7030 Ryburn Dr. Millington, TN Phone: (901) 873-5300 Fax: (901) 873-5301 www.gohispeed.com

August 19, 2019

Coca-Cola
Memphis, TN

The following is a summary of findings from the August 2019 monthly vibration survey at your facility. All equipment collected was found in satisfactory condition except for the following items. 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

Defects

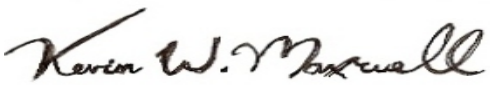
C-2 Ammonia Compressor
Compressor data is still showing a high 2 x rpm vibration this month. Ensure belts are in good shape, and tensioned properly and sheaves are properly aligned with minimal wear. Ensure all base bolts are tight and inspect frame/structure for cracks. We will continue to monitor the compressor closely. Rated as a **CLASS II** defect.

C-3 Ammonia Compressor
Previous data has suggested a possible electrical issue in the motor. This seems to be decreased to a much lower amplitude this survey. This may be due to the fact that more compressors were running this survey. Compressors were also loaded during testing rather than loading and unloading. We will monitor the electrical vibration in the motor closely. Rated as a **CLASS I** defect.

Mix Tank 6 Mixer Drive
Gearbox data shows defects/wear in the bearings and/or gears. Inspect unit as scheduling allows. Rated as a **CLASS II** defect.

As always, it has been a pleasure to serve CCBC Memphis Bottling Plant. If there are any comments or questions, do not hesitate to contact us.

Sincerely,



ISO Certified Vibration Analyst, Category III

HI-SPEED INDUSTRIAL SERVICE

QualiTest® Diagnostics
Cell: 901-486-4565
Email: kwilliam@gohispeed.com

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Abbreviated Last Measurement Summary
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               Database:  Coca-Cola.rbm
               Area:      PRODUCTION

      MEASUREMENT POINT             OVERALL LEVEL       HFD / VHFD
      -----------------             -------------       ----------

      BF-1       - MEYER BOTTLE FILLER #1        (15-Aug-19)
                                    OVERALL LEVEL     1K-20KHz
             MOH                     .124 In/Sec       .071 G-s
             MIH                     .092 In/Sec       .049 G-s
             MIA                     .070 In/Sec       .053 G-s
             GIA                     .103 In/Sec       .059 G-s
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	GIH	.115 In/Sec	.176 G-s
	GOH	.033 In/Sec	

ACE-109 - AIR CONVEYOR FAN 109 (15-Aug-19)

	OVERALL LEVEL	1K-20KHz
MOH	.140 In/Sec	1.080 G-s
MIH	.092 In/Sec	.373 G-s

TECH1SYPMP - TECHNIBLEND 1 SYRUP PUMP (15-Aug-19)

	OVERALL LEVEL	1K-20KHz
MOH	.071 In/Sec	.082 G-s
MIH	.051 In/Sec	.044 G-s
MIA	.039 In/Sec	.026 G-s
GIA	.071 In/Sec	.0019 G-s
GIH	.039 In/Sec	.042 G-s
GOH	.050 In/Sec	
PIH	.055 In/Sec	
POH	.074 In/Sec	

TECH1WTRP - TECHNIBLEND 1 WATER PUMP (15-Aug-19)

	OVERALL LEVEL	1K-20KHz
MOH	.073 In/Sec	.232 G-s
MIH	.053 In/Sec	.082 G-s
MIA	.054 In/Sec	.013 G-s

ACE-101 - AIR CONVEYOR FAN 101 (15-Aug-19)

	OVERALL LEVEL	1K-20KHz
MOH	.056 In/Sec	.030 G-s
MIH	.047 In/Sec	.242 G-s

ACE-102 - AIR CONVEYOR FAN 102 (15-Aug-19)

	OVERALL LEVEL	1K-20KHz
MOH	.081 In/Sec	.029 G-s
MIH	.028 In/Sec	.164 G-s

ACE-103 - AIR CONVEYOR FAN 103 (15-Aug-19)

	OVERALL LEVEL	1K-20KHz
MOH	.145 In/Sec	.075 G-s
MIH	.075 In/Sec	.164 G-s

ACE-104 - AIR CONVEYOR FAN 104 (15-Aug-19)

	OVERALL LEVEL	1K-20KHz
MOH	.598 In/Sec	.052 G-s
MIH	.081 In/Sec	.247 G-s

ACE-105 - AIR CONVEYOR FAN 105 (15-Aug-19)

	OVERALL LEVEL	1K-20KHz
MOH	.082 In/Sec	.060 G-s
MIH	.043 In/Sec	.066 G-s

ACE-106 - AIR CONVEYOR FAN 106 (15-Aug-19)

	OVERALL LEVEL	1K-20KHz
MOH	.262 In/Sec	.162 G-s
MIH	.111 In/Sec	.222 G-s

ACE-107 - AIR CONVEYOR FAN 107 (15-Aug-19)

	OVERALL LEVEL	1K-20KHz
MOH	.167 In/Sec	.097 G-s
MIH	.083 In/Sec	.152 G-s

ACE-108 - AIR CONVEYOR FAN 108 (15-Aug-19)

	OVERALL LEVEL	1K-20KHz
MOH	.363 In/Sec	.247 G-s
MIH	.141 In/Sec	.332 G-s

WRMR1CNVDR - WARMER 1 CONVEYOR DRIVE (15-Aug-19)

	OVERALL LEVEL	1K-20KHz
MOH	.153 In/Sec	.156 G-s
MIH	.113 In/Sec	.190 G-s
MIA	.051 In/Sec	.386 G-s

GIA		.026 In/Sec	.219 G-s
GIH		.072 In/Sec	.507 G-s
GOH		.0060 In/Sec	

WRMR1WTRP - WARMER 1 WATER PUMP (15-Aug-19)

	OVERALL LEVEL	1K-20KHz
MOH	.060 In/Sec	.117 G-s
MIH	.036 In/Sec	.139 G-s

SPIRLCONV1 - SPIRAL CONVEYOR DRIVE 1 (15-Aug-19)

	OVERALL LEVEL	1K-20KHz
MOH	.262 In/Sec	.181 G-s
MIH	.203 In/Sec	.246 G-s
MIA	.141 In/Sec	.261 G-s
PH	.141 In/Sec	.324 G-s

BF-2 - MEYER BOTTLE FILLER #2 (15-Aug-19)

	OVERALL LEVEL	1K-20KHz
MIH	.041 In/Sec	.023 G-s
MIA	.043 In/Sec	.024 G-s
GIH	.028 In/Sec	.038 G-s
GOH	.0057 In/Sec	
GS1	.0045 In/Sec	
GS2	.0073 In/Sec	
GS3	.0045 In/Sec	
GS4	.0076 In/Sec	

TECH2SYPMP - TECHNIBLEND 2 SYRUP PUMP (15-Aug-19)

	OVERALL LEVEL	1K-20KHz
MOH	.038 In/Sec	.048 G-s
MIH	.018 In/Sec	.019 G-s
MIA	.022 In/Sec	.024 G-s
GIA	.031 In/Sec	.026 G-s
GIH	.019 In/Sec	.019 G-s
GOH	.019 In/Sec	
PIH	.020 In/Sec	
POH	.024 In/Sec	
POA	.026 In/Sec	

TECH2WTRP - TECHNIBLEND 2 WATER PUMP (15-Aug-19)

	OVERALL LEVEL	1K-20KHz
MOH	.080 In/Sec	.144 G-s
MIH	.057 In/Sec	.062 G-s
MIA	.049 In/Sec	.033 G-s

WRMR2CNVDR - WARMER 2 CONVEYOR DRIVE (15-Aug-19)

	OVERALL LEVEL	1K-20KHz
MOH	.052 In/Sec	.291 G-s
MIH	.035 In/Sec	.279 G-s
MIA	.034 In/Sec	.339 G-s
GIA	.032 In/Sec	.058 G-s
GIH	.033 In/Sec	.243 G-s
GOH	.0045 In/Sec	

WRMR2WTRP - WARMER 2 WATER PUMP (15-Aug-19)

	OVERALL LEVEL	1K-20KHz
MOH	.073 In/Sec	.249 G-s
MIH	.055 In/Sec	.611 G-s
MIA	.066 In/Sec	.548 G-s

SPRLRCONVD - SPIRAL 2 CONVEYOR DRIVE (15-Aug-19)

	OVERALL LEVEL	1K-20KHz
MOH	.278 In/Sec	.478 G-s
MIH	.165 In/Sec	.158 G-s
MIA	.198 In/Sec	.212 G-s
GIH	.131 In/Sec	.276 G-s
GOH	.091 In/Sec	

Database: Coca-Cola.rbm
Area: SUPPORT

MEASUREMENT POINT		OVERALL LEVEL	HFD / VHFD
C-1	- AMMONIA COMPRESSOR C-1	(15-Aug-19)	
		OVERALL LEVEL	1K-20KHz
	MOH	.333 In/Sec	.634 G-s
	MIH	.374 In/Sec	.720 G-s
	MIA	.251 In/Sec	1.629 G-s
	PIH	.368 In/Sec	.579 G-s
	POH	.314 In/Sec	.677 G-s
C-2	- AMMONIA COMPRESSOR C-2	(15-Aug-19)	
		OVERALL LEVEL	1K-20KHz
	MOH	.335 In/Sec	.435 G-s
	MIH	.263 In/Sec	.394 G-s
	MIA	.257 In/Sec	.468 G-s
	PIH	.327 In/Sec	1.084 G-s
	POH	.249 In/Sec	.645 G-s
C-3	- AMMONIA COMPRESSOR C-3	(15-Aug-19)	
		OVERALL LEVEL	1K-20KHz
	MOH	.288 In/Sec	.516 G-s
	MIH	.296 In/Sec	.547 G-s
	MIA	.231 In/Sec	.700 G-s
	PIH	.193 In/Sec	.536 G-s
	POH	.181 In/Sec	.440 G-s
C-5	- AMMONIA COMPRESSOR C-5	(15-Aug-19)	
		OVERALL LEVEL	1K-20KHz
	MOH	.274 In/Sec	.396 G-s
	MIH	.312 In/Sec	.508 G-s
	MIA	.230 In/Sec	.291 G-s
	PIH	.218 In/Sec	.549 G-s
	POH	.273 In/Sec	.861 G-s
CO2EVAPMP2	- CO2 EVAPORATOR PUMP 2	(15-Aug-19)	
		OVERALL LEVEL	1K-20KHz
	MOH	.084 In/Sec	.144 G-s
	MIH	.052 In/Sec	.069 G-s
E-100	- E-100 WATER TREATMENT PUMP	(15-Aug-19)	
		OVERALL LEVEL	1K-20KHz
	MOH	.116 In/Sec	.382 G-s
	MIH	.085 In/Sec	.748 G-s
	MIA	.079 In/Sec	.191 G-s
	PH	.102 In/Sec	.126 G-s
E-200	- E-200 WATER TREATMENT PUMP	(15-Aug-19)	
		OVERALL LEVEL	1K-20KHz
	MOH	.069 In/Sec	.575 G-s
	MIH	.043 In/Sec	.441 G-s
	MIA	.114 In/Sec	.157 G-s
	PH	.086 In/Sec	.266 G-s
E-300	- E-300 WATER TREATMENT PUMP	(15-Aug-19)	
		OVERALL LEVEL	1K-20KHz
	MOH	.060 In/Sec	.448 G-s
	MIH	.073 In/Sec	.305 G-s
	MIA	.086 In/Sec	.160 G-s
	PH	.130 In/Sec	.150 G-s
Q-100	- Q-100 PROCESS WATER PUMP	(15-Aug-19)	
		OVERALL LEVEL	1K-20KHz
	MOH	.102 In/Sec	.450 G-s
	MIH	.118 In/Sec	.648 G-s
	MIA	.102 In/Sec	.350 G-s

Database: Coca-Cola.rbm
Area: MIXING

MEASUREMENT POINT	OVERALL LEVEL	HFD / VHFD
TNK1MXRDRV - TANK 1 MIXER DRIVE	(15-Aug-19)	
	OVERALL LEVEL	1K-20KHz
MIH	.173 In/Sec	.092 G-s
GIH	.184 In/Sec	.030 G-s
TNK2MXRDRV - TANK 2 MIXER DRIVE	(15-Aug-19)	
	OVERALL LEVEL	1K-20KHz
MIH	.135 In/Sec	.069 G-s
GIH	.248 In/Sec	.097 G-s
TNK3MXRDRV - TANK 3 MIXER DRIVE	(15-Aug-19)	
	OVERALL LEVEL	1K-20KHz
MIH	.205 In/Sec	.392 G-s
GIH	.247 In/Sec	.469 G-s
TNK4MXRDRV - TANK 4 MIXER DRIVE	(15-Aug-19)	
	OVERALL LEVEL	1K-20KHz
MOH	.211 In/Sec	.0076 G-s
GIH	.169 In/Sec	.161 G-s
TNK5MXRDRV - TANK 5 MIXER DRIVE	(15-Aug-19)	
	OVERALL LEVEL	1K-20KHz
MIH	.176 In/Sec	.311 G-s
GIH	.195 In/Sec	.899 G-s
TNK6MXRDRV - TANK 6 MIXER DRIVE	(15-Aug-19)	
	OVERALL LEVEL	1K-20KHz
MIH	.064 In/Sec	.472 G-s
GIH	.081 In/Sec	1.620 G-s
TNK8MXRDRV - TANK 8 MIXER DRIVE	(15-Aug-19)	
	OVERALL LEVEL	1K-20KHz
MIH	.102 In/Sec	.039 G-s
GIH	.132 In/Sec	.063 G-s
TNK9MXRDRV - TANK 9 MIXER DRIVE	(15-Aug-19)	
	OVERALL LEVEL	1K-20KHz
MIH	.062 In/Sec	.296 G-s
GIH	.196 In/Sec	.376 G-s

Clarification Of Vibration Units:
Acc --> G-s RMS
Vel --> In/Sec PK