

PPE CHECKLIST FOR LABORATORIES



REDEFINING CARE everyday in every way

Month: October Dept: Histopathology				Month: October Dept: Microbiology				Month: October Dept: Central Lab			
Date & Time	Name of staff	(Yes/No/NA)		Date & Time	Name of staff	(Yes/No/NA)		Date & Time	Name of staff	(Yes/No/NA)	
		PPE	Remarks			PPE	Remarks			PPE	Remarks
16/10/2025 10:00am	Dr. Divya	✓	-	16/10/2025 2:15 pm	Prajith	✓	-	16/10/2025 4:00pm	Anu	✓	-
"	Dr. Nima	✓	-	"	Akhila	✓	-	"	Preesa	✓	-
"	Dr. Ribi	✓	-	"	Shenaj	✓	-	"	Dhanya	✓	-
"	Remya	✓	-	"	Bifana	✓	-	"	Ashna	✓	-
"	Jaya	✓	-	"	Sandra	✓	-	"	Josmi	✓	-
"	Lilly	✓	-	"	Jismy	✓	-	"	Alhulya	✓	-
"	Siji	✓	-	"	Anu	✓	-	"	Sneha	✓	-
"	Dr. Usha	✓	-	"	Sari	✓	-	"	Sabi	✓	-
"	Dr. Aswin	✓	-	"	Nithya	✓	-	"	Ashmi	✓	-
"	Dr. Aniga	✓	-	"	Reshma	✓	-	"	Sali	✓	-
"	Dr. Tina	✓	-	"	Mubashir	✓	-	"	Adithya	✓	-
"	Tintu	✓	-	"	Sally	✓	-	"	Asna	✓	-
"	Anly	✓	-	"	Annie	✓	-	"	Jiya	✓	-
Signature of the Lab in-charge (Name & sign)		St Anny Jh		Signature of the Lab in-charge (Name & sign)		Lilly T. P		Signature of the lab in-charge (Name & sign)		Anwari GH	
Audit Done By (Name & Sign)		Jeerson		Audit Done By (Name & Sign)		Jeerson		Audit Done By (Name & Sign)		Jeerson	

Betsy

Dr. BETSY THOMAS
 MD, FRCOG, DNB, MICOG
 PRINCIPAL
 AMALA INSTITUTE OF MEDICAL SCIENCES
 AMALA NAGAR, THRISSUR-680 555



CODE RED CHECKLIST

Location of Drill: Ward 30

Date: 23/12/2025 Time: 3:41 pm

Sl. No.	Standard	Standard time	Activated time	Remarks
1.	Intimated CODE RED from incident site	1 min	3:42 pm	
2.	Announced CODE RED through PA system	1 min	3:42 pm	
3.	First member of CODE RED team arrived	2 to 5 min	3:43 pm	
4.	Safety Officer Arrival time	2 to 5 min	3:44 pm	
5.	Fire Fighting and Evacuation initiated	2 to 5 min	3:44 pm	

Fire Fighting and Rescue Operations Drill

5.	Doors & Windows closed	YES/ NO/ NA
6.	Electrical appliances were turned off	YES/ NO/ NA
7.	HVAC units were shut down	YES/ NO/ NA
8.	Centralized medical gas supply turned off	YES/ NO/ NA
9.	Brought minimum of 4 fire extinguishers to the spot	YES/ NO/ NA
10.	Brought minimum of 2 stretchers and 3 wheel chairs to the spot	YES/ NO/ NA
11.	Removed equipments from incident area	YES/ NO/ NA
12.	All occupants participated & evacuated	YES/ NO/ NA
13.	Rooms checked prior to closing door	YES/ NO/ NA
14.	Staff rest rooms were checked for occupants	YES/ NO/ NA
15.	Evacuation was orderly	YES/ NO/ NA
16.	Team members were escorted and guided all persons from incident area to assembly point	YES/ NO/ NA
17.	No. of occupants evacuated	Patients :- <u>05</u> -, Visitors :- <u>07</u> -, Staff :- <u>06</u> -, Team members: <u>09</u> -
18.	Mode of Evacuation adopted	Vertical/ Horizontal/ Both
19.	PA System/Alarms clearly heard in all areas	YES/ NO
20.	Crowd managed by securities	YES/ NO
21.	Elevators were switched off	YES/ NO/ NA
22.	Last person reached at the assembly point	Time : <u>3:51 pm</u>
23.	Total number of occupants reached the assembly area	Patients :- <u>05</u> -, Visitors :- <u>07</u> -, Staff :- <u>06</u> -, Team members :- <u>09</u> -
24.	Incident response team responded according to the plan	YES/ NO
25.	Incident response team carried out assigned duty	YES/ NO
26.	Announced all clear by Safety officer	YES/ NO
27.	Evaluation meeting held and route cause analysed	YES/ NO

Total time taken for mock drill: 10 mins.

Notification method used : Public announcement/Fire alarm

Other observations if any: Non-team staff also came to the incident location.

Drill monitored by (Name, Designation & Signature): JANUKRISHNA K.S

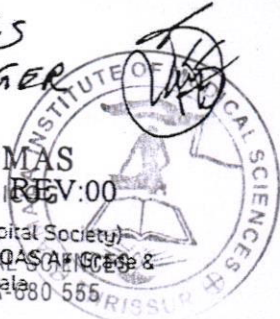
Verified by (Name, Designation & Signature): Jaeson P.J

AIMS/CQI04/QC-10

ISSUE: 01

Dr. BETSY THOMAS
MD, FRCOG, DNB, MRCOG

REV:00



CODE PINK CHECKLIST

Type: Incident/Mock Drill

Date & Time: 25/02/25
2:31 PM

Location: PATRIARCH OF

SL. NO:	EVENT	YES/NO	TIME OF OCCURANCE	TOTAL TIME TAKEN
1	Incident/Mock drill happened	YES	02:39 PM	
2	Child/Person found missing	YES	02:39 PM	
3	Checked with Parents/Guardian/relatives.	YES	2:39 PM	
4	Checked in nearby rooms.	YES	02:39 PM	
5	First responder dials for code pink alert.	YES	02:40 PM	
6	Code Pink Announcement happened.	YES	02:48 PM	
7	Team arrived the spot.	YES	02:50 PM	
8	Information intimated to main gate.	YES	02:52 PM	
9	Security seals all the exit points.	NO	NOT DONE	
10	Patient Relation Executive reached the parents/Guardian/relative.	YES	02:50 PM	
11	Search operation started.	NO	NOT DONE 02:54 PM	
12	Checked CCTV.	NO	NOT CHECKED	
13	Physical examination of child by doctor.	YES	02:54 PM	
14	Police station informed (if required)	-	-	
15	Child/Person found.	YES	02:54 PM	
16	Code pink called off.	YES	02:55 PM	

Deficiencies observed, If any:

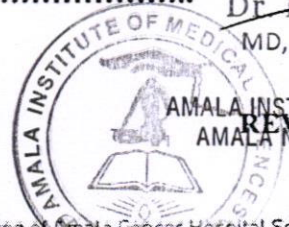
- 1) ANNOUNCEMENT NOT RECEIVED - 2ND CALL NEED TO BE GIVEN
- 2) CODE PINK CALL NOT PROPER
- 3) SEARCH NOT OPERATED NOT DONE
- 3) SEARCH OPERATION NOT STARTED PROPERLY
- 4) STAFF PRES NOT KNOW CORRECT PROCEDURE
- 5) SECURITY SEALS AT EXIT POINTS NOT CLOSED
- 6) CCTV NOT CHECKED

Witness: Somya Thomas

Supervised By: Dr (LT COL) B NIPIN

Betsy

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PRINCIPAL



AMALA INSTITUTE OF MEDICAL SCIENCES
REV: 03 (16/12/2021)
AMALA NAGAR, THRISSUR-680 555

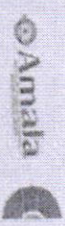
AIMS/COP 11/QC-09





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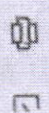


RSO AMALA
to me

Radiation Safety Indicators: MAY 2025

Tue 10 Jun, 15:50 (17 hours ago)

Inbox x



Chat
Starred
Snoozed
Important
Meet

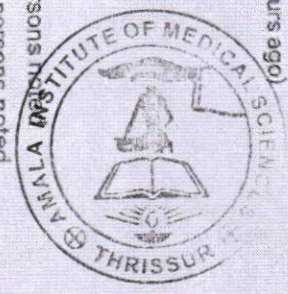
- 1. Radiation Protection Devices - LA & TS usage - 199 persons using out of 199 persons noted
- 2. Radiation Monitoring Devices - TLD badge usage - 193 persons using out of 193 persons noted

[Radiation Safety Indicators: May 2025](#)

Acknowledge the same
with regards,

Joby P J
Chief Medical Physicist & RSO

Sent
Drafts
All Mail
Spam
Bin
More



Radiation Safety Committee

Date&Time:09/10/25 (3:30-4:30 pm)

Venue:DC hall

Duration:1hr

Agenda

17. Previous meeting point.
18. Recent activities by the team members.
19. Safety related incidents by RSO.
20. Aerb communication presented by RSO (Rad.onco, Radiology & NM)
21. Radiation personal protective equipment
22. Proper handling of personal monitoring devices (TLD/Pocket dosimeter)
23. Calibration of the radiation detecting devices.
24. Validity of QA & Licenses of radiation generating machines.

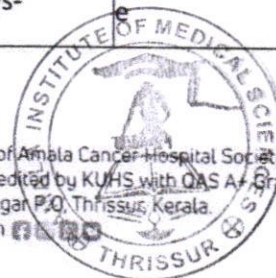
Procedure & Discussions

The meeting started with a prayer. Fr Deljo Puthoor CMI welcomed the gathering and emphasized the importance of the Radiation Safety Committee. Mr Joby P J, secretary presented the previous meeting minutes, agenda and radiation safety related activities.

The following points were discussed in the committee:

(3) Previous Meeting Points

S/No	Point discussed	Suggested action	Responsible dept/person	Status
1	Dental X-ray Decommission	Processing/waiting agency to decommission- GOT approval from AERB,Also company took back the machine	Purcha/Mr.Joby	DONE
2	New PPE for radiology and SSOT	Information from purchase-will get with in 15 days-Distributed	Mr.Joby/Purchas	DONE



(2) Discussion Points

SINo	Point Discussed	Suggested Action	Responsible dept/person	Status
1	Due to missing of TLD	Committee decided to implement locker system to keep TLD (All Radiation related Dept.)-TLD increasing	Mr.Joby	In progress
2	Suggestion from Chairman-add members -Mrs. Lucy from purchase & Ms. Susmi Kurian from Quality	Required update in RSC member list	Mr.Joby	DONE
3	Required update in RSC member list	Sr Daisy resign- Ms. Soumya/Sr.Linet Ms. Lesly- Mrs. Jolly	Mr.Joby	DONE
4	Annual health check	Informed all incharges regarding Annual health check up and share the schedule. Decide to keep the report in their own dept.	All incharges	In progress
5	Radiation test of PPE	All radiation protective equipment done radiation check	Mr.Joby	DONE
6	Need replacement of damaged PPE	There is a need of replacement of damaged PPE during radiation check.	Purchase	In progress
7	Requirement of TLD Gastro students	Applied TLD	Mr.Joby	DONE
8	NM- Old QA check -decayed source exported	Waiting for disposed letter to upload elora	MS.Dincy	In progress
9	Brachy source Ir-192 disposed	Letter of destruction uploaded in elora	Mr.Joby	DONE
10	Calibration has to be done in Barc	Cylindrical chamber,electro meter, well type chamber-13/10/25	Mr.Joby	In progress



The meeting concluded with a thanks giving note by secretary.

Prepared by



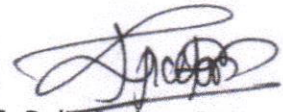
Mr. Joby P J
(Secretary)

Verified by



Dr. Sibub Jacob
(Vice Chairman)

Approved by



Fr. Deljo Puthoor CMI
(Chairman)



Betsy

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GPS Map Camera



Thrissur, Kerala, India
 Lat 10.561208°
 Long 76.168103°
 25/06/24 12:35 PM GMT +05:30
 Note : Captured by GPS Map Camera



Clinical Pharmacy Audit Report on Medication Error

From Sep- Dec	SEP	OCT	NOV	DEC
TOTAL NUMBER OF FILES AUDITED	700	1303	1170	779
NCC MERP				
CAT A	331	695	556	401
CAT B	125	229	244	157
CAT C	31	40	30	6
CAT E	0	0	0	3
SUM OF ERRORS	487	764	830	567



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Electrical Safety Audit
Report

ELECTRICAL SAFETY AUDIT REPORT

2025

(Post Implementation)



**AMALA INSTITUTE OF MEDICAL
SCIENCES**

**AMALA NAGAR, THRISSUR,
KERALA**

EXECUTED BY



ATHUL ENERGY CONSULTANTS PVT LTD

4th FLOOR, CAPITAL LEGEND BUILDING,
KORAPPATH LANE, ROUND NORTH, THRISSUR, KERALA-680020
Ph: +91 735611199/0-6 Web: www.athulenergy.com E-Mail: info@athulenergy.com

July 2025



TABLE OF CONTENTS

ACKNOWLEDGEMENTS	3
OBSERVATIONS	4
THERMAL IMAGES	15
NEUTRAL TO EARTH VOLTAGE ANALYSIS	36
EARTH RESSITANCE	36
RCCB TESTING	37
1. ABBREVIATIONS	38
2. CERTIFICATE	39

LIST OF TABLES

TABLE 1 NUETRAL TO EARTH VOLTAGE.....	36
TABLE 2 EARTH RESISTANCE TESTING.....	36
TABLE 3 RCCB TESTING.....	37

LIST OF FIGURES

FIGURE 1 PHOTOS.....	4
FIGURE 2 THERMAL IMAGE PHTOS.....	16





ACKNOWLEDGEMENTS

We express our sincere gratitude to the management of **Amala Institute of Medical Sciences** for giving us an opportunity to carry out the Electrical Safety audit. The post safety audit was conducted on 20th July 2025.

We are extremely thankful to the staffs for their wholehearted cooperation in completing the post safety audit.

Also mentioning our audit team, who were present there for the study and making their best efforts to add value.

Audit Team

- | | | |
|---|--------------------|--|
| 1 | Mr. Ashok K M P | NSC certified, BEE certified Energy Auditor |
| 2 | Mr. Harikrishnan K | Project Engineer, BEE certified Energy Auditor |
| 3 | Ms. Della David | Project Engineer, BEE certified Energy Auditor |

Yours faithfully



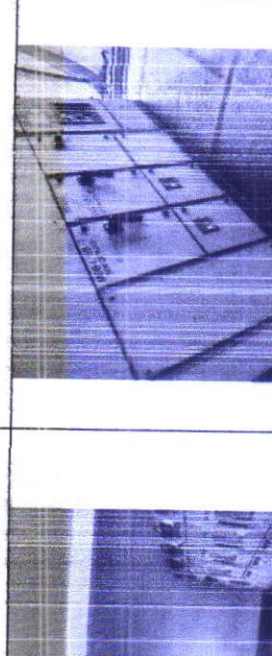
Managing Director
Athul Energy Consultants Pvt Ltd
Date: 20/07/2025


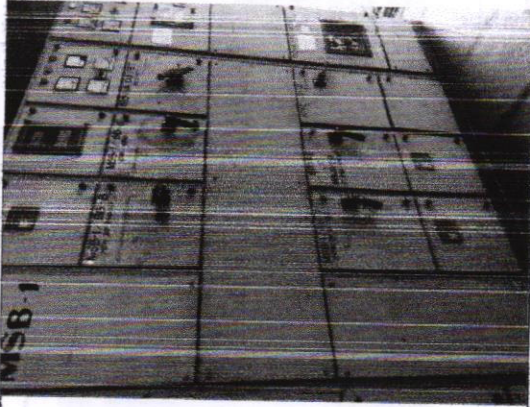




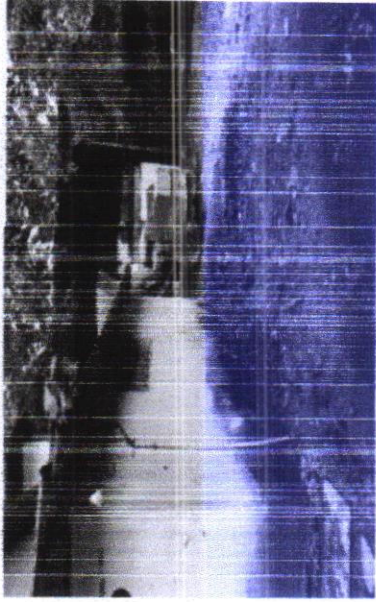
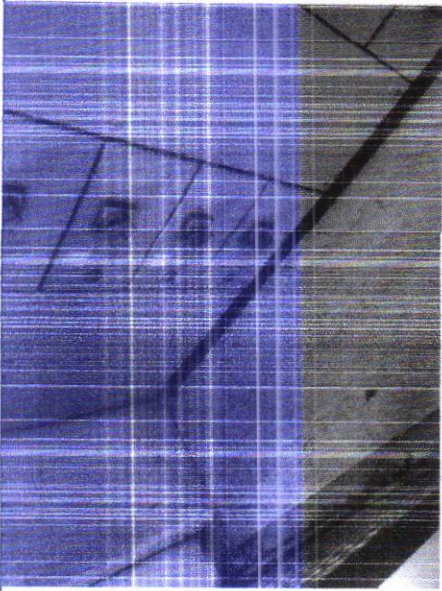
OBSERVATIONS

Figure 1 PHOTOS

SI no	Observation	Location/Photo	Implementation status
1	<p>Medium</p> <p>The electrical safety mats are in a dilapidated condition, and appropriate PPE such as gloves are provided in the room</p>	<p>HT Panel room/LT Panel rooms</p> 	<p>Implemented on 10/07/25</p>

2	<p>Low</p> <p>Unwanted materials are stored in fire sand buckets</p>	<p>LT Panel room - Chavara Block</p> 		<p>Implemented on 15/07/25</p>
3	<p>High</p> <p>A couple of overheated panels are left open, with pedestal fans provided to cool them</p>	<p>LT Panel room - Chavara Block</p> 	<p>Overheating issue resolved</p>	<p>Implemented on 12/07/25</p>

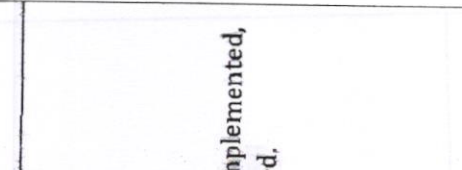
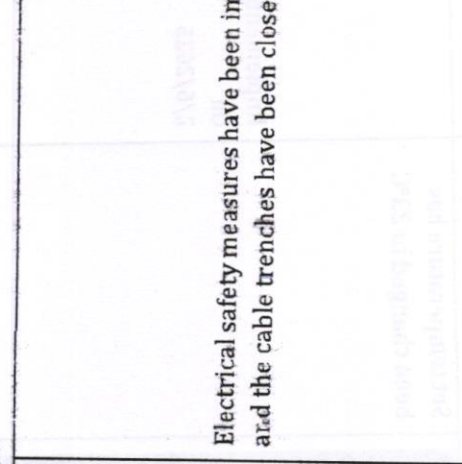

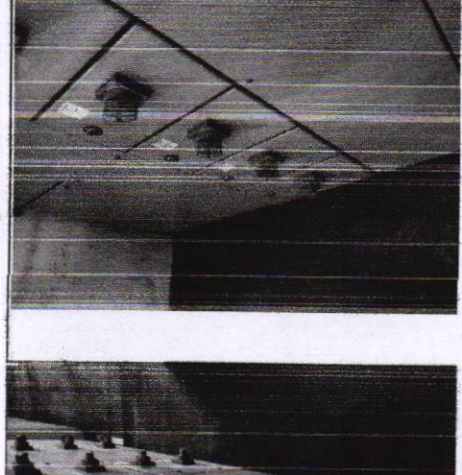
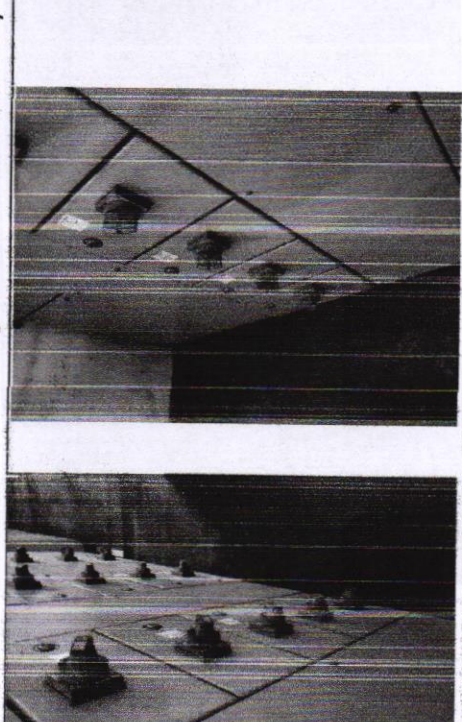


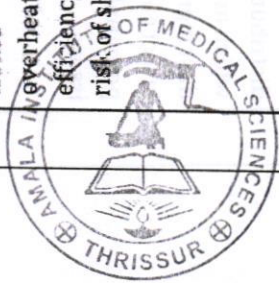
Implementation details		
	Various locations	
4	<p>Medium</p> <p>The earth pits near the Chavara LT panel room are covered with debris. All other earth pits, including the aforementioned, are not properly marked</p> 	<p>Earth pit is marked properly</p> <p>Implemented on 18/07/25 08/06/25</p>
5	<p>High</p> <p>Electrical safety mats are not deployed in front of the panels, and a section of the cable trench is left open, which may pose various hazards</p> 	<p>Electrical safety mats be deployed in front of the panels as per IS 15652 standards.</p> <p>Implemented on 15/07/2025</p>

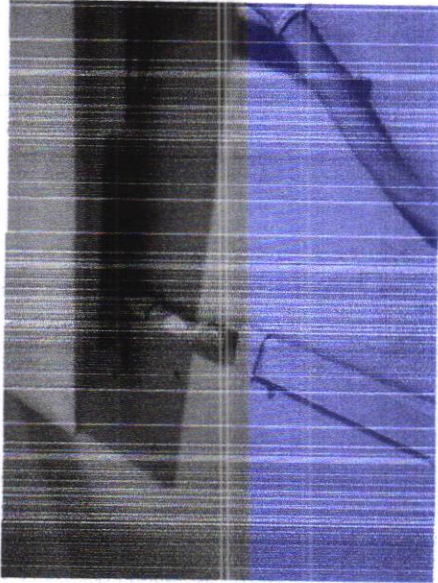
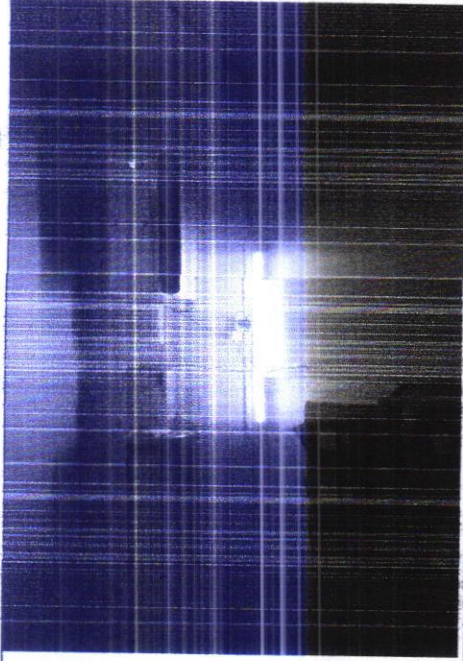




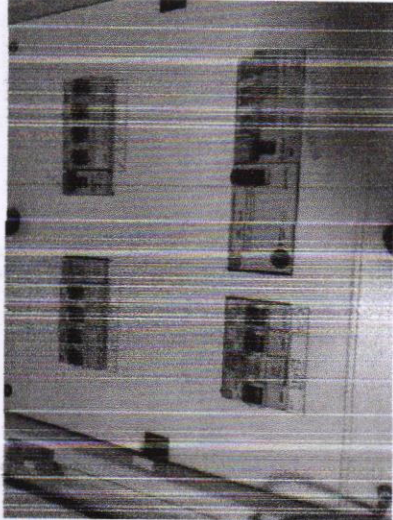
Implementation details on 8/7/2025

 	 	<p>Medium</p> <p>The electrical panels were found to be dusty, which may lead to potential issues such as overheating, reduced efficiency, and increased risk of short circuits</p>	<p>Various locations</p> 	<p>Regular cleaning imposed</p>	<p>Implemented and continuing now from 02/07/2025</p>
<p>Electrical safety measures have been implemented, and the cable trenches have been closed.</p>					

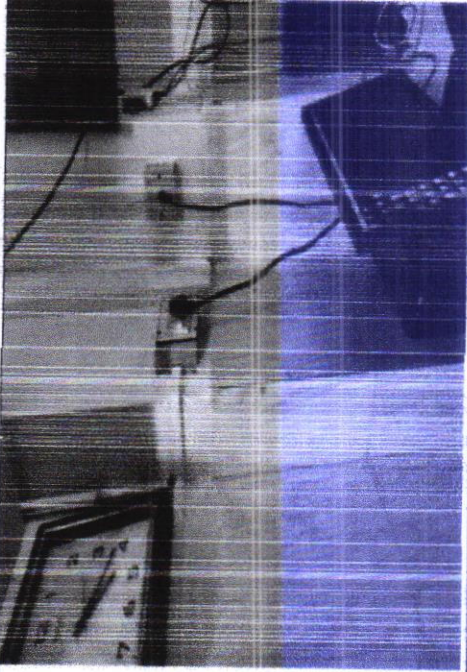
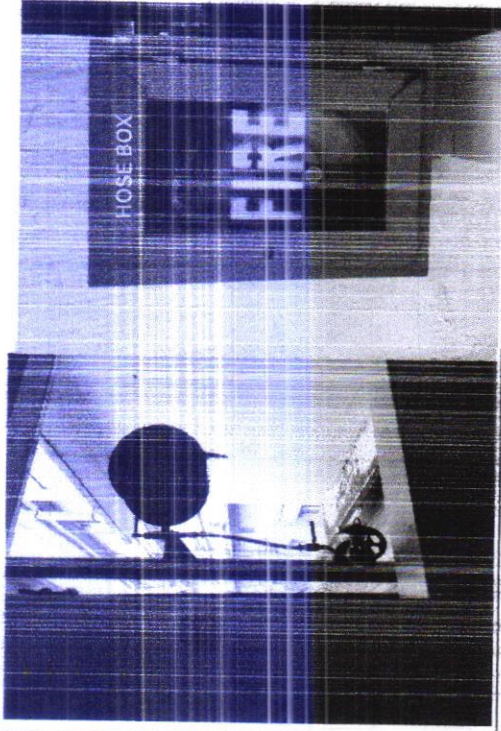


7	<p>Low</p> <p>Knockout holes/openings were observed in multiple distribution boards, which may lead to dust ingress and insect entry, potentially causing issues</p>	<p>Various locations</p> 	<p>Knock out holes sealed</p>	<p>Implemented on 03/07/2025</p>
8	<p>Medium</p> <p>In the infection serology room, one AC unit is running continuously at a low set temperature of 19°C, while the other AC unit is not functioning. This may cause the condenser unit to overheat, increasing the risk of fire or equipment failure</p>	<p>Blood bank - Infection serology</p> 	<p>Set temperature has been changed to 23°C</p>	<p>Implemented On 2/6/2025</p>

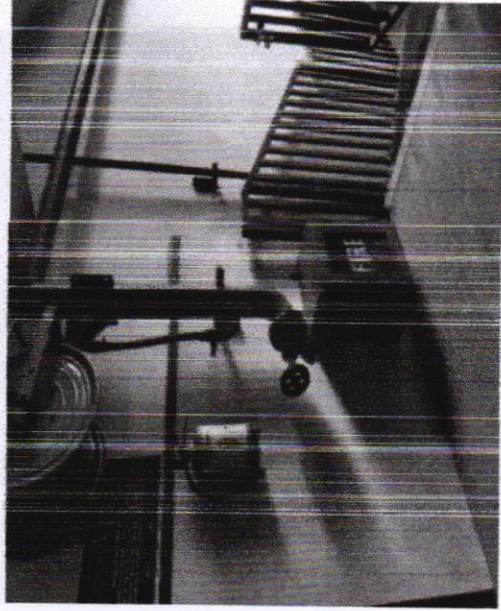
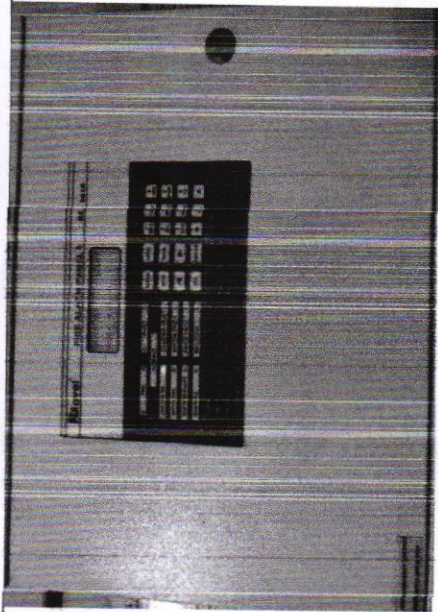


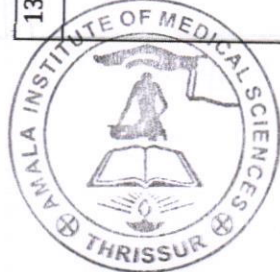
Implementation details			
8	<p>High</p> <p>100 mA RCCBs are installed in most distribution boards, which may not provide adequate protection against electric shock. Some distribution boards, such as Ward 22 DB and SSB 3C LDB, do not have RCCBs installed, and some existing RCCBs are not functional (Refer RCCB testing section)</p>	<p>Multiple locations</p> 	<p>Installed 30mA RCCB in the DBs</p> <p>14/06/25</p>
9	<p>Medium</p> <p>Cable joints were observed in multiple distribution boards, which may pose potential hazards such as overheating, arcing, and electrical faults (Image location: Wall DB - Ward 18)</p>	<p>The cables are removed from the system</p>	<p>Implemented on 12/7/2025</p>
10			

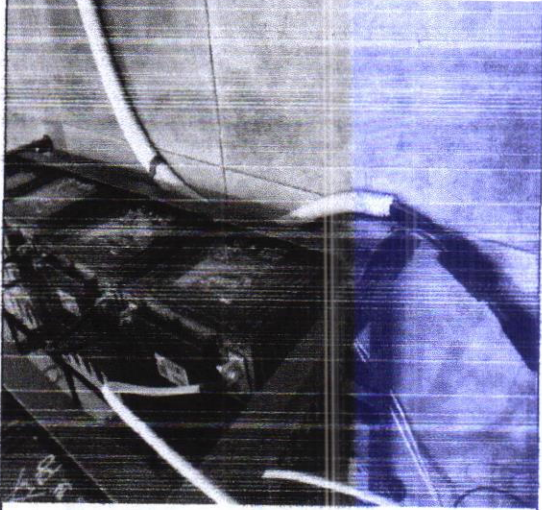


10	<p>Medium</p> <p>Multiple equipment are connected using multi plugs and extension boards, which is not a safe practice (Image : Ward 12 nursing station)</p>	<p>Various locations</p> 	<p>Extension boxes are removed from the system and proper methods are followed up.</p>	<p>Implemented on 18/6/2025</p>
11	<p>Low</p> <p>Manual call points, fire hose reels, hydrant points, and fire extinguishers are not marked as per standard guidelines</p>	<p>Multiple locations</p> 	<p>Proper marking done</p>	<p>Implemented on 19/06/25</p>

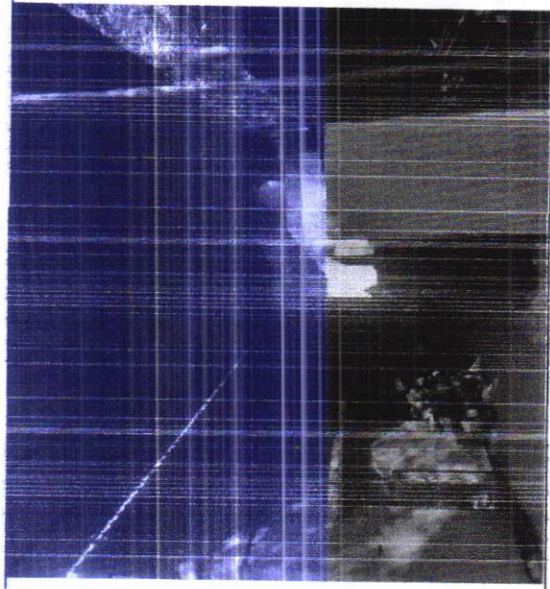


<p>12</p>	<p>High</p> <p>Fire exits near the nursing stations at Chavara block are not marked, with one exit found locked. Multiple obstructions were observed at this and other exits, potentially hindering evacuation</p>	<p>Multiple locations - Fire exits adjacent to nursing stations</p> 	<p>Ensure that all fire exits are clearly marked as per NBC Part 4 - Fire and Life Safety, kept unlocked during occupancy, and kept free from obstructions to maintain clear evacuation paths</p>	<p>Implemented on 15/7/2025</p>
<p>13</p>	<p>Medium</p> <p>One of the fire alarm panels was found to be silenced due to a faulty alarm trigger</p>	<p>Chavara block - Ground floor</p> 	<p>The fault in the detector has been addressed, and the fire alarm panel is now healthy and no longer silenced</p>	<p>Implemented on 11/07/25</p>



<p>The battery racks are not earthed, posing a potential electrical hazard</p>		<p>Proper earthing done in battery system.</p>	<p>Implemented on 24/06/25</p>
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<p>14</p>	<p>Low</p> <p>The generator exhaust height is not as per the prescribed standards, potentially causing safety and environmental concerns</p>	<p>Generator area</p> 	<p>Adjusted the height</p>	<p>On 14/7/2025</p>
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15	<p>High</p> <p>No shrouding is provided for the cable/bus bar chamber located behind the switchgear chamber, posing a potential electrical hazard</p>	<p>LT panel room - Chavara block</p>	<p>Install appropriate shrouding for the cable/bus bar chamber as per IS 8623 (Low-voltage switchgear and control gear assemblies) to prevent accidental contact and ensure electrical safety.</p>	<p>On 18/7/2025</p>
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THERMAL IMAGES

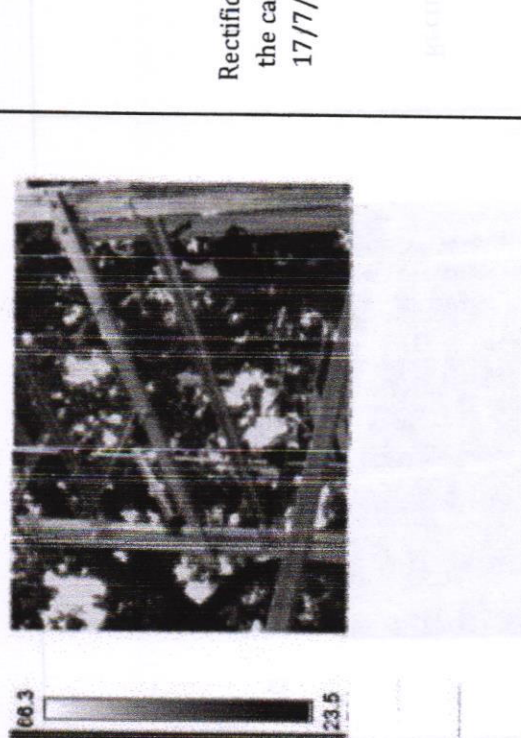
A thermal imaging is a reliable non-contact technology which is able to scan and visualize the temperature distribution of entire surfaces of machinery and electrical equipment quickly and accurately. The electrical panel in the plant and motor casing were analysed using the thermal imager and identified the critical locations that needs urgent attention. Some of the images are given for the temperature profile.

Thermal imaging Guidelines as per NETA (International Electrical Testing Association Inc.

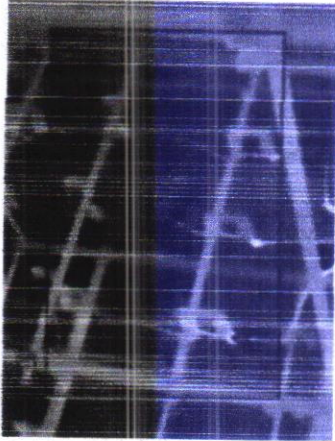
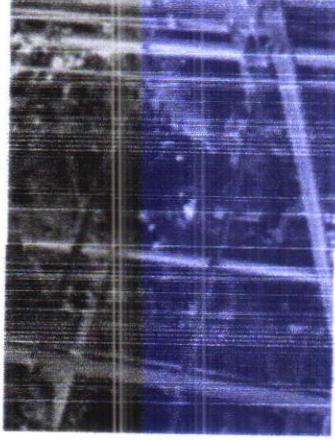
Date of thermal imaging is 20/07/2025




Figure 2 THERMAL IMAGE PHOTOS

1. Location: HT yard near CT PT		Compliance status
	<p>Rectification work done on the cabling on 17/7/2025</p>	

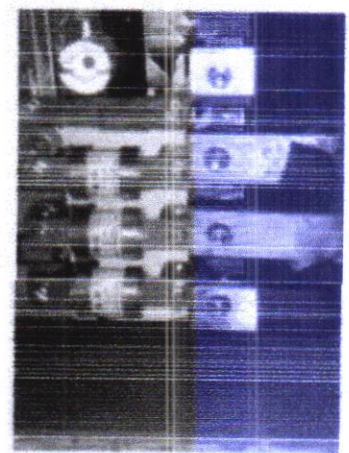


2. Location: DO fuse outgoing		Inference & suggestion	Compliance status								
  <p>Measurements</p> <table border="1"> <tr> <td>Bx1</td> <td>Max</td> <td>46.0</td> <td>°C</td> </tr> </table> <p>Parameters</p> <table border="1"> <tr> <td>Emissivity</td> <td>0.98</td> </tr> <tr> <td>Ref. temp.</td> <td>40 °C</td> </tr> </table>	Bx1	Max	46.0	°C	Emissivity	0.98	Ref. temp.	40 °C		<p>Rectification done in the cabling.</p>	<p>On29/06/25</p>
Bx1	Max	46.0	°C								
Emissivity	0.98										
Ref. temp.	40 °C										



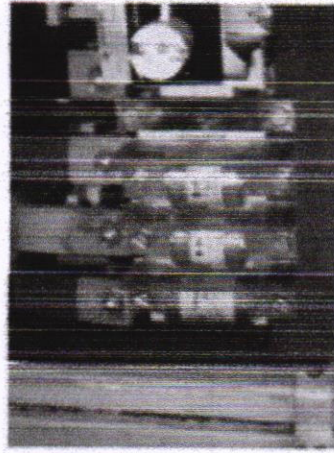
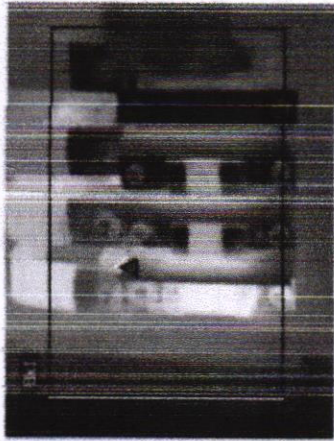
3. Location: MSB - 1/SB3	Inference & suggestion	Compliance status								
 <p>Measurements</p> <table border="1"> <tr> <td>Bx1</td> <td>Max</td> <td>51.0</td> <td>°C</td> </tr> </table> <p>Parameters</p> <table border="1"> <tr> <td>Emissivity</td> <td>0.98</td> </tr> <tr> <td>Ref. temp.</td> <td>40 °C</td> </tr> </table>	Bx1	Max	51.0	°C	Emissivity	0.98	Ref. temp.	40 °C	<p>Proper bolting done in the panels and reduction in the temperature observed.</p>	<p>Implemented on 28/06/25</p>
Bx1	Max	51.0	°C							
Emissivity	0.98									
Ref. temp.	40 °C									



4. Location: MSB 1/SB 2 Main block	Inference & suggestion	Compliance status												
 <table border="1" data-bbox="750 1360 941 1905"> <thead> <tr> <th>Measurements</th> <th>Value</th> <th>Unit</th> </tr> </thead> <tbody> <tr> <td>Bx1</td> <td>48</td> <td>°C</td> </tr> </tbody> </table> <table border="1" data-bbox="829 1360 941 1905"> <thead> <tr> <th>Parameters</th> <th>Value</th> </tr> </thead> <tbody> <tr> <td>Emissivity</td> <td>0.98</td> </tr> <tr> <td>Ref. temp.</td> <td>40 °C</td> </tr> </tbody> </table>	Measurements	Value	Unit	Bx1	48	°C	Parameters	Value	Emissivity	0.98	Ref. temp.	40 °C	<p>Tightening of joints are done and heat level reduced</p>	<p>29/06/25</p>
Measurements	Value	Unit												
Bx1	48	°C												
Parameters	Value													
Emissivity	0.98													
Ref. temp.	40 °C													



5. Location: MSB 1/SH 1 Research block



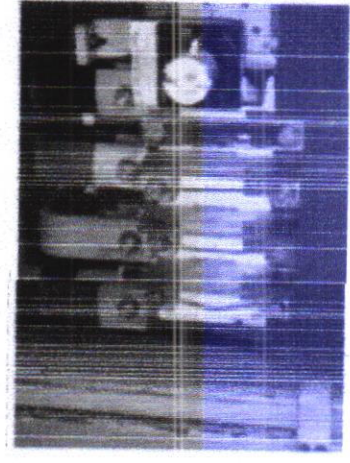
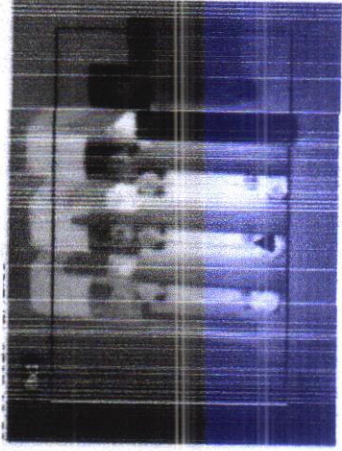
Measurements
Bx1 Max 43.3 °C

Parameters
Rel 0.08
40 °C

Compliance status	Inference & suggestion	
Implemented on 17/7/2025	All bolting's are properly tightened, the fuse is securely fixed,	



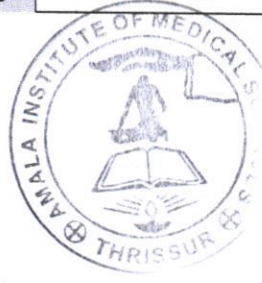
6. Location: MSB 1/SB4 Laundry




Measurements	Max	46.8	°C
Bx1			
Parameters			
Emissivity		0.98	
Ref. temp.		40 °C	

Replace the temporary fuse with a permanent fuse of the appropriate rating to are done on 12/7/2025

Inference & suggestion	Compliance status
<p>Replace the temporary fuse with a permanent fuse of the appropriate rating to are done on 12/7/2025</p>	



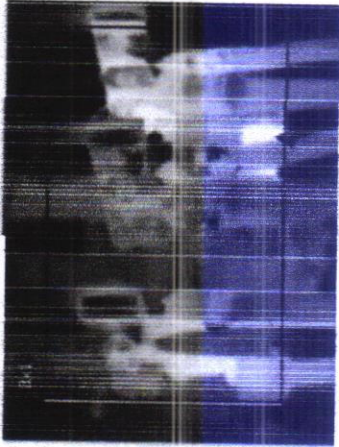
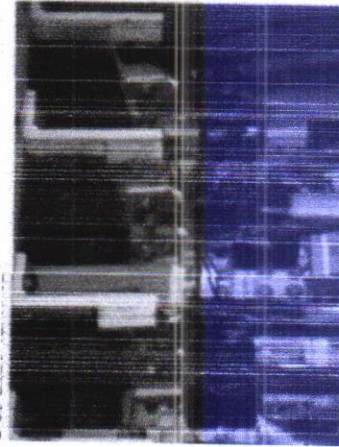


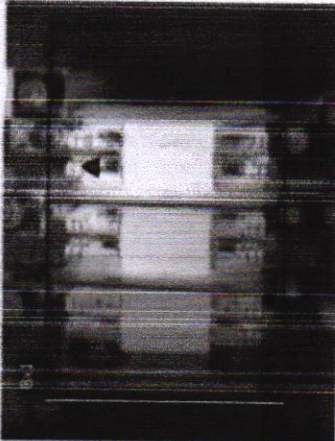
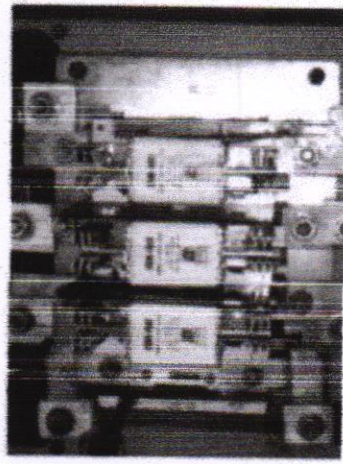
7. Location: MSB 1/SB6	Inference & suggestion	Compliance status
	<p>All bolting are properly tightened and the fuse is securely fixed. 15/7/2025</p>	

Measurements		°C
Bx1	11004	53.3
Parameters		
Emissivity		0.08
Ref. temp		40 °C





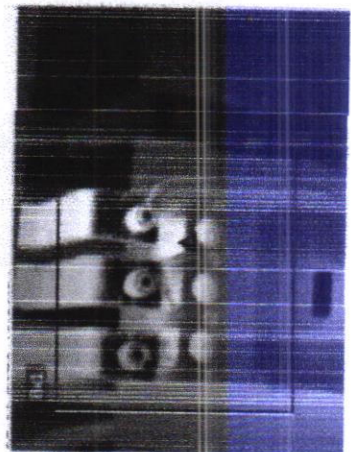
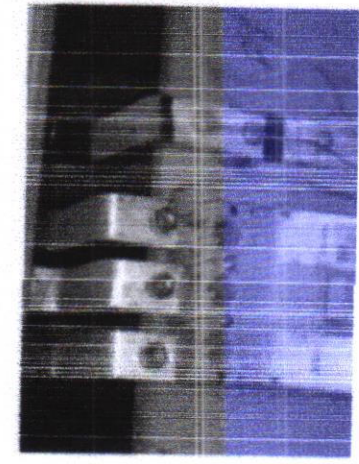
8. Location: Chavara Block / 500kVA incomer	Inference & suggestion	Compliance status												
  <table border="1" data-bbox="750 1383 925 1905"><thead><tr><th colspan="2">Measurements</th><th>°C</th></tr></thead><tbody><tr><td>Bx1</td><td>Max</td><td>53.3</td></tr></tbody></table> <table border="1" data-bbox="829 1746 925 1905"><thead><tr><th colspan="2">Parameters</th></tr></thead><tbody><tr><td>Emissivity</td><td>0.98</td></tr><tr><td>Ref. temp.</td><td>40 °C</td></tr></tbody></table>	Measurements		°C	Bx1	Max	53.3	Parameters		Emissivity	0.98	Ref. temp.	40 °C	Re crimping done 12/7/2025	
Measurements		°C												
Bx1	Max	53.3												
Parameters														
Emissivity	0.98													
Ref. temp.	40 °C													

<p>9. Location: MSB 1/SB-6/SSB -6E near new OP</p>			<p>Inference & suggestion</p> <p>Fuse is securely fixed</p>	<p>Compliance status</p> <p>16/7/2025</p>
---	---	--	--	--

Measurements		°C
Bx1	Max	48.5
Parameters		
Emissivity		0.88
Ref. temp.		40 °C



10. Location: MSB-1/SB-6 Incomer



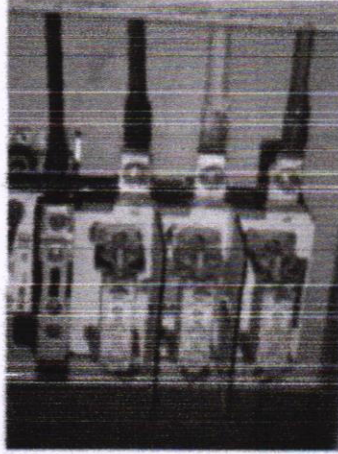
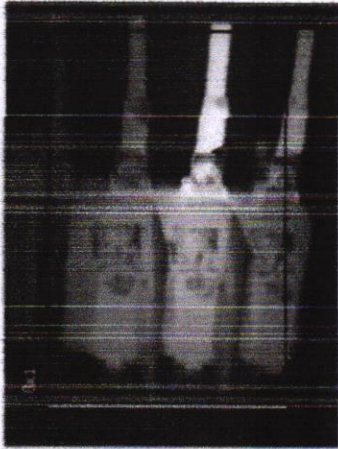
Measurements	Max	46.8	°C
Bx1			
Parameters			
Emissivity		0.08	
Ref. temp.		40 °C	

Inference & suggestion	Compliance status
<p>Checked all terminations, ensure that all bolts are properly tightened, 13/7/2025</p>	





11. Location: MSB-1/SB4/Spares WTP



Measurements	Min	Max	°C
Bx1		47.3	
Parameters			
Emissivity	0.98		
Ref. temp.	40 °C		

Re crimp and re terminate the Y-phase cable to address overheating issues
9/7/2025

Re-crimping of the Y-phase cable to address overheating issues

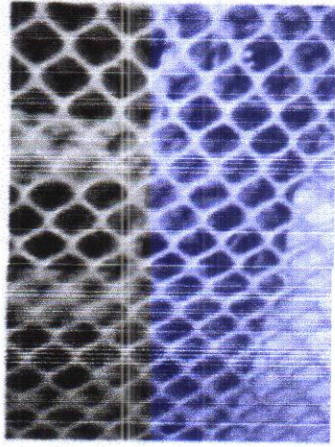
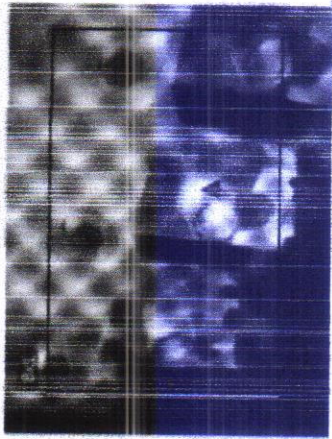
Compliance status

Inference & suggestion





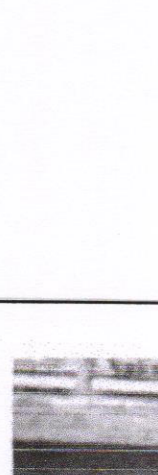
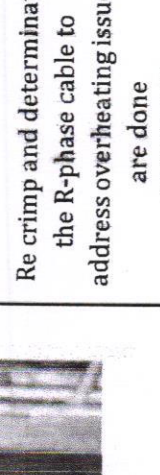
12. Location: MSB-1 SB-3 Incomer

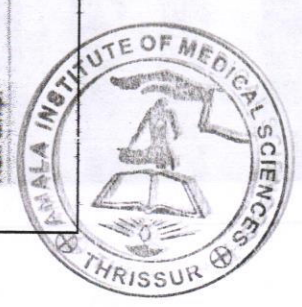


Measurements	Max	49.6	°C
Bx1			
Parameters			
Emissivity		0.98	
Ref. Temp.		40 °C	

Compliance status	Inference & suggestion	
	<p>Checked all terminations, ensure that all bolts are properly tightened 02/7/2025</p>	



13. Location: MSB 1 SB3/AC VDB Ward panel	Inference & suggestion	Compliance status								
  <p>Measurements</p> <table border="1"> <tr> <td>Bx1</td> <td>Max</td> <td>69.3</td> <td>°C</td> </tr> </table> <p>Parameters</p> <table border="1"> <tr> <td>Emissivity</td> <td>0.98</td> </tr> <tr> <td>Ref. temp.</td> <td>40 °C</td> </tr> </table>	Bx1	Max	69.3	°C	Emissivity	0.98	Ref. temp.	40 °C	<p>Re crimp and determinate the R-phase cable to address overheating issues are done 01/7/2025</p>	
Bx1	Max	69.3	°C							
Emissivity	0.98									
Ref. temp.	40 °C									



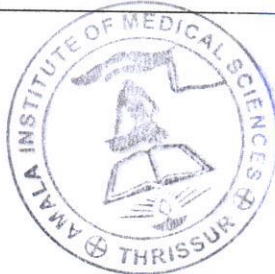




14. Location: MSB 1/SB 2I incomer

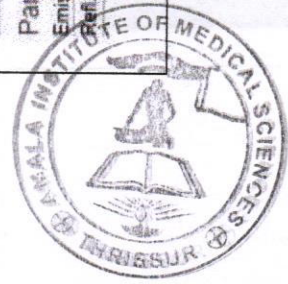


Measurements		°C
Bx1	Mixr	53.6
Parameters		
Emissivity		0.98
Ref. temp.		40 °C

Compliance status	Inference & suggestion	
	<p>All bolting are properly tightened, the fuse is securely fixed, 30/6/2025</p>	

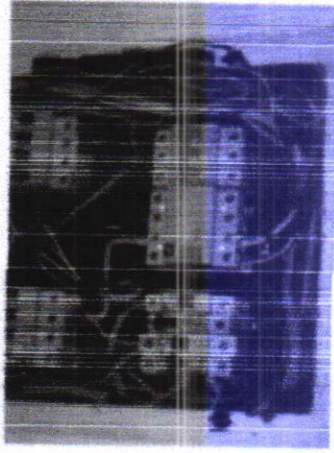
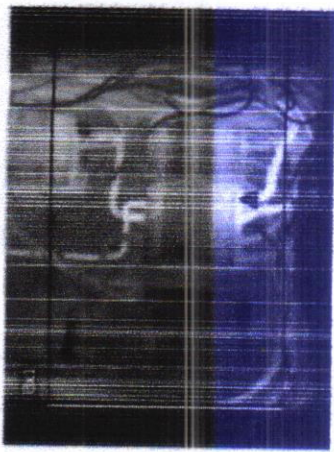


15. Location: Wall DB -- blood bank			Inference & suggestion	Compliance status								
	<p>Measurements</p> <table border="1"> <tr> <td>Bx1</td> <td>Max</td> <td>43.5</td> <td>°C</td> </tr> </table> <p>Parameters</p> <table border="1"> <tr> <td>Emissivity</td> <td>0.98</td> </tr> <tr> <td>Ref. temp.</td> <td>40 °C</td> </tr> </table>	Bx1	Max	43.5	°C	Emissivity	0.98	Ref. temp.	40 °C		<p>Loads are properly distributed among the Phases, 12/7/2025</p>	
Bx1	Max	43.5	°C									
Emissivity	0.98											
Ref. temp.	40 °C											



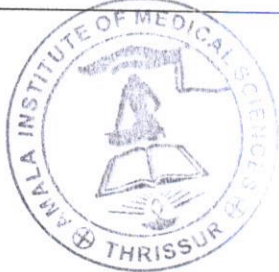



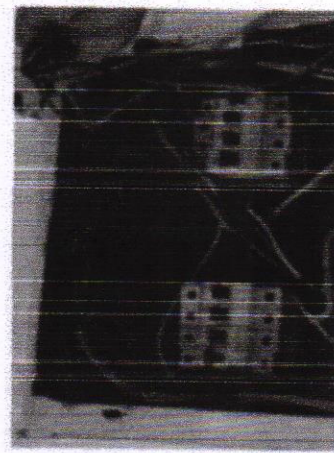
16. Location: Wall DB - Ward 18



Measurements	°C	
Bx1	Mix	74.7
Parameters		
Emissivity	0.68	
Ref. temp.	40 °C	

Compliance status	Inference & suggestion	
	<p>The B-phase cable termination is secure, all terminations are properly tightened, 13/7/2025</p>	



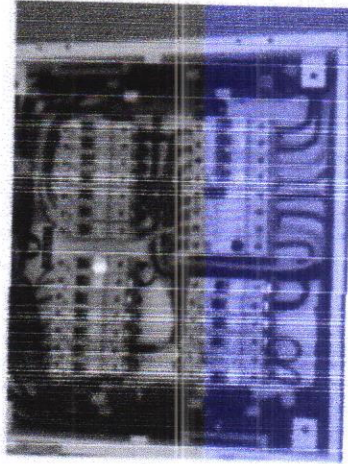
17. Location: Wall DB - Ward 18	Inference & suggestion	Compliance status
		
<p>The cable joints are avoided 11/7/2025</p>		

Measurements	°C	
Bx1	Max	50.9
Parameters		
Emissivity	0.98	
Ref. Temp.	40 °C	





18. Location: Gastro Dept OP wall DB



Measurements		°C
Bx1	Max	43.5
Parameters		
Emissivity		0.98
Ref. temp.		40 °C

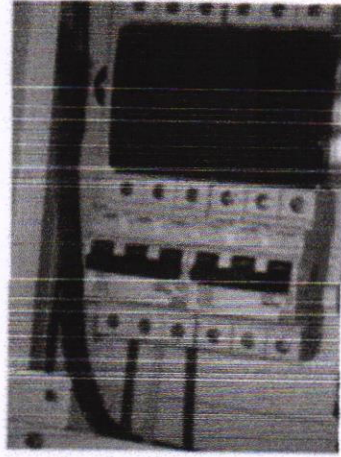
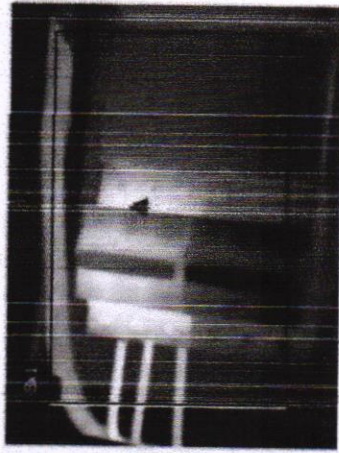
All cable terminations are secure.
29/6/2025

Compliance status

Inference & suggestion



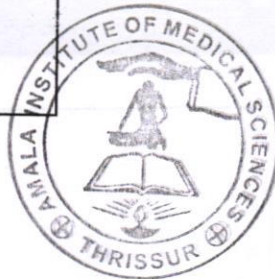
19. Location: Ward 20, Gastro VDB

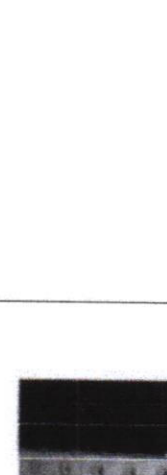
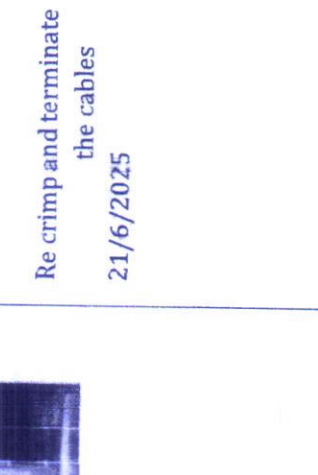


Measurements	Max	48.1	°C
Bx1			
Parameters			
Emissivity		0.98	
Ref. temp.		40 °C	

All cable terminations are properly tightened
22/6/2025

Inference & suggestion	Compliance status
<p>All cable terminations are properly tightened 22/6/2025</p>	



20. Location: Pneumatic operations room	Inference & suggestion	Compliance status							
  <p>Measurements</p> <table border="1"> <tr> <td>Bx1</td> <td>Value</td> <td>61.4 °C</td> </tr> </table> <p>Parameters</p> <table border="1"> <tr> <td>Emissivity</td> <td>0.98</td> </tr> <tr> <td>Ref. temp.</td> <td>40 °C</td> </tr> </table>	Bx1	Value	61.4 °C	Emissivity	0.98	Ref. temp.	40 °C	<p>Re crimp and terminate the cables 21/6/2025</p>	
Bx1	Value	61.4 °C							
Emissivity	0.98								
Ref. temp.	40 °C								





RCCB TESTING¹

Comprehensive testing of Residual Current Circuit Breakers (RCCBs), which are crucial for ensuring electrical safety by protecting against electric shocks and short circuits, was carried out. The primary objective is to measure and analyse the tripping time in milliseconds (ms) under fault conditions. This ensures that the RCCBs provide optimal protection, enhancing the overall safety of the electrical system. The results obtained from these tests are critical for verifying the reliability and performance of RCCBs, ensuring they meet the necessary safety standards and regulations.

Table 3 RCCB TESTING

Sl. No	DB	Time (ms)	Tripping current (mA)	RCCB Rating (mA)	Remarks
1	Wall DB ward 4	53	60	100	Replaced with 30mA
2	LDB inside ward 15	32	40	100	Replaced with 30mA
3	Wall DB ward 18			100	Working now
4	Gastro OP wall DB	26	80	100	Replaced with 30mA
5	Wall DB ward 12	23	70	100	Replaced with 30mA
6	Wall DB ward 11			100	Working now
7	Wall DB ward 9	32	60	100	Replaced with 30mA
8	Wall DB ward 20	19	60	100	Replaced with 30mA

Sl. No	DB	Time (ms)	Tripping current (mA)	RCCB Rating (mA)	Remarks
1	Wall DB ward 4	53	60	100	Replaced with 30mA
2	LDB inside ward 15	32	40	100	Replaced with 30mA
3	Wall DB ward 18			100	Working now
4	Gastro OP wall DB	26	80	100	Replaced with 30mA
5	Wall DB ward 12	23	70	100	Replaced with 30mA
6	Wall DB ward 11			100	Working now
7	Wall DB ward 9	32	60	100	Replaced with 30mA
8	Wall DB ward 20	19	60	100	Replaced with 30mA



¹ RCCBs were randomly tested; it is recommended to conduct periodic testing of all RCCBs at the facility. Additionally, consider installing 30 mA RCCBs wherever feasible to enhance safety



NEUTRAL TO EARTH VOLTAGE ANALYSIS

This section details the voltage levels and neutral-to-earth voltage (NEV) measurements for various sockets within the building. These readings are essential for ensuring the electrical system's safety, efficiency, and reliability. Maintaining a low neutral-to-earth voltage (<5V) is crucial for the safe and efficient operation of electrical equipment. High NEV can indicate issues such as poor grounding, potential electrical faults, or unbalanced loads, leading to equipment malfunction, electrical shocks, or even fires. Regular monitoring of NEV helps in identifying and addressing these issues promptly, ensuring a safe environment for personnel and equipment.

Table 1 NEUTRAL TO EARTH VOLTAGE

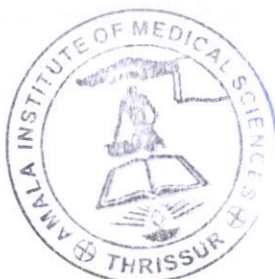
Sl. No	Plug Point	P-N Voltage	N-E Voltage	Remarks
1	Ward 4 nursing station	231	3.9	Good
2	OT waiting area	222	1.2	Good
3	Blood bank	229	2.9	Good
4	Ward 15 nursing station	238	4.7	Good
5	Pulmonology	229	1.1	Good
6	Gastro OP dept	232	2.5	Good
7	Ward 11 nursing station	230	0.6	Good

EARTH RESISTANCE

Earth resistance is crucial for ensuring effective grounding, which safely dissipates fault currents and prevents electric shock hazards. Low earth resistance minimizes voltage build-up during faults, reducing the risk of equipment damage and enhancing overall electrical safety. Regular monitoring helps maintain grounding system integrity and prevents potential hazards.

Table 2 EARTH RESISTANCE TESTING

Sl. No	Pit name	Measured resistance (Ω)	Leakage current (mA)	Remarks
1	Earth pit 31	0.31	3.05	Good





2. CERTIFICATE

NSC certified person



NATIONAL SAFETY COUNCIL Certificate

This is to certify that

Mr. Ashok K M P

Registered ID No. 20180401149

has successfully completed NSCI E-learning course on
Electrical Safety

Conducted from 26/03/2019 to 23/05/2019

Securing " A " Grade

Course Coordinator

**(Lalit R. Gabhane)
Director General**



Betsy

Page 39 of 38

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MD, FRCOG, DNB, MICOG
PRINCIPAL
AMALA INSTITUTE OF MEDICAL SCIENCES
AMALA NAGAR, THRISSUR-680 555



1. ABBREVIATIONS

NEV	:	Neutral to earth voltage
CEA	:	Central electrical authority
CPR	:	Cardiopulmonary resuscitation
dB	:	Decibels
EMC	:	Energy management center
HT	:	High tension
LT	:	Low tension
IEEE	:	The Institute of electrical and electronics engineers
ITP	:	Inspection test plan
MCCB	:	Molded case circuit breaker
MSB	:	Main switch board
NBC	:	National building code
NETA	:	International electrical testing association Inc.
NSC	:	National safety council
PPE	:	Personal protective equipment
SSB	:	Sub switch board
VCB	:	Vacuum circuit breaker
RCCB	:	Residual current circuit breaker

