



QualiTest® Diagnostics

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April 21, 2025

Nucor General Recycling

Subject: March vibration survey

Most of the machines surveyed were found to be in good condition except for 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.

As always, it has been a pleasure to serve Nucor General Recycling. If there are any comments or questions, do not hesitate to contact us.

Sincerely,

ISO Certified Vibration Analyst, Category III

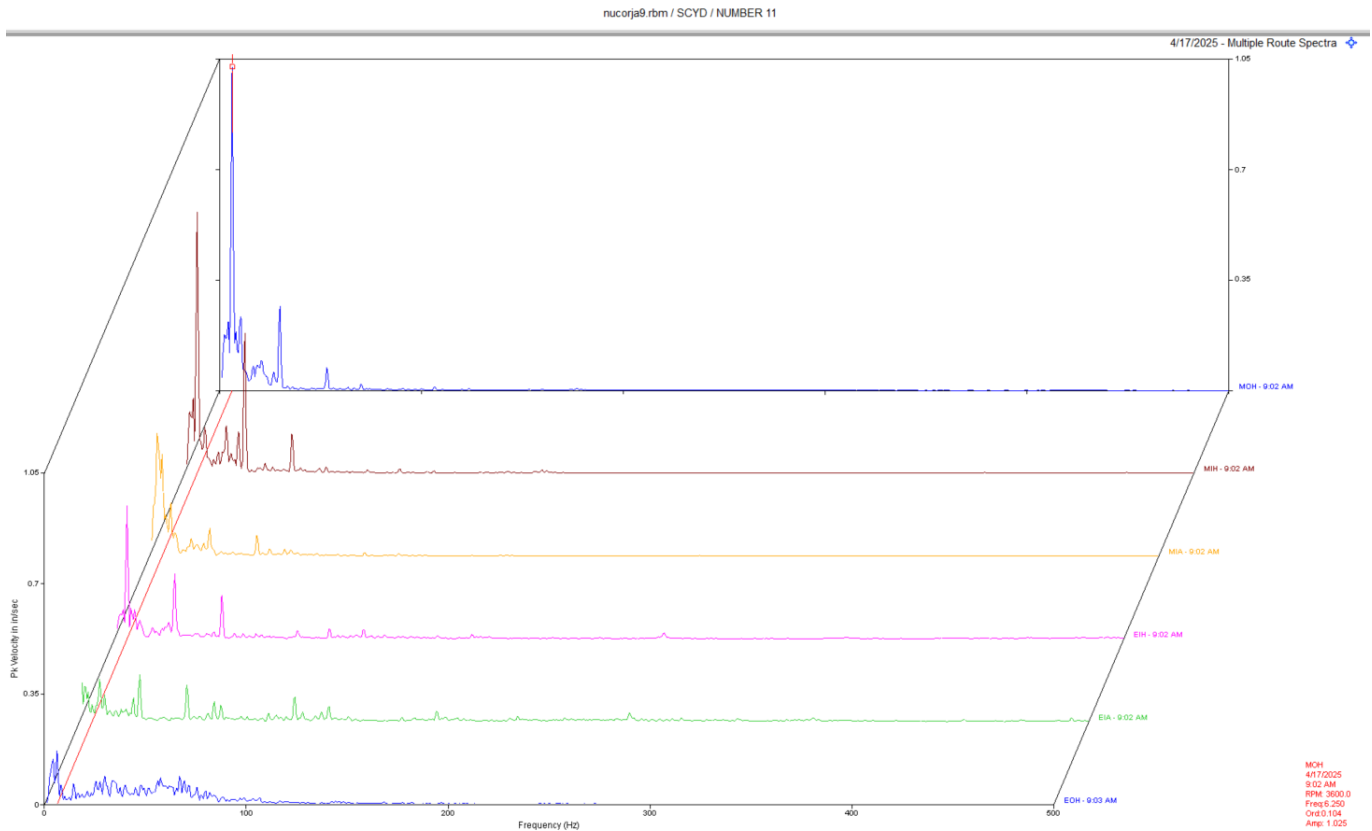


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Defects



Conveyor 11

Overall vibration is lower since last survey but still remains above alarm level. Vib appears to be at a low frequency of 6 Hz. This may be belt frequency or output frequency. Ensure sheaves are aligned properly. Ensure conveyor shaft or gear output shaft is not bent. Gearbox data also shows some signs of internal wear. Rated as a **CLASS II** defect.

Abbreviated Last Measurement Summary

Database: nucorja9.rbm
Station: Scrap Yard

MEASUREMENT POINT	OVERALL LEVEL	HFD / VHFD
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SHREDDER - SHREDDER	(17-Apr-25)	
	OVERALL LEVEL	1K-20KHz
MOH	.115 In/Sec	.061 G-s
MOV	.103 In/Sec	.102 G-s
MIV	.207 In/Sec	.092 G-s
MIH	.131 In/Sec	.152 G-s
MIA	.113 In/Sec	.091 G-s

CYCLONE - CYCLONE	(17-Apr-25)	
	OVERALL LEVEL	1K-20KHz
MOH	.138 In/Sec	.391 G-s
MIH	.199 In/Sec	.467 G-s
MIA	.240 In/Sec	.389 G-s
EIH	.189 In/Sec	.358 G-s
EOH	.209 In/Sec	.035 G-s

M3 - MAG DRUM	(17-Apr-25)	
	OVERALL LEVEL	1K-20KHz
MOH	.079 In/Sec	.113 G-s
MIH	.056 In/Sec	.057 G-s
MIA	.055 In/Sec	.087 G-s
GIH	.040 In/Sec	.073 G-s
GOH	.032 In/Sec	.072 G-s
IDB	.031 In/Sec	.0038 G-s
ODB	.020 In/Sec	.0036 G-s

NUMBER 11 - NUMBER 11	(17-Apr-25)	
	OVERALL LEVEL	1K-20KHz
MOH	1.203 In/Sec	.685 G-s
MIH	1.094 In/Sec	.953 G-s
MIA	.749 In/Sec	.295 G-s
EIH	.679 In/Sec	3.311 G-s
EIA	.565 In/Sec	7.387 G-s
EOH	.522 In/Sec	.258 G-s

Clarification Of Vibration Units:

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