

Infrared Thermography Report

USG Greenville, MS February 2021



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           | Lead/Lug Connection |  |                   |   |
|---------------------|---------------------|--|-------------------|---|
| Equipment/Bucket ID | MCC-7C1             | VFD-HTA Main Power   |                   |   |
| Bx1                 |                     | 159°F  | Sp1<br>Sp2<br>Sp3 | 173.4 °F<br>168.7 °F<br>159.1 °F              |
| Sp1                 |                     |  | Sp4               | 159.1 F<br>152.2 °F                           |
|                     |                     | State of the second sec | Li1 Minimum       | 90.6 °F                                       |
| Li1 Sp3             |                     |  | Li1 Maximum       | 166.6 °F                                      |
|                     |                     |  | Bx1 Minimum       | 84.1 °F                                       |
|                     |                     |  | Bx1 Maximum       | 184.7 °F                                      |
|                     |                     | 82.7°F   |                   |   |
|                     |                     | Label Minimum Maxii<br>Li1 90.57 166.5   |                   | 160<br>150<br>140<br>130<br>120<br>110<br>100 |

| Fault         | Load Imbalance/Loose Connections |  |
|---------------|----------------------------------|--|
| Defect Rating | CLASS I                          |  |

## Recommendations

IR image suggests a possible load imbalance and/or loose connections. Inspect connections and measure current on each phase.



| Component           | Kiln Ducting  |  |  |  |
|---------------------|---|--|--|--|
| Equipment/Bucket ID | Board Line Kiln just above door 10 on right side of Kiln.   |  |  |  |
| Bx1                 | 242°F   \$p1 318.5 °F   Li1 Minimum 106.9 °F   Li1 Maximum 307.2 °F   Bx1 Minimum 88.6 °F   Bx1 Maximum 318.5 °F  |  |  |  |
|                     | Image: Constraint of the second se |  |  |  |
|                     |   |  |  |  |

## Recommendations

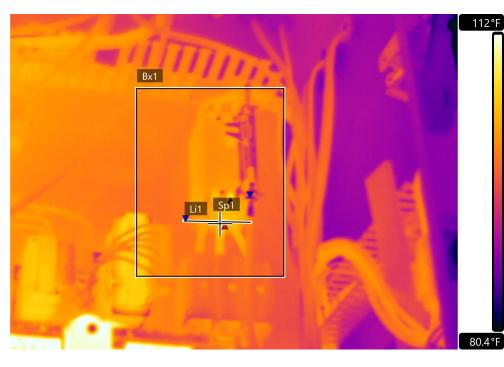
**Defect Rating** 

While performing the electrical IR survey, we decided to scan the kiln. We noticed an extreme amount of heat in the ducting above the kiln. It appears that there is missing or damaged insulation at this area. We recommend inspecting this area during the next down time.

CLASS II



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



| Sp1         | 105.8 °F |
|-------------|----------|
| Li1 Minimum | 99.4 °F  |
| Li1 Maximum | 106.5 °F |
| Bx1 Minimum | 87.5 °F  |
| Bx1 Maximum | 108.7 °F |





| Fault         | None |
|---------------|------|
| Defect Rating | None |

| Recommendations                  |                |  |  |
|----------------------------------|----------------|--|--|
| This is a recheck after repairs. | ssue resolved. |  |  |
|                                  |                |  |  |
|                                  |                |  |  |
|                                  |                |  |  |
|                                  |                |  |  |



## Summary

| Image Date&Time      | Page number |
|----------------------|-------------|
| 2/8/2021 12:40:19 PM | 3           |
| 2/9/2021 8:16:35 AM  | 4           |
| 2/9/2021 8:24:29 AM  | 5           |

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

Thank you for your business,

Kerrin W. Marcuell



ITC Certified Level II Infrared Thermographer

(901) 486-4565

kwilliam@gohispeed.com