



# **Predictive Maintenance Inspection at XYZ Company**

**3/24/2008**

## **Summary Information**

Infrared inspection is completed in accordance with NFPA 70B, Recommended Practices for Electrical Equipment Maintenance and NFPA 70E, Arc Flash Hazard.

This front page lists a description of the test objectives, any special instructions, and a summary statement of the findings of the survey.

Any level 1 faults or safety related issues are listed and elaborated on on this front page. Note: These are also communicated to the plant management at the time of the survey.

This report can be supplied in any of the following forms: Hardcopy, on disc, or a PDF file. If desired, a shareware program can be supplied to view actual IR images.

The following sample report pages have been chosen to display typical report content.

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Robert Diesch P.E.



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## **Infrared Inspection Fault Severity Level Designation**

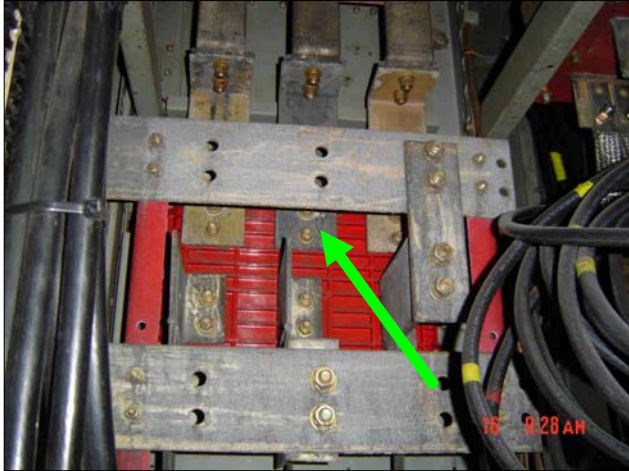
Level 1: The highest level of concern and priority. It is judged that the equipment will fail in the near term or represents a safety hazard and must be addressed in the very near term.

Level 2: The fault should be monitored closely and maintenance should be performed in the next 30 to 60 days.

Level 3: A problem exists that should be addressed in the next shutdown

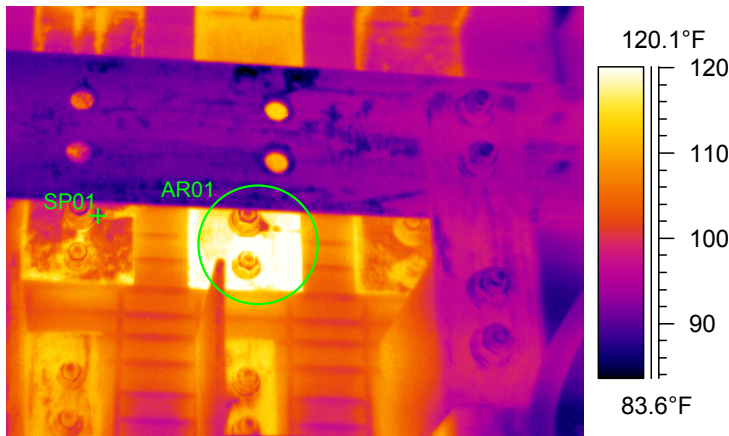
Level 4: The lowest priority. Heating was recorded but failure is not eminent. The fault should be monitored over time.

**Identification**



IR information	Value
Date of creation	11/14/2007
Time of creation	10:12:55 AM
IR Text Comment	Value
Section	Distrib. Sw. Gear 3
Equipment	Mains
Fault	B ph. loose bolted joint
Add. info.	Reference A ph.
Recommendation	Clean and retorque
Fault severity	2
Object parameter	Value
Ambient temperature	79.0°F
Label	Value
SP01	93.8°F
AR01 : max	131.1°F

**Fault description**

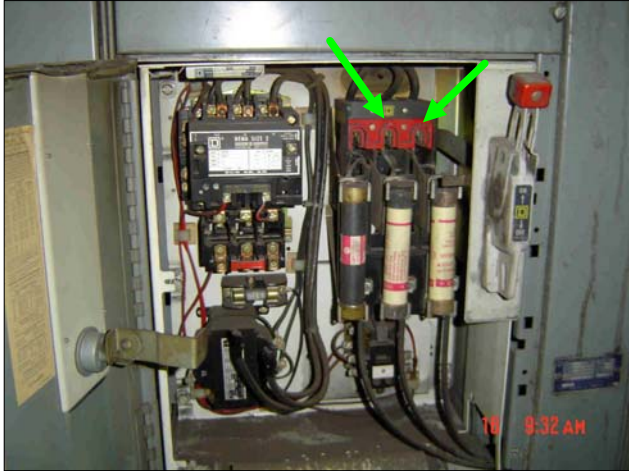


**Recommendation**

**Clean and retorque**

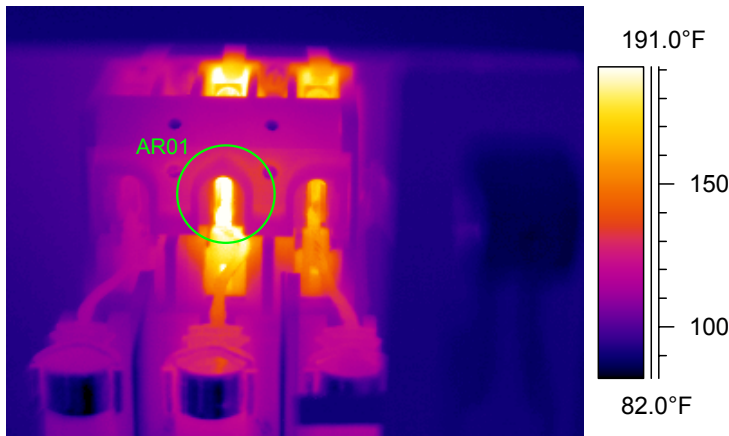
Notes: The B phase bolted joint shows increased resistance at the bolted joint. There are signs of corrosion on some of the buss bars which could also cause the increase resistance. Remediate by cleaning the surfaces and retorquing the joint.

**Identification**



IR information	Value
Date of creation	11/14/2007
Time of creation	10:29:55 AM
IR Text Comment	Value
Section	Foundry
Equipment	Forced draft blwr disc.
Fault	B & C ph. failed contact
Add. info.	none
Recommendation	Replace
Fault severity	1
Object parameter	Value
Ambient temperature	87.0°F
Label	Value
AR01 : max	220.4°F

**Fault description**



**Recommendation**

**Replace**

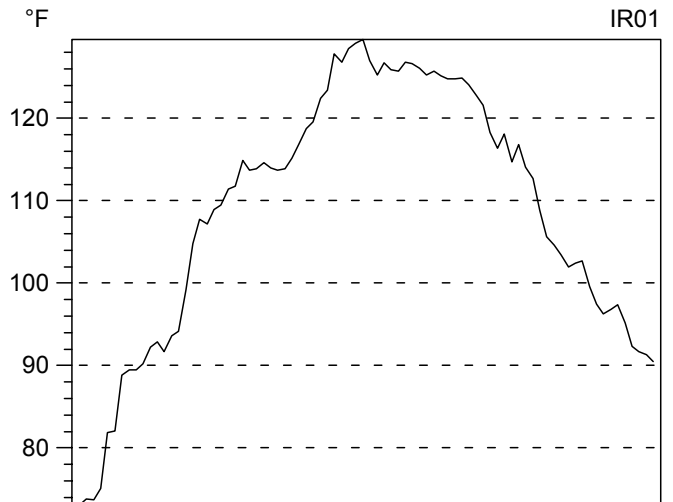
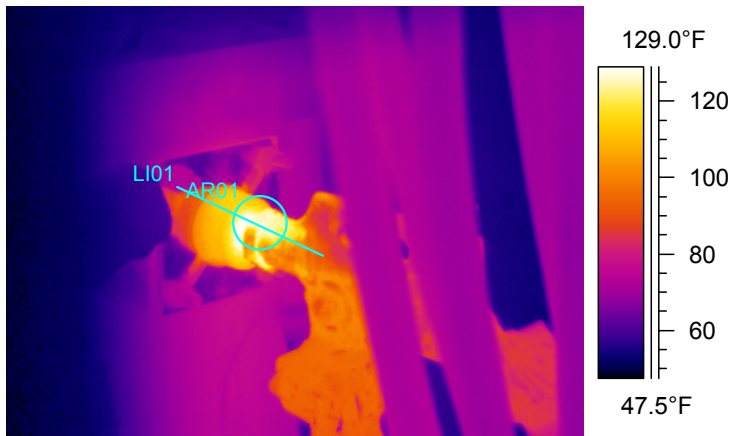
Notes: The failed sliding contact represents an immediate hazard.

## Identification



IR information	Value
Date of creation	11/14/2007
Time of creation	2:22:25 PM
IR Text Comment	Value
Section	Yard Vault
Equipment	Compressor XFMR
Fault	X3 Loose bolted joint
Add. info.	Note discoloration
Recommendation	Clean and refit
Fault severity	2
Object parameter	Value
Ambient temperature	50.0°F
Label	Value
LI01 : max	129.6°F
AR01 : max	176.5°F

## Fault description



## Recommendation

### Clean and refit

Notes: Note that the maximum temperature occurs at the midpoint of line LO1 which correlates to the bolted joint. There are signs of corrosion.



## Summary of Inspection at XYZ Company

### List of Inspected Items Showing a Fault

Section	Equipment	Fault	Sev.	Recommendation
800 Building	PNL 1BL LV	Loose connection	3	Retorque
800 Building	Temp 1 silk screen dryer oven	FU67-69 fuse clip loose conn.	3	CLEAN AND REFIT
800 Building	PNL 3FH BRKR 2	Loose connection	4	Retorque
800 Building	Silk screen room pn brkr 2	Brkr 26 buss or term conn.	3	Retorque
800 Building	Oven pwr pnl 1, HS2, HC6A	Loose conneciton	2	Retorque
800 Building	Temp 1 main cont., furn, TB2	Loose connection	0	CORRECTED
800 Building	Temp 1 main cont., furn, TB2	neutral loose conn.	3	Refit
800 Building	Blower 3, L2	Loose conn	3	Retorque
800 Building	Original service east boil rm	bad disconnect	3	Replace
800 Building	Orig srvc east pnl 4F	bad connection	3	Retorque, replace
800 Building	Orign Srvice East PNL 4F East	Brkr 18 Loose conn.	3	Retorque
800 Building	Orign Srvice East PNL 4F East	Loose line conn.	3	Retorque
800 Building	Autoclave 1	L3 fuse clip loose	3	Clean and refit
800 Building	350 HP compr. main	failed switch contract	2	Replace or refit
800 Building	Comp rm makeup fan pnl	T3 Loose conn	2	Retorque
800 Building	84 Line Lami Wash	B ph bad fuse clip	1	Clean and refit
800 Building	White Room East PNL	Hot Neutral	1	Troubleshoot circuit
800 Building	White Rm xfmr ckt brkr	T2 an T3 loose conn.	3	Retorque
800 Building	Security Rm air handler 4	B ph fuse clip loose	2	Refit
800 Building	Security Rm AHU 3	A phase fuse clip	2	Refit
800 Building	S-5 Washer bottom fuse block	Bad fuse clip conn.	2	Clean and refit
800 Building	S-5 Washer, 1-X2E fuse	Loose wire connection	3	Refit/retorque
800 Building	3000 amp board double edger	300 A switch failed contact	3	Replace
800 Building	Office PNL 3 Sub	Brkr 2 loose conn or failing	3	Retorque/replace
800 Building	Busetti Washer	L1 loose connection	2	Retorque
200 Building	Office PNL 5 Brkr 12	Loose connection	4	Retorque
200 Building	Computer room PNL	Brkr 7 failing	3	Replace
200 Building	Main dist. lighting pnl feed	Bad fuse blade contact	3	Clean and refit
200 Building	Store Rm Lighing top fuse	Bad fuse clip	3	Clean and refit
300 Building West	GPC 3 Byctronic Loader	T1 loose	0	Corrected
300 Building West	Blwr room sw. gear CSSO	C ph sw contact failure	2	Clean and refit or replace
300 Building West	Temp 2 washer heater contact	T1 and T2 loose	0	Corrected