vibration data is within acceptable limits. No action required at this time.

## <u>EF5 A</u>

1 x rpm vibration has decreased some since last survey. Motor data does show some increased acceleration that may be related to defects and or lubrication issue in motor bearings. Ensure motor bearings have adequate amount of grease. Rated as a **CLASS II** defect.

## <u>EF5 B</u>

Motor bearing data is still showing some high1 x rpm vibration. This is likely due to imbalance of the fan wheel. Inspect fan wheel for build-up and or damage soon. Fan wheel needs to be trim balanced soon. Please call us to schedule our balancing services. Rated as a CLASS II defect.

## <u>RF1 A</u>

All measured vibration data is within acceptable limits. No action required at this time.

## <u>RF1 B</u>

All measured vibration data is within acceptable limits. No action required at this time.

## <u>RF6</u>

All measured vibration data is within acceptable limits. No action required at this time.

## <u>SF1 A</u>

All measured vibration data is within acceptable limits. No action required at this time.

# <u>SF1 B</u>

All measured vibration data is within acceptable limits. No action required at this time.

#### <u>SF2 A</u>

Data still shows motor bearing defects are present. Amplitudes have increased some since last collection. Motor will likely need attention in the next few months. Rated as a **CLASS II** defect.

#### <u>SF2 B</u>

All measured vibration data is within acceptable limits. No action required at this time.

#### <u>SF3 A</u>

All measured vibration data is within acceptable limits. No action required at this time.

#### <u>SF3 B</u>

Motor bearing data is starting to show defects which are likely due to light fluting of the bearings. Rated as a **CLASS II** defect.

#### <u>SF4 A</u>

All measured vibration data is within acceptable limits. No action required at this time.

#### <u>SF4 B</u>

All measured vibration data is within acceptable limits. No action required at this time.

#### <u>SF5 A</u>

All measured vibration data is within acceptable limits. No action required at this time.

#### <u>SF5 B</u>

Motor bearing data is starting to show defects which are likely due to fluting of the bearings. Rated as a **CLASS II** defect.

#### <u>SF6</u>

All measured vibration data is within acceptable limits. No action required at this time.

Database:	stjude~1.rbm
Station:	CGMP

MEASUREM	ENT POINT		OVERALL LEVEL	hfd / vhfd
FF-27	- 55-23	34000	(0)	2-7-1-2-221
EF-ZA	- EF-ZA	34009	(08	-Aug-22)
			OVERALL LEVEL	1 - 20 KHz
M	ЮН		.066 In/Sec	.176 G-s
M	IIH		.024 In/Sec	.173 G-s
M	IIA		.048 In/Sec	.161 G-s

EF-2B		- EF-2B	34010	(08-Aug-22)			
				OVERALL LEVEL	1 - 20 KHz		
	MOH			.127 In/Sec	1.366 G-s		
	MIH			.087 In/Sec	1.634 G-s		
EF 3A		- EF-3A	34015	80)	-Aug-22)		
				OVERALL LEVEL	1 - 20 KHz		
	MOH			.034 In/Sec	.686 G-s		
	MIH			.041 In/Sec	.44/ G-s		
	MIA			.023 In/Sec	.422 G-s		
EE-20A		- EF-3B	34016	(08	-Aug-22)		
DI 2011			54010	OVERALL LEVEL	1 - 20  KHz		
	мон			.268 In/Sec	2.844 G-s		
	MIH			.211 In/Sec	2.995 G-s		
	MIA			.186 In/Sec	1.744 G-s		
EF-4A		- EF-4A	34012	(08	-Aug-22)		
				OVERALL LEVEL	1 - 20 KHz		
	MOH			.103 In/Sec	1.268 G-s		
	MIH			.045 In/Sec	.511 G-s		
	MIA			.079 In/Sec	.923 G-s		
4		4	24012	(00	<b>1</b>		
EF-4B		- EF-4B	34013		-Aug-22)		
	MOH			OVERALL LEVEL	I = 20 KHZ		
	MTH			.079 IN/Sec	.530 G-S		
	мта			.020 IN/Sec	.214 G-s		
	MIA			.044 11/ 560	.405 G 5		
EF-4C		- EF-4C	34014	(08	-Aug-22)		
				OVERALL LEVEL	1 - 20 KHz		
	MOH			.130 In/Sec	.955 G-s		
	MIH			.062 In/Sec	1.055 G-s		
	MIA			.043 In/Sec	.475 G-s		
EF-5A		- EF-5A	34017	(08	-Aug-22)		
EF-5A		- EF-5A	34017	(08) OVERALL LEVEL	-Aug-22) 1 - 20 KHz		
EF-5A	мон	- EF-5A	34017	(08) OVERALL LEVEL .225 In/Sec	-Aug-22) 1 - 20 KHz 1.093 G-s		
ef-5a	MOH MIH	- EF-5A	34017	(08 OVERALL LEVEL .225 In/Sec .197 In/Sec	-Aug-22) 1 - 20 KHz 1.093 G-s 2.586 G-s		
EF-5A	MOH MIH MIA	- EF-5A	34017	08) OVERALL LEVEL .225 In/Sec .197 In/Sec .112 In/Sec	-Aug-22) 1 - 20 KHz 1.093 G-s 2.586 G-s 1.522 G-s		
EF-5A	MOH MIH MIA	- EF-5A	34017	(08 OVERALL LEVEL .225 In/Sec .197 In/Sec .112 In/Sec (08	-Aug-22) 1 - 20 KHz 1.093 G-s 2.586 G-s 1.522 G-s -Aug-22)		
EF-5A EF-5B	MOH MIH MIA	- EF-5A - EF-5B	34017 34018	(08 OVERALL LEVEL .225 In/Sec .197 In/Sec .112 In/Sec (08 OVERALL LEVEL	-Aug-22) 1 - 20 KHz 1.093 G-s 2.586 G-s 1.522 G-s -Aug-22) 1 - 20 KHz		
EF-5A EF-5B	МОН МІН МІА МОН	- EF-5A - EF-5B	34017 34018	(08 OVERALL LEVEL .225 In/Sec .197 In/Sec .112 In/Sec (08 OVERALL LEVEL .515 In/Sec	-Aug-22) 1 - 20 KHz 1.093 G-s 2.586 G-s 1.522 G-s -Aug-22) 1 - 20 KHz .167 G-s		
EF-5A EF-5B	MOH MIH MIA MOH MIH	- EF-5A - EF-5B	34017 34018	(08 OVERALL LEVEL .225 In/Sec .197 In/Sec .112 In/Sec (08 OVERALL LEVEL .515 In/Sec .329 In/Sec	-Aug-22) 1 - 20 KHz 1.093 G-s 2.586 G-s 1.522 G-s -Aug-22) 1 - 20 KHz .167 G-s .400 G-s		
EF-5A EF-5B	MOH MIH MIA MOH MIH MIA	- EF-5A - EF-5B	34017 34018	(08 OVERALL LEVEL .225 In/Sec .197 In/Sec .112 In/Sec (08 OVERALL LEVEL .515 In/Sec .329 In/Sec .112 In/Sec	-Aug-22) 1 - 20 KHz 1.093 G-s 2.586 G-s 1.522 G-s -Aug-22) 1 - 20 KHz .167 G-s .400 G-s .146 G-s		
EF-5A EF-5B	MOH MIH MIA MOH MIH MIA	- EF-5A - EF-5B	34017 34018	(08 OVERALL LEVEL .225 In/Sec .197 In/Sec .112 In/Sec (08 OVERALL LEVEL .515 In/Sec .329 In/Sec .112 In/Sec	-Aug-22) 1 - 20 KHz 1.093 G-s 2.586 G-s 1.522 G-s -Aug-22) 1 - 20 KHz .167 G-s .400 G-s .146 G-s		
EF-5B RF-1A	MOH MIH MIA MOH MIH MIA	- EF-5A - EF-5B - RF-1A	34017 34018	(08 OVERALL LEVEL .225 In/Sec .197 In/Sec .112 In/Sec (08 OVERALL LEVEL .515 In/Sec .329 In/Sec .112 In/Sec (08	-Aug-22) 1 - 20 KHz 1.093 G-s 2.586 G-s 1.522 G-s -Aug-22) 1 - 20 KHz .167 G-s .400 G-s .146 G-s		
EF-5B RF-1A	МОН МІН МІА МОН МІН МІА	- EF-5A - EF-5B - RF-1A	34017 34018	(08 OVERALL LEVEL .225 In/Sec .197 In/Sec .112 In/Sec (08 OVERALL LEVEL .515 In/Sec .112 In/Sec (08 OVERALL LEVEL	-Aug-22) 1 - 20 KHz 1.093 G-s 2.586 G-s 1.522 G-s -Aug-22) 1 - 20 KHz .167 G-s .400 G-s .146 G-s -Aug-22) 1 - 20 KHz		
EF-5B RF-1A	MOH MIH MIA MOH MIH MIA	- EF-5A - EF-5B - RF-1A	34017 34018	(08 OVERALL LEVEL .225 In/Sec .197 In/Sec .112 In/Sec (08 OVERALL LEVEL .515 In/Sec .112 In/Sec (08 OVERALL LEVEL .092 In/Sec	-Aug-22) 1 - 20 KHz 1.093 G-s 2.586 G-s 1.522 G-s -Aug-22) 1 - 20 KHz .167 G-s .400 G-s .146 G-s -Aug-22) 1 - 20 KHz 1.054 G-s		
EF-5B RF-1A	MOH MIH MIA MOH MIH MIH	- EF-58 - EF-58 - RF-1A	34017 34018	(08 OVERALL LEVEL .225 In/Sec .197 In/Sec .112 In/Sec (08 OVERALL LEVEL .515 In/Sec .112 In/Sec (08 OVERALL LEVEL .092 In/Sec .061 In/Sec	-Aug-22) 1 - 20 KHz 1.093 G-s 2.586 G-s 1.522 G-s -Aug-22) 1 - 20 KHz .167 G-s .400 G-s .146 G-s -Aug-22) 1 - 20 KHz 1.054 G-s 1.092 G-s		
EF-5B RF-1A	MOH MIH MIA MOH MIH MOH MIH	- EF-58 - EF-1A	34017 34018	(08 OVERALL LEVEL .225 In/Sec .197 In/Sec .112 In/Sec (08 OVERALL LEVEL .515 In/Sec .112 In/Sec (08 OVERALL LEVEL .092 In/Sec .061 In/Sec	-Aug-22) 1 - 20 KHz 1.093 G-s 2.586 G-s 1.522 G-s -Aug-22) 1 - 20 KHz .167 G-s .400 G-s .146 G-s -Aug-22) 1 - 20 KHz 1.054 G-s 1.092 G-s		
EF-5B RF-1A RF-1B	MOH MIH MIA MOH MIH MOH MIH	- EF-5A - EF-5B - RF-1A - RF-1B	34017 34018	(08 OVERALL LEVEL .225 In/Sec .197 In/Sec .112 In/Sec .08 OVERALL LEVEL .515 In/Sec .112 In/Sec .112 In/Sec .092 In/Sec .061 In/Sec .08 OVERALL LEVEL .092 In/Sec .061 In/Sec	-Aug-22) 1 - 20 KHz 1.093 G-s 2.586 G-s 1.522 G-s -Aug-22) 1 - 20 KHz .167 G-s .400 G-s .146 G-s -Aug-22) 1 - 20 KHz 1.054 G-s 1.092 G-s -Aug-22)		
EF-5B RF-1A RF-1B	MOH MIH MOH MIH MIA MOH MIH	- EF-5A - EF-5B - RF-1A - RF-1B	34017 34018	(08 OVERALL LEVEL .225 In/Sec .197 In/Sec .112 In/Sec .08 OVERALL LEVEL .515 In/Sec .112 In/Sec .092 In/Sec .061 In/Sec .08 OVERALL LEVEL .092 In/Sec .061 In/Sec .08 OVERALL LEVEL .092 In/Sec	-Aug-22) 1 - 20 KHz 1.093 G-s 2.586 G-s 1.522 G-s -Aug-22) 1 - 20 KHz .167 G-s .400 G-s .146 G-s -Aug-22) 1 - 20 KHz 1.054 G-s 1.092 G-s -Aug-22) 1 - 20 KHz 592 C-s		
EF-5B RF-1A RF-1B	MOH MIH MOH MIH MOH MIH	- EF-58 - EF-58 - RF-1A - RF-18	34017 34018	(08 OVERALL LEVEL .225 In/Sec .197 In/Sec .112 In/Sec .08 OVERALL LEVEL .515 In/Sec .112 In/Sec .012 In/Sec .061 In/Sec (08 OVERALL LEVEL .092 In/Sec .061 In/Sec (08 OVERALL LEVEL .111 In/Sec .076 In/Sec	-Aug-22) 1 - 20 KHz 1.093 G-s 2.586 G-s 1.522 G-s -Aug-22) 1 - 20 KHz .167 G-s .400 G-s .146 G-s -Aug-22) 1 - 20 KHz 1.054 G-s 1.092 G-s -Aug-22) 1 - 20 KHz .592 G-s .643 G-s		
EF-5B RF-1A RF-1B	мон мін мон мін мін мон мін	- EF-5A - EF-5B - RF-1A - RF-1B	34017 34018	(08 OVERALL LEVEL .225 In/Sec .197 In/Sec .112 In/Sec .08 OVERALL LEVEL .515 In/Sec .112 In/Sec .112 In/Sec .061 In/Sec .061 In/Sec .076 In/Sec	-Aug-22) 1 - 20 KHz 1.093 G-s 2.586 G-s 1.522 G-s -Aug-22) 1 - 20 KHz .167 G-s .146 G-s -Aug-22) 1 - 20 KHz 1.054 G-s 1.092 G-s -Aug-22) 1 - 20 KHz .592 G-s .643 G-s		
EF-5B RF-1A RF-1B RF-6	мон мін міа мон мін мін мон мін	- EF-5A - EF-5B - RF-1A - RF-1B	34017 34018	(08 OVERALL LEVEL .225 In/Sec .197 In/Sec .112 In/Sec .08 OVERALL LEVEL .515 In/Sec .112 In/Sec .112 In/Sec .061 In/Sec .061 In/Sec .076 In/Sec .08 (08 OVERALL LEVEL .092 In/Sec	-Aug-22) 1 - 20 KHz 1.093 G-s 2.586 G-s 1.522 G-s -Aug-22) 1 - 20 KHz .167 G-s .400 G-s .146 G-s -Aug-22) 1 - 20 KHz 1.054 G-s 1.092 G-s -Aug-22) 1 - 20 KHz .592 G-s .643 G-s -Aug-22)		
EF-5B RF-1A RF-1B RF-6	MOH MIH MIA MOH MIH MOH MIH	- EF-5A - EF-5B - RF-1A - RF-1B	34017 34018	(08 OVERALL LEVEL .225 In/Sec .197 In/Sec .112 In/Sec .008 OVERALL LEVEL .515 In/Sec .329 In/Sec .112 In/Sec .061 In/Sec .061 In/Sec .076 In/Sec .076 In/Sec .08 OVERALL LEVEL	-Aug-22) 1 - 20 KHz 1.093 G-s 2.586 G-s 1.522 G-s -Aug-22) 1 - 20 KHz .167 G-s .400 G-s .146 G-s -Aug-22) 1 - 20 KHz 1.054 G-s 1.092 G-s -Aug-22) 1 - 20 KHz .592 G-s .643 G-s -Aug-22) 1 - 20 KHz		
EF-5B RF-1A RF-1B RF-6	мон мін міа мон мін мін мон мін	- EF-5A - EF-5B - RF-1A - RF-1B	34017 34018	(08 OVERALL LEVEL .225 In/Sec .197 In/Sec .112 In/Sec .008 OVERALL LEVEL .515 In/Sec .329 In/Sec .112 In/Sec .061 In/Sec .061 In/Sec .076 In/Sec .08 OVERALL LEVEL .076 In/Sec .084 In/Sec	-Aug-22) 1 - 20 KHz 1.093 G-s 2.586 G-s 1.522 G-s -Aug-22) 1 - 20 KHz .167 G-s .400 G-s .146 G-s -Aug-22) 1 - 20 KHz 1.054 G-s 1.092 G-s -Aug-22) 1 - 20 KHz .592 G-s .643 G-s -Aug-22) 1 - 20 KHz .592 G-s .643 G-s		
EF-5B RF-1A RF-1B RF-6	MOH MIH MIA MOH MIH MOH MIH	- EF-5A - EF-5B - RF-1A - RF-1B	34017 34018	(08 OVERALL LEVEL .225 In/Sec .197 In/Sec .112 In/Sec .008 OVERALL LEVEL .515 In/Sec .329 In/Sec .112 In/Sec .061 In/Sec .061 In/Sec .076 In/Sec .08 OVERALL LEVEL .076 In/Sec .094 In/Sec	-Aug-22) 1 - 20 KHz 1.093 G-s 2.586 G-s 1.522 G-s -Aug-22) 1 - 20 KHz .167 G-s .400 G-s .146 G-s -Aug-22) 1 - 20 KHz 1.092 G-s -Aug-22) 1 - 20 KHz .592 G-s .643 G-s -Aug-22) 1 - 20 KHz .592 G-s .643 G-s		
EF-5B RF-1A RF-1B RF-6	MOH MIH MIA MOH MIH MOH MIH MOH MIH MIH	- EF-5A - EF-5B - RF-1A - RF-1B	34017 34018	(08 OVERALL LEVEL .225 In/Sec .197 In/Sec .112 In/Sec (08 OVERALL LEVEL .515 In/Sec .329 In/Sec .112 In/Sec .061 In/Sec .061 In/Sec .076 In/Sec .08 OVERALL LEVEL .084 In/Sec .064 In/Sec	-Aug-22) 1 - 20 KHz 1.093 G-s 2.586 G-s 1.522 G-s -Aug-22) 1 - 20 KHz .167 G-s .400 G-s .146 G-s -Aug-22) 1 - 20 KHz 1.054 G-s 1.092 G-s -Aug-22) 1 - 20 KHz .592 G-s .643 G-s -Aug-22) 1 - 20 KHz .592 G-s .643 G-s		
EF-5B RF-1A RF-1B RF-6	MOH MIH MIA MOH MIH MOH MIH MOH MIH MIH MIA FIH	- EF-5A - EF-5B - RF-1A - RF-1B	34017 34018	(08 OVERALL LEVEL .225 In/Sec .197 In/Sec .112 In/Sec (08 OVERALL LEVEL .515 In/Sec .329 In/Sec .112 In/Sec .061 In/Sec .061 In/Sec .076 In/Sec .08 OVERALL LEVEL .094 In/Sec .064 In/Sec .105 In/Sec	-Aug-22) 1 - 20 KHz 1.093 G-s 2.586 G-s 1.522 G-s -Aug-22) 1 - 20 KHz .167 G-s .400 G-s .146 G-s -Aug-22) 1 - 20 KHz 1.092 G-s -Aug-22) 1 - 20 KHz .592 G-s .643 G-s		
EF-5B RF-1A RF-1B RF-6	MOH MIH MIA MOH MIH MOH MIH MOH MIH MIH MIH MIA FIH FOH	- EF-5A - EF-5B - RF-1A - RF-1B	34017 34018	(08 OVERALL LEVEL .225 In/Sec .197 In/Sec .112 In/Sec .008 OVERALL LEVEL .515 In/Sec .329 In/Sec .112 In/Sec .021 In/Sec .061 In/Sec .061 In/Sec .076 In/Sec .076 In/Sec .084 In/Sec .084 In/Sec .084 In/Sec .084 In/Sec	-Aug-22) 1 - 20 KHz 1.093 G-s 2.586 G-s 1.522 G-s -Aug-22) 1 - 20 KHz .167 G-s .400 G-s .146 G-s -Aug-22) 1 - 20 KHz 1.054 G-s 1.092 G-s .643 G-s -Aug-22) 1 - 20 KHz .592 G-s .643 G-s .125 G-s .066 G-s .058 G-s		
EF-5B RF-1A RF-1B RF-6	MOH MIH MIA MOH MIH MOH MIH MOH MIH MIH MIH MIH MIH FIH FOH	- EF-58 - RF-1A - RF-18 - RF-6	34017 34018	(08 OVERALL LEVEL .225 In/Sec .197 In/Sec .112 In/Sec .008 OVERALL LEVEL .515 In/Sec .329 In/Sec .112 In/Sec .061 In/Sec .061 In/Sec .076 In/Sec .076 In/Sec .084 In/Sec .084 In/Sec .084 In/Sec .084 In/Sec .084 In/Sec	-Aug-22) 1 - 20 KHz 1.093 G-s 2.586 G-s 1.522 G-s -Aug-22) 1 - 20 KHz .167 G-s .400 G-s .146 G-s -Aug-22) 1 - 20 KHz 1.054 G-s 1.092 G-s .643 G-s -Aug-22) 1 - 20 KHz .592 G-s .643 G-s .125 G-s .066 G-s .058 G-s		
EF-5A RF-1A RF-1B RF-6 SF-1A	MOH MIH MIA MOH MIH MOH MIH MOH MIH MIH MIH FIH FOH	<ul> <li>EF-5A</li> <li>EF-5B</li> <li>RF-1A</li> <li>RF-1B</li> <li>RF-6</li> <li>SF-1A</li> </ul>	34017 34018 33987	(08 OVERALL LEVEL .225 In/Sec .197 In/Sec .112 In/Sec .008 OVERALL LEVEL .515 In/Sec .329 In/Sec .112 In/Sec .021 In/Sec .061 In/Sec .061 In/Sec .076 In/Sec .084 In/Sec	-Aug-22) 1 - 20 KHz 1.093 G-s 2.586 G-s 1.522 G-s -Aug-22) 1 - 20 KHz .167 G-s .400 G-s .146 G-s -Aug-22) 1 - 20 KHz 1.054 G-s 1.092 G-s .643 G-s -Aug-22) 1 - 20 KHz .592 G-s .643 G-s .125 G-s .066 G-s .058 G-s -Aug-22)		
EF-5B RF-1A RF-1B RF-6 SF-1A	MOH MIH MIA MOH MIH MOH MIH MOH MIH MIH MIH FIH FOH	<ul> <li>EF-5A</li> <li>EF-5B</li> <li>RF-1A</li> <li>RF-1B</li> <li>RF-6</li> <li>SF-1A</li> </ul>	34017 34018 33987	(08 OVERALL LEVEL .225 In/Sec .197 In/Sec .112 In/Sec .008 OVERALL LEVEL .515 In/Sec .329 In/Sec .112 In/Sec .021 In/Sec .061 In/Sec .061 In/Sec .076 In/Sec .076 In/Sec .084 In/Sec	-Aug-22) 1 - 20 KHz 1.093 G-s 2.586 G-s 1.522 G-s -Aug-22) 1 - 20 KHz .167 G-s .400 G-s .146 G-s -Aug-22) 1 - 20 KHz .592 G-s .643 G-s -Aug-22) 1 - 20 KHz .592 G-s .643 G-s .125 G-s .066 G-s .058 G-s -Aug-22) 1 - 20 KHz		
EF-5B RF-1A RF-1B RF-6 SF-1A	MOH MIH MIA MOH MIH MOH MIH MOH MIH FOH MOH	<ul> <li>EF-5A</li> <li>EF-5B</li> <li>RF-1A</li> <li>RF-1B</li> <li>RF-6</li> <li>SF-1A</li> </ul>	34017 34018 33987	(08 OVERALL LEVEL .225 In/Sec .197 In/Sec .112 In/Sec .008 OVERALL LEVEL .515 In/Sec .329 In/Sec .112 In/Sec .021 In/Sec .061 In/Sec .061 In/Sec .076 In/Sec .076 In/Sec .084 In/Sec .081 In/Sec .081 In/Sec	-Aug-22) 1 - 20 KHz 1.093 G-s 2.586 G-s 1.522 G-s -Aug-22) 1 - 20 KHz .167 G-s .400 G-s .146 G-s -Aug-22) 1 - 20 KHz 1.054 G-s 1.092 G-s .643 G-s -Aug-22) 1 - 20 KHz .592 G-s .643 G-s .125 G-s .066 G-s .058 G-s .058 G-s -Aug-22) 1 - 20 KHz .751 G-s .761 C-2		

SF-1B	- SF-1B	33987	(08	8-Aug-22)	
			OVERALL LEVEL	1 - 20 KHz	
	MOH		.045 In/Sec	.667 G-s	
	MIH		.132 In/Sec	.630 G-s	
SF-2A	- SF-2A	33988	(08	8-Aug-22)	
			OVERALL LEVEL	1 - 20  KHz	
	MOH		.080 In/Sec	1.743 G-s	
	МІН		.099 In/Sec	1.545 G-s	
SF-2B	- SF-2B	33988	(0)	8-Aug-22)	
			OVERALL LEVEL	1 - 20  KHz	
	MOH		.072 In/Sec	.577 G-s	
	MIH		.151 In/Sec	.473 G-s	
			· · · · · · ·		
SF-3A	- SF-3A	33989	(08	8-Aug-22)	
			OVERALL LEVEL	1 - 20 KHz	
	MOH		.082 In/Sec	1.376 G-s	
	MIH		.057 In/Sec	2.723 G-s	
	MIA		.176 In/Sec	2.771 G-s	
0 <b>0</b> 30	<b>GE 3</b> D	22000	(0)	<b>. .</b>	
SE-3B	- SF-3B	33989		3-Aug-22)	
	MOH		OVERALL LEVEL	I = 20  KHz	
	MOH		.060 In/Sec	.598 G-S	
	МІН		.054 IN/Sec	.299 G-S	
SF-4A	- SF-4A	33990	(08	8-Aug-22)	
			OVERALL LEVEL	1 - 20 KHz	
	MOH		.040 In/Sec	.301 G-s	
	MIH		.068 In/Sec	.261 G-s	
0 <b>.</b>	6 <b>5</b> 45	22000	(0)	<b>. .</b>	
SF-4B	- SF-4B	33990		$1 20 $ $\mu$	
	MOII		111 TR / Co. C	I = 20 KHz	
	MOH		.111 In/Sec	./2/ G-s	
	MIH		.065 In/Sec	.830 G-S	
SF-5A	- SF-5A	33991	(08	8-Aug-22)	
			OVERALL LEVEL	1 - 20 KHz	
	MOH		.034 In/Sec	.359 G-s	
	MIH		.026 In/Sec	.504 G-s	
SF-5B	- SF-5B	33991	(08	8-Aug-22)	
			OVERALL LEVEL	1 - 20 KHz	
	MOH		.083 In/Sec	1.531 G-s	
	MIH		.080 In/Sec	3.809 G-s	
9F-6	- 98-6	33992	(0)	8-110-22)	
5F - 0	SF-0	2222	OVERALL LEVEL	1 - 20 KH-	
	MOH		043  Tr/Sec	1 031 C-e	
	мтн		.036 In/Sec	1.069 G-S	
				2.000 0 0	

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,

Kevin W. Maxuell

ISO Certified Vibration Analyst, Category III



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