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September 21, 2023

Essex Power Plant Essex, MO

The following is a summary of findings from vibration survey that was performed on 9/13/23. Please note that this report only contains the defects found. All other equipment was found to be in satisfactory condition during the survey.

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.

Defect Summary

Starting Motor CLASS I



Observation:

Data above is motor and gearbox. Notice the large peaks in the gearbox spectra. These peaks appear to be non-synchronous to shaft speed and may indicate defects in gearbox.

Recommendation:

Data suggests a possible issue in gearbox. We need other information such as bearing information and number of teeth on each gear to help diagnose this issue. For now, it is recommended to perform an internal inspection of the gearbox and performing an oil analysis on the gear oil.

Rotor Air Cooler Fan CLASS II



Observation:

Spectral data is motor inboard (DE) horizontal. Data shows several peaks that are non-synchronous with motor rpm modulation.

Recommendation:

Data indicates defects are present in the motor bearings particularly the DE bearing. This issue may be due to electrical fluting of the bearing races. This is a common issue with AC motors that are operated by a VFD. Motor needs to be replaced with a motor that has grounding protection such as an insulated bearing and an AEGIS grounding brush ring installed in the motor. Also ensure new motor has a roller bearing on the DE for belt drive applications. Replace as scheduling allows.

Jacking Oil Pump 1 CLASS II



Observation:

Motor/Pump spectral waterfall shows quite a bit of non-synchronous high frequency vibration. Pump also some vibrations but in the low to mid frequency range.

Recommendation:

Data of the motor indicates some likely bearing issues. Pump may also have some internal wear. Inspect motor and pump as scheduling allows.

Jacking Oil Pump 2 CLASS II



Observation:

Motor and pump spectral waterfall show quite a bit of non-synchronous high frequency vibration in the outboard end of the motor.

Recommendation:

Data of the motor indicates some likely bearing issues. The pump may also have some slight internal wear. Inspect motor as scheduling allows.

Lube Oil Vapor Extractor 2 CLASS III



Observation:

Motor multi-point waterfall shows high 1 x rpm vibration in motor with the verticals being higher in amplitude.

Recommendation:

Notice in the trend above, that there is a steady increase in vibration with each survey. High 1 x rpm vibration is an indication of blower imbalance. Inspect blower wheel for build-up or damage. Blower wheel most likely needs a trim balance.

Reciprocating Air Compressor CLASS II



Observation:

Motor has high vertical vibration. All vibrations appears to be related to compressor rpm.

Recommendation:

Unit has directional vibration that is related to compressor rpm. This is likely inherent of the reciprocating forces of the compressor, however vibration seems excessive. It is recommended to inspect all fasteners of the motor base and compressor. Also ensure sheaves and belts are in good order.

Database:	ESSEX.rbm
Area:	POWER PLANT
Route No.	1: ESSEX UNIT 1

MEASU	REMENT POINT	OVERALL LEVEL	hfd / vhfd
4F	- STARTING MO	TOR	13-Sep-23)
		OVERALL LEVEL	1-20 KHz
	MOH	.034 In/Sec	.392 G-s
	MIH	.050 In/Sec	3.105 G-s
	MIA	.083 In/Sec	.198 G-s
	EIA	.148 In/Sec	1.783 G-s
	EIH		8.043 G-S
	MOV	.052 IN/Sec	.078 G-S
	MIV	.083 III/Sec	.220 G-S
	EIV	.146 IN/Sec	1.961 G-S
	FOA	.152 IN/Sec	2.249 G-S
2н	- LUBE OIL PU	MP 1 ()	13-Sep-23)
		OVERALL LEVEL	1-20 KHz
	MOH	.053 In/Sec	.575 G-s
	MIH	.061 In/Sec	.864 G-s
	MIA	.081 In/Sec	.131 G-s
	MOV	.095 In/Sec	.160 G-s
	MIV	.046 In/Sec	.123 G-s
2M	- LUBE OIL PU	MP 2 ()	13-Sep-23)
		OVERALL LEVEL	1-20 KHz
	MOH	.046 In/Sec	.480 G-s
	MIH	.023 In/Sec	.944 G-s
	MIA	.066 In/Sec	.110 G-s
	MOV	.150 In/Sec	.094 G-s
	MIV	.059 In/Sec	.146 G-s
3M		OUTED FAN	13-500-23)
514	ROTOR AIR C	OVERALL LEVEL	1-20 кнz
	МОН	.071 In/Sec	1.152 G-s
	MIH	.139 In/Sec	3.098 G-s
	MIA	.205 In/Sec	.526 G-s
	FOH	.148 In/Sec	.089 G-s
	MOV	.140 In/Sec	.482 G-s
	MIV	.157 In/Sec	.404 G-s
	FIV	.109 In/Sec	.207 G-s
	FOV	.115 In/Sec	.210 G-s
7J	- JACKING OIL	PUMP 1	13-Sep-23)
		OVERALL LEVEL	1-20 KHz
	MOH	.100 In/Sec	.661 G-s
	MIH	.186 In/Sec	2.879 G-s
	MIA	.176 In/Sec	.922 G-s
	PIA	.238 In/Sec	.889 G-s
	PIH	.182 In/Sec	1.425 G-s
	MOV	.109 In/Sec	.902 G-s
	MIV	.127 In/Sec	.673 G-s
	PIV	.279 In/Sec	.574 G-s
7M	- JACKING OIL	PUMP 2	13-Sep-23)
		OVERALL LEVEL	1-20 KHz
	MOH	.125 In/Sec	2.323 G-s
	MIH	.084 In/Sec	.897 G-s
	MIA	.043 In/Sec	.289 G-s

PIA		.128 In/Sec	.279 G-s
ртн		127 In/Sec	816 G-s
MOV		067 Tr/Soc	452 C-s
MOV		.00/ 11/500	.452 G-S
MIV		.084 In/Sec	.144 G-s
PIV		.143 In/Sec	.368 G-s
8C	- LUBE OIL COOLER	FAN 1 (1	3-Sep-23)
		OVERALL LEVEL	1-20 KHz
MOH		.123 In/Sec	1.049 G-s
мтш		154 Tr/Soc	1 200 G-s
MIII		102 Ta / Ga a	1.200 G-5
MIA		.123 In/Sec	.3/2 G-S
MOV		.135 In/Sec	.280 G-s
MIV		.165 In/Sec	.334 G-s
8F	- LUBE OIL COOLER	FAN 2 (1	3-Sep-23)
		OVERALL LEVEL	1-20 KHz
MOH		.212 In/Sec	.214 G-s
мтн		140 Tp/Sec	310 6-8
MIN		.140 IN/Sec	.510 G 5
MIA		.08/ In/Sec	.163 G-S
MOV		.342 In/Sec	.060 G-s
MIV		.092 In/Sec	.199 G-s
8J	- LUBE OIL VAPOR	EXTRACTOR 1 (1	3-Sep-23)
		OVERALL LEVEL	1-20 KHz
MOH		.195 In/Sec	.191 G-s
мтш		188 TR/Soc	345 C-s
MIH		.188 IN/Sec	.343 G-S
MIA		.101 In/Sec	.106 G-S
MOV		.311 In/Sec	.028 G-s
MIV		.256 In/Sec	.169 G-s
8M	- <mark>LUBE OIL VAPOR </mark>	EXTRACTOR 2 (1	3-Sep-23)
		OVERALL LEVEL	1-20 KHz
MOH		.478 In/Sec	.123 G-s
мін		.332 In/Sec	.142 G-s
мта		252 Tr/Soc	035 C-s
MOV		$\frac{1}{203} \frac{1}{10} \frac{1}{203} \frac{1}{10} \frac{1}{10}$.035 G-s
MOV		1.203 In/Sec 1.396 In/Sec	.044 G-s
MOV MIV		1.203 In/Sec 1.396 In/Sec	.044 G-s .044 G-s .047 G-s
MOV MIV	- THENING GEAR	1.203 In/Sec 1.396 In/Sec (1)	.035 G-S .044 G-S .047 G-S
MOV MIV 1G	- TURNING GEAR	1.203 In/Sec 1.396 In/Sec (1	.035 G-S .044 G-S .047 G-S 3-Sep-23)
MOV MIV 1G	- TURNING GEAR	1.203 In/Sec 1.396 In/Sec (1 OVERALL LEVEL	.033 G-s .044 G-s .047 G-s 3-Sep-23) 1-20 KHz
MOV MIV 1G MOH	- TURNING GEAR	1.203 In/Sec 1.203 In/Sec 1.396 In/Sec (1 OVERALL LEVEL .106 In/Sec	.033 G-s .044 G-s .047 G-s 3-Sep-23) 1-20 KHz .211 G-s
MOV MIV 1G MOH MIH	- TURNING GEAR	1.203 In/Sec 1.203 In/Sec 1.396 In/Sec (1 OVERALL LEVEL .106 In/Sec .041 In/Sec	.044 G-s .047 G-s 3-Sep-23) 1-20 KHz .211 G-s .151 G-s
MOV MIV 1G MOH MIH MIA	- TURNING GEAR	1.203 In/Sec 1.203 In/Sec (1 OVERALL LEVEL .106 In/Sec .041 In/Sec .028 In/Sec	.033 G-s .044 G-s .047 G-s 3-Sep-23) 1-20 KHz .211 G-s .151 G-s .033 G-s
MOV MIV 1G MOH MIH MIA EIA	- TURNING GEAR	1.203 In/Sec 1.203 In/Sec 1.396 In/Sec (1 OVERALL LEVEL .106 In/Sec .041 In/Sec .028 In/Sec .023 In/Sec	.033 G-s .044 G-s .047 G-s 3-Sep-23) 1-20 KHz .211 G-s .151 G-s .033 G-s .036 G-s
MOV MIV 1G MOH MIH MIA EIA EIH	- TURNING GEAR	1.203 In/Sec 1.203 In/Sec 1.396 In/Sec (1 OVERALL LEVEL .106 In/Sec .041 In/Sec .028 In/Sec .023 In/Sec .019 In/Sec	.033 G-s .044 G-s .047 G-s 3-Sep-23) 1-20 KHz .211 G-s .151 G-s .033 G-s .036 G-s .184 G-s
MOV MIV 1G MOH MIH MIA EIA EIH FOU	- TURNING GEAR	(1 1.203 In/Sec 1.396 In/Sec (1 OVERALL LEVEL .106 In/Sec .041 In/Sec .028 In/Sec .023 In/Sec .019 In/Sec .024 In/Sec	.033 G-s .044 G-s .047 G-s 3-Sep-23) 1-20 KHz .211 G-s .033 G-s .036 G-s .184 G-s 130 G-s
MOV MIV 1G MOH MIH MIA EIA EIH EOH	- TURNING GEAR	(1 1.203 In/Sec 1.396 In/Sec (1 OVERALL LEVEL .106 In/Sec .041 In/Sec .028 In/Sec .023 In/Sec .019 In/Sec .024 In/Sec	.033 G-s .044 G-s .047 G-s 3-Sep-23) 1-20 KHz .211 G-s .151 G-s .033 G-s .036 G-s .184 G-s .130 G-s
MOV MIV 1G MOH MIH MIA EIA EIH EOH MOV	- TURNING GEAR	1.203 In/Sec 1.203 In/Sec 1.396 In/Sec (1 OVERALL LEVEL .106 In/Sec .041 In/Sec .028 In/Sec .023 In/Sec .019 In/Sec .024 In/Sec .046 In/Sec	.033 G-s .044 G-s .047 G-s 3-Sep-23) 1-20 KHz .211 G-s .151 G-s .033 G-s .036 G-s .184 G-s .130 G-s .066 G-s
MOV MIV 1G MOH MIH MIA EIA EIH EOH MOV MIV	- TURNING GEAR	1.203 In/Sec 1.203 In/Sec 1.396 In/Sec (1 OVERALL LEVEL .106 In/Sec .041 In/Sec .028 In/Sec .023 In/Sec .024 In/Sec .046 In/Sec .038 In/Sec	.033 G-s .044 G-s .047 G-s 3-Sep-23) 1-20 KHz .211 G-s .151 G-s .033 G-s .036 G-s .184 G-s .130 G-s .066 G-s .066 G-s
MOV MIV 1G MOH MIH MIA EIA EIH EOH MOV MIV EIV	- TURNING GEAR	1.203 In/Sec 1.203 In/Sec 1.396 In/Sec (1 OVERALL LEVEL .106 In/Sec .041 In/Sec .028 In/Sec .023 In/Sec .024 In/Sec .046 In/Sec .038 In/Sec .026 In/Sec	.044 G-s .047 G-s 3-Sep-23) 1-20 KHz .211 G-s .151 G-s .033 G-s .036 G-s .184 G-s .130 G-s .066 G-s .066 G-s .050 G-s
MOV MIV 1G MOH MIH MIA EIA EIH EOH MOV MIV EIV EOV	- TURNING GEAR	1.203 In/Sec 1.203 In/Sec 1.396 In/Sec (1 OVERALL LEVEL .106 In/Sec .041 In/Sec .028 In/Sec .023 In/Sec .024 In/Sec .046 In/Sec .038 In/Sec .026 In/Sec .032 In/Sec	.033 G-s .044 G-s .047 G-s 3-Sep-23) 1-20 KHz .211 G-s .151 G-s .033 G-s .036 G-s .184 G-s .130 G-s .066 G-s .066 G-s .050 G-s .053 G-s
MOV MIV 1G MOH MIH MIA EIA EIH EOH MOV MIV EIV EOV	- TURNING GEAR	1.203 In/Sec 1.203 In/Sec 1.396 In/Sec (1 OVERALL LEVEL .106 In/Sec .041 In/Sec .028 In/Sec .023 In/Sec .024 In/Sec .038 In/Sec .038 In/Sec .026 In/Sec .032 In/Sec	.044 G-s .047 G-s 3-Sep-23) 1-20 KHz .211 G-s .151 G-s .033 G-s .036 G-s .184 G-s .130 G-s .066 G-s .066 G-s .050 G-s .053 G-s
MOV MIV 1G MOH MIH MIA EIA EIH EOH MOV MIV EIV EOV 2M DC	- TURNING GEAR	1.203 In/Sec 1.203 In/Sec 1.396 In/Sec (1 OVERALL LEVEL .106 In/Sec .041 In/Sec .028 In/Sec .023 In/Sec .024 In/Sec .038 In/Sec .038 In/Sec .026 In/Sec .032 In/Sec .032 In/Sec .031 In/Sec	.044 G-s .047 G-s 3-Sep-23) 1-20 KHz .211 G-s .151 G-s .033 G-s .036 G-s .184 G-s .130 G-s .066 G-s .066 G-s .050 G-s .053 G-s
MOV MIV 1G MOH MIH MIA EIA EIH EOH MOV MIV EIV EOV 2M DC	- TURNING GEAR - EMERGENCY LUBE (1.203 In/Sec 1.203 In/Sec 1.396 In/Sec (1 OVERALL LEVEL .106 In/Sec .041 In/Sec .028 In/Sec .023 In/Sec .024 In/Sec .026 In/Sec .026 In/Sec .032 In/Sec .032 In/Sec .032 In/Sec .031 L PUMP (1 OVERALL LEVEL	.044 G-s .047 G-s 3-Sep-23) 1-20 KHz .211 G-s .151 G-s .033 G-s .036 G-s .184 G-s .130 G-s .066 G-s .066 G-s .050 G-s .053 G-s .053 G-s .053 G-s
MOV MIV 1G MOH MIH MIA EIA EIH EOH MOV MIV EIV EOV 2M DC MOH	- TURNING GEAR - EMERGENCY LUBE (1.203 In/Sec 1.203 In/Sec 1.396 In/Sec (1 OVERALL LEVEL .106 In/Sec .041 In/Sec .028 In/Sec .023 In/Sec .024 In/Sec .026 In/Sec .032 In/Sec OIL PUMP (1 OVERALL LEVEL .237 In/Sec	.044 G-s .047 G-s 3-Sep-23) 1-20 KHz .211 G-s .151 G-s .033 G-s .036 G-s .184 G-s .130 G-s .066 G-s .066 G-s .050 G-s .053 G-s 3-Sep-23) 1-20 KHz .365 G-s
MOV MIV 1G MOH MIH MIA EIA EIH EOH MOV MIV EIV EOV 2M DC MOH MTH	- TURNING GEAR - EMERGENCY LUBE (1.203 In/Sec 1.203 In/Sec 1.396 In/Sec (1 OVERALL LEVEL .106 In/Sec .041 In/Sec .028 In/Sec .023 In/Sec .024 In/Sec .026 In/Sec .032 In/Sec OIL PUMP (1 OVERALL LEVEL .237 In/Sec .130 In/Sec	.044 G-s .047 G-s 3-Sep-23) 1-20 KHz .211 G-s .033 G-s .036 G-s .184 G-s .130 G-s .066 G-s .066 G-s .050 G-s .053 G-s .053 G-s .365 G-s .241 G-s
MOV MIV 1G MOH MIH MIA EIA EIH EOH MOV MIV EIV EOV 2M DC MOH MIH	- TURNING GEAR - EMERGENCY LUBE (1.203 In/Sec 1.203 In/Sec 1.396 In/Sec (1 OVERALL LEVEL .106 In/Sec .041 In/Sec .028 In/Sec .023 In/Sec .024 In/Sec .038 In/Sec .038 In/Sec .032 In/Sec OIL PUMP (1 OVERALL LEVEL .237 In/Sec .130 In/Sec .164 In/Sec	.044 G-s .047 G-s .047 G-s 3-Sep-23) 1-20 KHz .211 G-s .033 G-s .036 G-s .184 G-s .066 G-s .066 G-s .050 G-s .053 G-s .053 G-s .053 G-s .241 G-s .241 G-s
MOV MIV 1G MOH MIH MIA EIA EIH EOH MOV MIV EIV EOV 2M DC 2M DC MOH MIH MIA	- TURNING GEAR - EMERGENCY LUBE (1.203 In/Sec 1.203 In/Sec 1.396 In/Sec (1 OVERALL LEVEL .106 In/Sec .041 In/Sec .028 In/Sec .023 In/Sec .024 In/Sec .038 In/Sec .032 In/Sec .032 In/Sec OIL PUMP (1 OVERALL LEVEL .237 In/Sec .130 In/Sec .250 In/Sec	.044 G-s .047 G-s .047 G-s 3-Sep-23) 1-20 KHz .211 G-s .151 G-s .033 G-s .036 G-s .184 G-s .130 G-s .066 G-s .066 G-s .050 G-s .053 G-s .053 G-s .053 G-s .241 G-s .054 G-s
MOV MIV 1G MOH MIH MIA EIA EIH EOH MOV MIV EIV EOV 2M DC 2M DC MOH MIH MIA MOV MIN	- TURNING GEAR - EMERGENCY LUBE (1.203 In/Sec 1.203 In/Sec 1.396 In/Sec (1 OVERALL LEVEL .106 In/Sec .041 In/Sec .028 In/Sec .023 In/Sec .024 In/Sec .038 In/Sec .032 In/Sec .032 In/Sec .032 In/Sec .130 In/Sec .164 In/Sec .250 In/Sec	.044 G-s .047 G-s .047 G-s 3-Sep-23) 1-20 KHz .211 G-s .151 G-s .033 G-s .036 G-s .036 G-s .066 G-s .066 G-s .050 G-s .053 G-s .053 G-s .053 G-s .241 G-s .054 G-s .086 G-s
MOV MIV 1G 1G MOH MIH MIA EIA EIH EOH MOV MIV EIV EOV 2M DC 2M DC MOH MIH MIA MOV MIV	- TURNING GEAR - EMERGENCY LUBE (1.203 In/Sec 1.203 In/Sec 1.396 In/Sec (1 OVERALL LEVEL .106 In/Sec .041 In/Sec .028 In/Sec .028 In/Sec .024 In/Sec .026 In/Sec .032 In/Sec .032 In/Sec .032 In/Sec .130 In/Sec .164 In/Sec .250 In/Sec .154 In/Sec	.044 G-s .047 G-s .047 G-s 3-Sep-23) 1-20 KHz .211 G-s .151 G-s .033 G-s .036 G-s .184 G-s .130 G-s .066 G-s .066 G-s .050 G-s .053 G-s 3-Sep-23) 1-20 KHz .365 G-s .241 G-s .054 G-s .054 G-s .050 G-s
MOV MIV	- TURNING GEAR	1.203 In/Sec 1.203 In/Sec 1.396 In/Sec (1 OVERALL LEVEL .106 In/Sec .041 In/Sec .028 In/Sec .028 In/Sec .024 In/Sec .024 In/Sec .026 In/Sec .032 In/Sec .032 In/Sec .130 In/Sec .164 In/Sec .250 In/Sec .154 In/Sec	.033 G-s .044 G-s .047 G-s 3-Sep-23) 1-20 KHz .211 G-s .151 G-s .033 G-s .036 G-s .184 G-s .130 G-s .066 G-s .066 G-s .050 G-s .053 G-s .241 G-s .241 G-s .054 G-s .054 G-s .050 G-s
MOV MIV	- TURNING GEAR	1.203 In/Sec 1.203 In/Sec 1.396 In/Sec (1 OVERALL LEVEL .106 In/Sec .041 In/Sec .028 In/Sec .028 In/Sec .024 In/Sec .024 In/Sec .026 In/Sec .032 In/Sec .032 In/Sec .130 In/Sec .164 In/Sec .154 In/Sec .154 In/Sec (1	.033 G-s .044 G-s .047 G-s 3-Sep-23) 1-20 KHz .211 G-s .151 G-s .033 G-s .036 G-s .184 G-s .130 G-s .066 G-s .066 G-s .050 G-s .053 G-s .241 G-s .241 G-s .054 G-s .054 G-s .054 G-s .050 G-s
MOV MIV	- TURNING GEAR - EMERGENCY LUBE (1.203 In/Sec 1.203 In/Sec 1.396 In/Sec (1 OVERALL LEVEL .106 In/Sec .041 In/Sec .028 In/Sec .028 In/Sec .023 In/Sec .024 In/Sec .024 In/Sec .038 In/Sec .032 In/Sec .032 In/Sec .032 In/Sec .130 In/Sec .164 In/Sec .250 In/Sec .154 In/Sec (1 OVERALL LEVEL .205 IN/Sec .154 In/Sec .154 In/Sec .154 In/Sec	.033 G-s .044 G-s .047 G-s 3-Sep-23) 1-20 KHz .211 G-s .151 G-s .033 G-s .036 G-s .184 G-s .130 G-s .066 G-s .066 G-s .050 G-s .053 G-s .241 G-s .054 G-s .054 G-s .054 G-s .050 G-s .050 G-s
MOV MIV	- TURNING GEAR - EMERGENCY LUBE (1.203 In/Sec 1.203 In/Sec 1.396 In/Sec (1 OVERALL LEVEL .106 In/Sec .041 In/Sec .028 In/Sec .028 In/Sec .024 In/Sec .024 In/Sec .024 In/Sec .026 In/Sec .038 In/Sec .032 In/Sec .032 In/Sec .130 In/Sec .164 In/Sec .154 In/Sec .154 In/Sec .154 In/Sec .196 In/Sec .196 In/Sec	.033 G-s .044 G-s .047 G-s .047 G-s .151 G-s .151 G-s .033 G-s .036 G-s .184 G-s .184 G-s .066 G-s .066 G-s .050 G-s .053 G-s .053 G-s .241 G-s .054 G-s .054 G-s .050 G-s .050 G-s .050 G-s .050 G-s .050 G-s
MOV MIV	- TURNING GEAR - EMERGENCY LUBE (1.203 In/Sec 1.203 In/Sec 1.396 In/Sec (1 OVERALL LEVEL .106 In/Sec .041 In/Sec .028 In/Sec .028 In/Sec .024 In/Sec .024 In/Sec .024 In/Sec .026 In/Sec .038 In/Sec .032 In/Sec .032 In/Sec .130 In/Sec .164 In/Sec .154 In/Sec	.044 G-s .047 G-s .047 G-s .047 G-s .151 G-s .033 G-s .036 G-s .036 G-s .036 G-s .066 G-s .066 G-s .050 G-s .053 G-s .053 G-s .241 G-s .054 G-s .054 G-s .054 G-s .054 G-s .054 G-s .050 G-s
MOV MIV	- TURNING GEAR - EMERGENCY LUBE (1.203 In/Sec 1.203 In/Sec 1.396 In/Sec (1 OVERALL LEVEL .106 In/Sec .041 In/Sec .028 In/Sec .028 In/Sec .024 In/Sec .024 In/Sec .026 In/Sec .026 In/Sec .130 In/Sec .154 In/Sec	.033 G-s .044 G-s .047 G-s .047 G-s .151 G-s .151 G-s .033 G-s .036 G-s .184 G-s .130 G-s .066 G-s .066 G-s .050 G-s .053 G-s .053 G-s .241 G-s .054 G-s .054 G-s .054 G-s .054 G-s .054 G-s .056 G-s .050 G-s
MOV MIV	- TURNING GEAR - EMERGENCY LUBE (1.203 In/Sec 1.203 In/Sec 1.396 In/Sec (1 OVERALL LEVEL .106 In/Sec .041 In/Sec .028 In/Sec .023 In/Sec .024 In/Sec .024 In/Sec .026 In/Sec .026 In/Sec .130 In/Sec .154 In/Sec	.033 G-s .044 G-s .047 G-s 3-Sep-23) 1-20 KHz .211 G-s .033 G-s .036 G-s .184 G-s .130 G-s .066 G-s .066 G-s .050 G-s .053 G-s .053 G-s .241 G-s .054 G-s .054 G-s .054 G-s .050 G-s
MOV MIV	- TURNING GEAR - EMERGENCY LUBE (1.202 In/Sec 1.203 In/Sec 1.396 In/Sec (1 OVERALL LEVEL .106 In/Sec .041 In/Sec .028 In/Sec .028 In/Sec .029 In/Sec .024 In/Sec .026 In/Sec .026 In/Sec .026 In/Sec .032 In/Sec .130 In/Sec .154 In/Sec .154 In/Sec .154 In/Sec .531 In/Sec .797 In/Sec .267 In/Sec .142 In/Sec	.033 G-s .044 G-s .047 G-s 3-Sep-23) 1-20 KHz .211 G-s .033 G-s .036 G-s .184 G-s .130 G-s .066 G-s .050 G-s .053 G-s .053 G-s .241 G-s .054 G-s .055 G-s .054 G-s .055 G-s .054 G-s .055 G-s .055 G-s .054 G-s .055 G-s .054 G-s .056 G-s .056 G-s .057 G-s .050 G-s
MOV MIV	- TURNING GEAR - EMERGENCY LUBE	1.203 In/Sec 1.203 In/Sec 1.396 In/Sec (1 OVERALL LEVEL .106 In/Sec .041 In/Sec .028 In/Sec .028 In/Sec .024 In/Sec .024 In/Sec .024 In/Sec .038 In/Sec .038 In/Sec .032 In/Sec .032 In/Sec .130 In/Sec .154 In/Sec .154 In/Sec .531 In/Sec .531 In/Sec .531 In/Sec .267 In/Sec .142 In/Sec .158 In/Sec .158 In/Sec	.033 G-s .044 G-s .047 G-s 3-Sep-23) 1-20 KHz .211 G-s .033 G-s .036 G-s .036 G-s .066 G-s .066 G-s .050 G-s .053 G-s .053 G-s .053 G-s .241 G-s .054 G-s .054 G-s .054 G-s .054 G-s .054 G-s .056 G-s .050 G-s .050 G-s .050 G-s .050 G-s .121 G-s .030 G-s .173 G-s .610 G-s .387 C-s
IG IG MOV MIV IG MOH MIH MIA EIA EIH EOH MOV MIV EIV EOV 2M DC 2M DC MOH MIH MIA MOV MIV EIV EOV EOV EV EV EOV EV EV EOV EV EOV EV EOV EV EOV EV EV EOV EV EOV EV EV EOV EV EV EOV EV EV EOV EV EV EV EV EV EV EV EV EV E	- TURNING GEAR - EMERGENCY LUBE (1.202 In/Sec 1.203 In/Sec 1.396 In/Sec (1 OVERALL LEVEL .106 In/Sec .041 In/Sec .028 In/Sec .028 In/Sec .028 In/Sec .024 In/Sec .024 In/Sec .026 In/Sec .026 In/Sec .026 In/Sec .032 In/Sec .130 In/Sec .154 In/Sec .154 In/Sec .531 In/Sec .531 In/Sec .267 In/Sec .158 In/Sec .158 In/Sec	.033 G-s .044 G-s .047 G-s .047 G-s .211 G-s .211 G-s .151 G-s .033 G-s .036 G-s .184 G-s .184 G-s .066 G-s .066 G-s .050 G-s .053 G-s .053 G-s .241 G-s .054 G-s .054 G-s .050 G-s .051 G-s .051 G-s .053 G-s .054 G-s .050 G-s .050 G-s .054 G-s .050 G-s .050 G-s .050 G-s .053 G-s .054 G-s .050 G-s .050 G-s .050 G-s .050 G-s .051 G-s .054 G-s .050 G-s .050 G-s .050 G-s .054 G-s .050 G-s .05
MOV MIV	- TURNING GEAR - EMERGENCY LUBE (1.202 In/Sec 1.203 In/Sec 1.396 In/Sec (1 OVERALL LEVEL .106 In/Sec .041 In/Sec .028 In/Sec .023 In/Sec .024 In/Sec .024 In/Sec .024 In/Sec .026 In/Sec .026 In/Sec .032 In/Sec .032 In/Sec .130 In/Sec .154 In/Sec .155 In/Sec .142 In/Sec .158 In/Sec 1.009 In/Sec	.033 G-s .044 G-s .047 G-s .047 G-s .047 G-s .151 G-s .033 G-s .036 G-s .036 G-s .036 G-s .066 G-s .066 G-s .050 G-s .053 G-s .053 G-s .054 G-s .054 G-s .054 G-s .054 G-s .050 G-s .030 G-s .173 G-s .049 G-s
MOV MIV	- TURNING GEAR - EMERGENCY LUBE (1.202 In/Sec 1.203 In/Sec 1.396 In/Sec (1 OVERALL LEVEL .106 In/Sec .041 In/Sec .028 In/Sec .023 In/Sec .024 In/Sec .024 In/Sec .024 In/Sec .026 In/Sec .026 In/Sec .032 In/Sec .032 In/Sec .032 In/Sec .130 In/Sec .154 In/Sec .158 In/Sec .158 In/Sec 1.009 In/Sec 1.929 In/Sec	.033 G-s .044 G-s .047 G-s .047 G-s .047 G-s .151 G-s .033 G-s .036 G-s .036 G-s .036 G-s .066 G-s .066 G-s .050 G-s .053 G-s .053 G-s .054 G-s .054 G-s .054 G-s .054 G-s .050 G-s .051 G-s .051 G-s .051 G-s .051 G-s .053 G-s .053 G-s .053 G-s .054 G-s .056 G-s .056 G-s .057 G-s .057 G-s .057 G-s .050 G-s .057 G-s .050 G-s .057 G-s .057 G-s .057 G-s .050 G-s .050 G-s .057 G-s .050 G-s .05

FOV	.617 In/Sec	.199 G-s
EHCPUMP1 - EHC PUMP 1	(13	3-Sep-23)
	OVERALL LEVEL	1-20 KHz
MOH	.047 In/Sec	.323 G-s
MIH	.034 In/Sec	.370 G-s
EHCPUMP2 - EHC PUMP 2	(13-Sep-23)	
	OVERALL LEVEL	1-20 KHz
MOH	.053 In/Sec	.413 G-s
MIH	.046 In/Sec	.518 G-s
EHCCOOLFAN - EHC COOLING FAN	(13-Sep-23)	
	OVERALL LEVEL	1-20 KHz
MOH	.074 In/Sec	.058 G-s
MIH	.051 In/Sec	.082 G-s
Clarification Of Vibration Units	3:	
Acc> G-s RMS		
Vel> In/Sec PK		

As always, it has been a pleasure to serve AECI Essex Power. If there are any comments or questions, do not hesitate to contact us.

Sincerely,

Kerin W. Maxuell

ISO Certified Vibration Analyst, Category III



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