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September 6, 2022

Nucor Roll Mill Jackson-Flowood, MS

Subject: August vibration survey

Below is a summary report for the monthly Roll Mill vibration survey that was performed on September 1, 2022. 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.

<u>Class I:</u> Defect is present, but effect on reliability is not clear; no immediate action is required. Continue to normally monitor.

<u>Class II</u>: Defect (s) present that may cause problem in long term (2-6 months). Repair during normal maintenance scheduling. Continue to monitor.

<u>Class III</u>: 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

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 NUCOR Steel Flowood, MS. If there are any comments or questions, do not hesitate to contact us.

Sincerely,

evin W. Maruell

ISO Certified Vibration Analyst, Category III



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Defects

Roll Stand 1A Planetary Gearbox

Gearbox data shows vibration levels to be low again this survey. Input side still has some vibration around 1300 Hz. This is high frequency acceleration and may be gear or bearing related. Seems to be higher in vibration under heavy load. Roll stands were running slower and less loaded during this survey. We will monitor this closely. Rated as a **CLASS I** defect.

Roll Stand 2

Motor had lower amplitude this survey in the axial direction. Data still shows vibration to be related to SCR firing rate(6 x 60 Hz or 360 Hz). It is recommended to inspect all SCR's in the VFD. Rated as a **CLASS II** defect.

Roll Stand 3

Outboard motor bearing is starting to show some signs of bearing issue. Data is showing outer race defects harmonics on the ODE bearing. This will be monitored very closely in the coming surveys. Rated as a **CLASS II** defect for now.

Roll Stand 5

Gear mesh vibration decreased slightly this month. Last gear inspection of the gearbox does show some tooth wear in this gearbox. The up and down amplitude of this peak from month to month is likely due to change in tooth load and machine speed. We will continue to monitor this very closely. This is rated as a **CLASS II** defect.

Roll Stand 6

Gear mesh vibration was low this month. A dominant gear mesh vibration is sometimes present towards the output of the gearbox. The up and down amplitude of this peak is likely due to change in tooth load and speed. We will continue to monitor this very closely. Because of the high amplitude this month, this issue is rated as a **CLASS II** defect.

Roll Stand 7

Gearbox vibration was low this survey. We still suspect this to be possibly due to a resonant gear mesh frequency vibration. The up and down amplitude of this peak from month to month is likely due to change in tooth load and machine speed. We will continue to monitor this very closely. Because of the high amplitudes in the gearbox and bearing defect related vibrations in the motor, this is rated as a **CLASS II** defect.

Roll Stand 16

Motor was down this survey. Drive motor still likely has bearing issues. Vibration data indicates race defects in the motor bearings which likely caused by electrical fluting. Motor should be scheduled for replacement as scheduling allows. Ensure new motor has proper grounding/fluting protection. Rated as a **CLASS III** defect.

South Quincy Compressor

Inboard motor bearing vibration data shows some signs of defects in the motor bearings. Motor will likely need attention in the near future. Rated as a **CLASS II** defect.

Ejector Fan

DE fan bearing data shows some recent ½ harmonics of fan rpm. It is recommended to inspect fan wheel/ fan hub for looseness and ensure no rubbing is occurring and perform lift check on fan shaft as time allows. Also ensure grid coupling is greased properly and in good shape. Ensure there isn't any axial play of the fan shaft. Rated as a **CLASS II** defect.

Furnace Cooling Tower Drives North and South

Motors have axial vibration that appears to be occurring at or near 1 x motor rpm and may indicate a structural issue such as loose fasteners, weak flexible motor base. This could also be caused by a resonance or air flow turbulence in this unit. We will continue to monitor this issue closely. Rated as a **CLASS II** defect.

Mill Water West Pump

Top thrust bearing shows signs of bearing defects according to the spectral data of the Outboard end of the motor. This appears to be light defects at this time and will be monitored closely. Rated as a **CLASS I** defect.

Database: nucorja9.rbm Station: Roll Mill Rolls

MEASUF	REMENT POINT	OVERALL LEVEL	HFD / VHFD		
STD1A	- Stand 1A	(01-Sep-22)			
		OVERALL LEVEL	1K-20KHz		
	MOH	.085 In/Sec	.027 G-s		
	MIH	.047 In/Sec	.061 G-s		
	MIA	.102 In/Sec	.086 G-s		
	СОН	.167 In/Sec	.073 G-s		
	GIA	.052 In/Sec	.150 G-s		
	GIH	.105 In/Sec	.408 G-s		
	GI2	.082 In/Sec	.096 G-s		
	GI3	.071 In/Sec	.233 G-s		
	GI4	.057 In/Sec	.216 G-s		
	GI5	.048 In/Sec	.508 G-s		
	GI6	.031 In/Sec	.010 G-s		
	GOH	.023 In/Sec	.050 G-s		
STD2A	- Stand 2A	(0)	1-Sep-22)		
		OVERALL LEVEL	1K-20KHz		
	MOH	.044 In/Sec	.022 G-s		
	MIH	.051 In/Sec	.030 G-s		
	MIA	.068 In/Sec	.198 G-s		
	COH	.085 In/Sec	.053 G-s		
STD1	- Stand 1	(0:	1-Sep-22)		
		OVERALL LEVEL	1K-20KHz		
	MOH	.020 In/Sec	.036 G-s		
	MIH	.063 In/Sec	.0070 G-s		
	MIA	.071 In/Sec	.069 G-s		
	GIA	.026 In/Sec	.035 G-s		
	GIH	.075 In/Sec	.015 G-s		
	COH	.058 In/Sec	.020 G-s		
STD2	- Stand 2	(0:	1-Sep-22)		
		OVERALL LEVEL	1K-20KHz		
	MOH	.138 In/Sec	.059 G-s		
	MIH	.101 In/Sec	.092 G-s		
	MIA	.295 In/Sec	.370 G-s		
	GIA	.115 In/Sec	.036 G-s		

	GIH		.069 In/Sec	.039 G-s
	COH		.198 In/Sec	.031 G-s
STD3	- Stand	3	(01-	-Sep-22)
			OVERALL LEVEL	1K-20KHz
	MOH		.069 In/Sec	.095 G-s
	MIH		.139 In/Sec	.058 G-s
	MIA		.283 In/Sec	.159 G-s
	GIA		.022 In/Sec	.082 G-s
	GIH		.041 In/Sec	.021 G-s
	СОН		.259 In/Sec	.051 G-s
	Ctord	4	(01	Com 221
5104	- Staliu			-Sep-22)
	MOH		OVERALL LEVEL	1K-20KHZ
	MUH		.053 IN/Sec	.020 G-S
	MIN		174 Tp/Sec	.002 G-S
	GIA		038 Tp/Sec	.307 G-S
	GIN		.050 IN/Sec	.0005 G S
	COH		144 Tn/Sec	.037 G S
	com		.144 11,000	.045 0 5
STD5	- Stand	5	(01-	-Sep-22)
			OVERALL LEVEL	1K-20KHz
	МОН		.043 In/Sec	.021 G-s
	MIH		.072 In/Sec	.042 G-s
	MIA		.059 In/Sec	.047 G-s
	GIA		.078 In/Sec	.012 G-s
	GIH		.117 In/Sec	.051 G-s
	GOH		.179 In/Sec	.185 G-s
	СОН		.472 In/Sec	.036 G-s
STD6	- Stand	6	(01-	-Sep-22)
			OVERALL LEVEL	1K-20KHz
	MOH		.074 In/Sec	.017 G-s
	MIH		.086 In/Sec	.049 G-s
	MIA		.113 In/Sec	.025 G-s
	GIA		.086 In/Sec	.0058 G-s
	GIH		.038 In/Sec	.018 G-s
	GOH		.142 In/Sec	.143 G-s
	COH		.380 In/Sec	.041 G-s
_	_	_		
STD7	- Stand	7	(01-	-Sep-22)
			OVERALL LEVEL	IK-20KHz
	MOH		.046 In/Sec	.069 G-S
	MIH		.028 In/Sec	.106 G-S
			.108 IN/Sec	.155 G-S
	GIA		.045 IN/Sec	.010 G-S
	GIH		.030 IN/Sec	.015 G-S
	CON		.078 IN/Sec	.131 G-S
	com		.452 117 560	.005 G S
STD8	- Stand	8	(01-	-Sep-22)
-			OVERALL LEVEL	1K-20KHz
	MOH		.048 In/Sec	.018 G-s
	MIH		.097 In/Sec	.015 G-s
	MIA		.153 In/Sec	.164 G-s
	GIA		.031 In/Sec	.075 G-s
	GIH		.048 In/Sec	.029 G-s
	СОН		.181 In/Sec	.045 G-s
STD9	- Stand	9	(01-	-Sep-22)
			OVERALL LEVEL	1K-20KHz
	MOH		.055 In/Sec	.030 G-s
	MIH		.054 In/Sec	.074 G-s
	MIA		.065 In/Sec	.045 G-s
	GIA		.096 In/Sec	.038 G-s
	GIH		.078 In/Sec	.341 G-s
	СОН		.254 In/Sec	.057 G-s
<u>ר ריד S</u>	- Stand	10	(01.	-Sen-22)
21010	Stanu		(01)	/

					OVERALL LEVEL	1K-20KHz
	мон				.031 In/Sec	.023 G-s
	MIH				.027 In/Sec	.030 G-s
	MIA				.064 In/Sec	.023 G-s
	GIA				.046 In/Sec	.046 G-s
	GIH				.046 In/Sec	.029 G-s
	СОН				.190 In/Sec	.090 G-s
STD11		_	Stand	11		(01-Sep-22)
					OVERALL LEVEL	1K-20KHz
	MOH				.025 In/Sec	.016 G-s
	MIH				.026 In/Sec	.060 G-s
	MIA				.026 In/Sec	.035 G-s
	GIA				.082 In/Sec	.062 G-s
	GIH				.071 In/Sec	.066 G-s
	GOH				.059 In/Sec	.036 G-s
	СОН				.177 In/Sec	.037 G-s
STD12		-	Stand	12		(01-Sep-22)
					OVERALL LEVEL	1K-20KHz
	MOH				.018 In/Sec	.134 G-s
	MIH				.028 In/Sec	.143 G-s
	MIA				.031 In/Sec	.110 G-s
	СОН				.086 In/Sec	.036 G-s
STD13		-	Stand	13		(01-Sep-22)
					OVERALL LEVEL	1K-20KHz
	MOH				.073 In/Sec	.310 G-s
	MIH				.117 In/Sec	.149 G-s
	MIA				.318 In/Sec	.489 G-s
	GIA				.040 In/Sec	.044 G-s
	GIH				.025 In/Sec	.080 G-s
	GOH				.034 IN/Sec	.029 G-s
	СОН				.196 11/560	.217 G-S
NORTH	AC	-	NORTH	AIR	COMPRESSOR QUINCY	(01-Sep-22)
	MOIT				OVERALL LEVEL	I = 20 KHz
	MOH				.146 In/Sec	.654 G-S
	MID				.114 IN/Sec	.910 G-S
	MIA				OVEDALL LEVEL	1K-20KHZ
	ста					580 C-s
	СТН				222 In/Sec	. 300 G-s
	СОН				.245 In/Sec	.528 G-s
					· · · · · ·	
SOUTH	AC	-	SOUTH	AIR	COMPRESSOR QUINCY	(01-Sep-22)
	MOP				131 Tr/Soc	1 600 C-s
	мтш				193 Tn/Sec	2 562 C-s
	MTA				061 Tn/Sec	1 653 C-e
	1				OVERALL LEVEL	1K-20KHz
	CIA				.321 In/Sec	.497 G-s
	CIH				.235 In/Sec	.510 G-s
	СОН				.297 In/Sec	.402 G-s

Station: Roll Mill Utilities

MEASUREMENT POINT	OVERALL	LEVEL HFD / VHFD
HYDPMP1 - Hydr	aulic Pump East	(01-Sep-22)
	OVERALL	LEVEL 1K-20KHz
MOH	.056 I	n/Sec .250 G-s
MIH	.141 I	n/Sec .322 G-s

	•		.3	303 In/	Sec 2	.783 G-s
HYDPMP	3	- Hydraul	ic Pump West		(01-Se	p-22)
			OVE	RALL I	EVEL 1	K-20KHz
	MOH		.0	97 In/	Sec	.434 G-s
	MIH		.3	303 In/	Sec	.573 G-s
	PIV			303 In/	Sec 2	.240 G-s
DESEAN		- Desolut	ion Fan		(01-50	n-22)
DEGITIN		Desorue	OVE	RALL I	EVEL 1	F 20KHz
	MOH		. 0	56 In/	Sec -	.038 G-s
	MIH		. 0	50 In/	Sec	.029 G-s
COMFAN		- Combust	ion Air Fan		(01-Se	p-22)
			OVE	RALL I	EVEL 1	K-20KHz
	MOH		.1	.11 In/	Sec	.140 G-s
	MIH		.0	93 In/	Sec	.196 G-s
	MIA		.0	068 In/	Sec	.155 G-s
	FIH		.0	055 In/	Sec	.123 G-s
	FOH		.0	081 IN/	Sec	.381 G-S
E.TCFAN		- Ejector	Air Fan		(01-50	n-22)
DOCLIM		Прессог	OVE	RALL I	EVEL 1	K-20KHz
	мон		.1	.00 In/	Sec -	.339 G-s
	MIH		. 0	95 In/	Sec	.239 G-s
	MIA		.0	54 In/	Sec	.130 G-s
	FIA		.0	70 In/	Sec	.954 G-s
	FIH		.0)59 In/	Sec 2	.081 G-s
	FOH		.1	.05 In/	Sec	.763 G-s
COLPMP	2	- Furnace	Cooling Pump	cente	er (01-Se	p-22)
			OVE	RALL I	EVEL 1	K-20KHz
	MOH		.1	.90 In/	Sec	.101 G-s
	MIH		. 0	52 Tm/	Sec	.258 G-S
	MIA		. 1	.55 117	sec	.309 G-S
FCTSOU	гн	- Furnace	CT Drive Sou	ıth	(01-Se	(22-q
			OVE	RALL I	EVEL 1	K-20KHz
	мон		. 4	04 In/	Sec	.109 G-s
	MIH		. 2	212 In/	Sec	.075 G-s
	MIA		.7	/03 In/	Sec	.021 G-s
		_				
FCTNOR	гн	- Furnace	CT Drive Nor	th	(01-Se	p-22)
	MOH			RALL I	EVEL I	A-ZUKHZ
	мтн			, 5 III)	Sec	.093 6-5
	1.1711		3	191 Tn/	Sec	065 G-s
	мта		.3	891 In/ 79 In/	Sec	.065 G-s 072 G-s
	MIA		.3 .1	891 In/ .79 In/	Sec Sec	.065 G-s .072 G-s
SCLPMP	МІА 2	- Scale P	.3 .1 it Pump North	891 In/ .79 In/ 1	Sec Sec (01-Se	.065 G-s .072 G-s p-22)
SCLPMP	MIA 2	- Scale P	.3 .1 it Pump North OVE	891 In/ .79 In/ 	Sec Sec (01-Se EVEL 1	.065 G-s .072 G-s p-22) K-20KHz
SCLPMP2	MIA 2 MOH	- Scale P	.3 .1 it Pump North OVE .1	891 In/ 79 In/ RALL I .40 In/	Sec Sec (01-Se EVEL 1 Sec	.065 G-s .072 G-s p-22) K-20KHz .279 G-s
SCLPMP2	MIA 2 MOH MIH	- Scale P	.3 .1 it Pump North OVE .1 .1	91 In/ .79 In/	Sec Sec (01-Se EVEL 1 Sec Sec	.065 G-s .072 G-s p-22) K-20KHz .279 G-s .377 G-s
SCLPMP:	MIA 2 MOH MIH MIA	- Scale P	.3 .1 it Pump North OVE .1 .1	91 In/ 79 In/ RALL I 40 In/ .09 In/	Sec Sec (01-Se EVEL 1 Sec Sec Sec	.065 G-s .072 G-s p-22) K-20KHz .279 G-s .377 G-s .274 G-s
SCLPMP:	MIA 2 MOH MIH MIA	- Scale P	.3 .1 it Pump North OVE .1 .1 .1	91 In/ 79 In/ RALL I 40 In/ 09 In/	Sec (01-Se EVEL 1 Sec Sec Sec	.065 G-s .072 G-s p-22) K-20KHz .279 G-s .377 G-s .274 G-s
SCLPMP: CTWTR2	MIA 2 MOH MIH MIA	- Scale P. - CT Pump	.3 .1 it Pump North OVE .1 .1 .1 West	891 In/ 79 In/ RALL I .40 In/ .09 In/	Sec (01-Se EVEL 1 Sec Sec Sec (01-Se	.065 G-s .072 G-s p-22) K-20KHz .279 G-s .377 G-s .274 G-s p-22) K-20KHz
SCLPMP2	MIA 2 MOH MIH MIA	- Scale P. - CT Pump	.3 .1 it Pump North OVE .1 .1 .1 West OVE	891 In/ 79 In/ RALL I 40 In/ 09 In/ 00 In/ RALL I 29 In/	Sec (01-Se EVEL 1 Sec Sec Sec (01-Se EVEL 1 Sec	.065 G-s .072 G-s p-22) K-20KHz .279 G-s .274 G-s p-22) K-20KHz 458 G-s
SCLPMP2	MIA 2 MOH MIH MIA MOH	- Scale P - CT Pump	.3 .1 it Pump North OVE .1 .1 .1 West .1	891 In/ 79 In/ RALL I 40 In/ 09 In/ 00 In/ RALL I 29 In/ 25 In/	Sec (01-Se EVEL 1 Sec Sec Sec (01-Se EVEL 1 Sec Sec	.065 G-s .072 G-s p-22) K-20KHz .279 G-s .377 G-s .274 G-s p-22) K-20KHz .458 G-s .159 G-s
SCLPMP2	MIA 2 MOH MIH MIA MOH MIH	- Scale P - CT Pump	.3 .1 it Pump North OVE .1 .1 .1 West .1 .1	891 In/ .79 In/ .RALL I .40 In/ .09 In/ .00 In/ .29 In/ .25 In/	Sec (01-Se EVEL 1 Sec Sec Sec (01-Se EVEL 1 Sec Sec Sec	.065 G-s .072 G-s p-22) K-20KHz .279 G-s .377 G-s .274 G-s p-22) K-20KHz .458 G-s .159 G-s .189 G-s
SCLPMP2	MIA 2 MOH MIH MIA MOH MIH MIA	- Scale P - CT Pump	.3 .1 it Pump North OVE .1 .1 .1 .1 .1 .1 .0	891 In/ .79 In/ .RALL I .40 In/ .09 In/ .00 In/ .29 In/ .25 In/	Sec Sec EVEL 1 Sec Sec Sec (01-Se EVEL 1 Sec Sec Sec Sec	.065 G-s .072 G-s p-22) K-20KHz .279 G-s .377 G-s .274 G-s p-22) K-20KHz .458 G-s .159 G-s .189 G-s
SCLPMP2 CTWTR2 MILWTR3	MIA 2 MOH MIH MIA MOH MIH MIA 3	- Scale P - CT Pump - Mill Wa	.3 .1 it Pump North OVE .1 .1 .1 West OVE .1 .1 .0 ter Pump West	891 In/ .79 In/ .79 In/ .881L I .40 In/ .09 In/ .00 In/ .29 In/ .25 In/ .89 In/	Sec Sec EVEL 1 Sec Sec Sec (01-Se EVEL 1 Sec Sec Sec Sec (01-Se	.065 G-s .072 G-s p-22) K-20KHz .279 G-s .377 G-s .274 G-s p-22) K-20KHz .458 G-s .159 G-s .189 G-s p-22)
SCLPMP2 CTWTR2 MILWTR3	MIA 2 MOH MIH MIA MOH MIH MIA 3	- Scale P - CT Pump - Mill Wa	.3 .1 it Pump North OVE .1 .1 .1 West OVE .1 .1 .0 ter Pump West OVE	891 In/ .79 In/ .79 In/ .87 In/ .00 In/ .00 In/ .29 In/ .25 In/ .889 In/ .25 In/	Sec Sec EVEL 1 Sec Sec Sec EVEL 1 Sec Sec Sec Sec Sec (01-Se EVEL 1	.065 G-s .072 G-s p-22) K-20KHz .279 G-s .377 G-s .274 G-s p-22) K-20KHz .458 G-s .159 G-s .189 G-s p-22) K-20KHz
SCLPMP: CTWTR2 MILWTR:	міа 2 МОН мін міа МОН мін міа 3 МОН	- Scale P - CT Pump - Mill Wa	.3 .1 it Pump North OVE .1 .1 West OVE .1 .1 .0 ter Pump West OVE .0	891 In/ .79 In/ .79 In/ .87 In/ .40 In/ .09 In/ .00 In/ .25 In/ .25 In/ .889 In/ .57 In/ .588 In/	Sec Sec (01-Se EVEL 1 Sec Sec Sec Sec Sec Sec Sec (01-Se EVEL 1 Sec EVEL 1 Sec	.065 G-s .072 G-s p-22) K-20KHz .279 G-s .377 G-s .274 G-s p-22) K-20KHz .458 G-s .159 G-s .189 G-s p-22) K-20KHz .556 G-s
SCLPMP: CTWTR2 MILWTR:	MIA 2 MOH MIH MIA MOH MIH 3 MOH MIH	- Scale P - CT Pump - Mill Wa	.3 .1 it Pump North OVE .1 .1 .1 West OVE .1 .1 .0 ter Pump West OVE .0 .0	<pre>391 In/ .79 In/ .79 In/ .28ALL I .40 In/ .09 In/ .00 In/ .25 In/</pre>	Sec Sec (01-Se EVEL 1 Sec Sec Sec Sec Sec Sec (01-Se EVEL 1 Sec Sec Sec Sec	.065 G-s .072 G-s p-22) K-20KHz .279 G-s .377 G-s .274 G-s p-22) K-20KHz .458 G-s .159 G-s .189 G-s p-22) K-20KHz .556 G-s .581 G-s
SCLPMP: CTWTR2 MILWTR:	MIA 2 MOH MIH MIA MOH MIH 3 MOH MIH	- Scale P - CT Pump - Mill Wa	.3 .1 it Pump North OVE .1 .1 West OVE .1 .1 .0 ter Pump West OVE .0 .0 .0	<pre>391 In/ .79 In/ .79 In/ .28ALL I .40 In/ .00 In/ .00 In/ .29 In/ .25 In/</pre>	Sec Sec (01-Se EVEL 1 Sec Sec Sec (01-Se EVEL 1 Sec Sec (01-Se EVEL 1 Sec Sec Sec Sec Sec Sec Sec Sec	.065 G-s .072 G-s p-22) K-20KHz .279 G-s .377 G-s .274 G-s p-22) K-20KHz .458 G-s .159 G-s .189 G-s p-22) K-20KHz .556 G-s .581 G-s .342 G-s
SCLPMP2 CTWTR2 MILWTR2	MIA 2 MOH MIH MIA 3 MOH MIH MIA 3	- Scale P - CT Pump - Mill Wa	.3 .1 it Pump North OVE .1 .1 West OVE .1 .1 .1 .0 ter Pump West .0 .0 .0 .0	<pre>391 In/ .79 In/ .79 In/ .28ALL I .40 In/ .09 In/ .00 In/ .29 In/ .25 In/</pre>	Sec Sec (01-Se EVEL 1 Sec Sec Sec (01-Se EVEL 1 Sec Sec (01-Se EVEL 1 Sec Sec Sec (01-Se EVEL 1 Sec Sec (01-Se (01-Se) (01-Se	.065 G-s .072 G-s p-22) K-20KHz .279 G-s .377 G-s .274 G-s p-22) K-20KHz .458 G-s .159 G-s .189 G-s .189 G-s .556 G-s .581 G-s .342 G-s
SCLPMP2 CTWTR2 MILWTR3	MIA 2 MOH MIH MIA 3 MOH MIH MIA 1	- Scale P - CT Pump - Mill Wa - Mill Wa	.3 .1 it Pump North OVE .1 .1 West OVE .1 .1 .1 .1 .0 ter Pump West OVE .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0	<pre>391 In/ .79 In/ .79 In/ .28ALL I .40 In/ .09 In/ .00 In/ .29 In/ .25 In/</pre>	Sec Sec (01-Se EVEL 1 Sec Sec Sec (01-Se EVEL 1 Sec Sec (01-Se EVEL 1 Sec Sec Sec (01-Se EVEL 1 Sec Sec Sec (01-Se	.065 G-s .072 G-s .279 G-s .279 G-s .274 G-s .274 G-s p-22) K-20KHz .458 G-s .159 G-s .189 G-s p-22) K-20KHz .556 G-s .581 G-s .342 G-s .342 G-s p-22) K-20KH7
SCLPMP2 CTWTR2 MILWTR3	MIA 2 MOH MIH MIA 3 MOH MIH MIA 1 MOH	- Scale P - CT Pump - Mill Wa - Mill Wa	.3 .1 it Pump North OVE .1 .1 West OVE .1 .1 .1 .1 .0 ter Pump West OVE .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0	<pre>391 In/ .79 In/ .79 In/ .28ALL I .40 In/ .09 In/ .00 In/ .29 In/ .25 In/</pre>	Sec Sec (01-Se EVEL 1 Sec Sec Sec (01-Se EVEL 1 Sec Sec (01-Se EVEL 1 Sec Sec Sec (01-Se EVEL 1 Sec Sec Sec 1 Sec Sec 1 Sec Sec 1 Sec	.065 G-s .072 G-s .072 G-s .279 G-s .279 G-s .274 G-s .274 G-s p-22) K-20KHz .458 G-s .159 G-s .189 G-s p-22) K-20KHz .556 G-s .342 G-s p-22) K-20KHz .275 G-s

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