

May 31, 2021

Plaskolite

Subject: May vibration report

Most of the machines surveyed were found to be in good condition, with 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,

David W. Shook
Senior Reliability Specialist
Hi-Speed Industrial Service
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Data

Blower Slow Cooling (Lower)

The acceleration overall has greatly increased to 25 g's RMS for the drive end bearing. Speed affects vibrations. It appears fluting is still the issue. We believe the bearing damage needs to be addressed in the future. Replace the bearings or complete motor as time allows. Take steps to reduce bearing fluting going forward. **Rated a Class III Defect.**

Blower Slow Cooling (Upper), and Both Rapid Cooling Blowers

The acceleration overalls are near 6 g's RMS for the drive end bearings. Fluting is suspected. Speed affects vibration amplitude. No Immediate action required. **Rated a Class I Defect.**

West Syrup Pump

Pump data shows a vibration at near 35 Hz which we believe to be pump impeller vane pass at about 0.8"/second velocity peak. Data also seems to indicate gear mesh vibrations are elevation the overall pump vibrations. Check for flow restrictions and make sure the coupling is in good working order.

Rated a Class III Defect. Gerald in maintenance was notified at the time of the service.

Overall vibration data follows:

Abbreviated Last Measurement Summary

Database: mmaold.rbm
Station: PLASKOLITE MEMPHIS
Route No. 3: PLASKOLITE NEW
Report Date: 01-Jun-21 09:27

MEASUREMENT POINT	OVERALL LEVEL	HFD / VHFD	MACHINE SPEED
5285-09 - FAN, COOLING TWR WEST		(28-May-21)	
	OVERALL LEVEL	1-20 KHz	
W1	.014 In/Sec	.026 G-s	430.0 RPM
W2	.018 In/Sec	.020 G-s	
5285-11 - FAN, COOLING TWR MIDDLE		(28-May-21)	
	OVERALL LEVEL	1-20 KHz	
M1	.016 In/Sec	.039 G-s	430.0 RPM
M2	.021 In/Sec	.018 G-s	
5285-21 - RETURN AIR FAN 100 AREA		(28-May-21)	
	OVERALL LEVEL	1-20 KHz	
11	.058 In/Sec	.047 G-s	1745.0 FPM
21	.130 In/Sec	.022 G-s	
23	.074 In/Sec	.020 G-s	
71	.083 In/Sec	.029 G-s	
81	.104 In/Sec	.016 G-s	
S1100 - FLARE BLOWER		(28-May-21)	
	OVERALL LEVEL	1-20 KHz	
11	.016 In/Sec	.020 G-s	3450.0 FPM
12	.014 In/Sec	.018 G-s	
13	.024 In/Sec	.0075 G-s	
5214-04 - EAST SYRUP COOL PUMP		(28-May-21)	
	OVERALL LEVEL	1-20 KHz	
11	.049 In/Sec	.043 G-s	1180.0 RPM
21	.055 In/Sec	.088 G-s	
23	.021 In/Sec	.093 G-s	
31	.047 In/Sec		
61	.071 In/Sec		
71	.077 In/Sec	.023 G-s	
81	.063 In/Sec	.086 G-s	
5214-03 - MIDDLE SYRUP COOL PUMP		(28-May-21)	
	OVERALL LEVEL	1-20 KHz	
11	.088 In/Sec	.078 G-s	1180.0 RPM
21	.068 In/Sec	.034 G-s	
23	.088 In/Sec	.043 G-s	
31	.186 In/Sec		
61	.253 In/Sec		
71	.113 In/Sec	.023 G-s	
81	.111 In/Sec	.077 G-s	
5214-01 - WEST SYRUP COOL PUMP		(28-May-21)	

		OVERALL LEVEL	1-20 KHz	
11		.384 In/Sec	.078 G-s	1180.0 RPM
21		.414 In/Sec	.180 G-s	
23		.285 In/Sec	.075 G-s	
31		.695 In/Sec		
61		.617 In/Sec		
71		.929 In/Sec	.135 G-s	
81		.768 In/Sec	.172 G-s	
5282-03	- PUMP #2 HOT WATER 5282-03	(28-May-21)		
		OVERALL LEVEL	1-20 KHz	
11		.065 In/Sec	.261 G-s	1800.0 RPM
12		.096 In/Sec	.388 G-s	
5282-04	- PUMP #3 HOT WATER 5282-04	(28-May-21)		
		OVERALL LEVEL	1-20 KHz	
11		.128 In/Sec	.361 G-s	1800.0 RPM
12		.175 In/Sec	.390 G-s	
5282-06	- PUMP #5 HOT WATER 5282-06	(28-May-21)		
		OVERALL LEVEL	1-20 KHz	
11		.190 In/Sec	.623 G-s	1800.0 RPM
12		.141 In/Sec	.614 G-s	
5283-01	- BLOWER, EDGE WATER REMOVAL	(28-May-21)		
		OVERALL LEVEL	1-20 KHz	
11		.117 In/Sec	.062 G-s	3600.0 RPM
21		.112 In/Sec	.072 G-s	
23		.091 In/Sec	.143 G-s	
71		.047 In/Sec	.486 G-s	
81		.105 In/Sec	.351 G-s	
5281-12	- BLOWER, SLOW COOLING (UPPER)	(28-May-21)		
		OVERALL LEVEL	1-20 KHz	
11		.075 In/Sec	1.901 G-s	1770.0 RPM
		OVERALL LEVEL	1-20 KHz	
21		.051 In/Sec	4.943 G-s	
23		.082 In/Sec	.288 G-s	
71		.054 In/Sec	.671 G-s	
81		.054 In/Sec	.468 G-s	
5281-13	- BLOWER, SLOW COOLING (LOWER)	(28-May-21)		
		OVERALL LEVEL	1-20 KHz	
11		.065 In/Sec	5.880 G-s	1770.0 RPM
21		.136 In/Sec	21.14 G-s	
		OVERALL LEVEL	1-20 KHz	
21H		.859 In/Sec	25.01 G-s	
		OVERALL LEVEL	1-20 KHz	
23		.118 In/Sec	6.368 G-s	
71		.097 In/Sec	.481 G-s	
81		.162 In/Sec	.329 G-s	
5281-14	- BLOWER, RAPID COOLING (UPPER)	(28-May-21)		
		OVERALL LEVEL	1-20 KHz	
11		.108 In/Sec	1.691 G-s	1770.0 RPM
21		.136 In/Sec	6.271 G-s	
23		.085 In/Sec	1.627 G-s	

71	.099 In/Sec	.252 G-s	900.0 RPM
81	.088 In/Sec	.141 G-s	
5281-08 - BLOWER, RAPID COOLING (LOWER) (28-May-21)			
	OVERALL LEVEL	1-20 KHz	
11	.045 In/Sec	2.343 G-s	1770.0 RPM
21	.082 In/Sec	5.472 G-s	
23	.043 In/Sec	1.129 G-s	
71	.061 In/Sec	.325 G-s	900.0 RPM
81	.058 In/Sec	.324 G-s	
5281-10 - 200 BELT DRIVE, POLYMERIZER (28-May-21)			
	OVERALL LEVEL	1-20 KHz	
11	.019 In/Sec	.795 G-s	1800.0 FPM
21	.041 In/Sec	.362 G-s	
33	.020 In/Sec	.030 G-s	
31	.011 In/Sec	.091 G-s	
61	.0055 In/Sec	.044 G-s	
71	.0033 In/Sec	.0017 G-s	
81	.0052 In/Sec	.0014 G-s	

Clarification Of Vibration Units:

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