



Qualitative Infrared Thermographic Survey of Electrical Distribution Systems

at



Abdalla Hall
Lafayette, LA

January 29th, 2018



ELECTRIC^{IR}
Authorized Contractor

January 29th, 2018
Automated Controls & Power
316 Mecca Street
Lafayette, LA 70508
(337) 233-7330
rhgdeepwatertech1@outlook.com



The electrical newly installed transformers and distribution panels at Abdalla Hall's Facility were the subject of an electrical infrared survey on January 29th, 2018. Highlighted equipment in the data log was found to have thermal anomalies and a report finding was created.

This ElectriSCAN™ report includes:

- Repair Guide** – a list of all equipment with problems with a temperature rating
- Equipment List** – a list of all equipment surveyed
- Thermographic Reports** – individual report pages of all equipment with thermal anomalies or thermal images of inspected equipment

General

Bayou State Inspections was retained for an electrical thermographic survey of the newly installed distribution systems in an effort to identify areas of thermal anomalies and to document them for further review and repair. Our inspection is designed to comply with accepted industrial standards and this report is for the exclusive use of our client. This report is based on information obtained at the site at the given time and date of the survey.

Analysis and Recommendations

We recommend that the maintenance team carefully review this report. Items listed on the Repair Guide below should be checked by qualified personnel. We used the Delta-T temperature method for rating our findings, however, your repair action decisions should include not only temperature, but other factors such as safety, criticality of the equipment, availability of back-up equipment and similar factors.

Our reports are designed to be clear, concise and useful. Please review this report carefully and if there is anything you would like me to explain, or if there is other information you would like, please feel free to contact me.

Sincerely,

James Yaeger

James Yaeger CIT #10991 Level III
Bayou State Inspections
(337) 988-9020
jyaegerisu@gmail.com



ELECTRIC/IR
Authorized Contractor

ElectriSCAN
Infrared Thermographic Services

Project Information

Date of Survey: January 29th, 2018

Client: Automated Controls & Power

Project Name: Abdalla Hall

Project Address: 635 Cajundome Blvd

Project City, ST, Zip: Lafayette LA 70506



Certified Thermographer: James Yaeger, CIT #10991 Level III

Understanding Infrared Imagery

Infrared imagery is often a grayscale picture or thermograph whose scales (or shades of gray) represent the differences in emitted energy from the surface often referred to as temperature. As a general rule, patterns in the image that are lighter in shade are warmer and darker patterns cooler. Unlike visible imagery that capture visible light in the 0.4-0.7 micrometer wavelengths, objects observed using infrared imagery capture infrared wavelengths in the 3-5 or 8-14 micrometer range. Visible lights that produce heat and other relatively hot objects are very evident, but as a result of their heat or infrared emission and not due to the visible light emissions.

Repair Guide

All of the designated electrical assets were inspected and no thermal anomalies were found. Thermographs were taken to show the conditions during the inspection and are included for reference only.



Data Log – Equipment List

Building	Area	Equipment	Report #	Notes
Abdalla Hall	Exterior Pad & Rack	Transformer A	1	
Abdalla Hall	Exterior Pad & Rack	Transformer A	1	
Abdalla Hall	Electrical Room "C" 172	Main Distribution Breaker A	2	
Abdalla Hall	Electrical Room "C" 172	Main Distribution Breaker AC	2	
Abdalla Hall	Electrical Room "B" 122	Main Distribution Panel A	3	
Abdalla Hall	Electrical Room "B" 122	Main Distribution Panel A	3	



Thermographic Report # 1

BUILDING:

Abdalla Hall

AREA:

Exterior Pad & Rack

EQUIPMENT:

Transformer

DESCRIPTION:

Transformer A

Date: January 29th, 2018

Time: 17:03



Ambient Temp:	64F
Reference Temp:	67F
High Temp:	67.6F
Temperature Rise:	.6F



Temperature Rise Above

- Ambient
- * Reference
- Adjacent Phase
- * Direct Measurement

Amperage Readings:

Under 65%Load

Description of Findings:

No findings noted

Recommendations:

None

Rating	Temp. Rise F*	Recommendation
Minor	1-18 ° F	Routine, Repair during maintenance, little chance of physical damage.
Alert	19-36 ° F	Repair within 30 days, watch load and inspect for physical damage.
Serious	37-54 ° F	Repair/Replace ASAP. Inspect surrounding components for physical damage.
Critical	55+ ° F	Immediate repair/replace. Danger exists!



Thermographic Report # 1

BUILDING:

Abdalla Hall

AREA:

Exterior Pad & Rack

EQUIPMENT:

Transformer

DESCRIPTION:

Transformer AC

Date: January 29, 2018

Time: 17:05



Ambient Temp:	64F
Reference Temp:	66.9F
High Temp:	67.4F
Temperature Rise:	.5F



Temperature Rise Above

Ambient

* Reference

Adjacent Phase

* Direct Measurement

Amperage Readings:

Under 65%Load

Description of Findings:

No findings noted.

Recommendations:

None.

Rating	Temp. Rise F ^o	Recommendation
Minor	1-18 ^o F	Routine, Repair during maintenance, little chance of physical damage.
Alert	19-36 ^o F	Repair within 30 days, watch load and inspect for physical damage.
Serious	37-54 ^o F	Repair/Replace ASAP. Inspect surrounding components for physical damage.
Critical	55+ ^o F	Immediate repair/replace. Danger exists!



Thermographic Report # 2

BUILDING:

Abdalla Hall

AREA:

Electrical Rm "C" 172

EQUIPMENT:

HDP 480v Distribution Panel

DESCRIPTION:

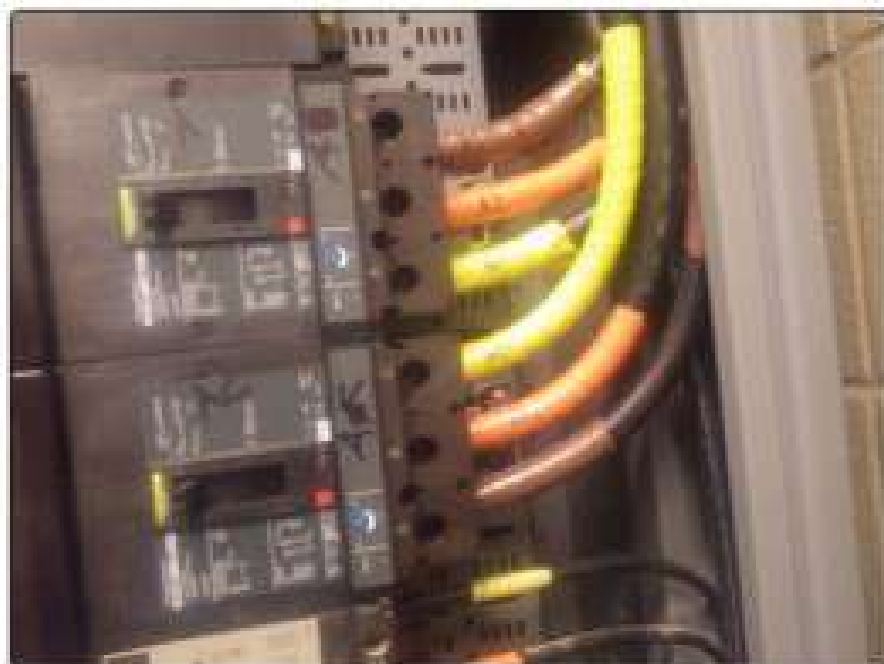
Main Circuit Breaker A

Date: January 29, 2018

Time: 17:03



Ambient Temp:	74F
Reference Temp:	76.2F
High Temp:	78.2F
Temperature Rise:	0F



Temperature Rise Above

Ambient

* Reference

Adjacent Phase

* Direct Measurement

Amperage Readings:

Under 65%Load

Description of Findings:

No findings noted.

Recommendations:

None.

Rating	Temp. Rise F°	Recommendation
Minor	1-18° F	Routine, Repair during maintenance, little chance of physical damage.
Alert	19-36° F	Repair within 30 days, watch load and inspect for physical damage.
Serious	37-54° F	Repair/Replace ASAP. Inspect surrounding components for physical damage.
Critical	55+° F	Immediate repair/replace. Danger exists!



Thermographic Report # 2

BUILDING:

Abdalla Hall

AREA:

Electrical Rm "C" 172

EQUIPMENT:

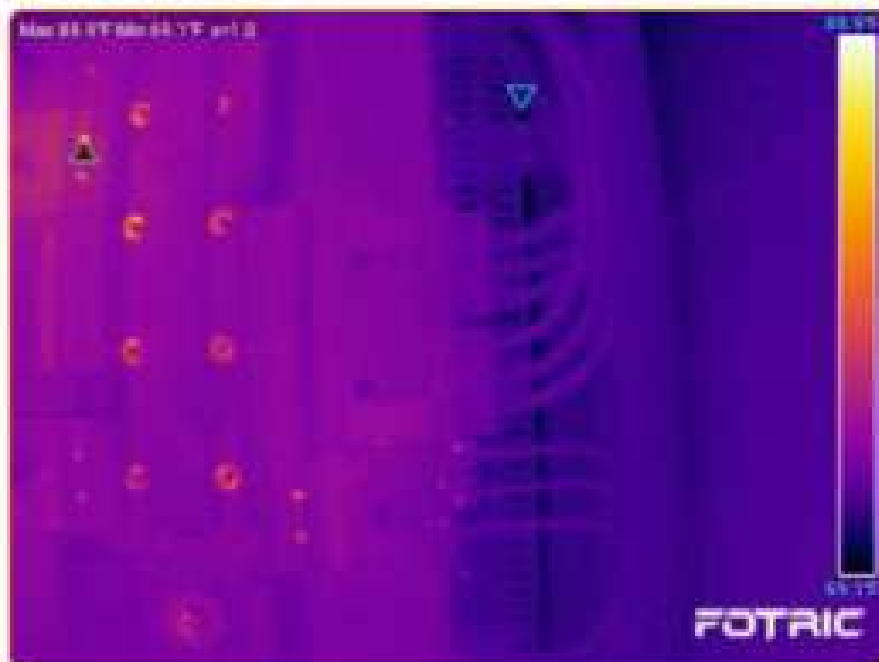
HDP 480v Distribution Panel

DESCRIPTION:

Main Circuit Breaker AC

Date: January 29, 2018

Time: 17:03



Ambient Temp:	74F
Reference Temp:	76.2F
High Temp:	78.2F
Temperature Rise:	0F

Temperature Rise Above

Ambient

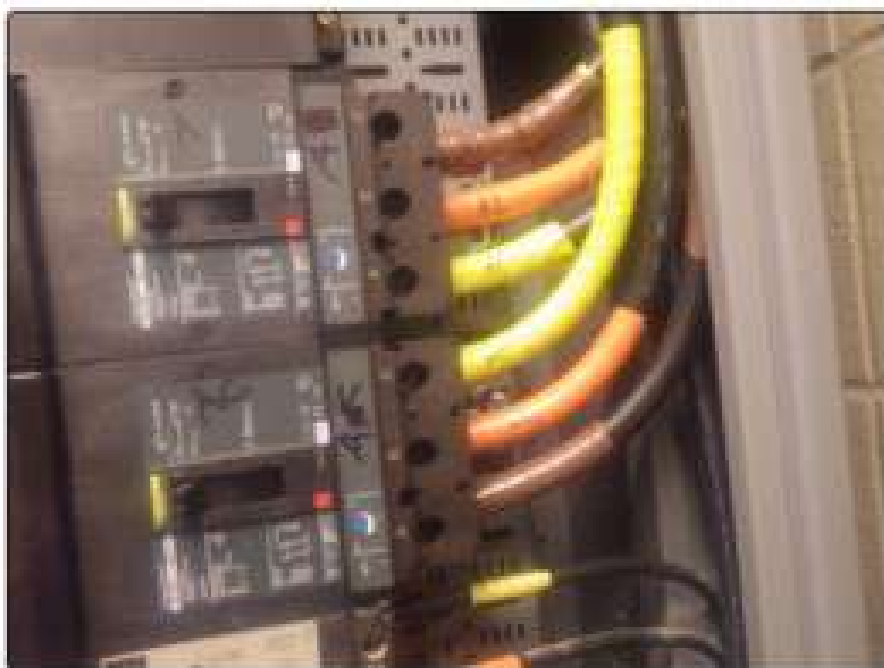
* Reference

Adjacent Phase

* Direct Measurement

Amperage Readings:

Under 65%Load



Description of Findings:

No findings noted.

Recommendations:

None.

Rating	Temp. Rise F°	Recommendation
Minor	1-18 ° F	Routine, Repair during maintenance, little chance of physical damage.
Alert	19-36 ° F	Repair within 30 days, watch load and inspect for physical damage.
Serious	37-54 ° F	Repair/Replace ASAP. Inspect surrounding components for physical damage.
Critical	55+ ° F	Immediate repair/replace. Danger exists!



Thermographic Report # 3

BUILDING:

Abdalla Hall

AREA:

Electrical Rm "B" 122

EQUIPMENT:

Panel

DESCRIPTION:

Panel A

Date: January 29, 2018

Time: 16:49



Ambient Temp:	60F
Reference Temp:	64.5F
High Temp:	64.9F
Temperature Rise:	0F

Temperature Rise Above

Ambient

* Reference

Adjacent Phase

* Direct Measurement

Amperage Readings:

Under 65% Load

Description of Findings:

No findings noted.

Recommendations:

None.

Rating	Temp. Rise F*	Recommendation
Minor	1-18 ° F	Routine, Repair during maintenance, little chance of physical damage.
Alert	19-36 ° F	Repair within 30 days, watch load and inspect for physical damage.
Serious	37-54 ° F	Repair/Replace ASAP. Inspect surrounding components for physical damage.
Critical	55+ ° F	Immediate repair/replace. Danger exists!



Thermographic Report # 3

BUILDING:

Abdalla Hall

AREA:

Electrical Rm "B" 122

EQUIPMENT:

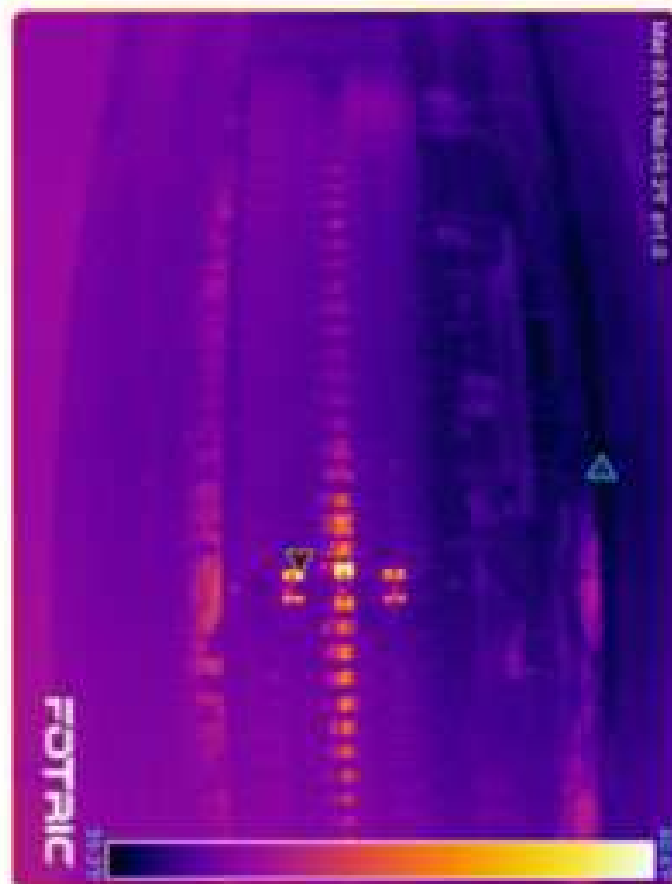
Panel

DESCRIPTION:

Panel AC

Date: January 29, 2018

Time: 16:51



Ambient Temp:	60F
Reference Temp:	64.5F
High Temp:	64.6F
Temperature Rise:	0F

Temperature Rise Above

Ambient

* Reference

Adjacent Phase

* Direct Measurement

Amperage Readings:

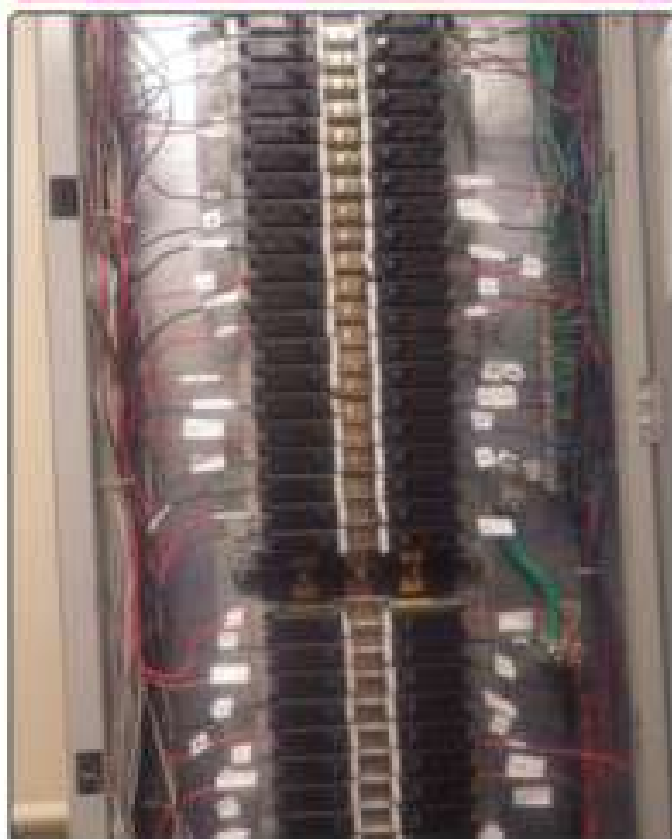
Under 65%Load

Description of Findings:

No findings noted.

Recommendations:

None.



Rating	Temp. Rise F°	Recommendation
Minor	1-18 ° F	Routine; Repair during maintenance, little chance of physical damage.
Alert	19-36 ° F	Repair within 30 days, watch load and inspect for physical damage.
Serious	37-54 ° F	Repair/Replace ASAP. Inspect surrounding components for physical damage.
Critical	55+ ° F	Immediate repair/replace. Danger exists!