

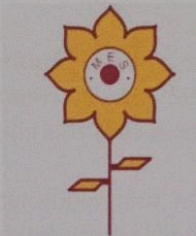


ELECTRICAL SAFETY AUDIT 2024



# Electrical safety Audit Report

For  
**MAHATMA EDUCATION SOCIETY  
RASAYANI - HOC**



Presented By  
**NEW RB ENERGY CONSULTANCY**



Conducted on – 16 MAY-2024

For NEW RB ENERGY CONSULTANCY

Authorised Signatory



## ELECTRICAL SAFETY AUDIT 2024

### ACKNOWLEDGEMENT

RB Energy Consultancy Electrical Safety Audit Team acknowledges with thanks the co-operation and support extended to the team members during the Electrical Safety Audit at MAHATMA EDUCATION SOCIETY – RASAYANI HOC. We deeply appreciate the interest, enthusiasm and commitment of MAHATMA EDUCATION SOCIETY – RASAYANI HOC team towards the Electrical Safety Audit activity. We would also like to place on record our sincere thanks and appreciation to all other members who helped in the Electrical Safety Audit.

We appreciate your business and take it seriously when you place your trust in us. We use calibrated instruments and also have our own Thermography camera. Since the condition of buildings and equipment changes over time, we can only report the conditions that existed at the time of our inspection.

We recommend that you have mission critical equipment re-inspected on an annual basis and that you keep previous inspection reports to help with establishing baseline conditions for any items in question. The conditions and recommended actions reported herein are merely the opinion of the Electrical Safety Audit Team and any item with an action level should be investigated and repaired by a qualified and licensed electrician.

This report does not claim to set forth all existing hazards or to indicate that other hazards do not exist. The inspection and report are performed and prepared for the use of the client. RB Energy Consultancy Services accepts no responsibility for use or misinterpretation by third parties. Our inspection of the property and the accompanying report are in no way intended to be a guarantee or warranty of any kind.

RB Energy Consultancy Services and its employees assume no liability whatsoever for any damage or loss arising from or connected with this inspection and report, including discovering, or failing to inspect or discover any condition.

We reserve the right to refuse to open or access any equipment in cases where there is insufficient PPE (personnel protective equipment) available or an insufficient protective boundary for nearby personnel.



## ELECTRICAL SAFETY AUDIT 2024

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## ELECTRICAL SAFETY AUDIT 2024

1.

### INSPECTION IDENTIFICATION

<b>Client Name</b>	MAHATMA EDUCATION SOCIETY - HOC
<b>Site Location</b>	MAHATMA EDUCATION SOCIETY - RASAYANI
<b>Performed By</b>	New RB Energy Consultancy
<b>Scope of Work</b>	Electrical Safety Audit

### 2. SPECIFICATIONS OF INSTRUMENTS USED

The following equipment's were used to perform this study

<b>Sr. No</b>	<b>Instrument</b>	<b>Make</b>	<b>Range of Instruments</b>
1	Thermal Imager	Testo	Temperature range - 40°C to 500°C
2	Load Manager	Trinity Energy System- (Oracle)	RMS AC Voltage -230 /415 V RMS AC Current Up to 1000A
3	Digital Clamp meter	Meco	400A AC / DC,



## ELECTRICAL SAFETY AUDIT 2024

### 3. INTRODUCTION

This report details the Electrical Safety Audit activity conducted for MAHATMA EDUCATION SOCIETY – RASAYANI HOC. The audit was carried out with the assistance of a member of staff whose role was to identify and locate equipment to be inspected together with opening Electrical Panel doors.

The aim of this report is to highlight the areas that do not comply with the statutory electrical safety rules. Recommendations are provided for the issues observed as per the priority of High, Medium and Low basis which will help the client to take appropriate action on the same.

Locations on the panels and other areas in the common areas of the building were visited and observations were made and images were clicked as a matter of proof. This report includes suggestions to improve upon the faulty areas and a guide to improve the systems further.



## ELECTRICAL SAFETY AUDIT 2024

### 4. RECOMMENDATIONS

The recommendations given in this report are intended as a guide only and should be used in conjunction with advice from the maintenance services provider. The priorities are not intended to be prescriptive; recommendations will depend on individual equipment's.

The recommendation priority will very much depend on the type of components being inspected and their environment. As an example, the following priority classification that will be applied for taking action on the respective areas

Priority	Recommendations
1	Immediate action should be taken
2	Remedial action should be undertaken at the earliest opportunity
3	Remedial action should be taken at the next planned maintenance activity

The actions to be taken are completely on the client and the audit company shall not be responsible for it.

Note: Please note that the below mentioned pending/snags are recorded during our visit at sites. There can be cases where these pending snags were addressed by client in due course of time.



## ELECTRICAL SAFETY AUDIT 2024

### 6. Thermography study

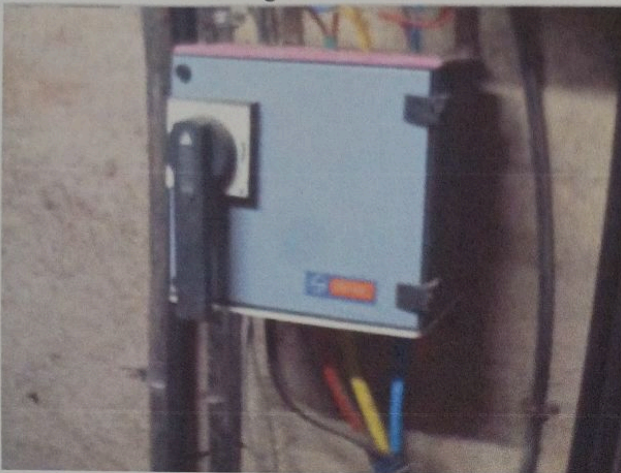
Temperatures	Recommendations
Above 70°C	Urgent action should be taken
Between 55°C and 70°C	Corrective action should be undertaken at the earliest occasion
Between 40°C and 55°C	Corrective action should be taken at the next planned maintenance activity
20°C to 40°C	Found okay



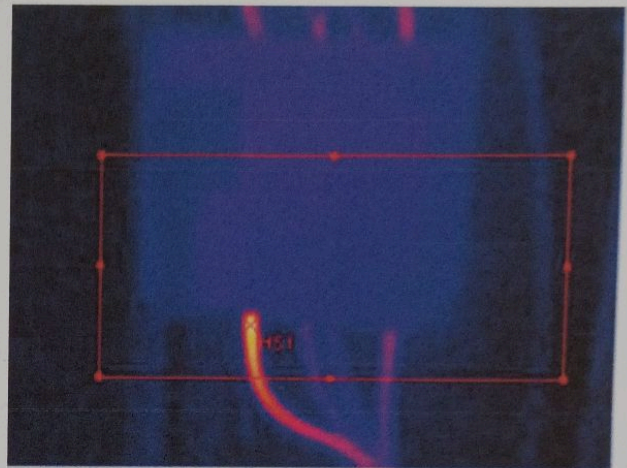
## ELECTRICAL SAFETY AUDIT 2024

Image No: - 01

Visual Image



Thermal Image



Location	Main Panel room
Equipment	Changeover
Fault Location	N - Phase
Area Temperature	26.4

Object Parameters	Value
Image File Name	00078
Emissivity	1
Max Hot Spot Temperature	71.6
Fault Rating	Priority 1

### ANALYSIS & OBSERVATIONS

Found hit on N – Phase due to loose connection.

Corrective action should be taken at the next planned maintenance activity

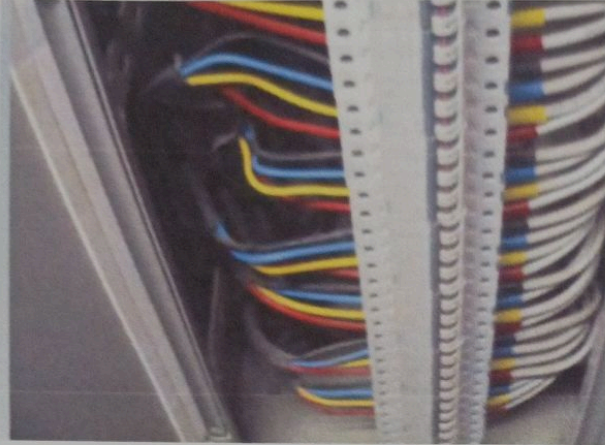




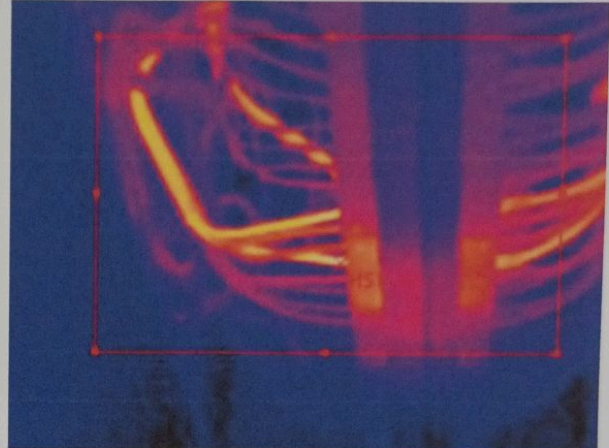
## ELECTRICAL SAFETY AUDIT 2024

Image No: - 02

Visual Image



Thermal Image



Location	Main Electric room
Equipment	Connector
Fault Location	N - phase
Area Temperature	26.4

Object Parameters	Value
Image File Name	00077
Emissivity	1
Max Hot Spot Temperature	59.7
Fault Rating	Priority 2

### ANALYSIS & OBSERVATIONS

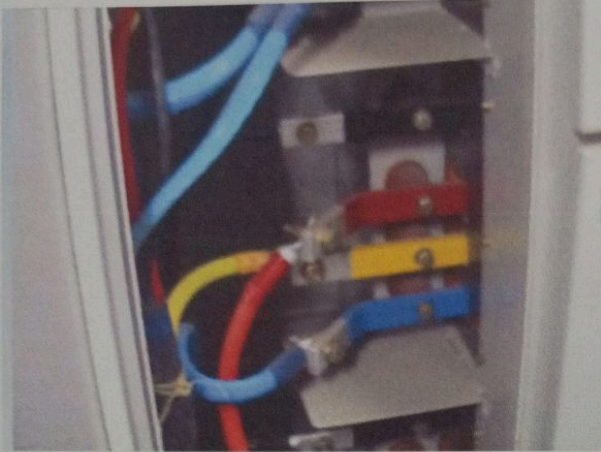
Found hit on N - phase terminal due to loose connection.



## ELECTRICAL SAFETY AUDIT 2024

Image No: - 03

Visual Image



Thermal Image



Location	Main panel room
Equipment	MMS Hall, 400amp.
Fault Location	R - Phase
Area Temperature	26.4

Object Parameters	Value
Image File Name	00076
Emissivity	1
Max Hot Spot Temperature	43.6
Fault Rating	Normal

### ANALYSIS & OBSERVATIONS

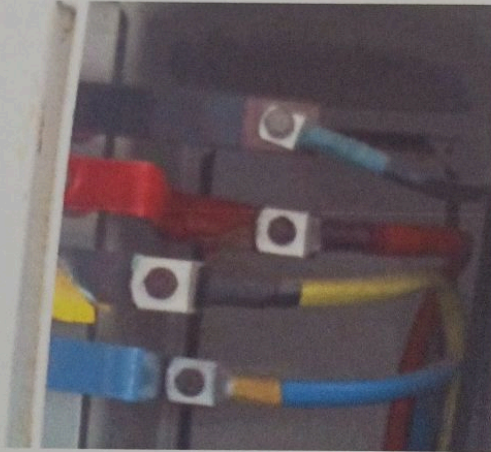
Found Normal



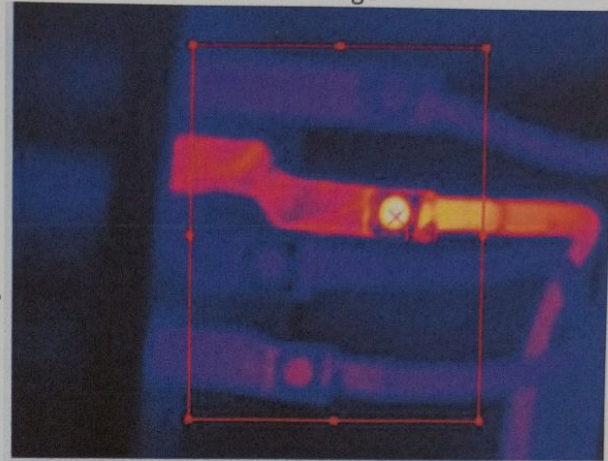
## ELECTRICAL SAFETY AUDIT 2024

Image No: - 04

Visual Image



Thermal Image



Location	Main Electric room
Equipment	Engg. Main 400amp.
Fault Location	R- phase
Area Temperature	26.4

Object Parameters	Value
Image File Name	00071
Emissivity	1
Max Hot Spot Temperature	86 C*
Fault Rating	Priority 1

### ANALYSIS & OBSERVATIONS

Found loose connection on R-phase

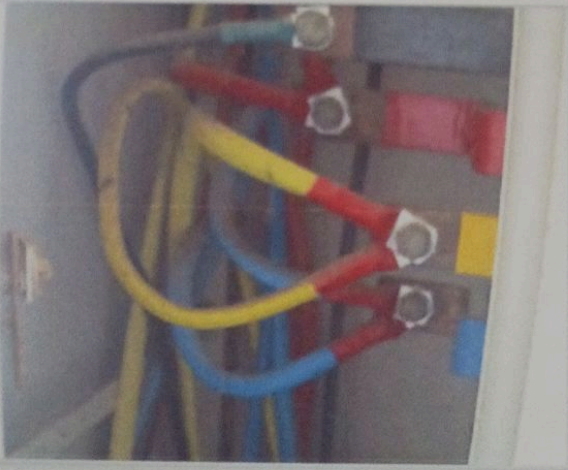
Corrective action should be taken at the next planned maintenance activity



## ELECTRICAL SAFETY AUDIT 2024

Image No: - 05

Visual Image



Thermal Image



Location	Main Panel room
Equipment	Com-5, 400amp.
Fault Location	B - phase
Area Temperature	26.4

Object Parameters	Value
Image File Name	00069
Emissivity	1
Max Hot Spot Temperature	38.5
Fault Rating	Normal

### ANALYSIS & OBSERVATIONS

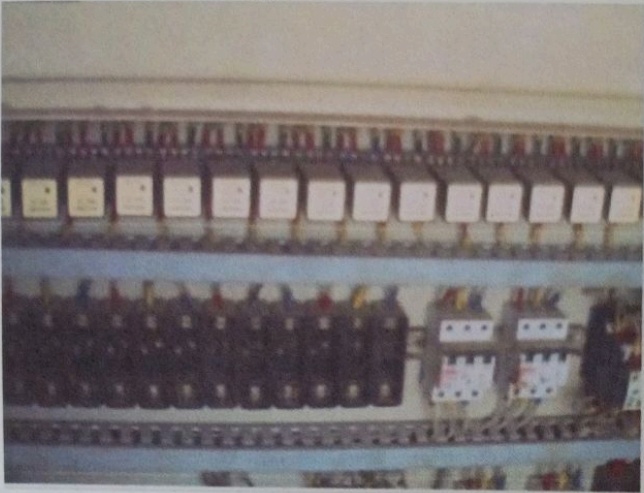
Found Normal



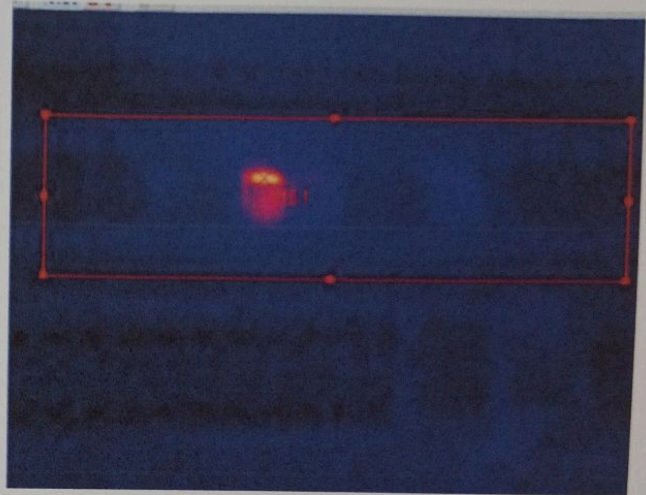
## ELECTRICAL SAFETY AUDIT 2024

Image No: - 06

Visual Image



Thermal Image



Location	Main panel room
Equipment	Capacitor panel
Fault Location	Fuse
Area Temperature	26.4

Object Parameters	Value
Image File Name	00068
Emissivity	1
Max Hot Spot Temperature	26.5
Fault Rating	Normal

### ANALYSIS & OBSERVATIONS

Found ok  
Its Normal