

CASE STUDY #3

Commercial Office Building Jersey City, NJ



Client Profile

A multi-tenant 500,000 square foot office building located in Jersey City, NJ.

Challenge


This client was interested in a demonstration of the Delta T Alert monitoring system. He wanted to test Distribution Panels, Power Panels and a dry-type transformer.

Solution

Delta T Engineering, LLC installed Delta T Alert's on critical enclosures within the facility. The Delta T units were programmed to record temperatures three times per day. This data was transmitted wirelessly to the Chief Engineer's computer for analysis and trending.

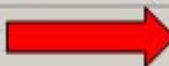


Identification of Problem - After the Chief Engineer reviewed a few days of collected data, thermographic testing was conducted on T-EMLTG transformer. The thermography results showed phase's "A" and "B" windings are much warmer than phase "C" winding. See Figure #4 on the next page.



Delta T Engineering

View Mode

Normal 

Setup

Reports

Help

System

Drag a column header here to group by that column.

Location	MCC-Panel	Equipment ID	Equipment Type	Enclosure Temp	Delta T	Reported	Status
1st Floor E. C.	N/A	DS-1A	Fused Disconnect	80.2	8.4	05/05 10:08	OK
1st Floor E. C.	N/A	DS-1C	Disconnect	73.39999	0.7	05/05 10:02	OK
1st Floor E. C.	N/A	PP-1A	Power Panel	74.3	2.5	05/05 10:06	OK
1st Floor E. C.	N/A	PP-1A	Power Panel	80.1	0	04/20 07:32	NoResponse
1st Floor E.C.	N/A	T-EMLTG	T/F-150	195.3	0	05/05 10:14	CRITICAL
2nd Floor E. C.	N/A	DS-2A	Fused Disconnect	74.8	7.2	05/05 10:03	OK
2nd Floor E. C.	N/A	DS-2B	Disconnect	73	5.4	05/05 10:10	OK
2nd Floor E. C.	N/A	DP-2A	Distribution Panel	70.9	1.1	05/05 10:16	OK
3rd Floor E. C.	N/A	DS-3A	Disconnect	71.6	1.6	05/05 10:08	OK
3rd Floor E. C.	N/A	DS-3B	Disconnect	73	2.8	05/05 10:13	OK
3rd Floor E. C.	N/A	DP-3A	Distribution Panel	72.89999	2.7	05/05 10:16	Low Battery

Transformer T-EMLTG showing an enclosure temp. of 195.3 degrees F.

Zwave Loaded Controller NodeID: 1



The Delta T Alert was magnetically installed on the vent of this particular transformer.

Figure #3

Event #	Date:	Location:	MCC or Panel	Equipment Label:	Priority
1	05/05/09	1st Floor Electrical Closet	N/A	T - EMLTG Transformer	1
Apparent Temperatures:		Image Date 05/05/2009 Image Time 11:16:59 AM		Reference Photo:	
Problem Temperature: 266.0 °F Reference Temperature: 154.4 °F Temperature Rise: 111.6 °F					

Figure #4

Conclusion /Benefits - Many customers are reluctant to remove transformer covers due to the danger. Delta T Alert can record and trend your T/F temperatures on a daily basis and warn of excessive heat rise prior to failure.