



*Infrared Inspection Services Since 1989*

Power Generation/Distribution ♦ Manufacturing  
Roof Inspection ♦ Thermal Insulation/Refractory

**INFRARED INSPECTION REPORT SUMMARY**

CUSTOMER NAME	
Steel Casting Plant 1234 Main Street Anytown, USA 12345	

DATE OF INSPECTION	July 12 through 14, 2011
INSPECTION PERFORMED BY	John Woska
ASSISTANCE PROVIDED BY	Vince of Scantek
SUGGESTED FOLLOW UP INSPECTION PERIOD	Three to Six Months

PRIORITY SUMMARY		
The following is a brief summary on the amount of priorities found and their definitions		
PRIORITY LEVEL	QUANTITY	DEFINITION
<b>PRIORITY 1</b>	<b>17</b>	<b>REQUIRES IMMEDIATE ACTION</b>
<b>PRIORITY 2</b>	<b>8</b>	<b>REPAIR AS SCHEDULE PERMITS</b>
<b>PRIORITY 3</b>	<b>1</b>	<b>NEEDS ATTENTION</b>

FIELD TECHNICIAN'S COMMENTS
Problems No.4 and No.5 show cabinet heater failures in the North15kV Metalclad Switchgear and Utility Metalclad Switchgear. The importance of failed cabinet heaters should not be taken lightly as the results of unchecked moisture within this gear can be catastrophic to the gear itself, production, and the safety of plant personnel. Cabinet heaters and heater strips should be inspected and repaired on a priority basis. Investigate possibility of installing amperage meters on high voltage switchgear bay heaters for easy visual reference of heater operation.

GENERAL COMMENTS SUMMARY
Cleaning and tightening is the most common suggestion. It is important to note, in order to effectively carry out this recommendation, all affected components should be completely cleaned of all oxidation before reassembly and tightening.
Often times we recommend replacement of affected fuse clips. After a fuse clip experiences overheating it loses it's annealing and tension properties which will cause it to constantly show up as a problem during subsequent scans. All fuse clips should be cleaned with emery paper or a Scotch Brite Pad to remove all oxidation and corrosion.
Scantek further recommends following Manufacturer recommendations for annual exercising of large breakers, disconnects and GFI systems.
Customized equipment lists; If your report contains a customized equipment list, then please note the following; All items not inspected will be marked as, "not scanned" in the column next to the item. Any items that have problems reported will have the problem number recorded in the column next to the item. Unless otherwise stated all items contained in your customized equipment list have been inspected. If you do not have a customized equipment list and would like one in your next report, contact Vincent Woska at 800-875-7226.
We enjoy working with your company and look forward to a long working relationship. If you have any questions please don't hesitate to call us at 1-800-875-SCAN or E-MAIL <a href="mailto:scntekir@msn.com">scntekir@msn.com</a> Thanks again for choosing Scantek Infrared Services Division.

**PREVIOUS REPORT SUMMARY**

The following is a brief outline of the problems reinspected from the August 2010 report:

PREVIOUS PROBLEM NO.	RESULTS / COMMENTS	NEW PROBLEM NO.
1	UNCHANGED / SEE PROBLEM NO.1 IN THIS REPORT	NO.1
2	CORRECTED	
3	CORRECTED	
4	IMPROVED / SEE PROBLEM NO.7 IN THIS REPORT	NO.7
5	UNCHANGED / SEE PROBLEM NO.17 IN THIS REPORT	NO.17
6	CORRECTED / NEW PROBLEM, SEE NO.11 IN THIS REPORT	NO.11
7	CORRECTED	
8	CORRECTED	
9	IMPROVED / SEE PROBLEM NO.20 IN THIS REPORT	NO.20
10	WORSE / SEE PROBLEM NO.21 IN THIS REPORT	NO.21
11	UNCHANGED / SEE PROBLEM NO.12 IN THIS REPORT	NO.12
12	UNCHANGED / SEE PROBLEM NO.26 IN THIS REPORT	NO.26
13	UNCHANGED / SEE PROBLEM NO.25 IN THIS REPORT	NO.25
14	CORRECTED	
15	CORRECTED / AT ONLY 14A LOADING	

**EFFECTIVE REPAIR REVIEW (ERR) GENERAL OVERVIEW**

The effective repair review (ERR) was created by Scantek Infrared Services as a service enhancement for our regular customers. We provide the following review to help evaluate the general effectiveness of your corrective action program as it relates to previous reports provide by our firm.

In comparison between the report provided for the August 2010 inspection and the report from the present inspection, the following ERR is reported:

ACTION	COUNT	ERR %
Problems effectively repaired:	7	47%
Problems improved but not repaired:	2	13%
Problems <u>not</u> effectively repaired:	6	40%
Problems not in service at time of inspection:	0	0%
Problems not re-scanned:	0	0%
Problems removed from service:	0	0%

INFRARED EQUIPMENT SUMMARY		
LOCATION	EQUIPMENT	PROBLEM NO.
<b>Foundry Building</b>		
Outside, East Property Line	Utility Substation	
	Utility Metalclad Switchgear	<b>No.5 (Priority 1)</b> <b>NOTE:</b> Ultrasound inspected
	North 15kV Metalclad Switchgear	<b>No.1 (Priority 1)</b> <b>No.2 (Priority 1)</b> <b>No.3 (Priority 2)</b> <b>No.4 (Priority 1)</b> <b>NOTE:</b> Ultrasound inspected
	(4) Power Poles	<b>No.6 (Priority 1)</b>
	North 500kVA Substation & Transformer	<b>NOTE:</b> Ultrasound inspected
Outside, East Side	South 1500kVA Substation	<b>NOTE:</b> Ultrasound inspected
	Metalclad Switchgear & Transformer	<b>NOTE:</b> Ultrasound inspected
	Induction Furnace Dust Collector 200A Disconnect	<b>No.7 (Priority 2)</b> <b>No.8 (Priority 1)</b>
	No.3 Dust Collector 200A Disconnect	<b>No.11 (Priority 1)</b>
	No.2 Dust Collector 100A Disconnect	<b>No.12 (Priority 2)</b>
	No.1 Dust Collector 200A Disconnect	
	Arc Furnace Transformer Room Fan Disconnect	
	No.4 Bag House 200A Disconnect	
	No.4 Bag House Control Cabinet	
	No.5 Bag House Motor Leads	<b>No.18 (Priority 1)</b>
	No.5 Bag House 400A Disconnect	
	No.5 Bag House Starter Cabinet	
	(3) Small Disconnects	
Outside, West Side	No.9 Dust Collector 200A Disconnect	<b>NOTE:</b> Motor belts very noisy
	No.9 Dust Collector Motor Control Cabinet	
Outside, South End	South 100hp Air Compressor Control Cabinet	
	South 100hp Air Compressor 200A Disconnect	
	No.7 Dust Collector 60A Disconnect	<b>No.10 (Priority 1)</b>
South Cooling Tower	Shell Fan Motor Control Cabinet	<b>NOTE:</b> Not in service at time of inspection

<u>LOCATION</u>	<u>EQUIPMENT</u>	<u>PROBLEM NO.</u>
	Unlabeled 200A Disconnect	
	Small Unlabeled Motor Control Cabinet	
	Large Unlabeled Motor Control Cabinet	
	500kVA Transformer	<b>NOTE:</b> Ultrasound inspected
	Areva 1650kVA Transformer	<b>No.26 (Priority 1)</b> <b>NOTE:</b> Ultrasound inspected
	Unlabeled 400A Fused Disconnect (Top Lugs Only)	<b>No.9 (Priority 3)</b>
Arc Furnace Transformer Room	Arc Furnace Transformer	
	Three Phase Fuse Set	<b>No.17 (Priority 2)</b>
	Vacuum Bottle Interrupter	
Oven Area	(5) 100A Disconnects	<b>No.20 (Priority 2)</b> <b>No.21 (Priority 1)</b>
	Oven Area Panelboard	
	No.1 Pump Motor Control Cabinet	
	No.2 Pump Motor Control Cabinet	
	No.3 Pump Motor Control Cabinet	
	No.4 Pump Motor Control Cabinet	
	(3) 60A Disconnects	
	Cooling Tower Pump Motor Control Cabinet & 60A Disconnect	
Oven Shack	Side Mounted 200A Disconnect	
	Oven Motor Control Cabinet	<b>No.22 (Priority 1)</b>
Kwic Arc Area	No.6 Kwic Ark 200A Disconnect	<b>NOTE:</b> Not scanned <b>NOTE:</b> Carbon dust present
	No.5 Kwic Ark 200A Disconnect	<b>NOTE:</b> Not scanned <b>NOTE:</b> Carbon dust present
	No.4 Kwic Ark 200A Disconnect	<b>NOTE:</b> Not scanned <b>NOTE:</b> Carbon dust present
	No.3 Kwic Ark 200A Disconnect	<b>NOTE:</b> Not scanned <b>NOTE:</b> Carbon dust present
	No.2 Kwic Ark 200A Disconnect	<b>NOTE:</b> Not scanned <b>NOTE:</b> Carbon dust present

<u>LOCATION</u>	<u>EQUIPMENT</u>	<u>PROBLEM NO.</u>
	No.1 Kwic Ark 200A Disconnect	<b>NOTE:</b> Not scanned <b>NOTE:</b> Carbon dust present
	Left Distribution Breaker Panel	
	Right Distribution Panelboard	
Slab Area	2000kVA Transformer	<b>NOTE:</b> Ultrasound inspected
	3000A Distribution Load Center	
	Old Unlabeled Transformer	<b>No.16 (Priority 2)</b>
	2500A Distribution Load Center	<b>NOTE:</b> Majority of hardware missing
Air Compressor Area	Inside 400A Disconnect For Kwic Arc Air Compressor	<b>No.23 (Priority 2)</b>
	Kwic Arc Air Compressor Control Cabinet	
	No.7 Kwic Arc 200A Disconnect	
	No.200 Air Compressor 400A Disconnect	
	No.200 Air Compressor Control Cabinet	<b>No.14 (Priority 1)</b>
	No.01 Air Compressor	
	No.6601 Dust Collector Motor Control Cabinet	
	No.6601 Dust Collector 400A Disconnect	
Outside Air Compressor Area By Break Room	South 200hp Air Compressor Control Cabinet	
	South 200hp Air Compressor 400A Disconnect	<b>No.15 (Priority 1)</b>
	South 300hp Air Compressor Control Cabinet	
	South 300hp Air Compressor 600A Disconnect	
Above Break Room	Square D Substation	
	1500kVA Transformer	<b>NOTE:</b> Ultrasound inspected
	2500 Distribution Load Center	
By Break Room	No.1 Breaker Panel	<b>NOTE:</b> Not opened for direct inspection
	No.2 Breaker Panel	<b>NOTE:</b> Not opened for direct inspection
	No.3 Breaker Panel	<b>NOTE:</b> Not opened for direct inspection
	No.4 Breaker Panel	<b>No.13 (Priority 1)</b>
	Junction Box	
Arc Pump Room	(4) Motor Control Cabinets	

<u>LOCATION</u>	<u>EQUIPMENT</u>	<u>PROBLEM NO.</u>
	Unlabeled 600A Disconnect	
	Unlabeled Soft Start Cabinet	<b>No.19 (Priority 2)</b>
"Dash" Control Room	No.2131 Dash Control Cabinet	
	No.2130 Dash Control Cabinet	
	No.2132 Control Cabinet	
	Unlabeled 125A Breaker Panel	
	Small Unlabeled Breaker Panel	
Upgrade Area	No.8 Breaker Panel	<b>NOTE:</b> Not opened for direct inspection
	Left 480V Breaker Panel	<b>NOTE:</b> Not opened for direct inspection
	Right 480V Breaker Panel	<b>NOTE:</b> Not opened for direct inspection
<b><u>Stone Building</u></b>		
Outside, West Corner	Northwest Ingersoll Rand Air Compressor Control Cabinet & 400A Disconnect	<b>No.25 (Priority 1)</b>
	Power Pole Service Drop	<b>No.24 (Priority 1)</b>
	Ingersoll Rand Dryer Control Cabinet	
	Southwest Air Compressor Control Cabinet	
Outside, South End	South Power Pole Service Drop	
West Wall	Ultravar Capacitor Enclosure	<b>NOTE:</b> Display inoperable
	3000A Distribution Load Center	
North Wall	Air Compressor 400A Disconnect	<b>NOTE:</b> Not in service at time of inspection
	Unlabeled 400A Disconnect	
	Unlabeled 200A Breaker Panel	
	"D" 800A Distribution Breaker Panel	
	Unlabeled Motor Control Cabinet	
	Unlabeled 200A Breaker Panel	
Boiler Room	Ingersoll Rand Air Compressor Control Cabinet	
	600A Disconnect	
	No.230 100A Breaker Panel	
	No.229 400A Breaker Panel	
	"E" Distribution Breaker Panel	
	Junction Box	

<u>LOCATION</u>	<u>EQUIPMENT</u>	<u>PROBLEM NO.</u>
	Ingersoll Rand Dryer Control Cabinet	
	Dryer 60A Disconnect	
North Wall	No.6620 Blaster Control Cabinet	
Finish Department, Between Cells No.5 & No.6	"C" 800A Distribution Breaker Panel	
	No.LP-1C 100A Breaker Panel	
	No.RP-1C 200A Breaker Panel	
Finish Department, Between Cells No.3 & No.4	"B" 800A Distribution Breaker Panel	
	Unlabeled 100A Breaker Panel	
	Unlabeled 200A Breaker Panel	
Finish Department, Between Cells No.1 & No.2	"A" 800A Distribution Breaker Panel	
	Unlabeled 200A Breaker Panel	
	Unlabeled 100A Breaker Panel	
South Wall	No.107 250A Breaker Panel	
Southwest Air Compressor Room	(2) 600A Air Compressor Disconnects	
	(2) Air Compressor Control Cabinets	
Upstairs	Unlabeled "Orange" 1600A Distribution Load Center	<b>NOTE:</b> Main switch not opened for direct inspection: interlock

# THERMOGRAPHIC REPORT

**LOCATION** : Outside of Foundry Building, East Property Line

**EQUIPMENT** : North 15kV Metalclad Switchgear, Second and Third Doors From East, Main Switchgear Bay (Rear View)

**PROBLEM** : Visual signs of previous corona tracking. All insulators and buss are extremely dirty.  
**NOTE:** Previous problem No.1 from report dated August 2010

**COMMENTS** : Recommend complete switchgear cleaning

**DATE & TIME** : 7/12/11 @ 12:19PM



PROBLEM NO.1



## PRIORITY:

- NEEDS IMMEDIATE ACTION
- REPAIR AS SCHEDULE PERMITS
- NEEDS ATTENTION

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# THERMOGRAPHIC REPORT

**LOCATION** : Outside of Foundry Building, East Property Line

**EQUIPMENT** : North 15kV Metalclad Switchgear, East Door, Main Incoming Conductor Set (Rear View)

**PROBLEM** : All three concentric ground bleed straps blown in half at conductor stress cone connection areas

**COMMENTS** : Address as required

**DATE & TIME** : 7/12/11 @ 12:20PM



PROBLEM NO.2

**VISUAL PROBLEM  
NO  
THERMOGRAPH  
AVAILABLE**

## PRIORITY:

- NEEDS IMMEDIATE ACTION
- REPAIR AS SCHEDULE PERMITS
- NEEDS ATTENTION

**SCANTEK IR  
SERVICES**

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# THERMOGRAPHIC REPORT

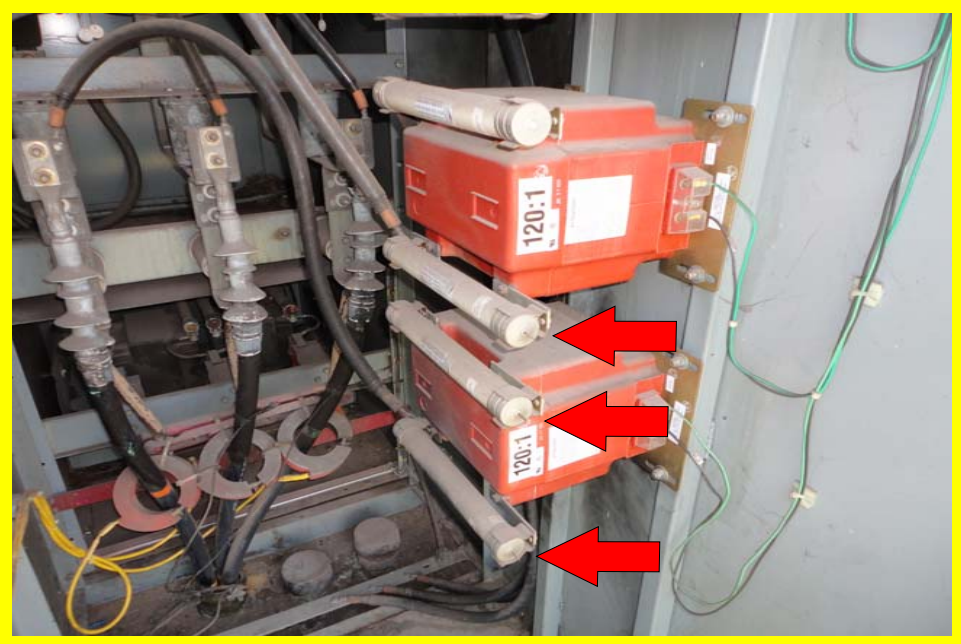
**LOCATION** : Outside of Foundry Building, East Property Line

**EQUIPMENT** : North 15kV Metalclad Switchgear, East Door, Rear Mounted Potential Transformer Set (Rear View)

**PROBLEM** : "Blown Fuse" indicators on bottom three fuses

**COMMENTS** : Address as required

**DATE & TIME** : 7/12/11 @ 12:59PM



PROBLEM NO.3

**VISUAL PROBLEM  
NO  
THERMOGRAPH  
AVAILABLE**

## PRIORITY:

- NEEDS IMMEDIATE ACTION
- REPAIR AS SCHEDULE PERMITS
- NEEDS ATTENTION

**SCANTEK IR  
SERVICES**

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# THERMOGRAPHIC REPORT

**LOCATION** : Outside of Foundry Building, East Property Line

**EQUIPMENT** : North 15kV Metalclad Switchgear, West Adjacent Metalclad Switchgear For "500kVA & 1500kVA Outside Shell Shop"

**PROBLEM** : Top Photograph: Cabinet heater inoperable.  
Bottom Photograph: Control power fuse in 30A disconnect appears operational.  
**NOTE:** See technician's comments

**COMMENTS** : Investigate reason for non-operation; correct as required

**DATE & TIME** : 7/12/11 @ 1:05PM



PROBLEM NO.4



**PRIORITY:**

- NEEDS IMMEDIATE ACTION
- REPAIR AS SCHEDULE PERMITS
- NEEDS ATTENTION

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# THERMOGRAPHIC REPORT

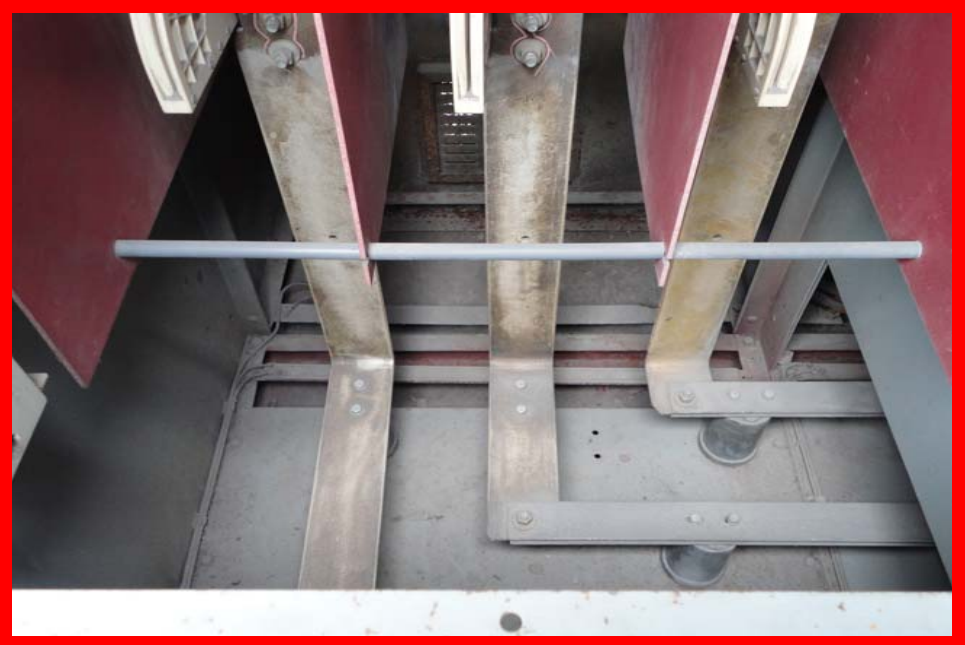
**LOCATION** : Outside of Foundry Building, East Property Line

**EQUIPMENT** : Utility Metalclad Switchgear, Center Bay, Bottom Heater Strip

**PROBLEM** : Heater strip inoperable. Heaters inoperable in adjacent bays  
**NOTE:** See technician's comments

**COMMENTS** : Investigate reason for non-operation; correct as required

**DATE & TIME** : 7/12/11 @ 1:24PM



PROBLEM NO.5

**VISUAL PROBLEM  
NO  
THERMOGRAPH  
AVAILABLE**

## PRIORITY:

- NEEDS IMMEDIATE ACTION
- REPAIR AS SCHEDULE PERMITS
- NEEDS ATTENTION

**SCANTEK IR  
SERVICES**

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# THERMOGRAPHIC REPORT

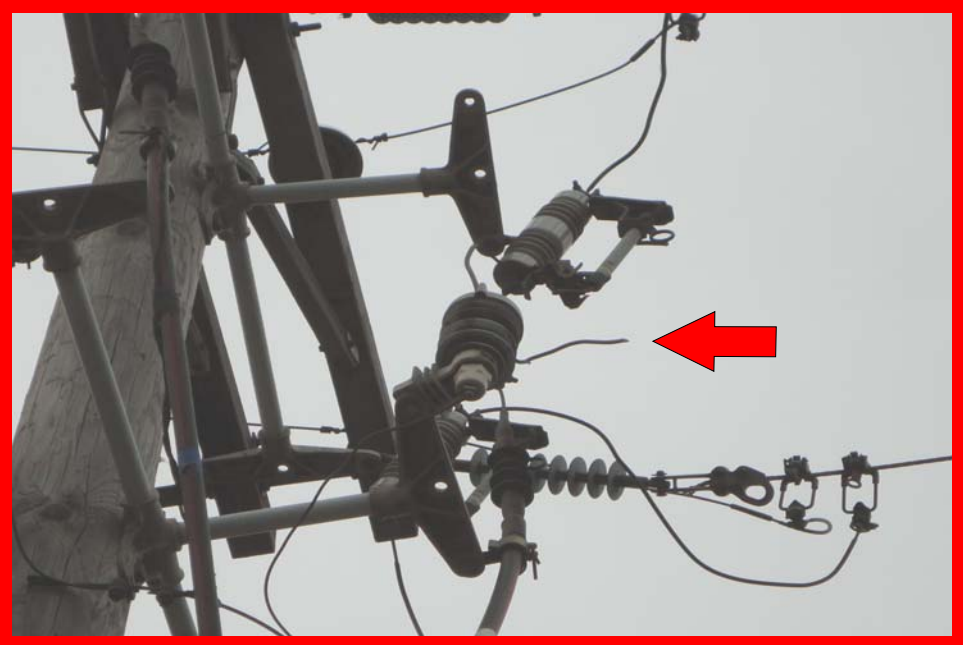
**LOCATION** : Outside of Foundry Building, East Property Line

**EQUIPMENT** : Northwest Power Pole Service Drop, Lighting Arrestor Set, Center  $\emptyset$  Arrestor

**PROBLEM** : Top arrestor conductor severed from buss; compromising protection

**COMMENTS** : Contact local utility company to address as required

**DATE & TIME** : 7/12/11 @ 1:39PM



PROBLEM NO.6

**VISUAL PROBLEM  
NO  
THERMOGRAPH  
AVAILABLE**

## PRIORITY:

- NEEDS IMMEDIATE ACTION
- REPAIR AS SCHEDULE PERMITS
- NEEDS ATTENTION

**SCANTEK IR  
SERVICES**

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# THERMOGRAPHIC REPORT

**LOCATION** : Outside of Foundry Building, East Side

**EQUIPMENT** : Induction Furnace Dust Collector 200A Fused Disconnect

**PROBLEM** : Line side, center  $\varnothing$  conductor lug connection area showing a 57°F rise over adjacent phases at 111A loading.  
**NOTE:** Previous problem No.4 from report dated August 2010

**COMMENTS** : Rebuild or replace entire disconnect

**DATE & TIME** : 7/13/11 @ 8:02AM



PROBLEM NO.7



**PRIORITY:**

- NEEDS IMMEDIATE ACTION
- REPAIR AS SCHEDULE PERMITS
- NEEDS ATTENTION

**SCANTEK IR SERVICES**

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# THERMOGRAPHIC REPORT

**LOCATION** : Outside of Foundry Building, East Side

**EQUIPMENT** : Induction Furnace Dust Collector 200A Fused Disconnect

**PROBLEM** : Evidence of arcing due to interference of conductor with switch mechanism

**COMMENTS** : Completely disconnect power before checking for interference issues. Rebuild or replace entire disconnect. Address as required

**DATE & TIME** : 7/13/11 @ 8:09AM



PROBLEM NO.8

**VISUAL PROBLEM  
NO  
THERMOGRAPH  
AVAILABLE**

## PRIORITY:

- NEEDS IMMEDIATE ACTION
- REPAIR AS SCHEDULE PERMITS
- NEEDS ATTENTION

**SCANTEK IR  
SERVICES**

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# THERMOGRAPHIC REPORT

**LOCATION** : Between South Cooling Tower Area & Induction Furnace Dust Collector

**EQUIPMENT** : Unlabeled 400A Disconnect (Top Lugs Only)

**PROBLEM** : Multiple knockouts missing. Evidence of bird inhabitation

**COMMENTS** : Address as required

**DATE & TIME** : 7/13/11 @ 8:11AM



PROBLEM NO.9

**VISUAL PROBLEM  
NO  
THERMOGRAPH  
AVAILABLE**

### PRIORITY:

- NEEDS IMMEDIATE ACTION
- REPAIR AS SCHEDULE PERMITS
- NEEDS ATTENTION

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SERVICES**

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# THERMOGRAPHIC REPORT

LOCATION : Outside of Foundry Building, South End  
EQUIPMENT : No.7 Dust Collector 60A Disconnect  
PROBLEM : Unattached conductors resting on energized parts of disconnect assembly  
COMMENTS : Address as required  
DATE & TIME : 7/13/11 @ 8:50AM



PROBLEM NO.10

**VISUAL PROBLEM  
NO  
THERMOGRAPH  
AVAILABLE**

### PRIORITY:

- NEEDS IMMEDIATE ACTION
- REPAIR AS SCHEDULE PERMITS
- NEEDS ATTENTION

**SCANTEK IR  
SERVICES**

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# THERMOGRAPHIC REPORT

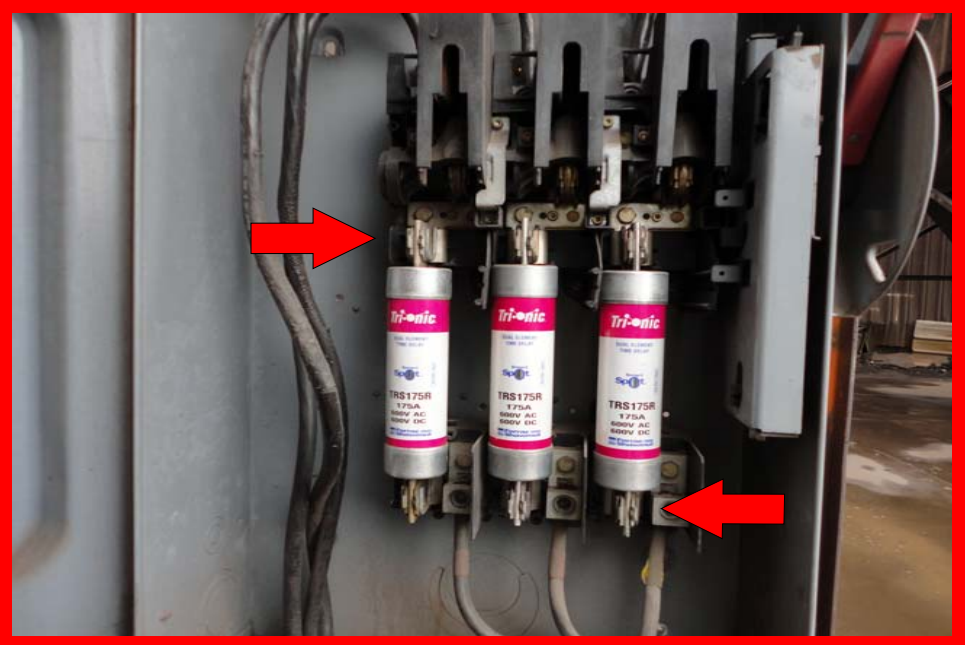
LOCATION : Outside of Foundry Building, East Side

EQUIPMENT : No.3 Dust Collector 200A Disconnect

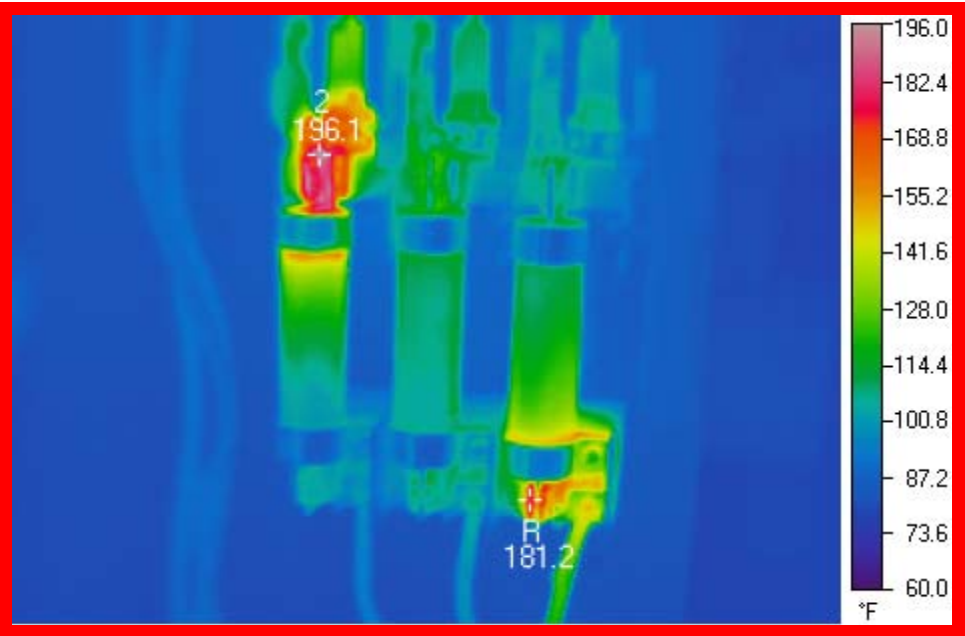
PROBLEM : Line side, left  $\phi$  and load side, right  $\phi$  fuse clip areas showing 90°F to 110°F rises over center phase at 74A loading.  
NOTE: Amperage reading at time of inspection: A $\phi$ :74, B $\phi$ :74, and C $\phi$ :74

COMMENTS : Clean all fuse ends and clip surfaces and/or restore proper clip tension as required. Inspect, clean fuse clip surfaces, checking for fuse clip tension and fuse bracket screw(s) tightness

DATE & TIME : 7/13/11 @ 9:31AM



PROBLEM NO.11



## PRIORITY:

- NEEDS IMMEDIATE ACTION
- REPAIR AS SCHEDULE PERMITS
- NEEDS ATTENTION

**SCANTEK IR**  
SERVICES

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# THERMOGRAPHIC REPORT

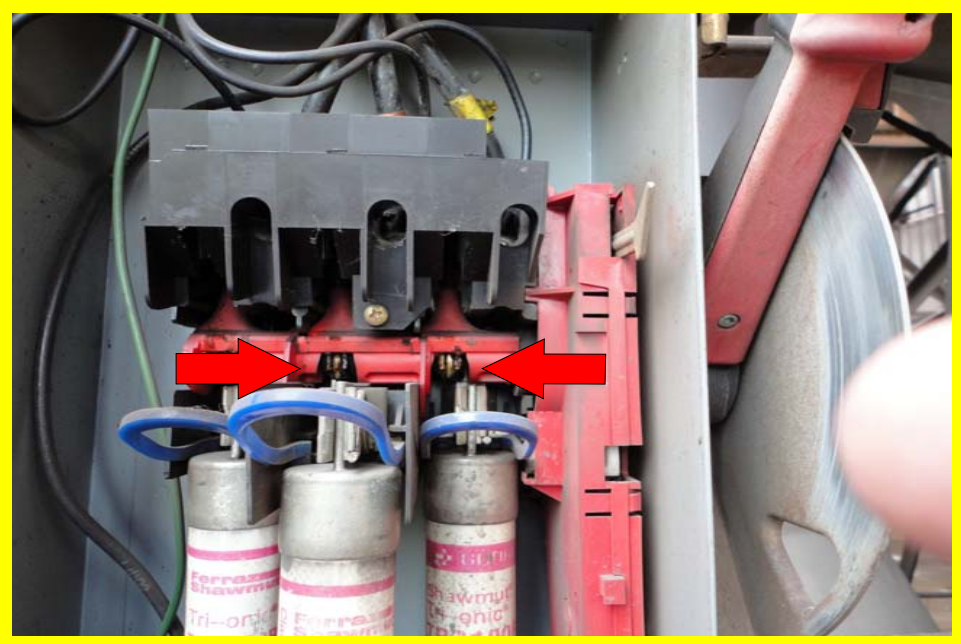
**LOCATION** : Outside of Foundry Building, East Side

**EQUIPMENT** : No.2 Dust Collector 100A Disconnect

**PROBLEM** : Line side, center  $\phi$  and right  $\phi$  contact arm pivot point areas showing 56°F rises over adjacent phase at 39A loading.  
**NOTE:** Amperage reading at time of inspection: A $\phi$ :39, B $\phi$ :39, and C $\phi$ :39

**COMMENTS** : Clean, inspect, and tighten all associated contacting/connection points of disconnect assembly. Rebuild or replace entire disconnect

**DATE & TIME** : 7/13/11 @ 9:35AM



PROBLEM NO.12



**PRIORITY:**

- NEEDS IMMEDIATE ACTION
- REPAIR AS SCHEDULE PERMITS
- NEEDS ATTENTION



800-875-7226

# THERMOGRAPHIC REPORT

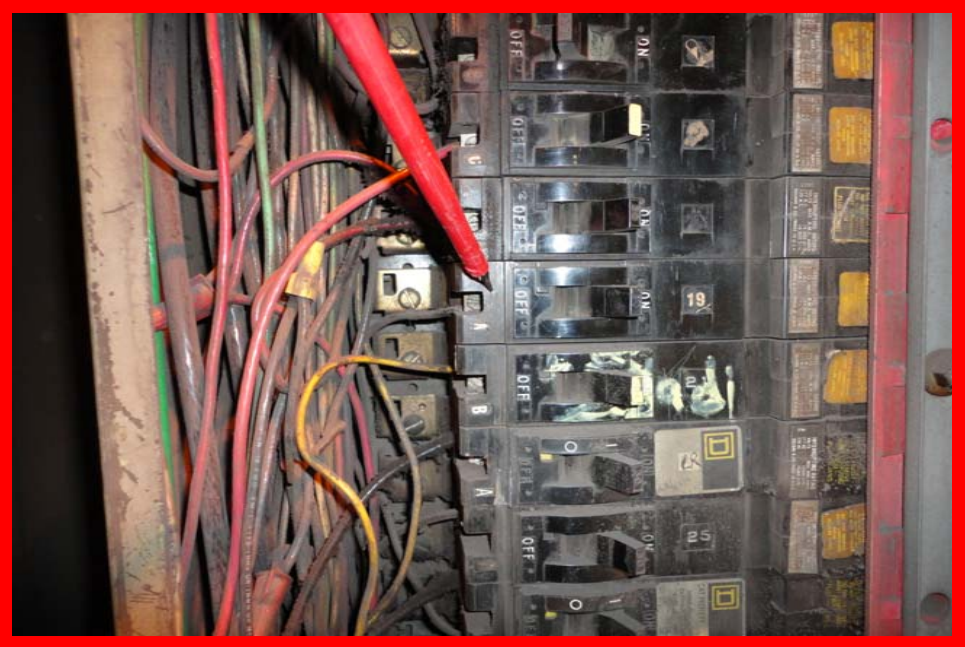
**LOCATION** : Foundry Building, By Break Room

**EQUIPMENT** : No.4 Breaker Panel, No.19 30A Breaker

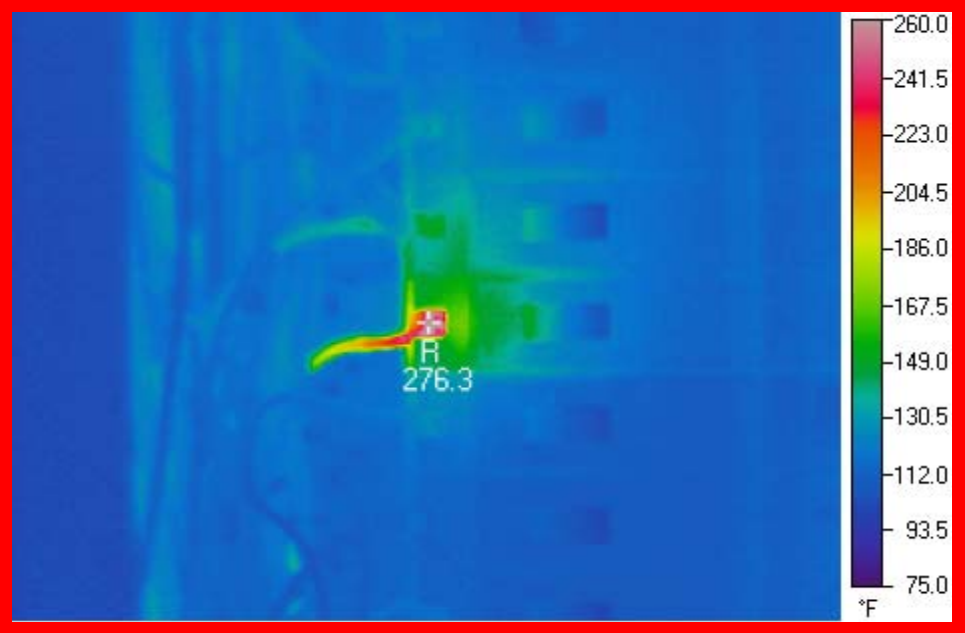
**PROBLEM** : Load side, conductor lug connection area showing a 178°F rise over adjacent phases.  
**NOTE:** Insulation badly damaged

**COMMENTS** : Problem addressed as time of discovery; further attention required. Check for oxidation, and cut back if required and clean and tighten

**DATE & TIME** : 7/13/11 @ 10:48AM



PROBLEM NO.13



**PRIORITY:**

- NEEDS IMMEDIATE ACTION
- REPAIR AS SCHEDULE PERMITS
- NEEDS ATTENTION



800-875-7226

# THERMOGRAPHIC REPORT

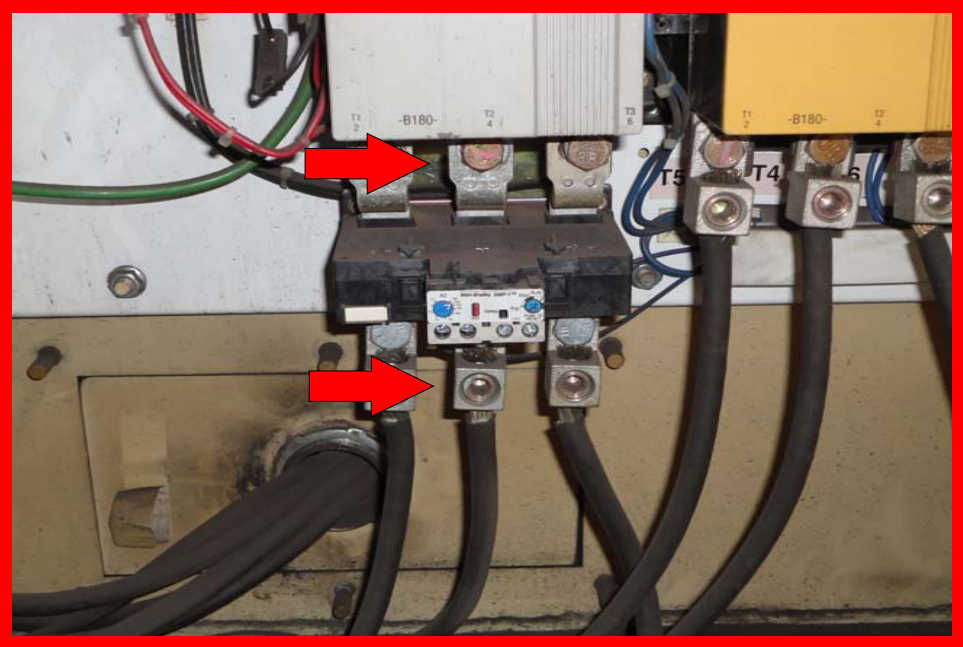
**LOCATION** : Foundry Building, Air Compressor Area

**EQUIPMENT** : No.200 Air Compressor Motor Control Cabinet, Left Main Starter Assembly

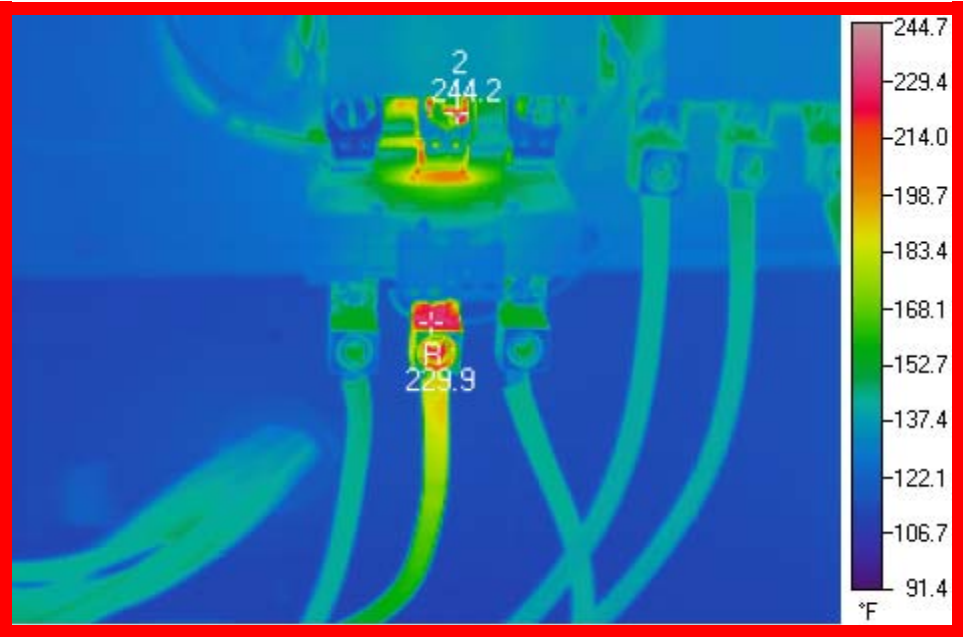
**PROBLEM** : Load side, center  $\varnothing$  conductor lug and overload assembly to contactor bolted connection areas showing 100°F to 115°F rises over adjacent phases at 223A loading

**COMMENTS** : Disassemble, clean, dress all points, and reassemble torquing to spec. Inspect for cause of heating and repair or replace as required

**DATE & TIME** : 7/13/11 @ 11:35AM



PROBLEM NO.14



**PRIORITY:**

- NEEDS IMMEDIATE ACTION
- REPAIR AS SCHEDULE PERMITS
- NEEDS ATTENTION

**SCANTEK IR SERVICES**

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# THERMOGRAPHIC REPORT

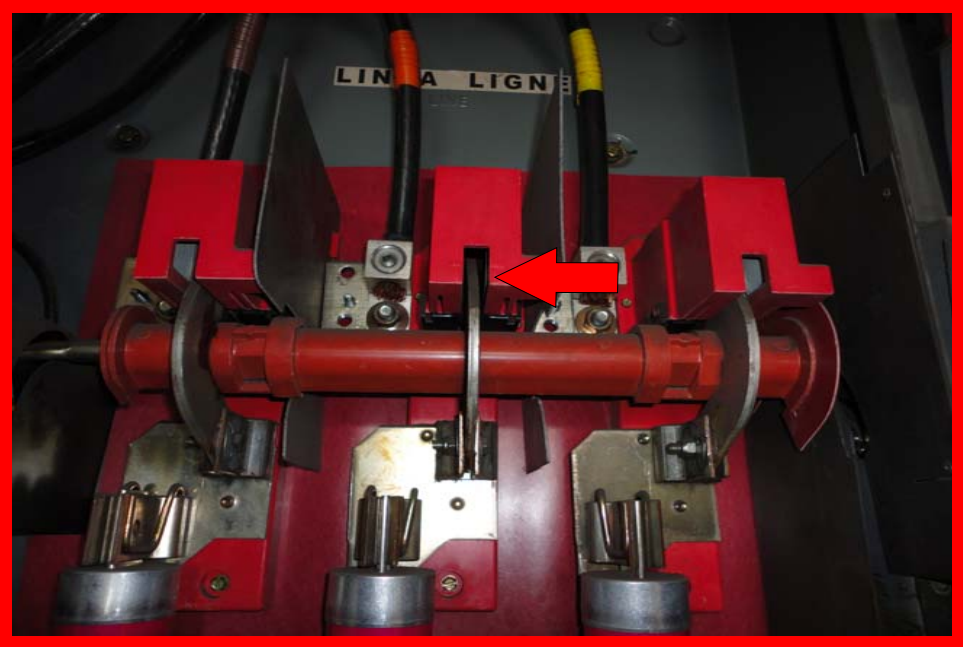
**LOCATION** : Foundry Building, Outside Air Compressor Area By Break Room

**EQUIPMENT** : South 200hp Air Compressor 400A Fused Disconnect

**PROBLEM** : Line side, center  $\emptyset$  contact jaw area showing a 97°F rise over adjacent phases at 220A loading.  
**NOTE:** Switch mechanism questionable

**COMMENTS** : Clean, inspect, and tighten all associated contacting/connection points of disconnect assembly. Rebuild or replace entire disconnect

**DATE & TIME** : 7/13/11 @ 12:59PM



PROBLEM NO.15



## PRIORITY:

- NEEDS IMMEDIATE ACTION
- REPAIR AS SCHEDULE PERMITS
- NEEDS ATTENTION

**SCANTEK IR SERVICES**

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# THERMOGRAPHIC REPORT

**LOCATION** : Foundry Building, Slab Area

**EQUIPMENT** : "Old" Unlabeled Transformer, Secondary Bay, Second From Right Bushing

**PROBLEM** : Indicated bushing base area showing a 35°F rise over adjacent phases, from possible internal resistance connection issues.  
**NOTE:** Previous problem No.11 from report dated August 2010

**COMMENTS** : Recommend full spectrum oil analysis including dissolved gas analysis to establish base line operating conditions. Inspect for cause of heating and repair or replace as required

**DATE & TIME** : 7/13/11 @ 1:27PM



PROBLEM NO.16



**PRIORITY:**

- NEEDS IMMEDIATE ACTION
- REPAIR AS SCHEDULE PERMITS
- NEEDS ATTENTION

**SCANTEK IR SERVICES**

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# THERMOGRAPHIC REPORT

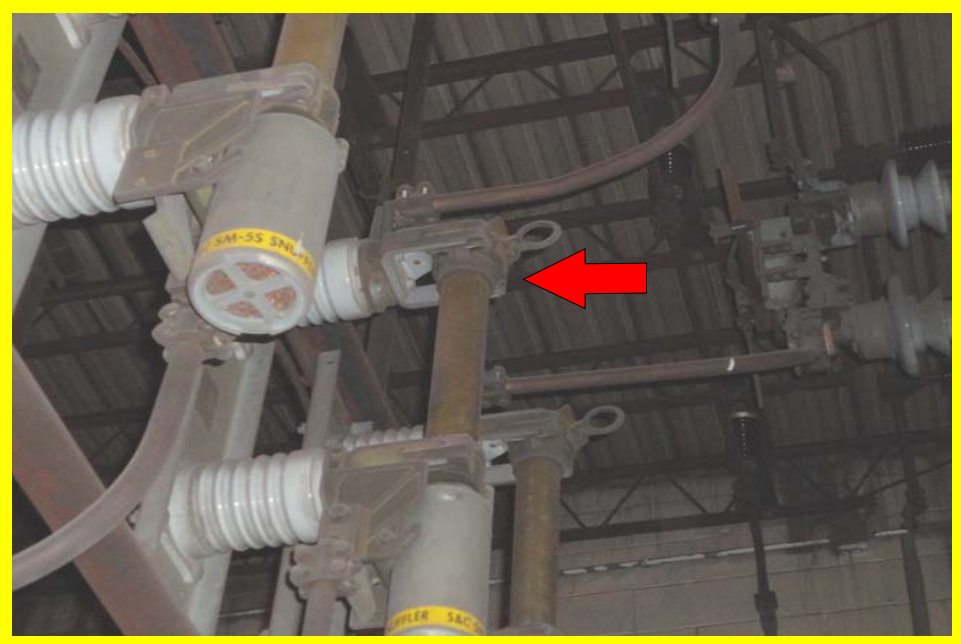
**LOCATION** : Foundry Building, Arc Furnace Transformer Room

**EQUIPMENT** : Three Phase Fuse Set, Center  $\phi$  Fuse

**PROBLEM** : Top of fuse cartridge connection area showing a 36°F rise over adjacent phases.  
**NOTE:** Previous problem No.5 from report dated August 2010

**COMMENTS** : Remake internal fuse element connection of fuse. Clean all fuse ends and clip surfaces and/or restore proper clip tension as required

**DATE & TIME** : 7/13/11 @ 1:47PM



PROBLEM NO.17



**PRIORITY:**

- NEEDS IMMEDIATE ACTION
- REPAIR AS SCHEDULE PERMITS
- NEEDS ATTENTION

**SCANTEK IR SERVICES**

800-875-7226

# THERMOGRAPHIC REPORT

**LOCATION** : Outside of Foundry Building, East Side  
**EQUIPMENT** : No.5 Bag House Motor Make-Up Enclosure  
**PROBLEM** : Motor Make-up enclosure filled with water.  
Evidence of high waterline within enclosure  
**COMMENTS** : Address as required  
**DATE & TIME** : 7/13/11 @ 2:33PM



PROBLEM NO.18

**VISUAL PROBLEM**  
**NO**  
**THERMOGRAPH**  
**AVAILABLE**

### PRIORITY:

- NEEDS IMMEDIATE ACTION
- REPAIR AS SCHEDULE PERMITS
- NEEDS ATTENTION

**SCANTEK IR**  
**SERVICES**

800-875-7226

# THERMOGRAPHIC REPORT

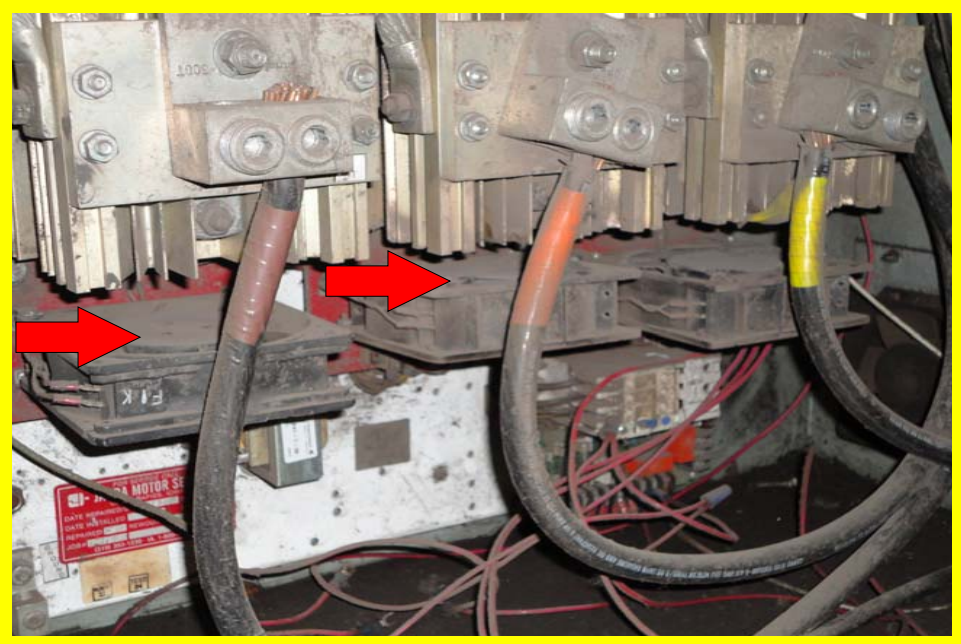
**LOCATION** : Foundry Building, Arc Furnace Pump Room

**EQUIPMENT** : Unlabeled Soft Start Cabinet, Left and Center Cooling Fans

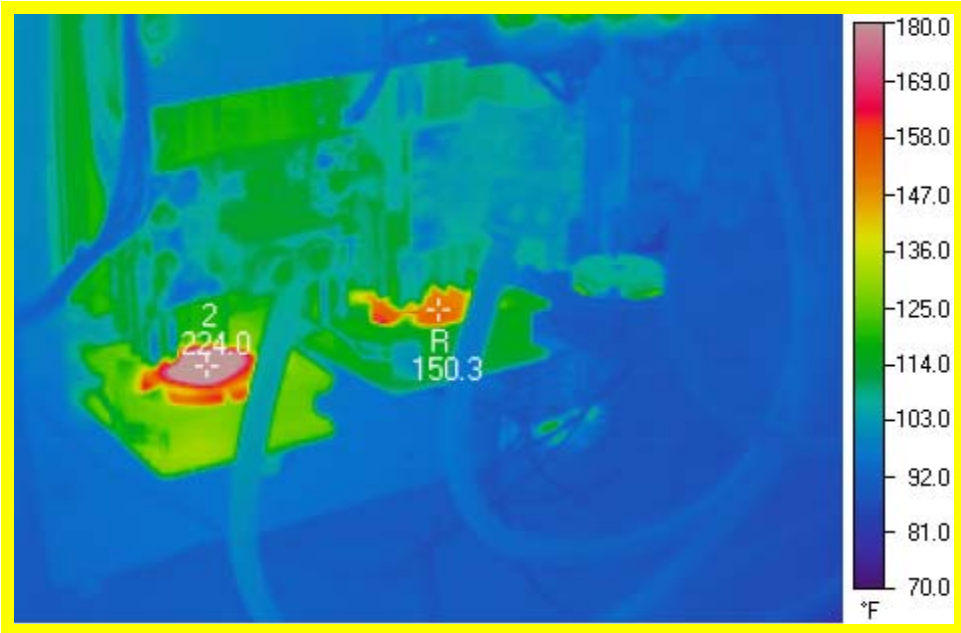
**PROBLEM** : Indicated cooling fans seized up and showing 150°F to 224°F overall temperatures

**COMMENTS** : Replace cooling fans

**DATE & TIME** : 7/13/11 @ 2:44PM



PROBLEM NO.19



**PRIORITY:**

- NEEDS IMMEDIATE ACTION
- REPAIR AS SCHEDULE PERMITS
- NEEDS ATTENTION

**SCANTEK IR SERVICES**

800-875-7226

# THERMOGRAPHIC REPORT

**LOCATION** : Foundry Building, Oven Area, Behind North Oven

**EQUIPMENT** : 100A Fused Disconnect Labeled: Pump No.3

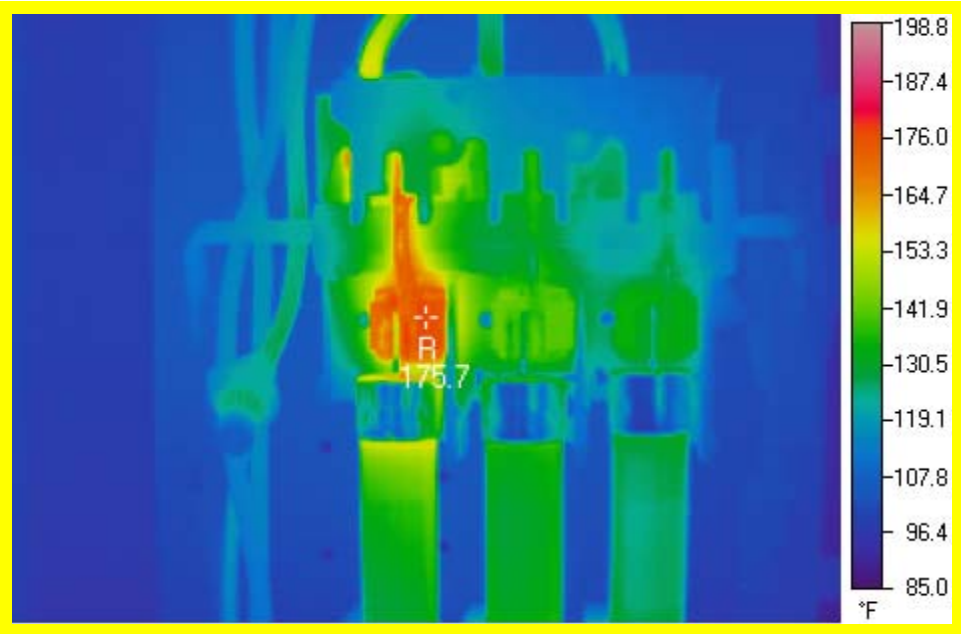
**PROBLEM** : Line side, left  $\emptyset$  contact jaw / contact arm pivot point / fuse clip areas showing a 65°F rise over adjacent phases.  
**NOTE<sup>1</sup>**: Load removed at time of discovery  
**NOTE<sup>2</sup>**: Previous problem No.9 from report dated August 2010

**COMMENTS** : Clean, inspect, and tighten all associated contacting/connection points of disconnect assembly. Rebuild or replace entire disconnect

**DATE & TIME** : 7/13/11 @ 3:04PM



PROBLEM NO.20



**PRIORITY:**

- NEEDS IMMEDIATE ACTION
- REPAIR AS SCHEDULE PERMITS
- NEEDS ATTENTION

**SCANTEK IR SERVICES**

800-875-7226

# THERMOGRAPHIC REPORT

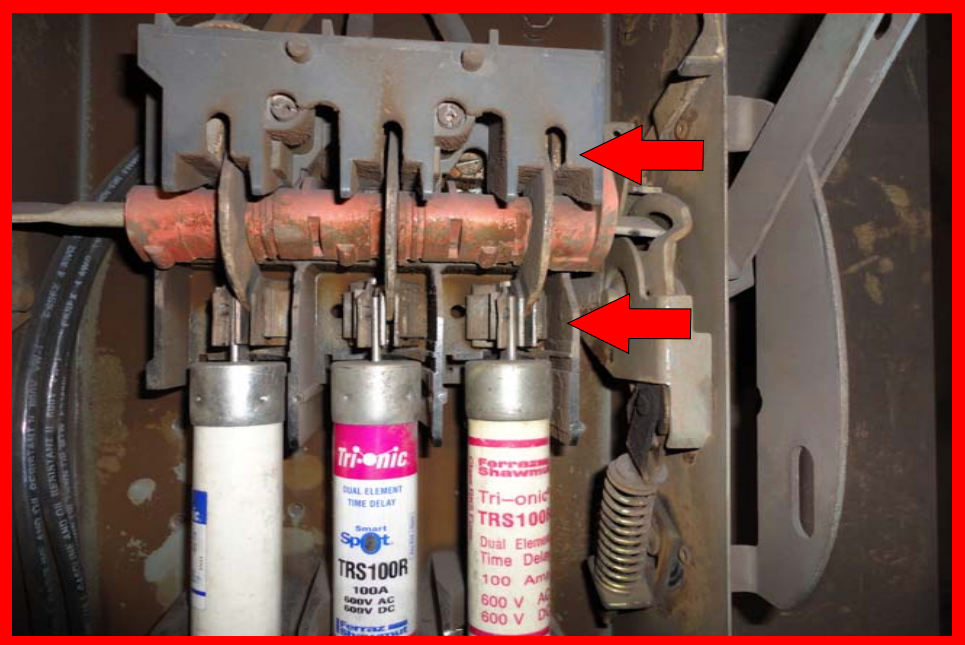
**LOCATION** : Foundry Building, Oven Area, Behind North Oven

**EQUIPMENT** : 100A Fused Disconnect Labeled: Pump No.4

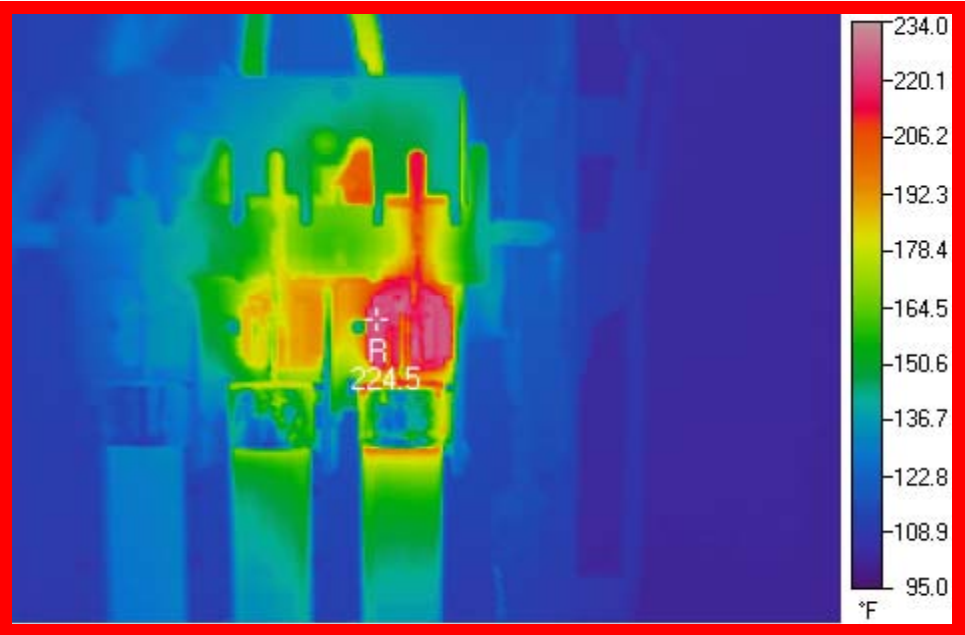
**PROBLEM** : Line side, right  $\emptyset$  contact jaw / contact arm pivot point / fuse clip areas showing a 116°F rise over adjacent phases.  
**NOTE<sup>1</sup>**: Load removed at time of discovery  
**NOTE<sup>2</sup>**: Previous problem No.10 from report dated August 2010

**COMMENTS** : Clean, inspect, and tighten all associated contacting/connection points of disconnect assembly. Rebuild or replace entire disconnect

**DATE & TIME** : 7/13/11 @ 3:05PM



PROBLEM NO.21



**PRIORITY:**

- NEEDS IMMEDIATE ACTION
- REPAIR AS SCHEDULE PERMITS
- NEEDS ATTENTION



800-875-7226

# THERMOGRAPHIC REPORT

**LOCATION** : Foundry Building, Oven Shack

**EQUIPMENT** : Large Motor Control Cabinet, Top Row, 2<sup>nd</sup> From Left Starter Fuse Set

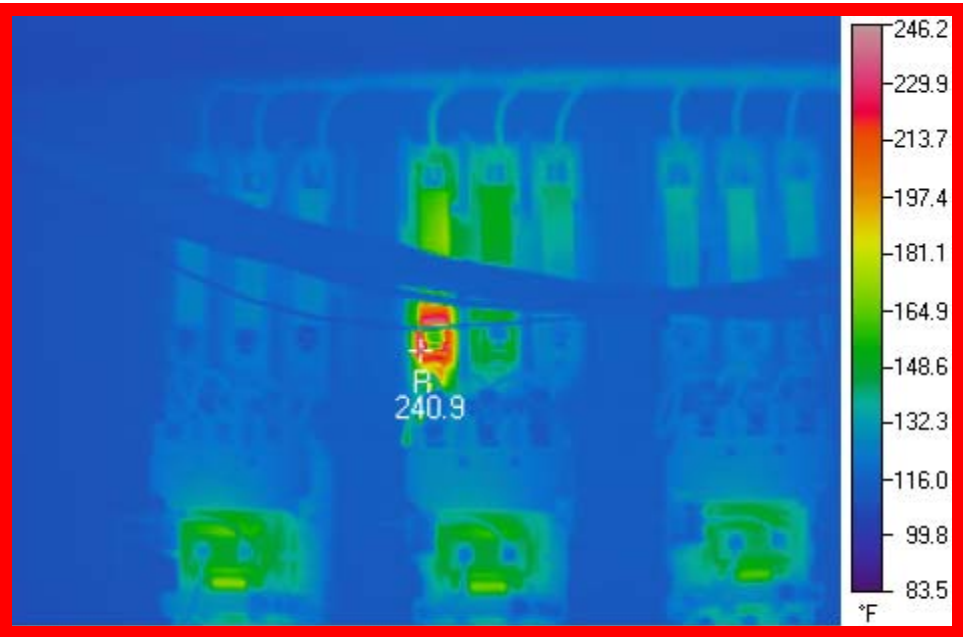
**PROBLEM** : Load side, left  $\phi$  fuse clip area showing a 148 $^{\circ}$ F rise over adjacent phases at 15A loading

**COMMENTS** : Clean all fuse ends and clip surfaces and/or restore proper clip tension as required. Inspect, clean fuse clip surfaces, checking for fuse clip tension and fuse bracket screw(s) tightness

**DATE & TIME** : 7/13/11 @ 3:19PM



PROBLEM NO.22



**PRIORITY:**

- NEEDS IMMEDIATE ACTION
- REPAIR AS SCHEDULE PERMITS
- NEEDS ATTENTION

**SCANTEK IR SERVICES**

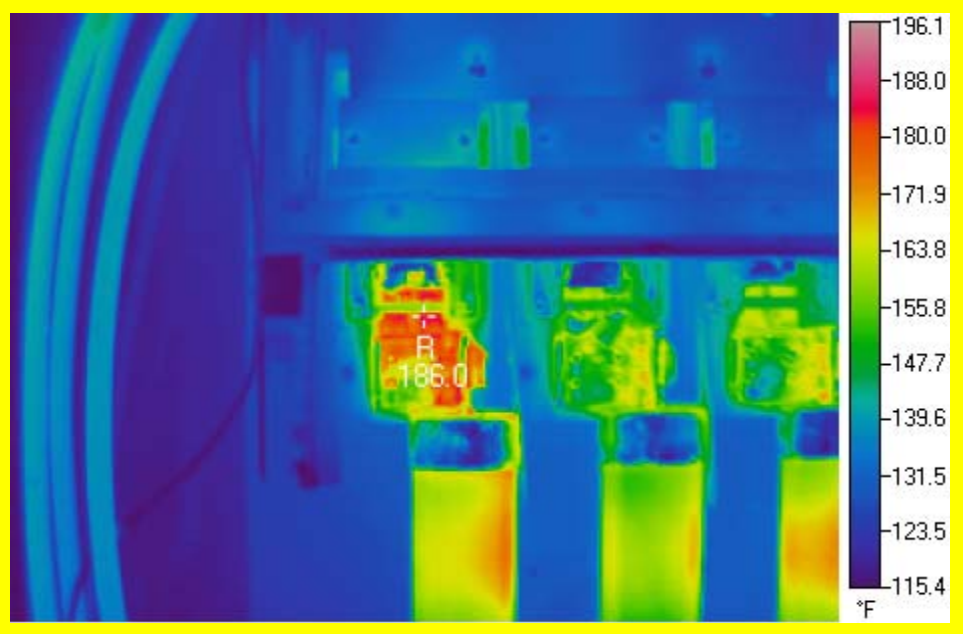
800-875-7226

# THERMOGRAPHIC REPORT

- LOCATION** : Foundry Building, Air Compressor Area
- EQUIPMENT** : Inside 400A Fused Disconnect for Kwic Arc Air Compressor
- PROBLEM** : Line side, left  $\phi$  fuse clip / buss connection area showing a 35°F rise over adjacent phases at 220A loading.  
**NOTE:** Amperage reading at time of inspection: A $\phi$ :220, B $\phi$ :210, and C $\phi$ :221
- COMMENTS** : Clean all fuse ends and clip surfaces and/or restore proper clip tension as required. Disassemble, clean, dress all points, and reassemble torquing to spec.
- DATE & TIME** : 7/13/11 @ 3:38PM



PROBLEM NO.23



**PRIORITY:**

- NEEDS IMMEDIATE ACTION
- REPAIR AS SCHEDULE PERMITS
- NEEDS ATTENTION

**SCANTEK IR SERVICES**

800-875-7226

# THERMOGRAPHIC REPORT

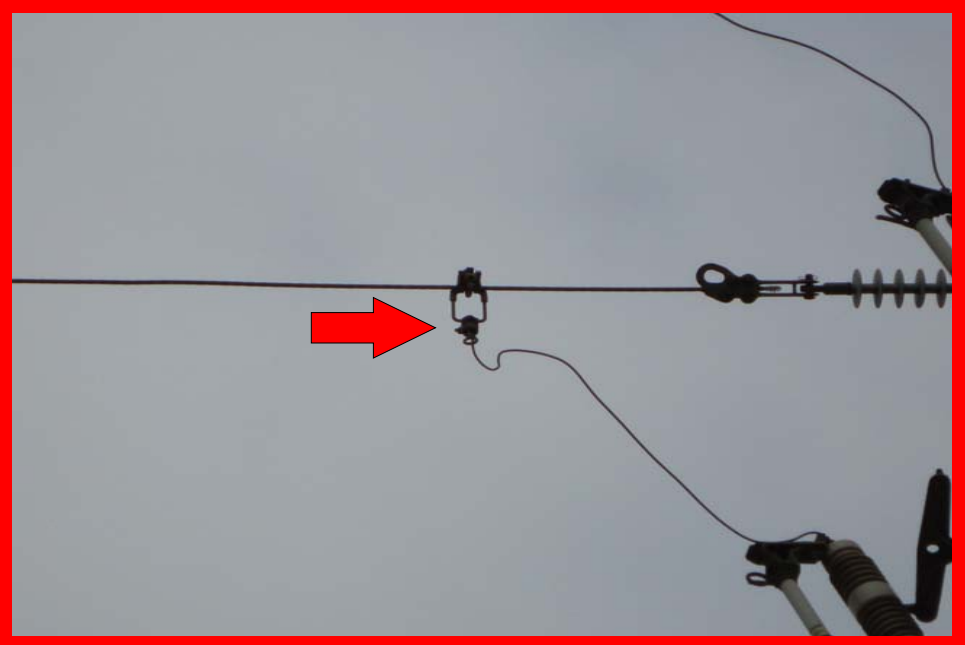
**LOCATION** : Outside of Stone Building, West Corner

**EQUIPMENT** : Power Pole Service Drop, Center ∅ Primary Hot Tap

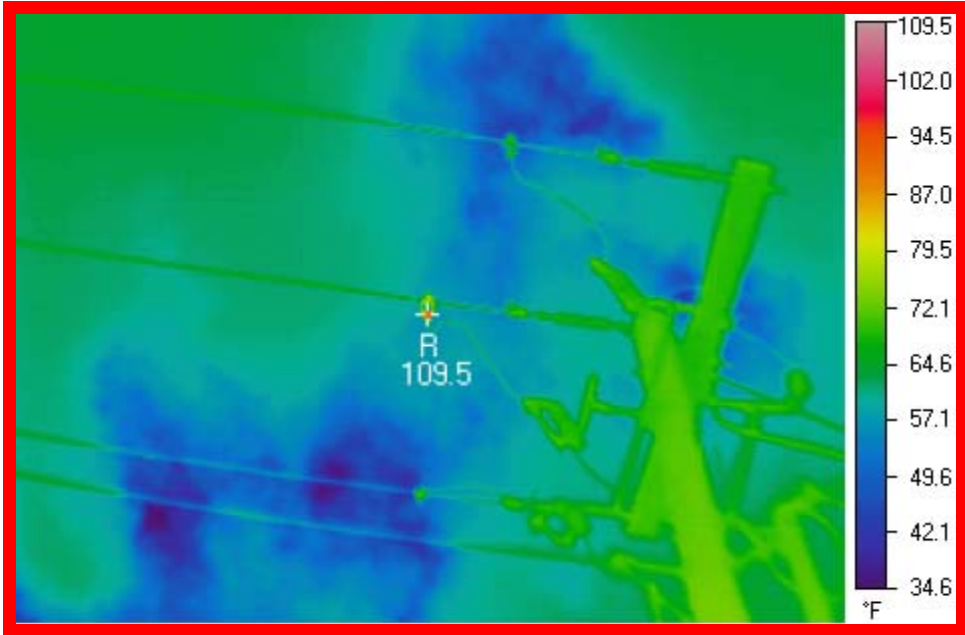
**PROBLEM** : Indicated connection area showing a 39°F rise over adjacent phases

**COMMENTS** : Contact local utility company to inspect for cause of heating and repair or replace as required

**DATE & TIME** : 7/14/11 @ 7:52AM



PROBLEM NO.24



**PRIORITY:**

- NEEDS IMMEDIATE ACTION
- REPAIR AS SCHEDULE PERMITS
- NEEDS ATTENTION



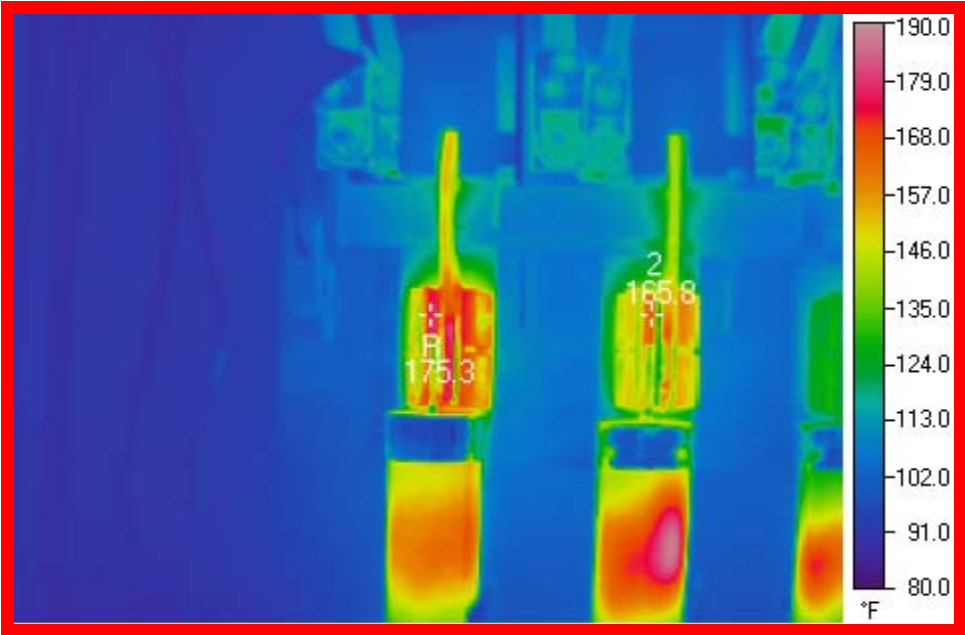
800-875-7226

# THERMOGRAPHIC REPORT

- LOCATION** : Outside of Stone Building, West Corner
- EQUIPMENT** : Unlabeled Air Compressor 400A Fused Disconnect
- PROBLEM** : Line side, left  $\phi$  and center  $\phi$  contact arm pivot point / fuse clip areas showing 65°F to 70°F rises over adjacent phase.  
**NOTE<sup>1</sup>**: Amperage reading at time of inspection: A $\phi$ :275, B $\phi$ :285, and C $\phi$ :280  
**NOTE<sup>2</sup>**: Previous problem No.13 from report dated August 2010
- COMMENTS** : Clean, inspect, and tighten all associated contacting/connection points of disconnect assembly. Clean disconnect blade and jaw surfaces and restore proper tension as required
- DATE & TIME** : 7/14/11 @ 11:22AM



PROBLEM NO.25



**PRIORITY:**

- NEEDS IMMEDIATE ACTION
- REPAIR AS SCHEDULE PERMITS
- NEEDS ATTENTION

**SCANTEK IR SERVICES**

800-875-7226

# THERMOGRAPHIC REPORT

**LOCATION** : Outside of Foundry Building, East Side

**EQUIPMENT** : Areva 1650kVA Transformer, Primary Bay Bushing Set, No.H-1 Conductor

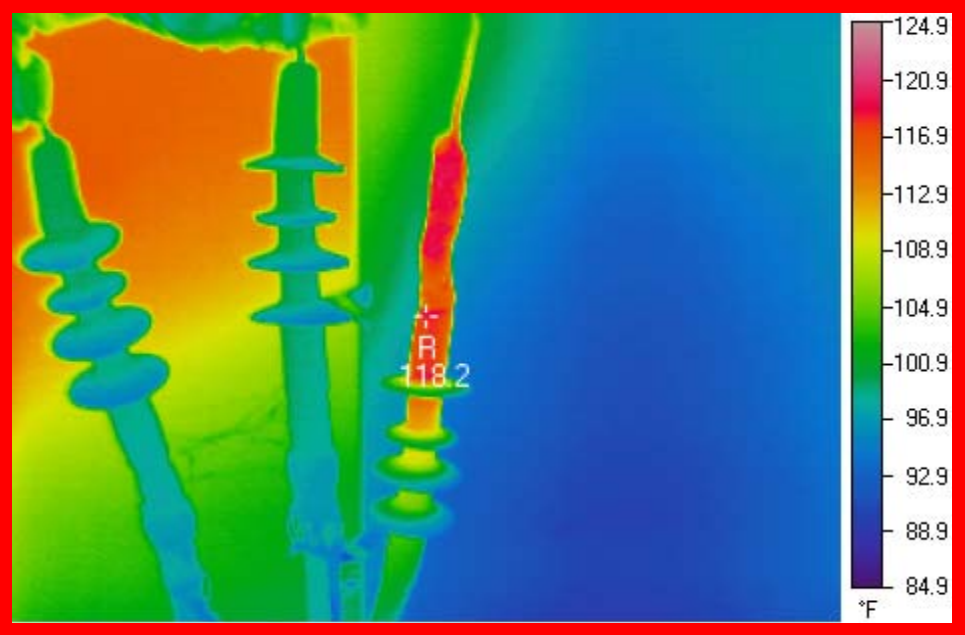
**PROBLEM** : Indicated conductor stress cone area showing a 13°F rise over adjacent phases.  
**NOTE<sup>1</sup>**: Furnace turned off for ten minutes at time of discovery  
**NOTE<sup>2</sup>**: Previous problem No.12 from report dated August 2010

**COMMENTS** : Suggest putting lock on transformer doors. Inspect for cause of heating and repair or replace as required. Replace affected conductor

**DATE & TIME** : 7/14/11 @ 1:56PM



PROBLEM NO.26



**PRIORITY:**

- NEEDS IMMEDIATE ACTION
- REPAIR AS SCHEDULE PERMITS
- NEEDS ATTENTION

**SCANTEK IR SERVICES**

800-875-7226

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