

Infrared Thermography Report

USG May 2020



All electrical panels were scanned using a **CFLIR** P60 infrared camera. The following report only contains defects that were found during the survey. Below is our classification system for each defect included in this report. If there are any questions or comments, please feel free to contact us at any time.



employs a three-tier defect rating system:

CLASS I: A defect or defects are present that are likely to cause a problem in the long term (2-6 months). Should be addressed in the normal course of maintenance scheduling.

CLASS II: A defect or defects are present that are likely to cause a failure in the short term (less than 2 months). Should be addressed as soon as practical, on a high maintenance priority. Consideration should be given to increase monitoring frequency.

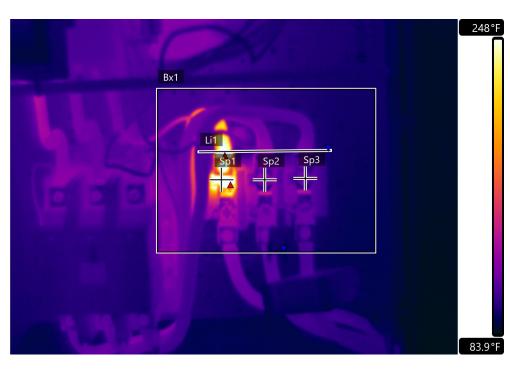
CLASS III: A defect or defects are present that make continued component reliability unpredictable and likelihood of secondary damage is high. Consideration should be given to an unscheduled shutdown to correct.



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.



Component	A Phase Connections	
Equipment/Bucket ID MCC 4C1 South Well Water Pump		



Sp1	280.1 °F
Sp2	124.9 °F
Sp3	119.4 °F
Li1 Minimum	98.8 °F
Li1 Maximum	271.6 °F
Bx1 Minimum	92.9 °F
Bx1 Maximum	290.4 °F





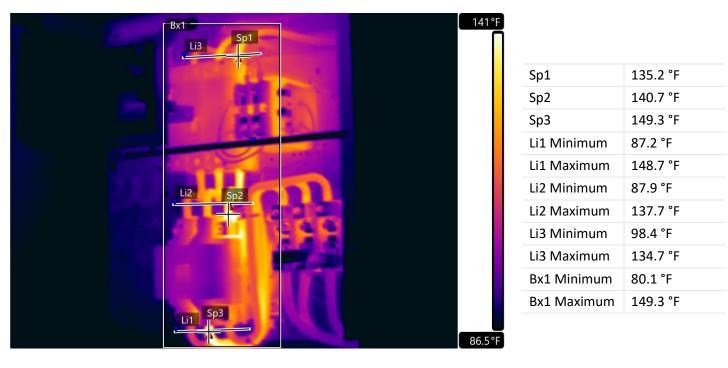
Fault	Loose/Faulty Connections	
Defect Rating	CLASS III	

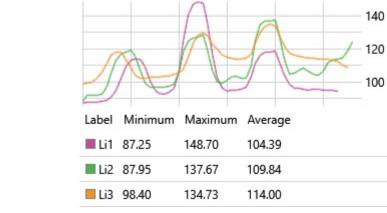
Recommendations

Extremely high temp can be seen on the A Phase connection on the terminal block. Inspect replace/repair components as needed ASAP.



Component	Lead Connections
Equipment/Bucket ID	MCC 2C1/M5080 #2 Effluent Pit Pump





Fault	Connection issues
Defect Rating	CLASS I

Recommendations

There appears to be 3 issues in this panel. All look to be connection issues. Clean and tighten connections as needed.



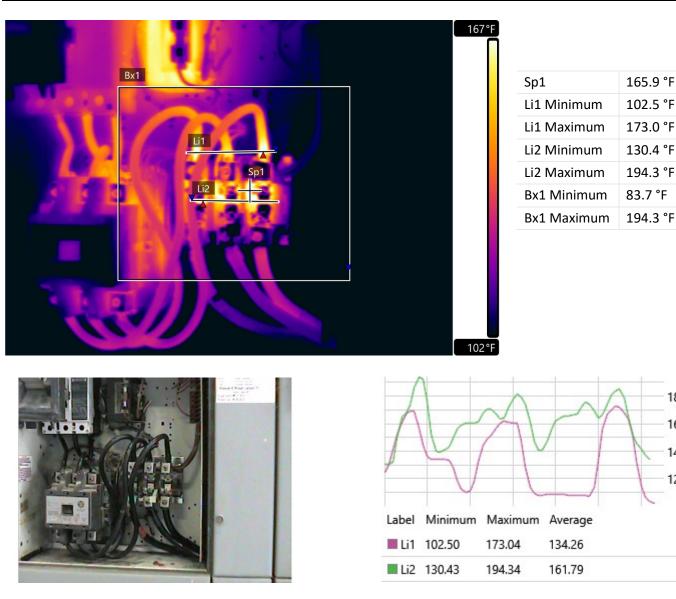
180

160

140

120

Component	Terminal Connections
Equipment/Bucket ID	MCC 2C2/White Water Loop Pump



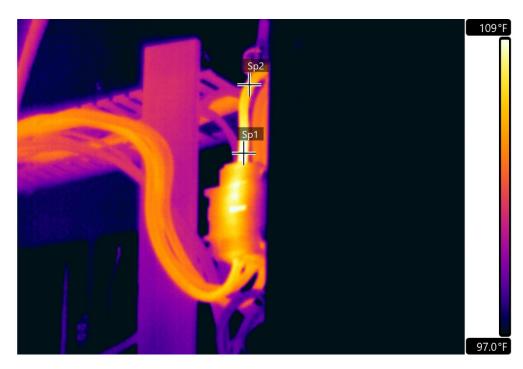
Fault	Connection/Heater Issues	
Defect Rating	CLASS II	

Recommendations

This panel has had issues in the past with this terminal block and with the heaters. There appears to be similar issues taking place once again. Inspect, clean and tighten connections as needed. Terminal block may need to be replaced.



Component	Breaker/Connections
Equipment/Bucket ID	Kiln Jack VFD Panel



Sp1	109.9 °F
Sp2	106.3 °F
Lines	-
Areas	-



Fault	None
Defect Rating	None

Recommendations

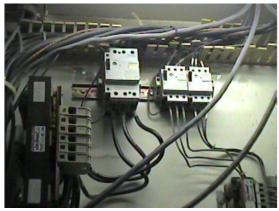
This is a recheck after repairs. No further actions are needed at this time.



Component	N/A
Equipment/Bucket ID	Kiln Jack VFD Panel



Sp1	109.6 °F
Lines	-
Bx1 Minimum	99.1 °F
Bx1 Maximum	117.2 °F



Fault	None
Defect Rating	None

Recommendations			
This is a recheck after repairs. No further	ctions are needed at thi	s time.	



Component	A Phase Connection
Equipment/Bucket ID	Kiln Jack VFD Panel



Sp1	113.9 °F
Sp2	113.4 °F
Sp3	109.6 °F
Li1 Minimum	105.2 °F
Li1 Maximum	114.6 °F
Bx1 Minimum	94.8 °F
Bx1 Maximum	117.0 °F





Fault	Connection issue
Defect Rating	CLASS I

Recommendations	
A phase appears to have a con	nection issue at the bottom side of breaker. Inspect and repair as needed.



Summary

Image Date&Time	Page number
5/28/2020 6:46:35 AM	3
5/29/2020 12:30:01 PM	4
5/29/2020 12:30:01 PM	5
5/28/2020 7:06:14 AM	6
5/29/2020 12:30:02 PM	7
5/29/2020 12:30:02 PM	8

This concludes our survey report. Please feel free to contact us at any time for question or comments.

Thank you for your business,

Kerin W. Maguell



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