

April 13, 2020

Lucite

Subject: April vibration 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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Detailed Defects

MON65 Amide Reactor Circulation Primary

The shaft speed vibration has dropped since the last survey. More still needs to be done to reduce the vibration further. Inspect for rotating defects and trim balance. **Rated a Class I Defect.**

SAR 10 Process Air Fan E

The fan bearings appear to have been changed out; however, some acceleration is still evident in the data. Higher speed fans like this one will usually generate more normally, so we will watch this unit closely. Make sure bearings are lubricated for service and environment. **Rated a Class I Defect.**

Pump ACN36 ACN Neutral Tank Circulation

Depending on the unit configuration; there seems to be an issue with the impeller/housing or possibly the coupling. Inspect drivetrain components, flow parameters and finally the pump internals if required by the lack of other obvious issues. **Rated a Class II Defect for now.**

SAR 78B Cooling Tower Fan 2

The motor bearings seem to have been damaged during shutdown. Expect to change the motor this year. **Rated a Class II Defect.**

Observations

SAR66E Vertical Cooling Tower Pump 5

This unit seems to have a sub-synchronous vibration in the motor as well as a slight rotor bar vibration. We thought it was a bad reading last month. We suspect structural resonance. Inspect for loose fasteners or damage to the structure. It could also be associated with some sort of stress or strain.

Rated a Class II Defect for now.

SAR66B, SAR 66C, and SAR 66E Vertical Cooling Tower Pumps 2, 3, and 5

All three of these pumps have a 1xRPM vibration at near 0.4"/second velocity peak. The vibration should be lowered if possible. Trim balancing might help if the unit is out. Check all fasteners for tightness and the shafts if possible, for runout. **Rated A Class I Defect.**

ACN29B ACN Cooling Tower Pump M

There still appears to be electrical, rotor bar and possibly bearing issues in the motor. The main vibration is above the Spectrum F max. Check the electrical connections, current and voltage and all fasteners as time allows. We will watch for changes going forward. No action required at this time. **Rated a Class I Defect.**

ACN28B ACN Fan E

A 1xRPM still dominates the velocity spectrum for the motor inboard vertical. Inspect the motor and structure. Trim balance the fan in the future if possible. **Rated a Class I Defect.**

MON132 Decanter Feed Pump Spare

A high 1xRPM vibration still appears to be in both the pump and motor bearings in the vertical. Inspect the unit for loose fasteners and structural issues. Check the coupling for wear and perform an alignment check and a shaft run out check. **Rated a Class II Defect.**

ACN13B #2 Kettle Transfer Pump South

The vibration data is similar to that of ACN29B unit, but we have a better spectrum F max. Follow the same checks. **Rated a Class I defect.**

MON 80 Uninhibited MON Tank Pump North

The motor bearing data suggests there is looseness in the bearing fits. Be prepared to change out the motor in the future. **Rated a Class I defect.**

SAR 78A Cooling Tower Fan 1

The motor has a shaft speed vibration at near $\frac{1}{2}$ "/second velocity in the NDE bearing; however, it has been this way for a long, long time. Inspect only as time allows. **Rated a Class I Defect.**

SAR 03 Turbine Compressor Main Blower

This unit was reported and communicated earlier.

Reported prior but not running this survey

SAR57B Oleum Tower Circulation Pump B

The Peakvue waterfall data indicates increased wear in the bearings. The acceleration trend is getting close to 4g's peak. Expect to change the bearings before the end of the year. **Rated a Class II Defect.**

Database lists

Abbreviated Last Measurement Summary *****

Database: Lucite Memphis MMA.rbm
Area: MMA
Route No. 6: TJ ROUTE 1
Report Date: 13-Apr-20 08:11

MEASUREMENT POINT -----	OVERALL LEVEL -----	HFD / VHFD -----
SAR03 - Turb Comp Main Blower	(09-Apr-20) OVERALL LEVEL	
5 - Turbine CPL X	.205 Mils	
6 - Turbine CPL Y	.230 Mils	
7 - Turbine Gov X	.247 Mils	
8 - Turbine Gov Y	.193 Mils	
9 - Blwr IB X	1.437 Mils	
10 - Blwr IB Y	1.694 Mils	
11 - Blwr OB X	.731 Mils	
12 - Blwr OB Y	.810 Mils	
15 - Blwr HSG IB	.067 Mils	
16 - Blwer HSG OB	.091 Mils	
ACN17DP - DP Comp	(09-Apr-20) OVERALL LEVEL	
21 - ACH Motor CPL	.033 Mils	
22 - ACH GB CPL	.103 Mils	
27 - ACH CMP MTR	.015 Mils	
23 - ACH CMP CPL	.067 Mils	
24 - ACH CMP OB	.076 Mils	
ACN28ADP - Cooling Twr Fan W	(09-Apr-20) OVERALL LEVEL	
28 - CT Fan 1 W	.215 Mils	
ACN28BDP - Cooling Twr Fan E	(09-Apr-20) OVERALL LEVEL	
26 - CT Fan 2 E	.333 Mils	
SAR55A - Neutralization Pump N	(31-Mar-20) OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal	.049 In/Sec	.625 G-s
MOP - Motor Outboard Horz Peakvue	.094 G-s	
MOV - Motor Outboard Vertical	.062 In/Sec	.051 G-s
MOA - Motor Outboard Axial	.079 In/Sec	.150 G-s
MIH - Motor Inboard Horizontal	.060 In/Sec	1.090 G-s
MIP - Motor Inboard Horz Peakvue	.532 G-s	
MIV - Motor Inboard Vertical	.080 In/Sec	.180 G-s
MIA - Motor Inboard Axial	.060 In/Sec	.250 G-s
	OVERALL LEVEL	1K-20KHz
PIH - Pump Inboard Horizontal	.094 In/Sec	.315 G-s
PIP - Pump Inboard Horz Peakvue	.051 G-s	

PIV - Pump Inboard Vertical	.077 In/Sec	.135 G-s
PIA - Pump Inboard Axial	.073 In/Sec	.264 G-s
SAR55B - Neutralization Pump S		
	(31-Mar-20)	
	OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal	.048 In/Sec	1.245 G-s
MOP - Motor Outboard Horz Peakvue	.120 G-s	
MOV - Motor Outboard Vertical	.086 In/Sec	.274 G-s
MOA - Motor Outboard Axial	.046 In/Sec	.577 G-s
MIH - Motor Inboard Horizontal	.064 In/Sec	1.754 G-s
MIP - Motor Inboard Horz Peakvue	.331 G-s	
MIV - Motor Inboard Vertical	.044 In/Sec	.430 G-s
MIA - Motor Inboard Axial	.057 In/Sec	.341 G-s
	OVERALL LEVEL	1K-20KHz
PIH - Pump Inboard Horizontal	.055 In/Sec	.317 G-s
PIP - Pump Inboard Horz Peakvue	.080 G-s	
PIV - Pump Inboard Vertical	.062 In/Sec	.264 G-s
PIA - Pump Inboard Axial	.052 In/Sec	.235 G-s
SAR59C - Scrub Twr Circ Pmp E		
	(31-Mar-20)	
	OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal	.089 In/Sec	.263 G-s
MOP - Motor Outboard Horz Peakvue	.060 G-s	
MOV - Motor Outboard Vertical	.079 In/Sec	.126 G-s
MOA - Motor Outboard Axial	.092 In/Sec	.083 G-s
MIH - Motor Inboard Horizontal	.029 In/Sec	.483 G-s
MIP - Motor Inboard Horz Peakvue	.219 G-s	
MIV - Motor Inboard Vertical	.029 In/Sec	.092 G-s
MIA - Motor Inboard Axial	.022 In/Sec	.079 G-s
	OVERALL LEVEL	1K-20KHz
PIH - Pump Inboard Horizontal	.080 In/Sec	.504 G-s
PIP - Pump Inboard Horz Peakvue	.300 G-s	
PIV - Pump Inboard Vertical	.044 In/Sec	.215 G-s
PIA - Pump Inboard Axial	.055 In/Sec	.269 G-s
SAR59B - Scrub Twr Circ Pmp M		
	(31-Mar-20)	
	OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal	.039 In/Sec	.481 G-s
MOP - Motor Outboard Horz Peakvue	.252 G-s	
MOV - Motor Outboard Vertical	.043 In/Sec	.327 G-s
MOA - Motor Outboard Axial	.033 In/Sec	.177 G-s
MIH - Motor Inboard Horizontal	.042 In/Sec	.668 G-s
MIP - Motor Inboard Horz Peakvue	.480 G-s	
MIV - Motor Inboard Vertical	.042 In/Sec	.366 G-s
MIA - Motor Inboard Axial	.035 In/Sec	.437 G-s
	OVERALL LEVEL	1K-20KHz
PIH - Pump Inboard Horizontal	.090 In/Sec	.583 G-s
PIP - Pump Inboard Horz Peakvue	.343 G-s	
PIV - Pump Inboard Vertical	.052 In/Sec	.576 G-s
PIA - Pump Inboard Axial	.064 In/Sec	.287 G-s
SAR59A - Scrub Twr Circ Pmp W		
	(31-Mar-20)	
	OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal	.025 In/Sec	.623 G-s
MOP - Motor Outboard Horz Peakvue	.397 G-s	
MOV - Motor Outboard Vertical	.038 In/Sec	.174 G-s
MOA - Motor Outboard Axial	.024 In/Sec	.126 G-s

MIH - Motor Inboard Horizontal	.023 In/Sec	.379 G-s
MIP - Motor Inboard Horz Peakvue	.198 G-s	
MIV - Motor Inboard Vertical	.029 In/Sec	.210 G-s
MIA - Motor Inboard Axial	.027 In/Sec	.140 G-s
	OVERALL LEVEL	1K-20KHz
PIH - Pump Inboard Horizontal	.083 In/Sec	.604 G-s
PIP - Pump Inboard Horz Peakvue	.381 G-s	
PIV - Pump Inboard Vertical	.056 In/Sec	.353 G-s
PIA - Pump Inboard Axial	.076 In/Sec	.228 G-s

SAR39C - Boiler Feed H2O Pmp NE

(01-Apr-20)

	OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal	.279 In/Sec	.344 G-s
MOP - Motor Outboard Horz Peakvue	.123 G-s	
MOV - Motor Outboard Vertical	.201 In/Sec	.128 G-s
MOA - Motor Outboard Axial	.069 In/Sec	.151 G-s
MIH - Motor Inboard Horizontal	.285 In/Sec	.908 G-s
MIP - Motor Inboard Horz Peakvue	.512 G-s	
MIV - Motor Inboard Vertical	.207 In/Sec	.327 G-s
MIA - Motor Inboard Axial	.074 In/Sec	.445 G-s
	OVERALL LEVEL	1K-20KHz
PIH - Pump Inboard Horizontal	.288 In/Sec	.910 G-s
PIP - Pump Inboard Horz Peakvue	.058 G-s	
PIV - Pump Inboard Vertical	.135 In/Sec	.277 G-s
PIA - Pump Inboard Axial	.117 In/Sec	.290 G-s
POH - Pump Outboard Horizontal	.038 In/Sec	.029 G-s
POV - Pump Outboard Vertical	.013 In/Sec	.010 G-s
POA - Pump Outboard Axial	.022 In/Sec	.010 G-s

SAR39D - Boiler Feed H2O Pmp SE

(31-Mar-20)

	OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal	.045 In/Sec	.298 G-s
MOP - Motor Outboard Horz Peakvue	.019 G-s	
MOV - Motor Outboard Vertical	.024 In/Sec	.080 G-s
MOA - Motor Outboard Axial	.063 In/Sec	.073 G-s
MIH - Motor Inboard Horizontal	.055 In/Sec	.461 G-s
MIP - Motor Inboard Horz Peakvue	.083 G-s	
MIV - Motor Inboard Vertical	.058 In/Sec	.208 G-s
MIA - Motor Inboard Axial	.078 In/Sec	.123 G-s
	OVERALL LEVEL	1K-20KHz
PIH - Pump Inboard Horizontal	.084 In/Sec	.309 G-s
PIP - Pump Inboard Horz Peakvue	.023 G-s	
PIV - Pump Inboard Vertical	.099 In/Sec	.095 G-s
PIA - Pump Inboard Axial	.042 In/Sec	.106 G-s
POH - Pump Outboard Horizontal	.081 In/Sec	.216 G-s
POP - Pump Outboard Horz Peakvue	.0076 G-s	
POV - Pump Outboard Vertical	.070 In/Sec	.093 G-s
POA - Pump Outboard Axial	.082 In/Sec	.088 G-s

SAR39B - Boiler Feed H2O Pmp SW

(31-Mar-20)

	OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal	.054 In/Sec	.428 G-s
MOP - Motor Outboard Horz Peakvue	.047 G-s	
MOV - Motor Outboard Vertical	.076 In/Sec	.306 G-s
MOA - Motor Outboard Axial	.080 In/Sec	.162 G-s
MIH - Motor Inboard Horizontal	.035 In/Sec	1.540 G-s
MIP - Motor Inboard Horz Peakvue	.158 G-s	

MIV - Motor Inboard Vertical	.093 In/Sec	.227 G-s
MIA - Motor Inboard Axial	.066 In/Sec	.387 G-s
	OVERALL LEVEL	1K-20KHz
PIH - Pump Inboard Horizontal	.030 In/Sec	.390 G-s
PIP - Pump Inboard Horz Peakvue	.231 G-s	
PIV - Pump Inboard Vertical	.035 In/Sec	.345 G-s
PIA - Pump Inboard Axial	.068 In/Sec	.216 G-s
POH - Pump Outboard Horizontal	.025 In/Sec	.307 G-s
POP - Pump Outboard Horz Peakvue	.163 G-s	
POV - Pump Outboard Vertical	.057 In/Sec	.251 G-s
POA - Pump Outboard Axial	.071 In/Sec	.171 G-s

SAR54C - Weak Acid Xfer Pump S

(31-Mar-20)

	OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal	.055 In/Sec	.148 G-s
MOP - Motor Outboard Horz Peakvue	.056 G-s	
MOV - Motor Outboard Vertical	.030 In/Sec	.037 G-s
MOA - Motor Outboard Axial	.036 In/Sec	.039 G-s
MIH - Motor Inboard Horizontal	.050 In/Sec	.190 G-s
MIP - Motor Inboard Horz Peakvue	.064 G-s	
MIV - Motor Inboard Vertical	.027 In/Sec	.039 G-s
MIA - Motor Inboard Axial	.047 In/Sec	.033 G-s
	OVERALL LEVEL	1K-20KHz
PIH - Pump Inboard Horizontal	.085 In/Sec	.315 G-s
PIP - Pump Inboard Horz Peakvue	.0055 G-s	
PIV - Pump Inboard Vertical	.077 In/Sec	.115 G-s
PIA - Pump Inboard Axial	.076 In/Sec	.188 G-s

SAR54B - Weak Acid Xfer Pump N

(31-Mar-20)

	OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal	.067 In/Sec	.245 G-s
MOP - Motor Outboard Horz Peakvue	.124 G-s	
MOV - Motor Outboard Vertical	.048 In/Sec	.104 G-s
MOA - Motor Outboard Axial	.044 In/Sec	.217 G-s
MIH - Motor Inboard Horizontal	.047 In/Sec	.443 G-s
MIP - Motor Inboard Horz Peakvue	.054 G-s	
MIV - Motor Inboard Vertical	.073 In/Sec	.116 G-s
MIA - Motor Inboard Axial	.081 In/Sec	.052 G-s
	OVERALL LEVEL	1K-20KHz
PIH - Pump Inboard Horizontal	.082 In/Sec	.640 G-s
PIP - Pump Inboard Horz Peakvue	.115 G-s	
PIV - Pump Inboard Vertical	.046 In/Sec	.398 G-s
PIA - Pump Inboard Axial	.058 In/Sec	.311 G-s

SAR50B - Drying Tower Circ Pump E

(01-Apr-20)

	OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal	.097 In/Sec	1.101 G-s
MOP - Motor Outboard Horz Peakvue	.546 G-s	
MOV - Motor Outboard Vertical	.171 In/Sec	.286 G-s
MOA - Motor Outboard Axial	.183 In/Sec	.199 G-s
MIH - Motor Inboard Horizontal	.103 In/Sec	.599 G-s
MIP - Motor Inboard Horz Peakvue	.294 G-s	
MIV - Motor Inboard Vertical	.149 In/Sec	.158 G-s
MIA - Motor Inboard Axial	.124 In/Sec	.136 G-s

SAR66E - Vertical Cool Twr Pump #5

(31-Mar-20)

OVERALL LEVEL	1K-20kHz
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MOH - Motor Outboard Horizontal E-W	.145 In/Sec	.213 G-s
MOP - Motor Outboard Horz Peakvue	.096 G-s	
MOV - Motor Outboard Vertical N-S	.502 In/Sec	.301 G-s
MOA - Motor Outboard Axial	.712 In/Sec	.273 G-s
MIH - Motor Inboard Horizontal E-W	.038 In/Sec	.334 G-s
MIP - Motor Inboard Horz Peakvue	.153 G-s	
MIV - Motor Inboard Vertical N-S	.072 In/Sec	.363 G-s
MIA - Motor Inboard Axial	.070 In/Sec	.585 G-s

SAR66D - Vertical Cool Twr Pump #4	(31-Mar-20)	
	OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal	.169 In/Sec	.111 G-s
MOP - Motor Outboard Horz Peakvue	.059 G-s	
MOV - Motor Outboard Vertical	.079 In/Sec	.078 G-s
MOA - Motor Outboard Axial	.107 In/Sec	.073 G-s
MIH - Motor Inboard Horizontal	.064 In/Sec	.058 G-s
MIP - Motor Inboard Horz Peakvue	.031 G-s	
MIV - Motor Inboard Vertical	.082 In/Sec	.042 G-s
MIA - Motor Inboard Axial	.111 In/Sec	.044 G-s

SAR66C - Vertical Cool Twr Pump #3	(31-Mar-20)	
	OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal	.421 In/Sec	.057 G-s
MOP - Motor Outboard Horz Peakvue	.036 G-s	
MOV - Motor Outboard Vertical	.126 In/Sec	.031 G-s
MOA - Motor Outboard Vertical	.237 In/Sec	.025 G-s
MIH - Motor Inboard Horizontal	.178 In/Sec	.077 G-s
MIP - Motor Inboard Horz Peakvue	.040 G-s	
MIV - Motor Inboard Vertical	.118 In/Sec	.028 G-s
MIA - Motor Inboard Axial	.080 In/Sec	.078 G-s

SAR66B - Vertical Cool Twr Pump #2	(31-Mar-20)	
	OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal	.218 In/Sec	.138 G-s
MOP - Motor Outboard Horz Peakvue	.058 G-s	
MOV - Motor Outboard Vertical	.163 In/Sec	.088 G-s
MOA - Motor Outboard Axial	.446 In/Sec	.117 G-s
MIH - Motor Inboard Horizontal	.126 In/Sec	.271 G-s
MIP - Motor Inboard Horz Peakvue	.133 G-s	
MIV - Motor Inboard Vertical	.177 In/Sec	.084 G-s
MIA - Motor Inboard Axial	.158 In/Sec	.101 G-s

SAR78A - Cooling Tower Fan #1	(01-Apr-20)	
	OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal	.198 In/Sec	.411 G-s
MOP - Motor Outboard Horz Peakvue	.201 G-s	
MOV - Motor Outboard Vertical	.467 In/Sec	.333 G-s
MOA - Motor Outboard Axial	.135 In/Sec	.261 G-s
MIH - Motor Inboard Horizontal	.098 In/Sec	.579 G-s
MIP - Motor Inboard Horz Peakvue	.341 G-s	
MIV - Motor Inboard Vertical	.177 In/Sec	.192 G-s
MIA - Motor Inboard Axial	.167 In/Sec	.238 G-s

SAR78B - Cooling Tower Fan #2	(01-Apr-20)	
	OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal	.128 In/Sec	2.932 G-s
MOP - Motor Outboard Horz Peakvue	1.286 G-s	

MOV - Motor Outboard Vertical	.158 In/Sec	2.322 G-s
MOA - Motor Outboard Axial	.201 In/Sec	2.654 G-s
MIH - Motor Inboard Horizontal	.135 In/Sec	2.774 G-s
MIP - Motor Inboard Horz Peakvue	.906 G-s	
MIV - Motor Inboard Vertical	.125 In/Sec	.925 G-s
MIA - Motor Inboard Axial	.156 In/Sec	2.051 G-s

SAR78C - Cooling Tower Fan #3

(01-Apr-20)

	OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal	.081 In/Sec	.843 G-s
MOP - Motor Outboard Horz Peakvue	.371 G-s	
MOV - Motor Outboard Vertical	.090 In/Sec	.267 G-s
MOA - Motor Outboard Axial	.148 In/Sec	.440 G-s
MIH - Motor Inboard Horizontal	.072 In/Sec	1.505 G-s
MIP - Motor Inboard Horz Peakvue	.838 G-s	
MIV - Motor Inboard Vertical	.136 In/Sec	.831 G-s
MIA - Motor Inboard Axial	.166 In/Sec	.508 G-s

SAR78D - Cooling Tower Fan #4

(01-Apr-20)

	OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal	.113 In/Sec	.524 G-s
MOP - Motor Outboard Horz Peakvue	.259 G-s	
MOV - Motor Outboard Vertical	.237 In/Sec	.297 G-s
MOA - Motor Outboard Axial	.171 In/Sec	.209 G-s
MIH - Motor Inboard Horizontal	.098 In/Sec	.598 G-s
MIP - Motor Inboard Horz Peakvue	.424 G-s	
MIV - Motor Inboard Vertical	.178 In/Sec	.242 G-s
MIA - Motor Inboard Axial	.170 In/Sec	.243 G-s

SAR231A - Final Twr Circ Pump N

(01-Apr-20)

	OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal E-W	.068 In/Sec	1.028 G-s
MOP - Motor Outboard Horz Peakvue	.530 G-s	
MOV - Motor Outboard Vertical N-S	.070 In/Sec	.527 G-s
MOA - Motor Outboard Axial	.108 In/Sec	.298 G-s
MIH - Motor Inboard Horizontal E-W	.045 In/Sec	.709 G-s
MIP - Motor Inboard Horz Peakvue	.319 G-s	
MIV - Motor Inboard Vertical N-S	.050 In/Sec	.238 G-s
MIA - Motor Inboard Axial	.078 In/Sec	.240 G-s

SAR 56A - N Oleum Storage Tank Feed

(31-Mar-20)

	OVERALL LEVEL	1K-20kHz
M1H - Motor Outboard Horizontal	.101 In/Sec	.110 G-s
M1P - Motor Outboard Horz Peakvue	.042 G-s	
M1V - Motor Outboard Vertical	.052 In/Sec	.071 G-s
M1A - Motor Outboard Axial	.153 In/Sec	.047 G-s
M2H - Motor Inboard Horizontal	.066 In/Sec	.227 G-s
M2P - Motor Inboard Horz Peakvue	.128 G-s	
M2V - Motor Inboard Vertical	.042 In/Sec	.055 G-s
M2A - Motor Inboard Axial	.057 In/Sec	.039 G-s
	OVERALL LEVEL	1K-20KHz
P1H - Pump Inboard Horizontal	.070 In/Sec	.092 G-s
P1P - Pump Inboard Horz Peakvue	.053 G-s	
P1V - Pump Inboard Vertical	.032 In/Sec	.050 G-s
P1A - Pump Inboard Axial	.050 In/Sec	.051 G-s

SAR 56B - M Oleum Storage Tank Feed

(31-Mar-20)

	OVERALL LEVEL	1K-20kHz
M1H - Motor Outboard Horizontal	.086 In/Sec	.368 G-s
M1P - Motor Outboard Horz Peakvue	.093 G-s	
M1V - Motor Outboard Vertical	.121 In/Sec	.117 G-s
M1A - Motor Outboard Axial	.182 In/Sec	.119 G-s
M2H - Motor Inboard Horizontal	.076 In/Sec	.180 G-s
M2P - Motor Inboard Horz Peakvue	.046 G-s	
M2V - Motor Inboard Vertical	.100 In/Sec	.070 G-s
M2A - Motor Inboard Axial	.075 In/Sec	.067 G-s
	OVERALL LEVEL	1K-20KHz
P1H - Pump Inboard Horizontal	.163 In/Sec	.258 G-s
P1P - Pump Inboard Horz Peakvue	.274 G-s	
P1V - Pump Inboard Vertical	.077 In/Sec	.051 G-s
P1A - Pump Inboard Axial	.053 In/Sec	.069 G-s
P2H - Pump Outboard Horizontal	.070 In/Sec	.105 G-s
P2P - Pump Outboard Horz Peakvue	.056 G-s	
P2V - Pump Outboard Vertical	.079 In/Sec	.034 G-s
P2A - Pump Outboard Axial	.055 In/Sec	.033 G-s
SAR 56C - S Oleum Storage Tank Feed	(31-Mar-20)	
	OVERALL LEVEL	1K-20kHz
M1H - Motor Outboard Horizontal	.086 In/Sec	.222 G-s
M1P - Motor Outboard Horz Peakvue	.092 G-s	
M1V - Motor Outboard Vertical	.059 In/Sec	.214 G-s
M1A - Motor Outboard Axial	.047 In/Sec	.131 G-s
M2H - Motor Inboard Horizontal	.039 In/Sec	.269 G-s
M2P - Motor Inboard Horz Peakvue	.363 G-s	
M2V - Motor Inboard Vertical	.037 In/Sec	.179 G-s
M2A - Motor Inboard Axial	.036 In/Sec	.188 G-s
	OVERALL LEVEL	1K-20KHz
P1H - Pump Inboard Horizontal	.078 In/Sec	.107 G-s
P1P - Pump Inboard Horz Peakvue	.026 G-s	
P1V - Pump Inboard Vertical	.057 In/Sec	.055 G-s
P1A - Pump Inboard Axial	.060 In/Sec	.034 G-s
SAR128 - Oleum Fume Scrub Blwr	(31-Mar-20)	
	OVERALL LEVEL	1K-20kHz
MIH - Motor Inboard Horizontal	.058 In/Sec	.187 G-s
MIP - Motor Inboard Horz Peakvue	.078 G-s	
MIV - Motor Inboard Vertical	.076 In/Sec	.053 G-s
MIA - Motor Inboard Axial	.068 In/Sec	.052 G-s
	OVERALL LEVEL	1K-20KHz
FIH - Fan Inboard Horizontal	.076 In/Sec	.244 G-s
FIP - Fan Inboard Horz Peakvue	.056 G-s	
FIV - Fan Inboard Vertical	.027 In/Sec	.189 G-s
FIA - Fan Inboard Axial	.047 In/Sec	.119 G-s
FOH - Fan Outboard Horizontal	.095 In/Sec	.200 G-s
FOP - Fan Outboard Horz Peakvue	.042 G-s	
FOV - Fan Outboard Vertical	.076 In/Sec	.293 G-s
FOA - Fan Outboard Axial	.088 In/Sec	.197 G-s
SAR137B - Contain Pit PumpS	(31-Mar-20)	
	OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal E-W	.058 In/Sec	.219 G-s
MOP - Motor Outboard Horz Peakvue	.123 G-s	
MOV - Motor Outboard Vertical N-S	.087 In/Sec	.108 G-s
MOA - Motor Outboard Axial	.090 In/Sec	.107 G-s

SAR57A	- Oleum Twr Circ Pump W	(01-Apr-20)	
		OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal E-W	.124 In/Sec		2.105 G-s
MOP - Motor Outboard Horz Peakvue	.064 G-s		
MOV - Motor Outboard Vertical N-S	.095 In/Sec		1.010 G-s
MOA - Motor Outboard Axial	.063 In/Sec		.244 G-s
MIH - Motor Inboard Horizontal E-W	.067 In/Sec		.987 G-s
MIP - Motor Inboard Horz Peakvue	.206 G-s		
MIV - Motor Inboard Vertical N-S	.072 In/Sec		.372 G-s
MIA - Motor Inboard Axial	.072 In/Sec		.893 G-s
SAR37A	- Interpass Twr Circ Pump N	(01-Apr-20)	
		OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal E-W	.063 In/Sec		.377 G-s
MOP - Motor Outboard Horz Peakvue	.256 G-s		
MOV - Motor Outboard Vertical N-S	.046 In/Sec		.160 G-s
MOA - Motor Outboard Axial	.074 In/Sec		.157 G-s
MIH - Motor Inboard Horizontal E-W	.064 In/Sec		.572 G-s
MIP - Motor Inboard Horz Peakvue	.243 G-s		
MIV - Motor Inboard Vertical N-S	.047 In/Sec		.166 G-s
MIA - Motor Inboard Axial	.052 In/Sec		.381 G-s
SAR14	- Combustion Air Fan W	(01-Apr-20)	
		OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal	.081 In/Sec		.754 G-s
MOP - Motor Outboard Horz Peakvue	.456 G-s		
MOV - Motor Outboard Vertical	.043 In/Sec		.257 G-s
MOA - Motor Outboard Axial	.037 In/Sec		.460 G-s
MIH - Motor Inboard Horizontal	.078 In/Sec		1.256 G-s
MIP - Motor Inboard Horz Peakvue	.643 G-s		
MIV - Motor Inboard Vertical	.047 In/Sec		.447 G-s
MIA - Motor Inboard Axial	.036 In/Sec		.638 G-s
		OVERALL LEVEL	1K-20KHz
FIH - Fan Inboard Horizontal	.102 In/Sec		.986 G-s
FIP - Fan Inboard Horz Peakvue	.121 G-s		
FIV - Fan Inboard Vertical	.034 In/Sec		.327 G-s
FIA - Fan Inboard Axial	.057 In/Sec		.134 G-s
FOH - Fan Outboard Horizontal	.090 In/Sec		1.939 G-s
FOP - Fan Outboard Horz Peakvue	1.051 G-s		
FOV - Fan Outboard Vertical	.056 In/Sec		.920 G-s
FOA - Fan Outboard Axial	.053 In/Sec		.593 G-s
SAR11	- Recycle Fan W	(01-Apr-20)	
		OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal	.041 In/Sec		.464 G-s
MOP - Motor Outboard Horz Peakvue	.033 G-s		
MOV - Motor Outboard Vertical	.035 In/Sec		.058 G-s
MOA - Motor Outboard Axial	.040 In/Sec		.073 G-s
MIH - Motor Inboard Horizontal	.043 In/Sec		.518 G-s
MIP - Motor Inboard Horz Peakvue	.058 G-s		
MIV - Motor Inboard Vertical	.042 In/Sec		.099 G-s
MIA - Motor Inboard Axial	.040 In/Sec		.057 G-s
		OVERALL LEVEL	1K-20KHz
FIH - Fan Inboard Horizontal	.015 In/Sec		.090 G-s
FIP - Fan Inboard Horz Peakvue	.029 G-s		
FIV - Fan Inboard Vertical	.012 In/Sec		.029 G-s

FIA - Fan Inboard Axial	.018 In/Sec	.018 G-s
FOH - Fan Outboard Horizontal	.015 In/Sec	.066 G-s
FOP - Fan Outboard Horz Peakvue	.038 G-s	
FOV - Fan Outboard Vertical	.011 In/Sec	.012 G-s
FOA - Fan Outboard Axial	.021 In/Sec	.015 G-s

SAR15 - Process Air Fan W	(01-Apr-20)	
	OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal	.065 In/Sec	.482 G-s
MOP - Motor Outboard Horz Peakvue	.203 G-s	
MOV - Motor Outboard Vertical	.048 In/Sec	.499 G-s
MOA - Motor Outboard Axial	.055 In/Sec	.477 G-s
MIH - Motor Inboard Horizontal	.055 In/Sec	1.670 G-s
MIP - Motor Inboard Horz Peakvue	.565 G-s	
MIV - Motor Inboard Vertical	.058 In/Sec	.449 G-s
MIA - Motor Inboard Axial	.059 In/Sec	.458 G-s
	OVERALL LEVEL	1K-20KHz
FIH - Fan Inboard Horizontal	.065 In/Sec	1.038 G-s
FIP - Fan Inboard Horz Peakvue	.565 G-s	
FIV - Fan Inboard Vertical	.045 In/Sec	.740 G-s
FIA - Fan Inboard Axial	.056 In/Sec	.801 G-s
FOH - Fan Outboard Horizontal	.076 In/Sec	1.442 G-s
FOP - Fan Outboard Horz Peakvue	.761 G-s	
FOV - Fan Outboard Vertical	.078 In/Sec	.952 G-s
FOA - Fan Outboard Axial	.054 In/Sec	.498 G-s

SAR12 - Recycle Fan E	(01-Apr-20)	
	OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal	.109 In/Sec	.404 G-s
MOP - Motor Outboard Horz Peakvue	.130 G-s	
MOV - Motor Outboard Vertical	.082 In/Sec	.320 G-s
MOA - Motor Outboard Axial	.123 In/Sec	.132 G-s
MIH - Motor Inboard Horizontal	.130 In/Sec	2.097 G-s
MIP - Motor Inboard Horz Peakvue	1.461 G-s	
MIV - Motor Inboard Vertical	.150 In/Sec	.677 G-s
MIA - Motor Inboard Axial	.116 In/Sec	.578 G-s
	OVERALL LEVEL	1K-20KHz
FIH - Fan Inboard Horizontal	.115 In/Sec	.294 G-s
FIP - Fan Inboard Horz Peakvue	.210 G-s	
FIV - Fan Inboard Vertical	.097 In/Sec	.227 G-s
FIA - Fan Inboard Axial	.177 In/Sec	.236 G-s
FOH - Fan Outboard Horizontal	.155 In/Sec	.840 G-s
FOP - Fan Outboard Horz Peakvue	.729 G-s	
FOV - Fan Outboard Vertical	.186 In/Sec	.416 G-s
FOA - Fan Outboard Axial	.147 In/Sec	.336 G-s

SAR10 - Process Air Fan E	(02-Apr-20)	
	OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal	.109 In/Sec	.379 G-s
MOP - Motor Outboard Horz Peakvue	.196 G-s	
MOV - Motor Outboard Vertical	.049 In/Sec	.315 G-s
MOA - Motor Outboard Axial	.082 In/Sec	.117 G-s
MIH - Motor Inboard Horizontal	.087 In/Sec	.504 G-s
MIP - Motor Inboard Horz Peakvue	.315 G-s	
MIV - Motor Inboard Vertical	.085 In/Sec	.184 G-s
MIA - Motor Inboard Axial	.097 In/Sec	.258 G-s
	OVERALL LEVEL	1K-20KHz

FIH - Fan Inboard Horizontal	.118 In/Sec	3.172 G-s
FIP - Fan Inboard Horz Peakvue	1.781 G-s	
FIV - Fan Inboard Vertical	.116 In/Sec	1.442 G-s
FIA - Fan Inboard Axial	.217 In/Sec	.691 G-s
FOH - Fan Outboard Horizontal	.192 In/Sec	2.770 G-s
FOP - Fan Outboard Horz Peakvue	2.062 G-s	
FOV - Fan Outboard Vertical	.127 In/Sec	.962 G-s
FOA - Fan Outboard Axial	.306 In/Sec	.620 G-s

SAR13 - Combustion Air Fan E

(01-Apr-20)

	OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal	.059 In/Sec	.778 G-s
MOP - Motor Outboard Horz Peakvue	.486 G-s	
MOV - Motor Outboard Vertical	.056 In/Sec	.510 G-s
MOA - Motor Outboard Axial	.067 In/Sec	.386 G-s
MIH - Motor Inboard Horizontal	.056 In/Sec	.640 G-s
MIP - Motor Inboard Horz Peakvue	.380 G-s	
MIV - Motor Inboard Vertical	.052 In/Sec	.205 G-s
MIA - Motor Inboard Axial	.058 In/Sec	.327 G-s
	OVERALL LEVEL	1K-20KHz
FIH - Fan Inboard Horizontal	.061 In/Sec	.436 G-s
FIP - Fan Inboard Horz Peakvue	.225 G-s	
FIV - Fan Inboard Vertical	.044 In/Sec	.462 G-s
FIA - Fan Inboard Axial	.060 In/Sec	.142 G-s
FOH - Fan Outboard Horizontal	.041 In/Sec	.573 G-s
FOP - Fan Outboard Horz Peakvue	.303 G-s	
FOV - Fan Outboard Vertical	.119 In/Sec	.400 G-s
FOA - Fan Outboard Axial	.076 In/Sec	.181 G-s

SAR61NM - Spent Acid Circ Pmp N

(01-Apr-20)

	OVERALL LEVEL	1K-20kHz
MIH - Motor Inboard Horizontal	.050 In/Sec	.207 G-s
MIP - Motor Inboard Horz Peakvue	.050 G-s	
MIV - Motor Inboard Vertical	.039 In/Sec	.128 G-s
MIA - Motor Inboard Axial	.046 In/Sec	.165 G-s
	OVERALL LEVEL	1K-20KHz
PIH - Pump Inboard Horizontal	.019 In/Sec	.040 G-s
PIP - Pump Inboard Horz Peakvue	.0064 G-s	
PIV - Pump Inboard Vertical	.028 In/Sec	.033 G-s
PIA - Pump Inboard Axial	.029 In/Sec	.058 G-s

SAR63WM - Spent Acid Feed Pmp W

(01-Apr-20)

	OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal	.042 In/Sec	.089 G-s
MOP - Motor Outboard Horz Peakvue	.0066 G-s	
MOV - Motor Outboard Vertical	.031 In/Sec	.015 G-s
MOA - Motor Outboard Axial	.028 In/Sec	.020 G-s
MIH - Motor Inboard Horizontal	.044 In/Sec	.426 G-s
MIP - Motor Inboard Horz Peakvue	.053 G-s	
MIV - Motor Inboard Vertical	.029 In/Sec	.106 G-s
MIA - Motor Inboard Axial	.032 In/Sec	.069 G-s
	OVERALL LEVEL	1K-20KHz
PIH - Pump Inboard Horizontal	.062 In/Sec	.743 G-s
PIP - Pump Inboard Horz Peakvue	.033 G-s	
PIV - Pump Inboard Vertical	.055 In/Sec	.142 G-s
PIA - Pump Inboard Axial	.043 In/Sec	.226 G-s

SAR135	- Spent Acid Circ Pmp E	(01-Apr-20)	
		OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal		.045 In/Sec	.322 G-s
MOP - Motor Outboard Horz Peakvue		.027 G-s	
MOV - Motor Outboard Vertical		.086 In/Sec	.101 G-s
MOA - Motor Outboard Axial		.039 In/Sec	.107 G-s
MIH - Motor Inboard Horizontal		.031 In/Sec	.267 G-s
MIP - Motor Inboard Horz Peakvue		.092 G-s	
MIV - Motor Inboard Vertical		.037 In/Sec	.049 G-s
MIA - Motor Inboard Axial		.035 In/Sec	.044 G-s
		OVERALL LEVEL	1K-20KHz
PIH - Pump Inboard Horizontal		.100 In/Sec	.385 G-s
PIP - Pump Inboard Horz Peakvue		.062 G-s	
PIV - Pump Inboard Vertical		.072 In/Sec	.094 G-s
PIA - Pump Inboard Axial		.044 In/Sec	.177 G-s
POH - Pump Outboard Horizontal		.086 In/Sec	.432 G-s
POP - Pump Outboard Horz Peakvue		.137 G-s	
POV - Pump Outboard Vertical		.051 In/Sec	.219 G-s
POA - Pump Outboard Axial		.046 In/Sec	.135 G-s
SAR63EM	- Spent Acid Feed Pmp E	(01-Apr-20)	
		OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal		.021 In/Sec	.121 G-s
MOP - Motor Outboard Horz Peakvue		.0054 G-s	
MOV - Motor Outboard Vertical		.026 In/Sec	.119 G-s
MOA - Motor Outboard Axial		.036 In/Sec	.026 G-s
MIH - Motor Inboard Horizontal		.029 In/Sec	.160 G-s
MIP - Motor Inboard Horz Peakvue		.012 G-s	
MIV - Motor Inboard Vertical		.034 In/Sec	.032 G-s
MIA - Motor Inboard Axial		.032 In/Sec	.053 G-s
		OVERALL LEVEL	1K-20KHz
PIH - Pump Inboard Horizontal		.026 In/Sec	.143 G-s
PIP - Pump Inboard Horz Peakvue		.015 G-s	
PIV - Pump Inboard Vertical		.017 In/Sec	.082 G-s
PIA - Pump Inboard Axial		.015 In/Sec	.050 G-s
SAR156	- Spent Acid Feed Booster N	(01-Apr-20)	
		OVERALL LEVEL	1K-20kHz
MIH - Motor Inboard Horizontal		.036 In/Sec	.374 G-s
MIP - Motor Inboard Horz Peakvue		.290 G-s	
MIV - Motor Inboard Vertical		.054 In/Sec	.131 G-s
MIA - Motor Inboard Axial		.084 In/Sec	.110 G-s
		OVERALL LEVEL	1K-20KHz
PIH - Pump Inboard Horizontal		.084 In/Sec	.167 G-s
PIP - Pump Inboard Horz Peakvue		.115 G-s	
PIV - Pump Inboard Vertical		.047 In/Sec	.157 G-s
PIA - Pump Inboard Axial		.064 In/Sec	.142 G-s
MON168	- A/B Booster Pump E	(01-Apr-20)	
		OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal		.089 In/Sec	.129 G-s
MOP - Motor Outboard Horz Peakvue		.076 G-s	
MOV - Motor Outboard Vertical		.030 In/Sec	.093 G-s
MOA - Motor Outboard Axial		.060 In/Sec	.085 G-s
MIH - Motor Inboard Horizontal		.054 In/Sec	.234 G-s
MIP - Motor Inboard Horz Peakvue		.125 G-s	
MIV - Motor Inboard Vertical		.032 In/Sec	.125 G-s

MIA - Motor Inboard Axial	.044 In/Sec	.092 G-s
	OVERALL LEVEL	1K-20KHz
PIH - Pump Inboard Horizontal	.090 In/Sec	.127 G-s
PIP - Pump Inboard Horz Peakvue	.079 G-s	
PIV - Pump Inboard Vertical	.031 In/Sec	.110 G-s
PIA - Pump Inboard Axial	.064 In/Sec	.085 G-s
MON73W - Skim Tub Xfer Pmp W	(01-Apr-20)	
	OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal	.030 In/Sec	.246 G-s
MOP - Motor Outboard Horz Peakvue	.041 G-s	
MOV - Motor Outboard Vertical	.041 In/Sec	.103 G-s
MOA - Motor Outboard Axial	.042 In/Sec	.031 G-s
MIH - Motor Inboard Horizontal	.032 In/Sec	.364 G-s
MIP - Motor Inboard Horz Peakvue	.214 G-s	
MIV - Motor Inboard Vertical	.041 In/Sec	.142 G-s
MIA - Motor Inboard Axial	.054 In/Sec	.401 G-s
	OVERALL LEVEL	1K-20KHz
PIH - Pump Inboard Horizontal	.036 In/Sec	.040 G-s
PIP - Pump Inboard Horz Peakvue	.028 G-s	
PIV - Pump Inboard Vertical	.028 In/Sec	.051 G-s
PIA - Pump Inboard Axial	.026 In/Sec	.034 G-s
MON45WM - ACH Ref Brine Pump W	(01-Apr-20)	
	OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal	.046 In/Sec	.785 G-s
MOP - Motor Outboard Horz Peakvue	.279 G-s	
MOV - Motor Outboard Vertical	.093 In/Sec	.382 G-s
MOA - Motor Outboard Axial	.087 In/Sec	.221 G-s
MIH - Motor Inboard Horizontal	.055 In/Sec	1.512 G-s
MIP - Motor Inboard Horz Peakvue	.877 G-s	
MIV - Motor Inboard Vertical	.107 In/Sec	.328 G-s
MIA - Motor Inboard Axial	.085 In/Sec	.330 G-s
	OVERALL LEVEL	1K-20KHz
PIH - Pump Inboard Horizontal	.194 In/Sec	.536 G-s
PIP - Pump Inboard Horz Peakvue	.273 G-s	
PIV - Pump Inboard Vertical	.119 In/Sec	.185 G-s
PIA - Pump Inboard Axial	.095 In/Sec	.252 G-s
POH - Pump Outboard Horizontal	.114 In/Sec	.901 G-s
POP - Pump Outboard Horz Peakvue	.674 G-s	
POV - Pump Outboard Vertical	.089 In/Sec	.223 G-s
POA - Pump Outboard Axial	.084 In/Sec	.298 G-s

Clarification Of Vibration Units:

Acc	-->	G-s	RMS
Vel	-->	In/Sec	PK
Dsp	-->	Mils	P-P

Abbreviated Last Measurement Summary

Database: Lucite Memphis MMA.rbm
Area: MMA

Route No. 7: TJ ROUTE 2
Report Date: 13-Apr-20 07:56

MEASUREMENT POINT -----	OVERALL LEVEL -----	HFD / VHFD -----
MON80 - Uninhibited Mon Tank Pump N	(31-Mar-20)	
	OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal	.077 In/Sec	.143 G-s
MOP - Motor Outboard Horz Peakvue	.027 G-s	
MOV - MotorOutboard Vertical	.059 In/Sec	.205 G-s
MOA - Motor Outboard Axial	.354 In/Sec	.202 G-s
MIH - Motor Inboard Horizontal	.098 In/Sec	.209 G-s
MIP - Motor Inboard Horz Peakvue	.082 G-s	
MIV - Motor Inboard Vertical	.329 In/Sec	.043 G-s
MIA - Motor Inboard Axial	.336 In/Sec	.067 G-s
	OVERALL LEVEL	1K-20KHz
PIH - Pump Inboard Horizontal	.150 In/Sec	.136 G-s
PIP - Pump Inboard Horz Peakvue	.012 G-s	
PIV - Pump Inboard Vertical	.066 In/Sec	.062 G-s
PIA - Pump Inboard Axial	.056 In/Sec	.052 G-s
MON81 - Uninhibited Mon Tank Pump S	(31-Mar-20)	
	OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal	.052 In/Sec	.116 G-s
MOP - Motor Outboard Horz Peakvue	.0073 G-s	
MOV - MotorOutboard Vertical	.040 In/Sec	.059 G-s
MOA - Motor Outboard Axial	.038 In/Sec	.038 G-s
MIH - Motor Inboard Horizontal	.051 In/Sec	.125 G-s
MIP - Motor Inboard Horz Peakvue	.015 G-s	
MIV - Motor Inboard Vertical	.046 In/Sec	.058 G-s
MIA - Motor Inboard Axial	.068 In/Sec	.033 G-s
	OVERALL LEVEL	1K-20KHz
PIH - Pump Inboard Horizontal	.239 In/Sec	.632 G-s
PIP - Pump Inboard Horz Peakvue	.094 G-s	
PIV - Pump Inboard Vertical	.152 In/Sec	.211 G-s
PIA - Pump Inboard Axial	.147 In/Sec	.278 G-s
MON56 - Inhibited Mon Xfer Pump E	(31-Mar-20)	
	OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal	.068 In/Sec	.408 G-s
MOP - Motor Outboard Horz Peakvue	.084 G-s	
MOV - Motor Outboard Vertical	.054 In/Sec	.088 G-s
MOA - Motor Outboard Axial	.100 In/Sec	.103 G-s
MIH - Motor Inboard Horizontal	.104 In/Sec	.509 G-s
MIP - Motor Inboard Horz Peakvue	.100 G-s	
MIV - Motor Inboard Vertical	.075 In/Sec	.125 G-s
MIA - Motor Inboard Axial	.150 In/Sec	.091 G-s
	OVERALL LEVEL	1K-20KHz
PIH - Pump Inboard Horizontal	.214 In/Sec	1.116 G-s
PIP - Pump Inboard Horz Peakvue	.069 G-s	
PIV - Pump Inboard Vertical	.185 In/Sec	.443 G-s
PIA - Pump Inboard Axial	.142 In/Sec	.396 G-s
MON40 - Acetone Pump	(31-Mar-20)	
	OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal	.077 In/Sec	.299 G-s

MOP - Motor Outboard Horz Peakvue	.056 G-s	
MOV - Motor Outboard Vertical	.123 In/Sec	.126 G-s
MOA - Motor Outboard Axial	.060 In/Sec	.142 G-s
MIH - Motor Inboard Horizontal	.027 In/Sec	1.076 G-s
MIP - Motor Inboard Horz Peakvue	.148 G-s	
MIV - Motor Inboard Vertical	.040 In/Sec	.115 G-s
MIA - Motor Inboard Axial	.036 In/Sec	.127 G-s
	OVERALL LEVEL	1K-20KHz
PIH - Pump Inboard Horizontal	.129 In/Sec	.899 G-s
PIP - Pump Inboard Horz Peakvue	.393 G-s	
PIV - Pump Inboard Vertical	.099 In/Sec	.618 G-s
PIA - Pump Inboard Axial	.081 In/Sec	.800 G-s
ACN08 - ACH Blend Tank	(31-Mar-20)	
	OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal	.060 In/Sec	.281 G-s
MOP - Motor Outboard Horz Peakvue	.018 G-s	
MOV - Motor Outboard Vertical	.247 In/Sec	.138 G-s
MOA - Motor Outboard Axial	.127 In/Sec	.124 G-s
MIH - Motor Inboard Horizontal	.059 In/Sec	.530 G-s
MIP - Motor Inboard Horz Peakvue	.062 G-s	
MIV - Motor Inboard Vertical	.222 In/Sec	.158 G-s
MIA - Motor Inboard Axial	.144 In/Sec	.104 G-s
	OVERALL LEVEL	1K-20KHz
PIH - Pump Inboard Horizontal	.103 In/Sec	.355 G-s
PIP - Pump Inboard Horz Peakvue	.136 G-s	
PIV - Pump Inboard Vertical	.038 In/Sec	.122 G-s
PIA - Pump Inboard Axial	.094 In/Sec	.081 G-s
ACN07C - ACH Prod Feed Pump S	(31-Mar-20)	
	OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal	.081 In/Sec	1.307 G-s
MOP - Motor Outboard Horz Peakvue	.254 G-s	
MOV - Motor Outboard Vertical	.089 In/Sec	.503 G-s
MOA - Motor Outboard Axial	.079 In/Sec	.434 G-s
MIH - Motor Inboard Horizontal	.070 In/Sec	2.272 G-s
MIP - Motor Inboard Horz Peakvue	1.113 G-s	
MIV - Motor Inboard Vertical	.074 In/Sec	.408 G-s
MIA - Motor Inboard Axial	.048 In/Sec	.369 G-s
	OVERALL LEVEL	1K-20KHz
PIH - Pump Inboard Horizontal	.185 In/Sec	1.627 G-s
PIP - Pump Inboard Horz Peakvue	.495 G-s	
PIV - Pump Inboard Vertical	.208 In/Sec	.813 G-s
PIA - Pump Inboard Axial	.134 In/Sec	.753 G-s
MON85E - Water Treatment Pmp E	(31-Mar-20)	
	OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal	.153 In/Sec	.528 G-s
MOP - Motor Outboard Horz Peakvue	.319 G-s	
MOV - Motor Outboard Vertical	.083 In/Sec	.247 G-s
MOA - Motor Outboard Axial	.094 In/Sec	.219 G-s
MIH - Motor Inboard Horizontal	.138 In/Sec	.468 G-s
MIP - Motor Inboard Horz Peakvue	.044 G-s	
MIV - Motor Inboard Vertical	.151 In/Sec	.103 G-s
MIA - Motor Inboard Axial	.124 In/Sec	.067 G-s
	OVERALL LEVEL	1K-20KHz
PIH - Pump Inboard Horizontal	.282 In/Sec	.679 G-s

PIP - Pump Inboard Horz Peakvue	.426 G-s	
PIV - Pump Inboard Vertical	.157 In/Sec	.315 G-s
PIA - Pump Inboard Axial	.157 In/Sec	.340 G-s
MON85W - Water Treatment Pmp W	(31-Mar-20)	
	OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal	.111 In/Sec	.394 G-s
MOP - Motor Outboard Horz Peakvue	.140 G-s	
MOV - Motor Outboard Vertical	.161 In/Sec	.118 G-s
MOA - Motor Outboard Axial	.121 In/Sec	.078 G-s
MIH - Motor Inboard Horizontal	.120 In/Sec	.337 G-s
MIP - Motor Inboard Horz Peakvue	.186 G-s	
MIV - Motor Inboard Vertical	.129 In/Sec	.245 G-s
MIA - Motor Inboard Axial	.112 In/Sec	.101 G-s
	OVERALL LEVEL	1K-20KHz
PIH - Pump Inboard Horizontal	.145 In/Sec	.580 G-s
PIP - Pump Inboard Horz Peakvue	.400 G-s	
PIV - Pump Inboard Vertical	.113 In/Sec	.229 G-s
PIA - Pump Inboard Axial	.122 In/Sec	.224 G-s
ACN28B - ACN Fan E	(01-Apr-20)	
	OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal	.247 In/Sec	1.171 G-s
MOP - Motor Outboard Horz Peakvue	.244 G-s	
MOV - Motor Outboard Vertical	.197 In/Sec	.432 G-s
MOA - Motor Outboard Axial	.148 In/Sec	.245 G-s
MIH - Motor Inboard Horizontal	.304 In/Sec	.749 G-s
MIP - Motor Inboard Horz Peakvue	.211 G-s	
MIV - Motor Inboard Vertical	.402 In/Sec	.224 G-s
MIA - Motor Inboard Axial	.159 In/Sec	.106 G-s
ACN28A - ACN Fan W	(01-Apr-20)	
	OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal	.122 In/Sec	.496 G-s
MOP - Motor Outboard Horz Peakvue	.175 G-s	
MOV - Motor Outboard Vertical	.167 In/Sec	.537 G-s
MOA - Motor Outboard Axial	.186 In/Sec	.251 G-s
MIH - Motor Inboard Horizontal	.209 In/Sec	1.024 G-s
MIP - Motor Inboard Horz Peakvue	.263 G-s	
MIV - Motor Inboard Vertical	.126 In/Sec	.518 G-s
MIA - Motor Inboard Axial	.182 In/Sec	.394 G-s
ACN29C - ACN Cool Twr Pump S	(31-Mar-20)	
	OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal	.049 In/Sec	.496 G-s
MOP - Motor Outboard Horz Peakvue	.189 G-s	
MOV - Motor Outboard Vertical	.100 In/Sec	.191 G-s
MOA - Motor Outboard Axial	.045 In/Sec	.234 G-s
MIH - Motor Inboard Horizontal	.045 In/Sec	.514 G-s
MIP - Motor Inboard Horz Peakvue	.135 G-s	
MIV - Motor Inboard Vertical	.082 In/Sec	.119 G-s
MIA - Motor Inboard Axial	.045 In/Sec	.171 G-s
	OVERALL LEVEL	1K-20KHz
PIH - Pump Inboard Horizontal	.164 In/Sec	1.182 G-s
PIP - Pump Inboard Horz Peakvue	.579 G-s	
PIV - Pump Inboard Vertical	.112 In/Sec	.475 G-s
PIA - Pump Inboard Axial	.142 In/Sec	.740 G-s

POH - Pump Outboard Horizontal	.100 In/Sec	1.466 G-s
POP - Pump Outboard Horz Peakvue	.454 G-s	
POV - Pump Outboard Vertical	.088 In/Sec	.664 G-s
POA - Pump Outboard Axial	.100 In/Sec	.279 G-s

ACN29B - ACN Cool Twr Pump M

(31-Mar-20)

	OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal	.045 In/Sec	1.234 G-s
MOP - Motor Outboard Horz Peakvue	.667 G-s	
MOV - Motor Outboard Vertical	.047 In/Sec	.222 G-s
MOA - Motor Outboard Axial	.044 In/Sec	.249 G-s
MIH - Motor Inboard Horizontal	.046 In/Sec	3.679 G-s
MIP - Motor Inboard Horz Peakvue	.964 G-s	
MIV - Motor Inboard Vertical	.059 In/Sec	.280 G-s
MIA - Motor Inboard Axial	.046 In/Sec	.462 G-s
	OVERALL LEVEL	1K-20KHz
PIH - Pump Inboard Horizontal	.194 In/Sec	.773 G-s
PIP - Pump Inboard Horz Peakvue	.479 G-s	
PIV - Pump Inboard Vertical	.088 In/Sec	.310 G-s
PIA - Pump Inboard Axial	.117 In/Sec	.239 G-s
POH - Pump Outboard Horizontal	.090 In/Sec	1.154 G-s
POP - Pump Outboard Horz Peakvue	.662 G-s	
POV - Pump Outboard Vertical	.079 In/Sec	.357 G-s
POA - Pump Outboard Axial	.112 In/Sec	.330 G-s

ACN29A - ACN Cool Twr Pump N

(31-Mar-20)

	OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal	.061 In/Sec	.903 G-s
MOP - Motor Outboard Horz Peakvue	.174 G-s	
MOV - Motor Outboard Vertical	.065 In/Sec	.667 G-s
MOA - Motor Outboard Axial	.052 In/Sec	.324 G-s
MIH - Motor Inboard Horizontal	.064 In/Sec	1.038 G-s
MIP - Motor Inboard Horz Peakvue	.240 G-s	
MIV - Motor Inboard Vertical	.069 In/Sec	.680 G-s
MIA - Motor Inboard Axial	.104 In/Sec	.722 G-s
	OVERALL LEVEL	1K-20KHz
PIH - Pump Inboard Horizontal	.199 In/Sec	.269 G-s
PIP - Pump Inboard Horz Peakvue	.054 G-s	
PIV - Pump Inboard Vertical	.164 In/Sec	.112 G-s
PIA - Pump Inboard Axial	.169 In/Sec	.159 G-s
POH - Pump Outboard Horizontal	.086 In/Sec	1.279 G-s
POP - Pump Outboard Horz Peakvue	.824 G-s	
POV - Pump Outboard Vertical	.081 In/Sec	.393 G-s
POA - Pump Outboard Axial	.136 In/Sec	.272 G-s

ACN36 - ACH Neut Tank Circ Pmp

(01-Apr-20)

	OVERALL LEVEL	1K-20kHz
MIH - Motor Inboard Horizontal	.078 In/Sec	.602 G-s
MIP - Motor Inboard Horz Peakvue	.254 G-s	
MIV - Motor Inboard Vertical	.106 In/Sec	.272 G-s
MIA - Motor Inboard Axial	.074 In/Sec	.170 G-s
	OVERALL LEVEL	1K-20KHz
PIH - Pump Inboard Horizontal	.496 In/Sec	.164 G-s
PIP - Pump Inboard Horz Peakvue	.059 G-s	
PIV - Pump Inboard Vertical	.259 In/Sec	.252 G-s
PIA - Pump Inboard Axial	.648 In/Sec	.149 G-s

ACN12	- #1 Kettle Xfer Pump	(01-Apr-20)	
		OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal		.089 In/Sec	.513 G-s
MOP - Motor Outboard Horz Peakvue		.080 G-s	
MOV - Motor Outboard Vertical		.091 In/Sec	.166 G-s
MOA - Motor Outboard Axial		.089 In/Sec	.271 G-s
MIH - Motor Inboard Horizontal		.081 In/Sec	.994 G-s
MIP - Motor Inboard Horz Peakvue		.232 G-s	
MIV - Motor Inboard Vertical		.076 In/Sec	.302 G-s
MIA - Motor Inboard Axial		.057 In/Sec	.198 G-s
		OVERALL LEVEL	1K-20KHz
PIH - Pump Inboard Horizontal		.081 In/Sec	.081 G-s
PIP - Pump Inboard Horz Peakvue		.0067 G-s	
PIV - Pump Inboard Vertical		.201 In/Sec	.148 G-s
PIA - Pump Inboard Axial		.140 In/Sec	.201 G-s
ACN10	- #1 Kettle Circ Pmp	(01-Apr-20)	
		OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal		.018 In/Sec	.373 G-s
MOP - Motor Outboard Horz Peakvue		.189 G-s	
MOV - Motor Outboard Vertical		.033 In/Sec	.221 G-s
MOA - Motor Outboard Axial		.019 In/Sec	.124 G-s
MIH - Motor Inboard Horizontal		.023 In/Sec	.499 G-s
MIP - Motor Inboard Horz Peakvue		.242 G-s	
MIV - Motor Inboard Vertical		.024 In/Sec	.274 G-s
MIA - Motor Inboard Axial		.023 In/Sec	.212 G-s
		OVERALL LEVEL	1K-20KHz
PIH - Pump Inboard Horizontal		.038 In/Sec	.144 G-s
PIP - Pump Inboard Horz Peakvue		.089 G-s	
PIV - Pump Inboard Vertical		.037 In/Sec	.072 G-s
PIA - Pump Inboard Axial		.040 In/Sec	.041 G-s
ACN13B	- #2 Kettle Xfer Pump S	(01-Apr-20)	
		OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal		.056 In/Sec	.581 G-s
MOP - Motor Outboard Horz Peakvue		.067 G-s	
MOV - Motor Outboard Vertical		.083 In/Sec	.266 G-s
MOA - Motor Outboard Axial		.063 In/Sec	.172 G-s
MIH - Motor Inboard Horizontal		.093 In/Sec	3.324 G-s
MIP - Motor Inboard Horz Peakvue		.685 G-s	
MIV - Motor Inboard Vertical		.068 In/Sec	.746 G-s
MIA - Motor Inboard Axial		.054 In/Sec	.942 G-s
		OVERALL LEVEL	1K-20KHz
PIH - Pump Inboard Horizontal		.062 In/Sec	.336 G-s
PIP - Pump Inboard Horz Peakvue		.066 G-s	
PIV - Pump Inboard Vertical		.055 In/Sec	.103 G-s
PIA - Pump Inboard Axial		.065 In/Sec	.138 G-s
ACN11	- #2 Kettle Circ Pump	(01-Apr-20)	
		OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal		.135 In/Sec	.555 G-s
MOP - Motor Outboard Horz Peakvue		.254 G-s	
MOV - Motor Outboard Vertical		.045 In/Sec	.227 G-s
MOA - Motor Outboard Axial		.040 In/Sec	.341 G-s
MIH - Motor Inboard Horizontal		.022 In/Sec	.707 G-s
MIP - Motor Inboard Horz Peakvue		.485 G-s	
MIV - Motor Inboard Vertical		.044 In/Sec	.194 G-s

MIA - Motor Inboard Axial	.035 In/Sec	.329 G-s
	OVERALL LEVEL	1K-20KHz
PIH - Pump Inboard Horizontal	.041 In/Sec	.150 G-s
PIP - Pump Inboard Horz Peakvue	.082 G-s	
PIV - Pump Inboard Vertical	.035 In/Sec	.141 G-s
PIA - Pump Inboard Axial	.026 In/Sec	.089 G-s
ACN09 - ACH Flash Tank Pump	(01-Apr-20)	
	OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal	.085 In/Sec	.524 G-s
MOP - Motor Outboard Horz Peakvue	.050 G-s	
MOV - Motor Outboard Vertical	.127 In/Sec	.208 G-s
MOA - Motor Outboard Axial	.065 In/Sec	.199 G-s
	OVERALL LEVEL	1K-20KHz
PIH - Pump Inboard Horizontal	.064 In/Sec	.261 G-s
PIP - Pump Inboard Horz Peakvue	.065 G-s	
PIV - Pump Inboard Vertical	.053 In/Sec	.324 G-s
PIA - Pump Inboard Axial	.059 In/Sec	.296 G-s
ACN23 - ACH Scrub Circ Pump S	(01-Apr-20)	
	OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal	.022 In/Sec	.385 G-s
MOP - Motor Outboard Horz Peakvue	.181 G-s	
MOV - Motor Outboard Vertical	.032 In/Sec	.117 G-s
MOA - Motor Outboard Axial	.039 In/Sec	.199 G-s
MIH - Motor Inboard Horizontal	.021 In/Sec	.447 G-s
MIP - Motor Inboard Horz Peakvue	.275 G-s	
MIV - Motor Inboard Vertical	.034 In/Sec	.178 G-s
MIA - Motor Inboard Axial	.035 In/Sec	.154 G-s
	OVERALL LEVEL	1K-20KHz
PIH - Pump Inboard Horizontal	.098 In/Sec	.317 G-s
PIP - Pump Inboard Horz Peakvue	.220 G-s	
PIV - Pump Inboard Vertical	.069 In/Sec	.214 G-s
PIA - Pump Inboard Axial	.067 In/Sec	.189 G-s
ACN30 - ACH Scrubber Xfer Pmp	(01-Apr-20)	
	OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal	.046 In/Sec	.305 G-s
MOP - Motor Outboard Horz Peakvue	.158 G-s	
MOV - Motor Outboard Vertical	.067 In/Sec	.205 G-s
MOA - Motor Outboard Axial	.077 In/Sec	.125 G-s
MIH - Motor Inboard Horizontal	.059 In/Sec	.389 G-s
MIP - Motor Inboard Horz Peakvue	.230 G-s	
MIV - Motor Inboard Vertical	.083 In/Sec	.151 G-s
MIA - Motor Inboard Axial	.065 In/Sec	.132 G-s
	OVERALL LEVEL	1K-20KHz
PIH - Pump Inboard Horizontal	.063 In/Sec	.114 G-s
PIP - Pump Inboard Horz Peakvue	.065 G-s	
PIV - Pump Inboard Vertical	.068 In/Sec	.074 G-s
PIA - Pump Inboard Axial	.044 In/Sec	.063 G-s
ACN05A - Topp Column Xfer Pmp W	(01-Apr-20)	
	OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal	.087 In/Sec	.503 G-s
MOP - Motor Outboard Horz Peakvue	.071 G-s	
MOV - Motor Outboard Vertical	.092 In/Sec	.061 G-s
MOA - Motor Outboard Axial	.121 In/Sec	.165 G-s

MIH - Motor Inboard Horizontal	.048 In/Sec	.673 G-s
MIP - Motor Inboard Horz Peakvue	.253 G-s	
MIV - Motor Inboard Vertical	.040 In/Sec	.116 G-s
MIA - Motor Inboard Axial	.077 In/Sec	.093 G-s
	OVERALL LEVEL	1K-20KHz
PIH - Pump Inboard Horizontal	.226 In/Sec	.386 G-s
PIP - Pump Inboard Horz Peakvue	.097 G-s	
PIV - Pump Inboard Vertical	.101 In/Sec	.284 G-s
PIA - Pump Inboard Axial	.099 In/Sec	.337 G-s

ACN04 - Topping Col Circ Pump	(01-Apr-20)	
	OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal	.031 In/Sec	.256 G-s
MOP - Motor Outboard Horz Peakvue	.165 G-s	
MOV - Motor Outboard Vertical	.034 In/Sec	.067 G-s
MOA - Motor Outboard Axial	.027 In/Sec	.063 G-s
MIH - Motor Inboard Horizontal	.025 In/Sec	.644 G-s
MIP - Motor Inboard Horz Peakvue	.366 G-s	
MIV - Motor Inboard Vertical	.027 In/Sec	.112 G-s
MIA - Motor Inboard Axial	.026 In/Sec	.060 G-s
	OVERALL LEVEL	1K-20KHz
PIH - Pump Inboard Horizontal	.095 In/Sec	.293 G-s
PIP - Pump Inboard Horz Peakvue	.180 G-s	
PIV - Pump Inboard Vertical	.056 In/Sec	.215 G-s
PIA - Pump Inboard Axial	.053 In/Sec	.214 G-s
POH - Pump Outboard Horizontal	.049 In/Sec	.522 G-s
POP - Pump Outboard Horz Peakvue	.337 G-s	
POV - Pump Outboard Vertical	.065 In/Sec	.235 G-s
POA - Pump Outboard Axial	.047 In/Sec	.204 G-s

MON38CNM - LBS Tails Pump N	(31-Mar-20)	
	OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal	.046 In/Sec	.635 G-s
MOP - Motor Outboard Horz Peakvue	.130 G-s	
MOV - Motor Outboard Vertical	.091 In/Sec	.236 G-s
MOA - Motor Outboard Axial	.054 In/Sec	.171 G-s
MIH - Motor Inboard Horizontal	.045 In/Sec	.748 G-s
MIP - Motor Inboard Horz Peakvue	.153 G-s	
MIV - Motor Inboard Vertical	.066 In/Sec	.259 G-s
MIA - Motor Inboard Axial	.051 In/Sec	.214 G-s
	OVERALL LEVEL	1K-20KHz
PIH - Pump Inboard Horizontal	.098 In/Sec	1.278 G-s
PIP - Pump Inboard Horz Peakvue	.173 G-s	
PIV - Pump Inboard Vertical	.083 In/Sec	.518 G-s
PIA - Pump Inboard Axial	.055 In/Sec	.465 G-s

MON38CSM - LBS Tails Pump S	(31-Mar-20)	
	OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal	.029 In/Sec	.220 G-s
MOP - Motor Outboard Horz Peakvue	.044 G-s	
MOV - Motor Outboard Vertical	.035 In/Sec	.074 G-s
MOA - Motor Outboard Axial	.029 In/Sec	.125 G-s
MIH - Motor Inboard Horizontal	.046 In/Sec	.540 G-s
MIP - Motor Inboard Horz Peakvue	.077 G-s	
MIV - Motor Inboard Vertical	.030 In/Sec	.092 G-s
MIA - Motor Inboard Axial	.027 In/Sec	.056 G-s
	OVERALL LEVEL	1K-20KHz

PIH - Pump Inboard Horizontal	.095 In/Sec	.327 G-s
PIP - Pump Inboard Horz Peakvue	.087 G-s	
PIV - Pump Inboard Vertical	.058 In/Sec	.248 G-s
PIA - Pump Inboard Axial	.056 In/Sec	.186 G-s
MON 63W - LBS Side Stream Pump W	(31-Mar-20)	
	OVERALL LEVEL	1K-20kHz
M1H - Motor Outboard Horizontal	.179 In/Sec	.841 G-s
M1P - Motor Outboard Horz Peakvue	.042 G-s	
M1V - Motor Outboard Vertical	.123 In/Sec	.274 G-s
M1A - Motor Outboard Axial	.113 In/Sec	.644 G-s
M2H - Motor Inboard Horizontal	.060 In/Sec	.872 G-s
M2P - Motor Inboard Horz Peakvue	.068 G-s	
M2V - Motor Inboard Vertical	.118 In/Sec	.264 G-s
M2A - Motor Inboard Axial	.116 In/Sec	.379 G-s
	OVERALL LEVEL	1K-20kHz
P1H - Pump Inboard Horizontal	.248 In/Sec	.425 G-s
P1P - Pump Inboard Horz Peakvue	.086 G-s	
P1V - Pump Inboard Vertical	.139 In/Sec	.516 G-s
P1A - Pump Inboard Axial	.200 In/Sec	.312 G-s
MON 63E - LBS Side Stream Pump E	(31-Mar-20)	
	OVERALL LEVEL	1K-20kHz
M1H - Motor Outboard Horizontal	.108 In/Sec	1.063 G-s
M1P - Motor Outboard Horz Peakvue	.032 G-s	
M1V - Motor Outboard Vertical	.231 In/Sec	.358 G-s
M1A - Motor Outboard Axial	.169 In/Sec	.346 G-s
M2H - Motor Inboard Horizontal	.092 In/Sec	.994 G-s
M2P - Motor Inboard Horz Peakvue	.110 G-s	
M2V - Motor Inboard Vertical	.195 In/Sec	.235 G-s
M2A - Motor Inboard Axial	.174 In/Sec	.200 G-s
	OVERALL LEVEL	1K-20kHz
P1H - Pump Inboard Horizontal	.266 In/Sec	.559 G-s
P1P - Pump Inboard Horz Peakvue	.054 G-s	
P1V - Pump Inboard Vertical	.111 In/Sec	.491 G-s
P1A - Pump Inboard Axial	.121 In/Sec	.573 G-s
MON132 - Decanter Feed Pmp Spare	(31-Mar-20)	
	OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal	.147 In/Sec	.445 G-s
MOP - Motor Outboard Horz Peakvue	.040 G-s	
MOV - Motor Outboard Vertical	.617 In/Sec	.099 G-s
MOA - Motor Outboard Axial	.088 In/Sec	.210 G-s
MIH - Motor Inboard Horizontal	.135 In/Sec	.392 G-s
MIP - Motor Inboard Horz Peakvue	.073 G-s	
MIV - Motor Inboard Vertical	.363 In/Sec	.154 G-s
MIA - Motor Inboard Axial	.116 In/Sec	.155 G-s
	OVERALL LEVEL	1K-20kHz
PIH - Pump Inboard Horizontal	.177 In/Sec	.748 G-s
PIP - Pump Inboard Horz Peakvue	.332 G-s	
PIV - Pump Inboard Vertical	.417 In/Sec	.349 G-s
PIA - Pump Inboard Axial	.071 In/Sec	.310 G-s
MON50 - Decanter Feed Pump	(01-Apr-20)	
	OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal	.051 In/Sec	.379 G-s
MOP - Motor Outboard Horz Peakvue	.027 G-s	

MOV - Motor Outboard Vertical	.058 In/Sec	.164 G-s
MOA - Motor Outboard Axial	.092 In/Sec	.112 G-s
MIH - Motor Inboard Horizontal	.055 In/Sec	.603 G-s
MIP - Motor Inboard Horz Peakvue	.093 G-s	
MIV - Motor Inboard Vertical	.068 In/Sec	.249 G-s
MIA - Motor Inboard Axial	.099 In/Sec	.124 G-s
	OVERALL LEVEL	1K-20KHz
PIH - Pump Inboard Horizontal	.219 In/Sec	.592 G-s
PIP - Pump Inboard Horz Peakvue	.220 G-s	
PIV - Pump Inboard Vertical	.186 In/Sec	.209 G-s
PIA - Pump Inboard Axial	.157 In/Sec	.633 G-s

MON 51 - WCM Tails Swing/Spare Pmp	(31-Mar-20)	
	OVERALL LEVEL	1K-20kHz
M1H - Motor Outboard Horizontal	.058 In/Sec	.514 G-s
M1P - Motor Outboard Horz Peakvue	.038 G-s	
M1V - Motor Outboard Vertical	.033 In/Sec	.160 G-s
M1A - Motor Outboard Axial	.035 In/Sec	.174 G-s
M2H - Motor Inboard Horizontal	.057 In/Sec	.641 G-s
M2P - Motor Inboard Horz Peakvue	.056 G-s	
M2V - Motor Inboard Vertical	.037 In/Sec	.292 G-s
M2A - Motor Inboard Axial	.031 In/Sec	.253 G-s
	OVERALL LEVEL	1K-20KHz
P1H - Pump Inboard Horizontal	.106 In/Sec	.144 G-s
P1P - Pump Inboard Horz Peakvue	.0084 G-s	
P1V - Pump Inboard Vertical	.071 In/Sec	.091 G-s
P1A - Pump Inboard Axial	.048 In/Sec	.113 G-s
P2H - Pump Outboard Horizontal	.087 In/Sec	.157 G-s
P2P - Pump Outboard Horz Peakvue	.0091 G-s	
P2V - Pump Outboard Vertical	.056 In/Sec	.080 G-s
P2A - Pump Outboard Axial	.067 In/Sec	.081 G-s

MON38A - LBS Reflux Pmp S	(31-Mar-20)	
	OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal	.039 In/Sec	.273 G-s
MOP - Motor Outboard Horz Peakvue	.116 G-s	
MOV - Motor Outboard Vertical	.030 In/Sec	.086 G-s
MOA - Motor Outboard Axial	.050 In/Sec	.073 G-s
MIH - Motor Inboard Horizontal	.039 In/Sec	.183 G-s
MIP - Motor Inboard Horz Peakvue	.030 G-s	
MIV - Motor Inboard Vertical	.053 In/Sec	.050 G-s
MIA - Motor Inboard Axial	.033 In/Sec	.044 G-s
	OVERALL LEVEL	1K-20KHz
PIH - Pump Inboard Horizontal	.055 In/Sec	.596 G-s
PIP - Pump Inboard Horz Peakvue	.084 G-s	
PIV - Pump Inboard Vertical	.060 In/Sec	.296 G-s
PIA - Pump Inboard Axial	.055 In/Sec	.175 G-s

MON38B - LBS Reflux Pmp N	(31-Mar-20)	
	OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal	.072 In/Sec	.589 G-s
MOP - Motor Outboard Horz Peakvue	.200 G-s	
MOV - Motor Outboard Vertical	.091 In/Sec	.142 G-s
MOA - Motor Outboard Axial	.039 In/Sec	.146 G-s
MIH - Motor Inboard Horizontal	.048 In/Sec	.452 G-s
MIP - Motor Inboard Horz Peakvue	.177 G-s	
MIV - Motor Inboard Vertical	.082 In/Sec	.074 G-s

MIA - Motor Inboard Axial	.031 In/Sec	.089 G-s
	OVERALL LEVEL	1K-20KHz
PIH - Pump Inboard Horizontal	.091 In/Sec	.855 G-s
PIP - Pump Inboard Horz Peakvue	.113 G-s	
PIV - Pump Inboard Vertical	.095 In/Sec	.371 G-s
PIA - Pump Inboard Axial	.106 In/Sec	.399 G-s
MON 32B - ARC Reflux Pmp S	(31-Mar-20)	
	OVERALL LEVEL	1K-20kHz
M1H - Motor Outboard Horizontal	.087 In/Sec	.197 G-s
M1P - Motor Outboard Horz Peakvue	.058 G-s	
M1V - Motor Outboard Vertical	.095 In/Sec	.198 G-s
M1A - Motor Outboard Axial	.089 In/Sec	.058 G-s
M2H - Motor Inboard Horizontal	.059 In/Sec	.432 G-s
M2P - Motor Inboard Horz Peakvue	.078 G-s	
M2V - Motor Inboard Vertical	.126 In/Sec	.099 G-s
M2A - Motor Inboard Axial	.103 In/Sec	.070 G-s
	OVERALL LEVEL	1K-20KHz
P1H - Pump Inboard Horizontal	.196 In/Sec	.402 G-s
P1P - Pump Inboard Horz Peakvue	.042 G-s	
P1V - Pump Inboard Vertical	.207 In/Sec	.187 G-s
P1A - Pump Inboard Axial	.183 In/Sec	.449 G-s
P2H - Pump Outboard Horizontal	.115 In/Sec	.354 G-s
P2P - Pump Outboard Horz Peakvue	.079 G-s	
P2V - Pump Outboard Vertical	.160 In/Sec	.307 G-s
P2A - Pump Outboard Axial	.208 In/Sec	.331 G-s
MON 32A - ARC Reflux Pmp N	(31-Mar-20)	
	OVERALL LEVEL	1K-20kHz
M1V - Motor Outboard Vertical	.134 In/Sec	.357 G-s
M1A - Motor Outboard Axial	.095 In/Sec	.137 G-s
M2H - Motor Inboard Horizontal	.053 In/Sec	.527 G-s
M2P - Motor Inboard Horz Peakvue	.056 G-s	
M2V - Motor Inboard Vertical	.061 In/Sec	.218 G-s
M2A - Motor Inboard Axial	.099 In/Sec	.128 G-s
	OVERALL LEVEL	1K-20KHz
P1H - Pump Inboard Horizontal	.079 In/Sec	.491 G-s
P1P - Pump Inboard Horz Peakvue	.058 G-s	
P1V - Pump Inboard Vertical	.182 In/Sec	.150 G-s
P1A - Pump Inboard Axial	.073 In/Sec	.260 G-s
P2H - Pump Outboard Horizontal	.068 In/Sec	.391 G-s
P2P - Pump Outboard Horz Peakvue	.140 G-s	
MON118 - Tempered H2O Pmp	(31-Mar-20)	
	OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal	.087 In/Sec	.054 G-s
MOP - Motor Outboard Horz Peakvue	.011 G-s	
MOV - Motor Outboard Vertical	.024 In/Sec	.068 G-s
MOA - Motor Outboard Axial	.070 In/Sec	.031 G-s
MIH - Motor Inboard Horizontal	.064 In/Sec	.139 G-s
MIP - Motor Inboard Horz Peakvue	.073 G-s	
MIV - Motor Inboard Vertical	.027 In/Sec	.129 G-s
MIA - Motor Inboard Axial	.046 In/Sec	.053 G-s
	OVERALL LEVEL	1K-20KHz
PIH - Pump Inboard Horizontal	.061 In/Sec	.029 G-s
PIP - Pump Inboard Horz Peakvue	.019 G-s	
PIV - Pump Inboard Vertical	.029 In/Sec	.024 G-s

PIA - Pump Inboard Axial	.038 In/Sec	.041 G-s
POH - Pump Outboard Horizontal	.034 In/Sec	.036 G-s
POP - Pump Outboard Horz Peakvue	.020 G-s	
POV - Pump Outboard Vertical	.025 In/Sec	.029 G-s
POA - Pump Outboard Axial	.031 In/Sec	.010 G-s

MON55NM - HUT Pump N

(31-Mar-20)

	OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal	.022 In/Sec	.257 G-s
MOP - Motor Outboard Horz Peakvue	.170 G-s	
MOV - Motor Outboard Vertical	.046 In/Sec	.208 G-s
MOA - Motor Outboard Axial	.031 In/Sec	.189 G-s
MIH - Motor Inboard Horizontal	.028 In/Sec	.266 G-s
MIP - Motor Inboard Horz Peakvue	.344 G-s	
MIV - Motor Inboard Vertical	.040 In/Sec	.075 G-s
MIA - Motor Inboard Axial	.032 In/Sec	.130 G-s

OVERALL LEVEL

1K-20KHz

PIH - Pump Inboard Horizontal	.147 In/Sec	.336 G-s
PIP - Pump Inboard Horz Peakvue	.181 G-s	
PIV - Pump Inboard Vertical	.136 In/Sec	.125 G-s
PIA - Pump Inboard Axial	.126 In/Sec	.076 G-s
POH - Pump Outboard Horizontal	.121 In/Sec	.426 G-s
POP - Pump Outboard Horz Peakvue	.209 G-s	
POV - Pump Outboard Vertical	.107 In/Sec	.120 G-s
POA - Pump Outboard Axial	.133 In/Sec	.080 G-s

MON67NM - PTZ Xfer Pump N

(31-Mar-20)

	OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal	.073 In/Sec	.205 G-s
MOP - Motor Outboard Horz Peakvue	.036 G-s	
MOV - Motor Outboard Vertical	.059 In/Sec	.091 G-s
MOA - Motor Outboard Axial	.078 In/Sec	.090 G-s
MIH - Motor Inboard Horizontal	.097 In/Sec	.449 G-s
MIP - Motor Inboard Horz Peakvue	.063 G-s	
MIV - Motor Inboard Vertical	.094 In/Sec	.128 G-s
MIA - Motor Inboard Axial	.075 In/Sec	.118 G-s

OVERALL LEVEL

1K-20KHz

PIH - Pump Inboard Horizontal	.109 In/Sec	.615 G-s
PIP - Pump Inboard Horz Peakvue	.152 G-s	
PIV - Pump Inboard Vertical	.061 In/Sec	.403 G-s
PIA - Pump Inboard Axial	.065 In/Sec	.327 G-s

MON68A - #1 Reactor H2O Circ Pump

(31-Mar-20)

	OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal	.128 In/Sec	.397 G-s
MOP - Motor Outboard Horz Peakvue	.160 G-s	
MOV - Motor Outboard Vertical	.060 In/Sec	.388 G-s
MOA - Motor Outboard Axial	.091 In/Sec	.061 G-s
MIH - Motor Inboard Horizontal	.089 In/Sec	.345 G-s
MIP - Motor Inboard Horz Peakvue	.184 G-s	
MIV - Motor Inboard Vertical	.064 In/Sec	.137 G-s
MIA - Motor Inboard Axial	.065 In/Sec	.083 G-s

OVERALL LEVEL

1K-20KHz

PIH - Pump Inboard Horizontal	.050 In/Sec	.149 G-s
PIP - Pump Inboard Horz Peakvue	.078 G-s	
PIV - Pump Inboard Vertical	.033 In/Sec	.207 G-s
PIA - Pump Inboard Axial	.044 In/Sec	.223 G-s

MON43A	- Amide Reactor Circ Pmp #1N	(31-Mar-20)	
		OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal		.059 In/Sec	.305 G-s
MOP - Motor Outboard Horz Peakvue		.026 G-s	
MOV - Motor Outboard Vertical		.083 In/Sec	.148 G-s
MOA - Motor Outboard Axial		.122 In/Sec	.033 G-s
MIH - Motor Inboard Horizontal		.091 In/Sec	.223 G-s
MIP - Motor Inboard Horz Peakvue		.022 G-s	
MIV - Motor Inboard Vertical		.076 In/Sec	.080 G-s
MIA - Motor Inboard Axial		.092 In/Sec	.140 G-s
		OVERALL LEVEL	1K-20KHz
PIH - Pump Inboard Horizontal		.248 In/Sec	.358 G-s
PIP - Pump Inboard Horz Peakvue		.213 G-s	
PIV - Pump Inboard Vertical		.176 In/Sec	.237 G-s
PIA - Pump Inboard Axial		.197 In/Sec	.164 G-s
MON43B	- Amide Reactor Circ Pmp #2S	(31-Mar-20)	
		OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal		.101 In/Sec	.193 G-s
MOP - Motor Outboard Horz Peakvue		.080 G-s	
MOV - Motor Outboard Vertical		.105 In/Sec	.102 G-s
MOA - Motor Outboard Axial		.096 In/Sec	.154 G-s
MIH - Motor Inboard Horizontal		.078 In/Sec	.186 G-s
MIP - Motor Inboard Horz Peakvue		.069 G-s	
MIV - Motor Inboard Vertical		.155 In/Sec	.071 G-s
MIA - Motor Inboard Axial		.074 In/Sec	.049 G-s
		OVERALL LEVEL	1K-20KHz
PIH - Pump Inboard Horizontal		.227 In/Sec	.249 G-s
PIP - Pump Inboard Horz Peakvue		.138 G-s	
PIV - Pump Inboard Vertical		.184 In/Sec	.245 G-s
PIA - Pump Inboard Axial		.176 In/Sec	.147 G-s
MON65	- Amide Reactor Circ Primary	(31-Mar-20)	
		OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal		.189 In/Sec	.282 G-s
MOP - Motor Outboard Horz Peakvue		.167 G-s	
MOV - Motor Outboard Vertical		.434 In/Sec	.125 G-s
MOA - Motor Outboard Axial		.110 In/Sec	.086 G-s
MIH - Motor Inboard Horizontal		.211 In/Sec	.554 G-s
MIP - Motor Inboard Horz Peakvue		.352 G-s	
MIV - Motor Inboard Vertical		.375 In/Sec	.079 G-s
MIA - Motor Inboard Axial		.107 In/Sec	.164 G-s
		OVERALL LEVEL	1K-20KHz
PIH - Pump Inboard Horizontal		.123 In/Sec	.349 G-s
PIP - Pump Inboard Horz Peakvue		.240 G-s	
PIV - Pump Inboard Vertical		.185 In/Sec	.122 G-s
PIA - Pump Inboard Axial		.075 In/Sec	.117 G-s
MON36	- Irganox Mix/Feed Pump	(31-Mar-20)	
		OVERALL LEVEL	1K-20kHz
MOH - Motor Outboard Horizontal		.062 In/Sec	.188 G-s
MOP - Motor Outboard Horz Peakvue		.059 G-s	
MOV - Motor Outboard Vertical		.044 In/Sec	.127 G-s
MOA - Motor Outboard Axial		.052 In/Sec	.168 G-s
IIH - Input Shaft Inboard Horizontal		.047 In/Sec	
IIP - Input Shaft Inboard Horz Peakvue		.261 G-s	

IIV - Input Shaft Inboard Vertical	.044 In/Sec	
IIA - Input Shaft Inboard Axial	.057 In/Sec	
	OVERALL LEVEL	1K-20KHz
POH - Pump Outboard Horizontal	.070 In/Sec	.385 G-s
POP - Pump Outboard Horz Peakvue	.236 G-s	
POV - Pump Outboard Vertical	.093 In/Sec	1.172 G-s
POA - Pump Outboard Axial	.115 In/Sec	1.172 G-s

Clarification Of Vibration Units:

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