Mountain View LLC
Columbus • Lincoln • Omaha • Fort Collins
1-800-456-4264

Sample
Infrared Inspection Report

of the

Your Plant

for

Your Company

Anytown, USA

Report Submitted To:

Plant Manager

Infrared Inspection Performed by:

PMT

ITC Level II

84934759002

Report Date:

3/18/05

This infrared inspection was performed with an Inframetrics PM395 camera.

Mechanical Reliability Solutions

Inspection Summary for

Your Plant

Use the following Priority Levels as a guide when scheduling repairs.

Priority 1- SEVERE/ Immediate Attention

Priority 2- CAUTION/ Schedule Maintenance Action

Priority 3- OBSERVE/ Increased Operational Attention

Priority 4- NORMAL/ Normal Operation

Priority 5- Not In Operation

Disclaimer: The above priority codes are obtained from published standards and should be used with discretion to ensure that ALL company operating standards are met and that ALL company safety requirements are used.

Priority Level	Equipment	Component	Page
1	480 Volt 400 Amp Disconnect	B and C Phase Input on Fuse	3
2	Section Fan	Inboard Bearings	4

PMT Mountain View LLC
(402) 564-9437 (402) 564-9094 fax

Your Company

Anytown, USA
Your Plant
Sample

Operator

PMT
Thermographer
PMT

Image Identification	
Date: 2/7/01	Time 4:24:43 PM
Location: Electrical Room	
Equipment: 480 Volt 400 Amp Disconnect	
Component: B and C Phase Input on Fuse	

1
Repair Code

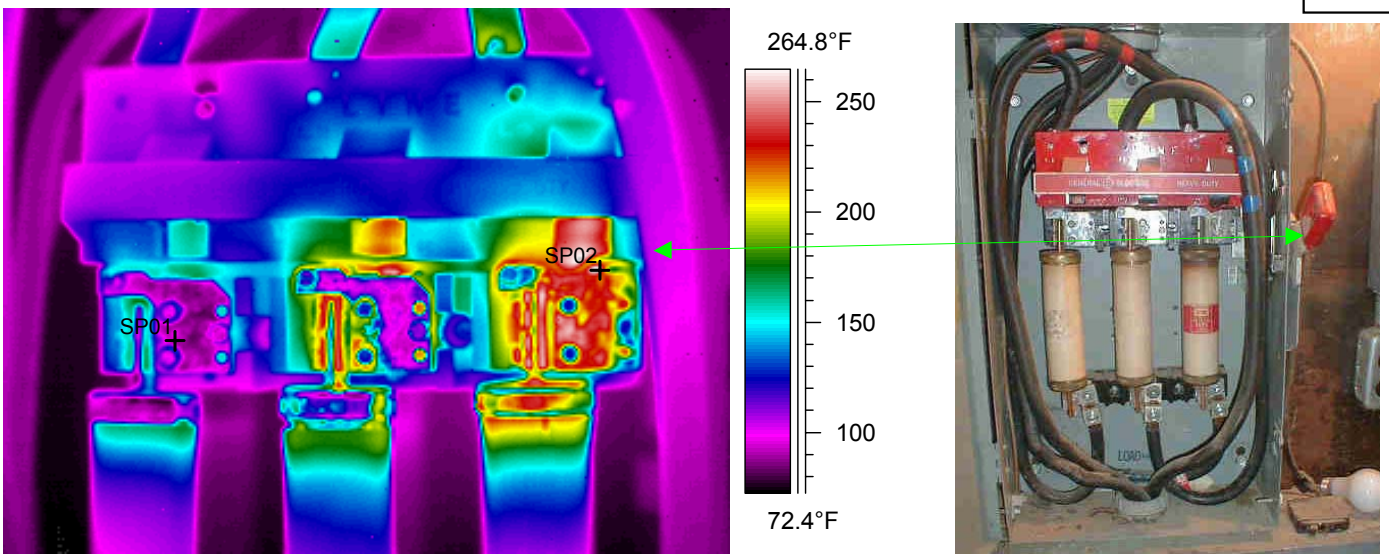


Image Analysis			
SP01	90.4°F	SP01 Rise Above Ambient	9.4
SP02	263.8°F	SP02 Rise Above Ambient	182.8
Panel Temperature	81.0°F	Amperage Rating	600AMPS
Room Temperature	73.4°F	Average Load	A-223 B-220 C-217

Findings/ Recommendations

The fuse clip temperature is of emergency concern. Immediately replace the associated fuse and fuse clips. Inspect the wiring and other fuse block hardware for damage and replace as necessary. Clean and treat for corrosion as appropriate. Have follow-up infrared performed after the repairs.
The temperature is of emergency concern. Due to the level of heating, re-terminate any wiring attached to the connection. Clean any corrosion. Torque the connection in accordance with manufacturer's specifications.

Priority Reference		
Normal	Normal Opertion	1-25 Degree Rise
Observe	Minor Issues- Repair as necessary	25-50 Degree Rise
Caution	Intermediate Issue- Schedule Repair ASAP	50-100 Degree Rise
Severe	Emergency Issue- REPAIR IMMEIATELY	> 100 Degree Rise

PMT Mountain View LLC
(402) 564-9437 (402) 564-9094 fax

Your Company

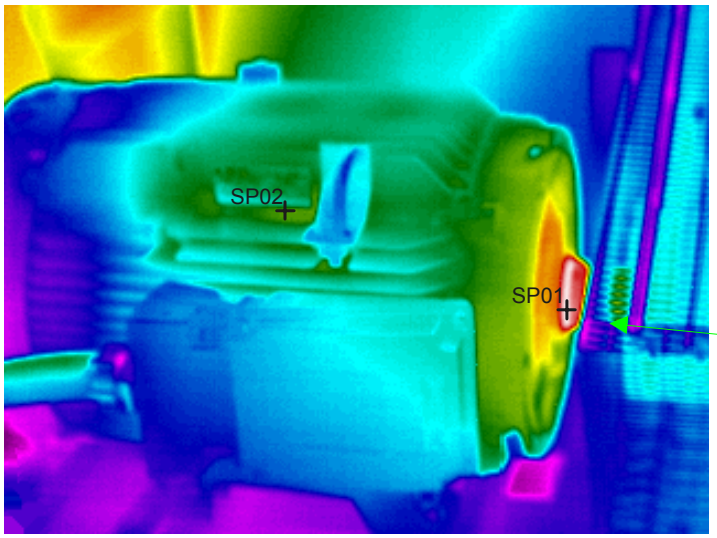
Anytown, USA
Your Plant
Sample

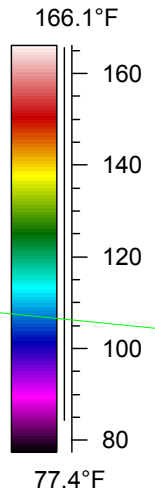
Operator

PMT
Thermographer
PMT

Image Identification	
Location	South Side of Plant
Equipment	Section Fan
Fault	Drive end Beairng Overheating due to Sheave Misalignment

2
Repair Code





Analysis Results	Value
Spot- SP01	166.4°F
Spot SP02	128.8°F
SP01 Rise above Ambient	82.4
SP02 Rise above Ambient	44.8

Image Information	Value
Date Image Acquired	4/27/01
Time Image Acquired	1:32:03 PM
Emissivity	0.92
Room Ambient Temperature	84.0°F

Findings/ Recommendations

The sheave and belt heating indicates a sheave/ pulley alignment issue. Within the month, replace the belts and inspect the pulley/ sheaves for wear. Replace as necessary. Perform a laser alignment on pulleys/sheaves, and use a tension gauge to set the belt tension.

Work Order No. _____ **Repair Date**_____ **Repair Tech** _____

Repairs Made/Comments- _____

Predictive Maintenance Technologies

PRIORITY LEVEL EXPLANATION

PRIORITY LEVEL 1 - SEVERE

Electrical Infrared

The connection or component has a temperature rise that is 100°F or more above the ambient temperature or adjacent phase. This is an immediate to emergency issue. Fires and melting can occur at this level. Maintenance actions are recommended prior to further equipment operation. **Repairs are costly and usually require replacement of parts or portions of the equipment to achieve proper repair and operation**.

Mechanical Infrared

Equipment at this level requires immediate maintenance actions. Operating at this level will cause a catastrophic failure. The actual temperature at this level will vary between a 100°F to 250°F rise above the ambient temperature. (This temperature variance is due to equipment type, operating speed, equipment size, and proximity of the temperature reading to the actual heating source). **Repairs are costly and usually require replacement of parts or portions of the equipment to achieve proper repair and operation**.

PRIORITY LEVEL 2 - CAUTION

Electrical Infrared

A temperature rise of 50-99°F above ambient temperature or the adjacent phase constitutes this priority level. This is a serious to moderate issue. At this level, maintenance actions should be performed at the earliest available opportunity, within the given time guidelines. **Repairs may require replacing the associated parts. Extended operation at this level will increase the likelihood of a rapid increase in the temperature, if environmental or operational conditions change**.

Mechanical Infrared

Maintenance actions on equipment at this level should be performed at the earliest opportunity within the given time guidelines. The temperatures at this level will vary between a 40°F to 200°F rise above the ambient temperature. (This temperature variance is due to equipment type, operating speed, equipment size, and proximity of the temperature reading to the actual heating source). Prolonged operation at the level will greatly reduce the equipment life span (generally in the term of years). Some circumstances will require further investigation with another reliability technology to determine the exact issue and proper repair recommendations. **At this level, most maintenance actions are generally corrective and less expensive**.

Predictive Maintenance Technologies

PRIORITY LEVEL EXPLANATION

PRIORITY LEVEL 3 - OBSERVE

Electrical Infrared

A temperature rise of up to 50°F above the ambient temperature or adjacent phases constitutes this priority code. This is the earliest sign of a fault. **Maintenance actions on these faults are required for low voltage equipment and at the regular preventative maintenance intervals for higher voltage equipment**.

Mechanical Infrared

This is an early warning for increases in temperature. The allow difference above ambient temperature varies greatly due to equipment type, operating speed, equipment size, and proximity of the temperature reading to the actual heating source. **This level does not require repairs, but the equipment needs increased observation. Changes in vibration, noise, or temperature will require further trending and sometimes more in-depth analysis to determine the appropriate maintenance action**.

PRIORITY LEVEL 4 – Normal Operation

Vibration, Electrical Infrared, Mechanical Infrared, & Emax™- Online Motor Circuit Analysis

For all technologies listed, this means that the levels are within acceptable parameters for the associated test results. No action or repairs are necessary at this stage. Continue to monitor the equipment on the regular basis to watch for any new faults that may develop.