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# QualiTest IR Radiometric Survey Report



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Job Number	140984
Survey Date	10/25/19
Report Date	10/31/19

# QualiTest IR Radiometric Survey Report



The following report only contains defects that were found during the survey. Below is our classification system for each defect contained in this report. If there are any questions or comments, please feel free to contact us at any time.

**Hi-Speed Industrial Service QualiTest Diagnostics** employs a three-step 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; continue to monitor.

**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 is practical, on a high maintenance priority. Consideration should be given to increased monitoring frequency.

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

**Hi-Speed Industrial Service** tests and inspects industrial and equipment and makes recommendations concerning maintenance and repairs based on its experience in the field of industrial repair and maintenance. The information provided herein is provided as an opinion only, not as a guaranty or warranty of.

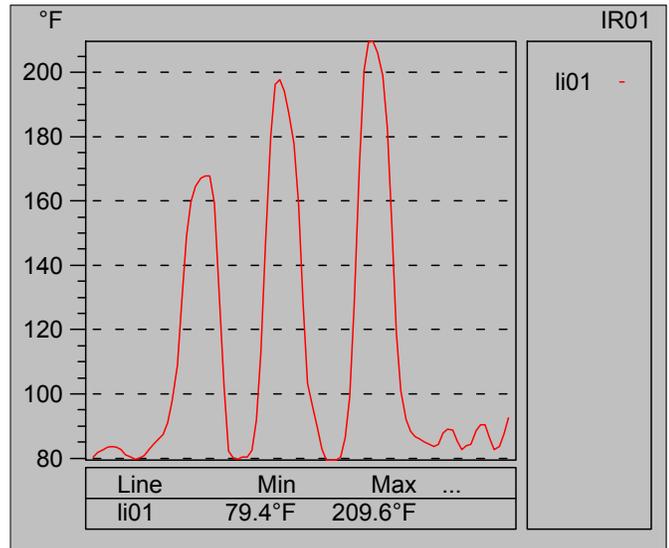
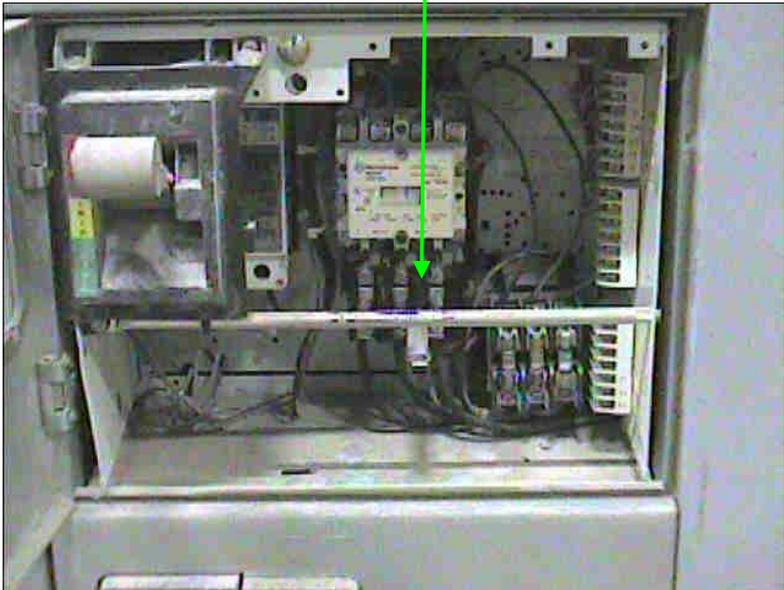




Component	Equipment/Bucket ID	Plant/Area	Date
Heaters	5247 Wet Zone Burner Room Exh Fan N	Board Line 3/MCC-7D1	10/25/19



Label	Value
IR : max	209.6°F
IR : min	67.2°F
SP01	167.1°F
SP02	197.7°F
SP03	209.6°F
LI01 : max	209.6°F
LI01 : min	79.4°F



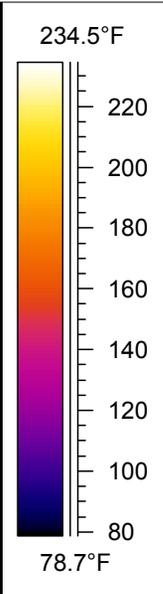
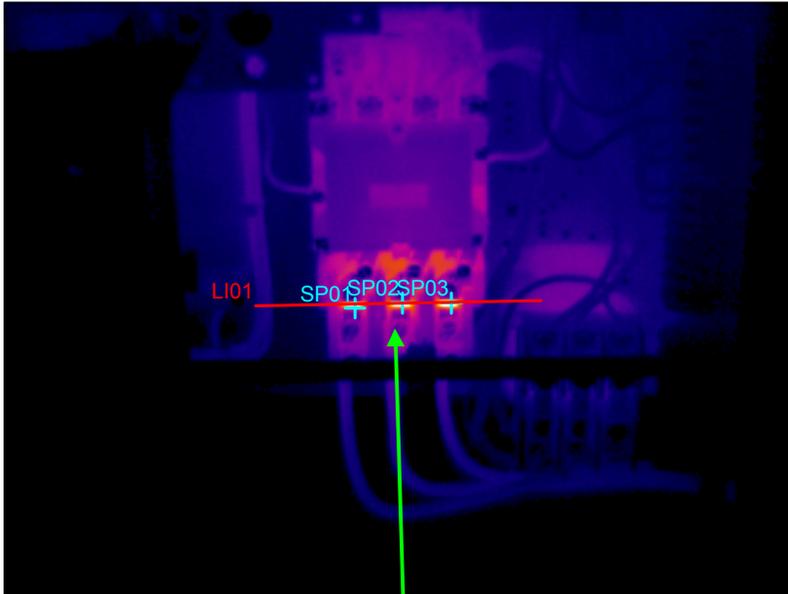
<b>Fault</b>	Heater
<b>Defect Rating</b>	<b>CLASS I</b>

**Recommendation**

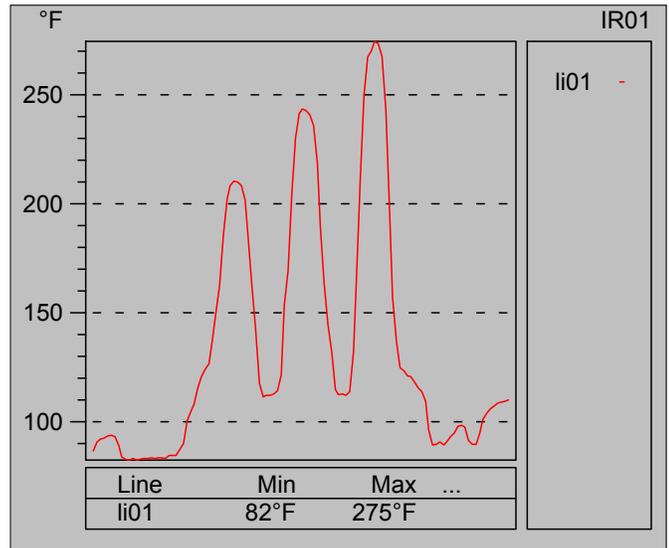
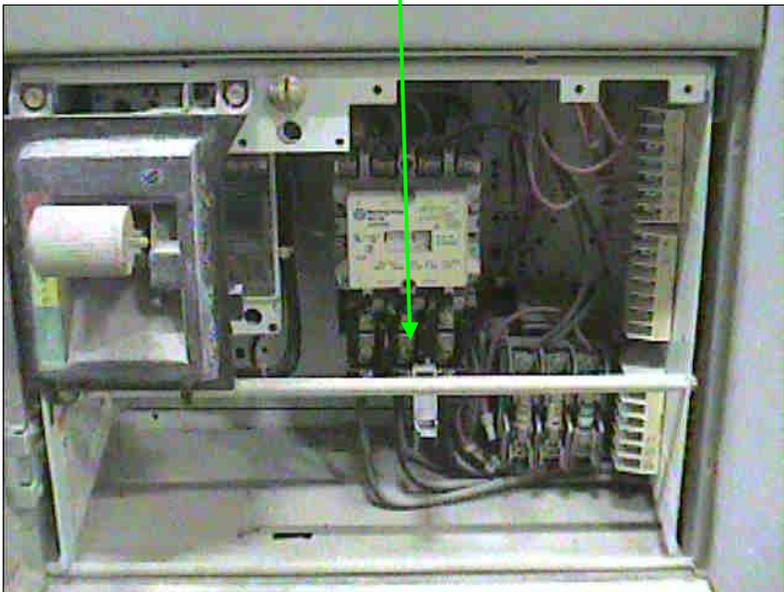
This is a recheck from an ongoing issue with the thermal heaters. Heaters have been replaced and continue to show high temperature at between 160-210 degree F. Ensure that the heaters are properly sized. If heaters are sized right then this may be normal for this type of heater.



Component	Equipment/Bucket ID	Plant/Area	Date
Heater	M5254 Wet Zone Burner Room Exh Fan S	Board Line 3/MCC-7D1	10/25/19



Label	Value
IR : max	275°F
IR : min	66°F
SP01	170°F
SP02	243°F
SP03	274°F
LI01 : max	275°F
LI01 : min	82°F



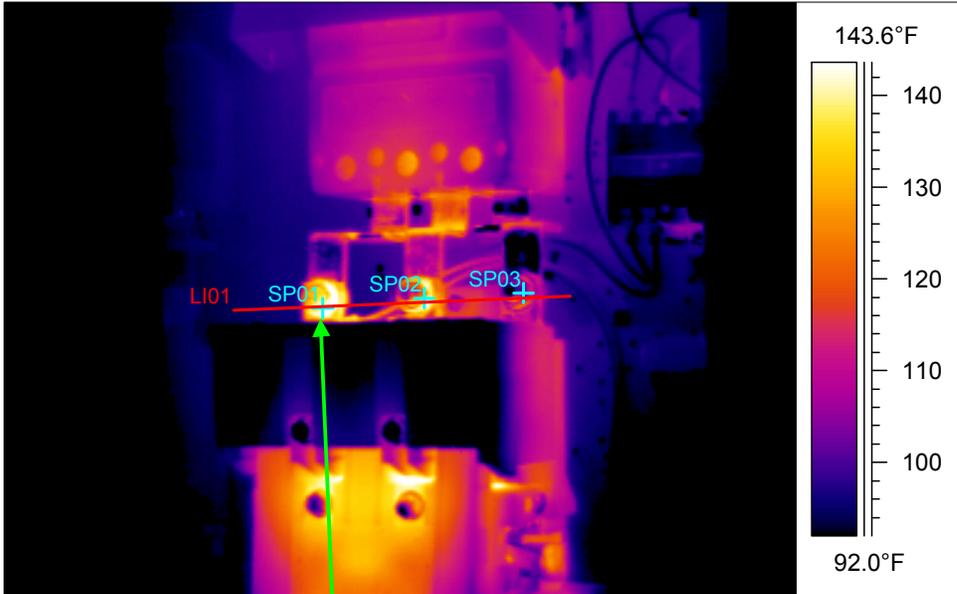
<b>Fault</b>	Heater
<b>Defect Rating</b>	<b>CLASS I</b>

**Recommendation**

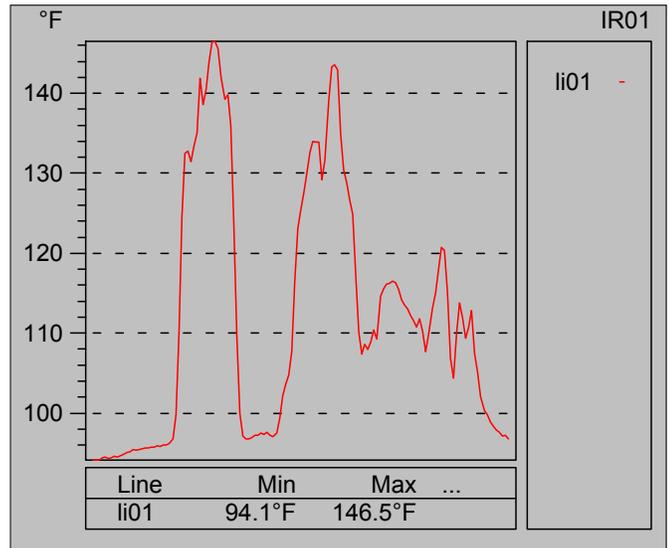
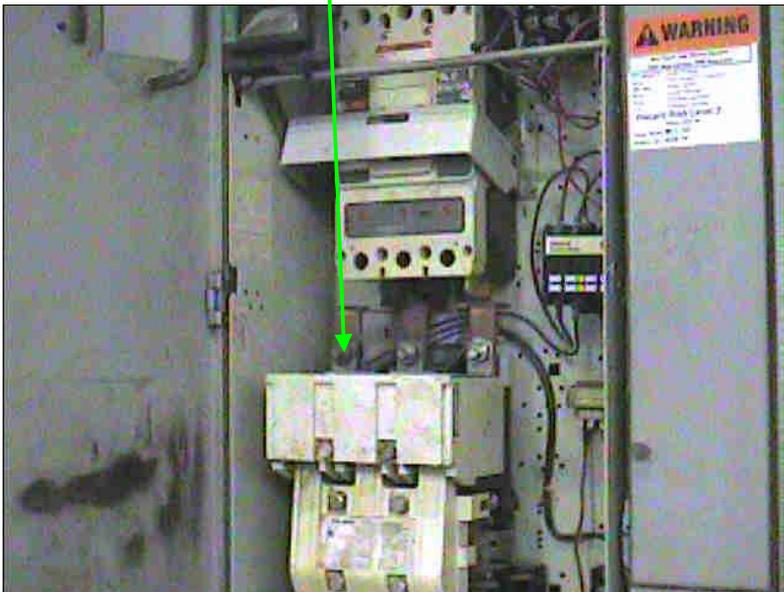
South unit is showing some higher temps than the North unit. This still may be normal for this type of heater. For now, ensure heaters are properly sized.



Component	Equipment/Bucket ID	Plant/Area	Date
Bolted connection	#2 Vacuum Pump	Vacuum Pump 2	10/25/19



Label	Value
IR : max	150.0°F
IR : min	73.0°F
SP01	137.6°F
SP02	131.9°F
SP03	102.1°F
LI01 : max	146.5°F
LI01 : min	94.1°F



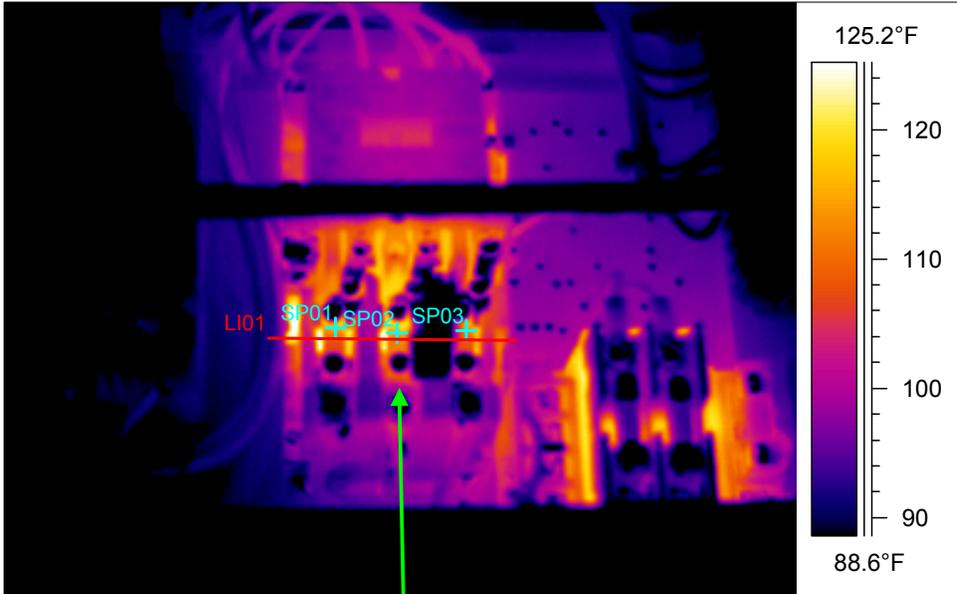
<b>Fault</b>	None
<b>Defect Rating</b>	None

**Recommendation**

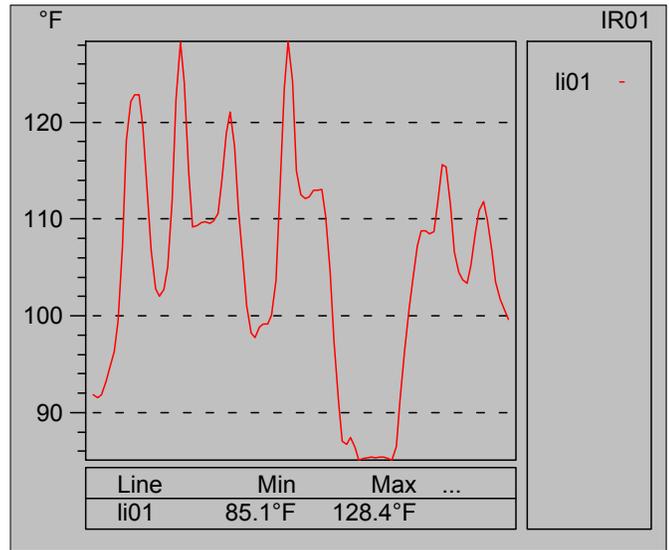
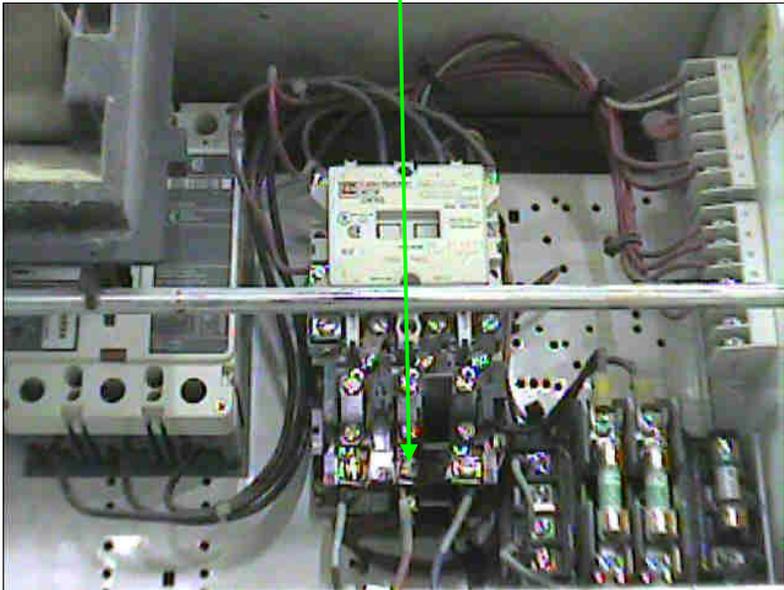
This is a recheck after repairs. Looks like the A phase bolted connection has a dulled finish on the nut as compared to phase 2 and 3. This will make the IR appear to have a higher delta T due to a difference in emissivity. All looks good. No further actions needed at this time.



Component	Equipment/Bucket ID	Plant/Area	Date
Heaters	M5333 IR Comb Fan	MCC-FG2	10/25/19



Label	Value
IR : max	130.2°F
IR : min	70.9°F
SP01	116.3°F
SP02	114.8°F
SP03	112.5°F
LI01 : max	128.4°F
LI01 : min	85.1°F



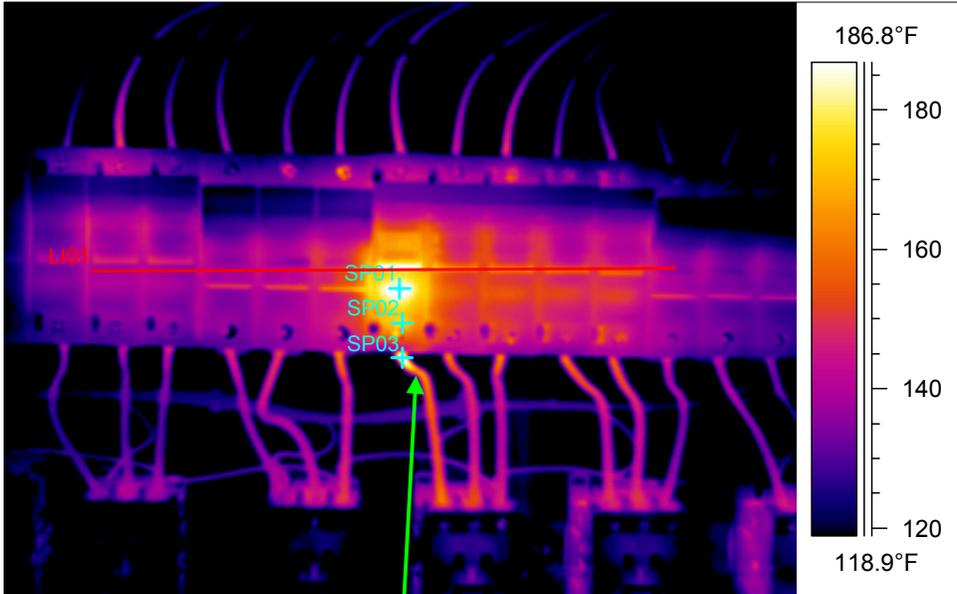
<b>Fault</b>	None
<b>Defect Rating</b>	None

**Recommendation**

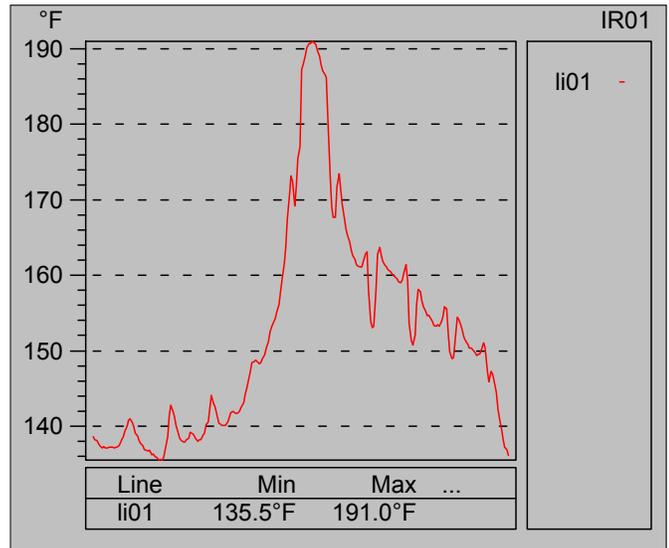
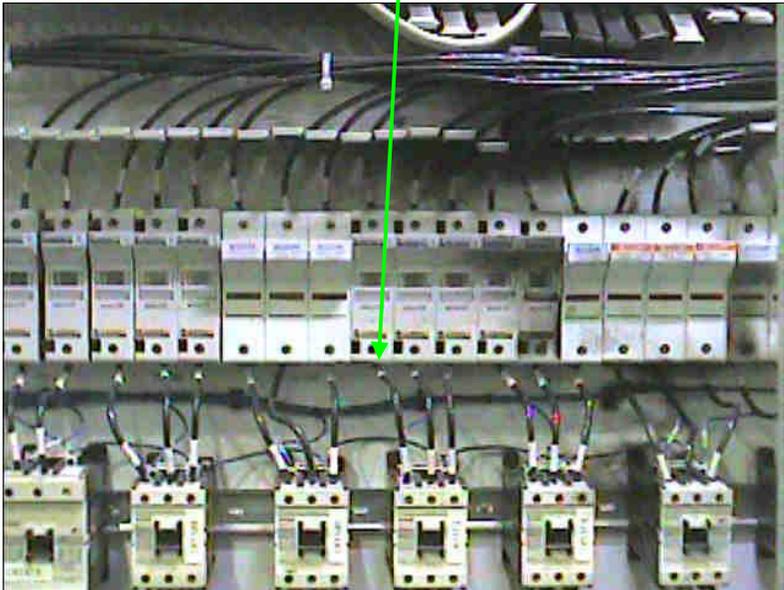
This is a recheck after repairs. All looks good. No further actions are needed.



Component	Equipment/Bucket ID	Plant/Area	Date
Lead connection	VFD12XXFG 1st Pass Paint Heater Panel	Fiberglass	10/25/19



Label	Value
IR : max	202.5°F
IR : min	93.7°F
SP01	189.6°F
SP02	175.6°F
SP03	202.5°F
LI01 : max	191.0°F
LI01 : min	135.5°F



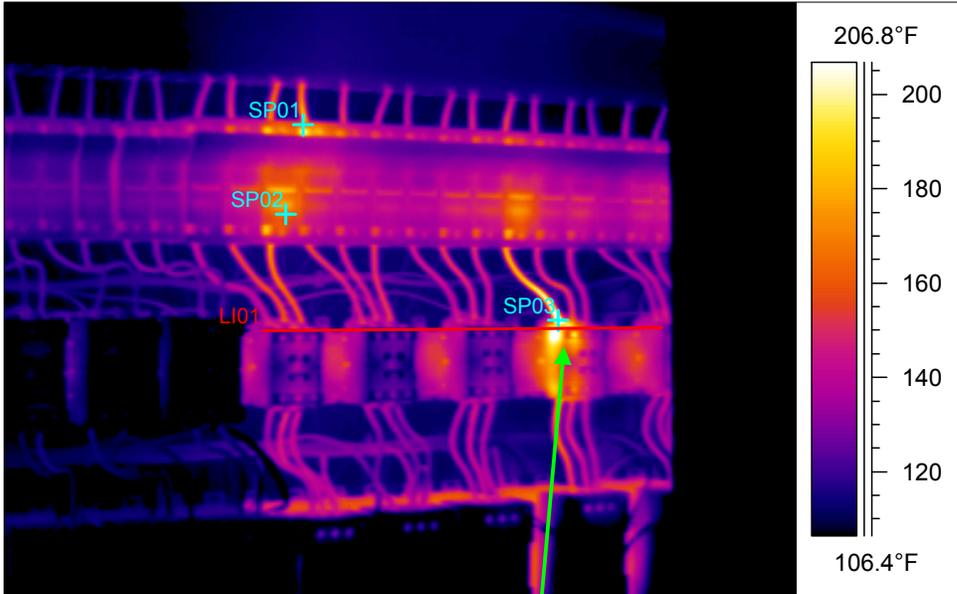
<b>Fault</b>	Possible loose connection
<b>Defect Rating</b>	<b>CLASS II</b>

**Recommendation**

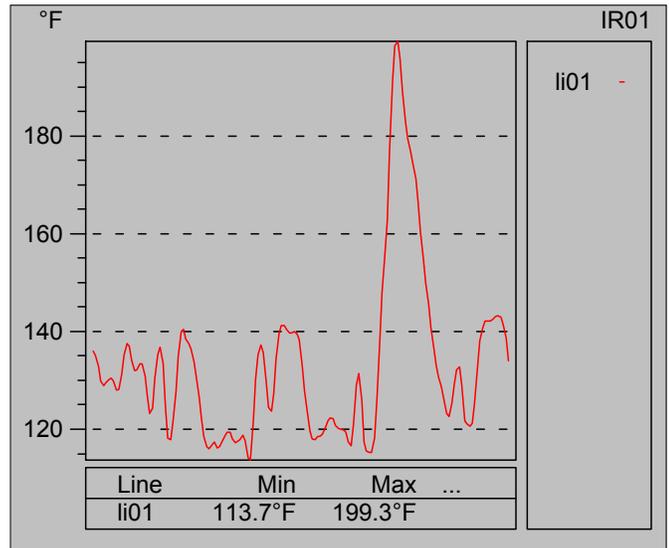
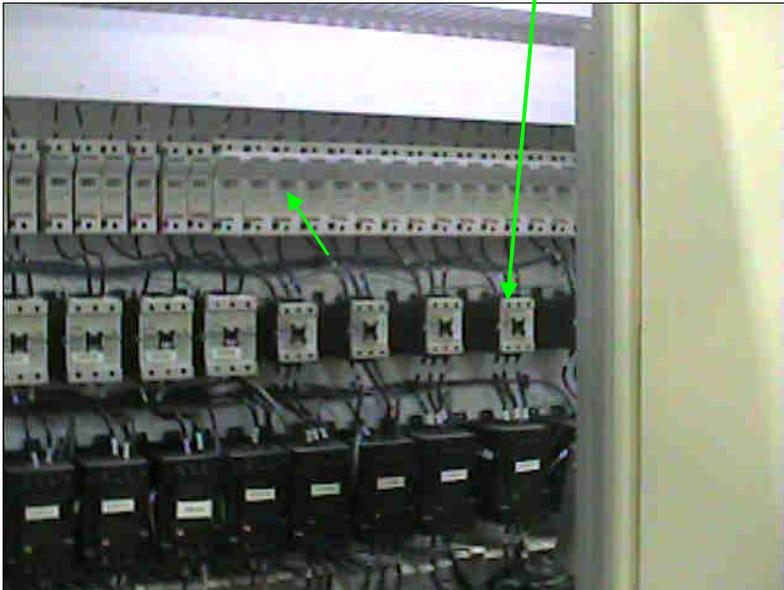
Component with the X marked on it has the issue. Check bottom lead connection SOON.



Component	Equipment/Bucket ID	Plant/Area	Date
CR3012	2nd Pass Paint Heater Panel	Fiberglass	10/25/19



Label	Value
IR : max	235.0°F
IR : min	85.6°F
SP01	165.4°F
SP02	166.4°F
SP03	235.0°F
LI01 : max	199.3°F
LI01 : min	113.7°F



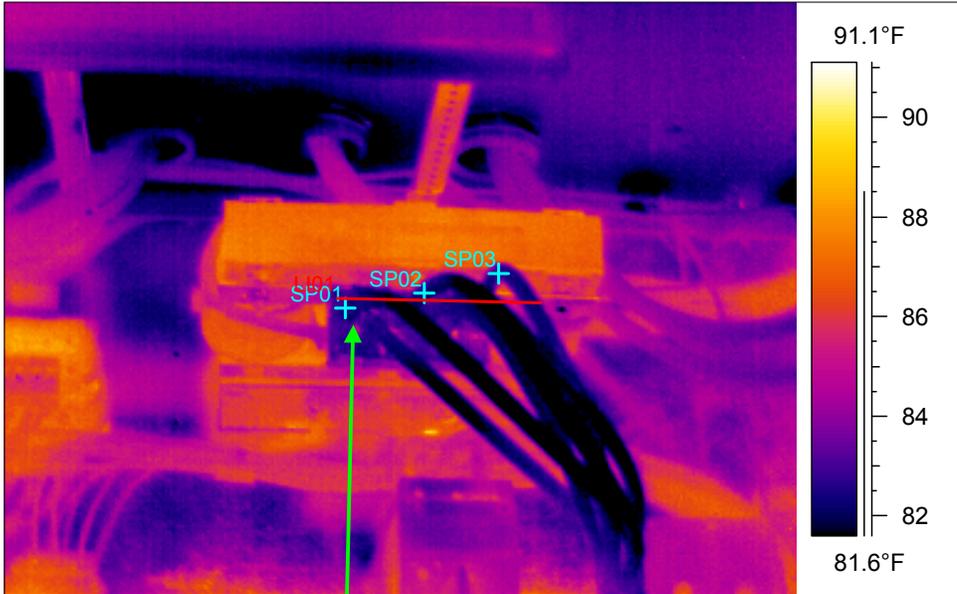
<b>Fault</b>	Possible loose connections
<b>Defect Rating</b>	<b>CLASS II</b>

**Recommendation**

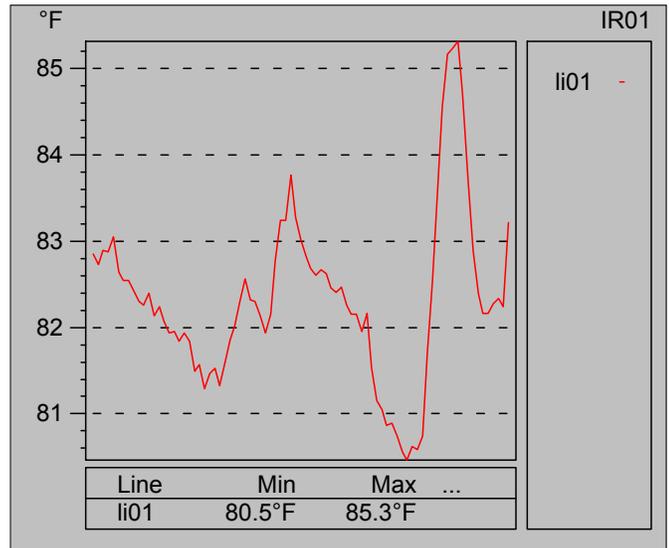
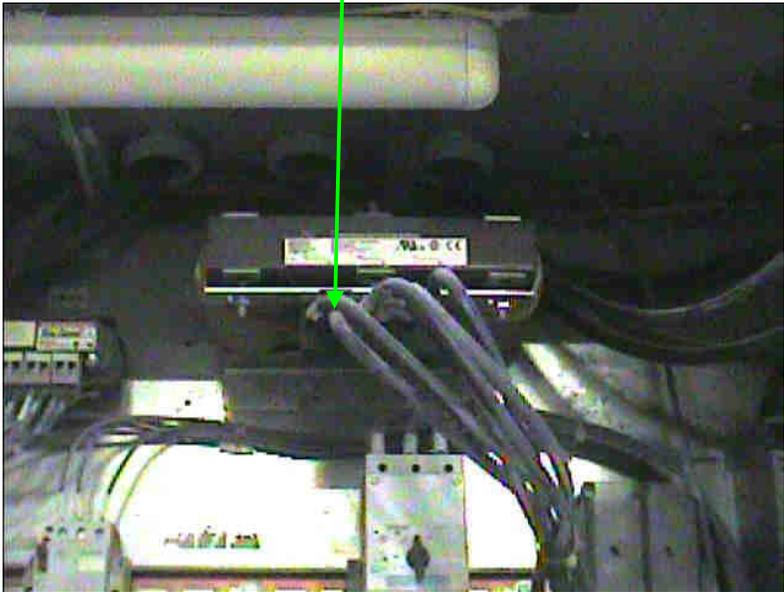
IR image shows connection issue on CR3012. Possible other issue can be seen on component with small arrow. Check connections SOON.



Component	Equipment/Bucket ID	Plant/Area	Date
NA	VFD-PP3 Press Drive System	Finishing	10/25/19



Label	Value
IR : max	89.8°F
IR : min	78.9°F
SP01	82.4°F
SP02	82.0°F
SP03	82.7°F
LI01 : max	85.3°F
LI01 : min	80.5°F



<b>Fault</b>	None
<b>Defect Rating</b>	None

**Recommendation**

Recheck after repairs. All appears to be good. No further actions are needed.