Safety Inspections & Electrical Services Ltd

Testing Inspection Compliance Risk

The safe solution for
Electrical Inspection and Testing
Thermal Imaging surveys
and Statutory Local Exhaust Ventilation Examinations

www.siaes.co.uk

What we do?

Welcome to Safety Inspections and Electrical Services Ltd (SIAES).

At SIAES all your Electrical Inspections and Local Exhaust Ventilation Examinations requirements are taken care of.

We primarily deal with all aspects of Electrical inspections/ tests and surveys with Electrical periodic Inspections (EICRs) being the core business. Whether its a small domestic flat or a complex factory or hazardous area site; we can inspect and test it and produce a high quality report of the condition.

The other core part of the business is Local Exhaust Ventilation Examinations (LEV), where the safety of workplaces using hazardous substances that fall under the COSHH regulations are periodically inspected/tested to ensure continued safety. Any type, size and production process of LEV system can be catered for.

The other inspection services we offer are Electrical Thermal Surveys, In Service Inspection and Testing of Electrical Equipment (PAT testing - in conjunction with an EICR only) and various other electrical services to assist in your sites electrical compliance.

Highest quality service every time

We are a fully independent family run inspection company based in Lanarkshire Scotland.

Established in 2021, we currently cover the whole of the UK. Our Senior Engineer Surveyor and MD, Kenneth Parker has extensive previous experience with the Ministry of Defence, RSA Engineering and British Engineering Services/Vulcan Inspections in the insurance inspection and test industry. He is qualified to the top levels in Local Exhaust Ventilation (LEV) Statutory Thorough Examinations and Tests, Electrical Inspection and Tests and Electrical Thermography. With the BOHS P601 qualification for LEV and the latest 18th edition BS7671 and COMPEX for Electrical Inspection and Test and Hazardous areas Electrical competency. Kenneth is also a level 1 Thermography surveyor as certified by the Institute of Thermography; he is a Licentiate member of the ILEVE for LEV, and an Approved Electrician with the SJIB.

After years of experience in the Engineering Insurance and compliance sector, we aim to provide a quality that is the gold standard in our field. We do this by our company ethos of knowledge, quality and service; allowing us to carry out extremely detailed and thorough inspections and tests which consequently produce the most accurate, quality reports. We are a small independent company that does not have the same pressures of the large inspection companies. We do not answer to equity investors or shareholders, and are totally impartial with inspections/tests because we do not ask to quote for remedial works from the results of an inspection. This allows us to concentrate on you the customer, and provide you with the best possible service to meet your inspection needs.

Why choose us?

Always on time inspections before their due date, 100% guaranteed. As a small business we provide a personal service tailored to your business needs.

Quality, professional service every time by our highly qualified Engineer Surveyor/ SJIB Electrician.

Over 20 years experience in the electrical contracting and Inspection and test industries.

From the branded workwear to the calibration of our test Instruments and the printing of this brochure; as a business based in Lanark we strive to use local or regional businesses when we are able to.

As a local business to the Lanark area, we try and support local groups and clubs through sponsorship. Recent sponsorship has included Lanark Rugby clubs contact tops for the new U13s players and support for the Clydesdale Community Concert Bands Summer/Christmas Concerts

What our Customers Say

We offer comprehensive quality inspections, engineering examinations and electrical services that are unmatched on the market for quality-price. Here is what some of our previous customers have said about us:

"I contacted Kenneth to carry out an EICR AND PAT for my first rental property. He was very punctual and thoroughly explained what would be involved. Kenneth carried out the work efficiently and promptly provided me with a detailed report. I will be contacting him again very soon to carry out an inspection on another property."

Kim - Lanark - EICR Electrical Inspection & Test

"Kenneth came to inspect our electrics as we were having an issue when it rained with the power going off. He was very polite, efficient and knowledgeable. He was able to identify the issue relatively quickly. He then replaced the faulty box where water was getting access to. We have had no issues since. I will definitely use Kenneth again, and would have no hesitation in using him again in future."

David - Linlithgow - Electrical Fault Finding

"Kenny was very considerate when he came to do our inspection and fitted around our opening hours as much as possible. Kenny was friendly and helpful. He explained the report and actions required in a clear manner. We will be using Kenneth Parker again in the future."

Margaret - Whitmuir Farm & Cafe - EICR Electrical Inspection & Test

"Excellent friendly service, never gave up fixing my problem"

Robbie - Lanark - Electrical Fault Finding

"If you're looking to get PAT testing done and have been apprehensive about who to get to do it... look no further.. Kenny's your man. Total pro. Even with all the weird and wonderful gear involved in safely running a rock band."

NS4 Productions/ Man From Delmonte Band - Lanark - PAT Testing

"Kenneth from SIAES was very friendly and knowledgeable when doing our yearly PAT test. He was able to answer any questions we had and explained any discrepancies he found. Kenneth fixed any problems with speed and efficiency and completed all work with a high attention to detail and professionalism. Already booked for next year"

Lica Homecare - Lanark - PAT Testing

"I've used Kenny for several EICRs now, he's always provided a professional, quality service. I'll definitely be using him again in the future."

Robert- Linlithgow - EICR Electrical Inspection & Tests

"Kenneth Parker recently installed smoke alarms to ensure that our home is compliant with Government regulations. We were delighted with Kenneth's professional approach. He explained everything very clearly so that we understood how alarms worked. His standard of workmanship was excellent. We would highly recommend Kenneth to others thinking of doing similar installations"

Loraine - Lanark - Electrical Work (Smoke Detectors)

"I had Kenny at my house for some electrical work twice recently (1st job was 1st class hence why I asked him back again) - I'm not electrically minded at all so Kenny was clear in his explanations of what was required for the work I was asking to be carried out. His work was tidy, clean and professional and safety was & is never compromised by him, with him adding an RCD to the last job to provide additional safety across our kitchen.
I'd happily recommend Kenny to anyone needing work carried out."

Iain - Lanark - Electrical Work

Health & Safety

At Safety Inspections and Electrical Services we take safety very seriously. The whole ethos of the company is to increase safety through inspections and testing, and this obviously extends to how the job is carried out in the first place. All inspections/ surveys have:

- Risk assessments and method statements.
- Electrical isolations are done in a controlled manner and with safety ‘lock offs' fitted to protective devices and isolators.
- Warning signs are positioned where necessary and consultation with site operators is sought for the likes of LEV systems.
- The correct PPE is worn at all times for the differing types of inspection, test or survey.

Insurance and Risk

As many of the inspections we do can have an impact on insurance policies, rest assured that we have the experience and knowledge to deal in this sector. With Kenneth Parker previously working for an insurance company; risk/ insurance based engineering inspections are things that he is well versed in. We currently work with a large insurance broker managing electrical inspections at one of their clients large factories in central Scotland. With a Public liability cover of £5 million and Kenneth’s Professional Indemnity liability cover of £1 million, you can have peace of mind with Safety Inspections and Electrical Services Ltd.

Electrical Installation Condition Reports (EICR)

Compliance: The Electricity at Work Act 1989, BS7671, DSEAR

This in-depth inspection and test of the electrical installation provides you with all the information you need to assess potential risks and the continued usability of the current electrical installation.

The Electricity at Work Act 1989 requires:

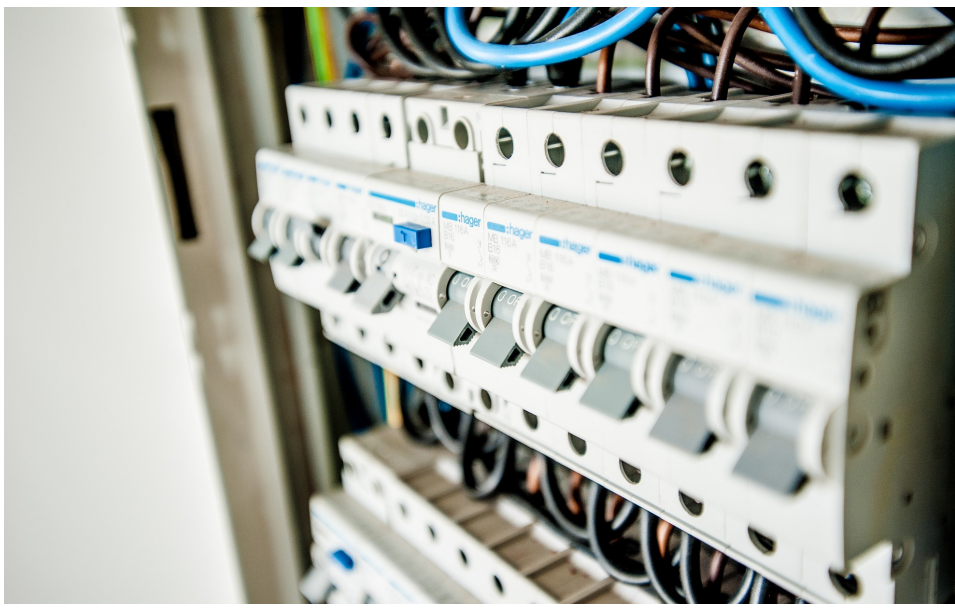
"*As may be necessary to prevent danger, all systems shall be maintained so as to prevent, so far as is reasonably practicable, such danger*." - Regulation 4 Systems, work activities and protective equipment

In the case of electrical installations, it is implying that they should be maintained and checked regularly to prevent danger (risk of injury/ harm). Therefore, to comply with this regulation we carry out periodic inspection and tests to BS7671 (Requirements for Electrical Installations. IET Wiring Regulations).

The Electrical Installation Condition Report (EICR) will highlight any dangers and potential problems developing in your installation, which can be used to ensure the continued safety/ serviceability of the electrical installation. This is done by a mixture of Inspections and Testing of the installations circuits. The customer is always consulted as to the approach to be taken regarding any power outage necessary and if there are any limitations on the EICR that may have to be put in place. At all times safety is at the forefront of all testing, with signage, barriers, locks used when necessary.

We offer EICR inspections and testing of electrical installations for all types of premises. From a house or flat to a large industrial or commercial building.

Since the business started in the autumn of 2021 we have carried out EICRs for large industrial factories, large student



accommodation buildings, commercial premises as well as domestic houses and flats.

In his previous career roles Kenneth Parker has carried out EICRs on blue chip companies headquartered in Edinburgh, dozens of council buildings in West Lothian Council (including Schools and Leisure Centres) as well as EICR ATEX (hazardous area) electrical inspections of Whisky distilleries and petrochemical installations (including the fuel depots of most of the major Airports in Scotland). We have you covered when it comes to experience with Electrical Installation Condition Reports.

Advantages: Increase electrical safety, reduce fire risk, reduce insurance premiums, comply with the Law

Local Exhaust Ventilation (LEV)

The Health and Safety Executive require all businesses to comply with the Control of Substances Hazardous to Health regulations (COSHH). This therefore requires employers to adhere to various aspects of the regulations, and where necessary install and maintain Local Exhaust Ventilation (LEV) systems were it is impossible to eliminate the hazardous substance from the work process.

Under COSHH regulations, LEV systems must be given a Statutory Thorough Examination and Test (TExT) at least every 14 months. We carry out Statutory Thorough Examinations and Tests on all types of LEV systems, including Dusts, Fume and Vapour. Typical LEV systems we deal with are Wood Dust extraction, Grain/Malt Dust extraction, Shot-blasting dust extraction, Welding Fume extraction, Paint spray booths, Fume Cupboards, Air Changes Dilution ventilation etc... From the simplest one hood extraction systems to large complex grain handling systems, from small 40mm duct sizes to huge 2m ducts, we can inspect/test them.

Compliance: Statutory Regulation 9.(2) of COSHH Regulations 2002

At Safety Inspections and Electrical Services, we promise to provide the highest quality Thorough Examination and Test of your LEV system at extremely competitive prices.

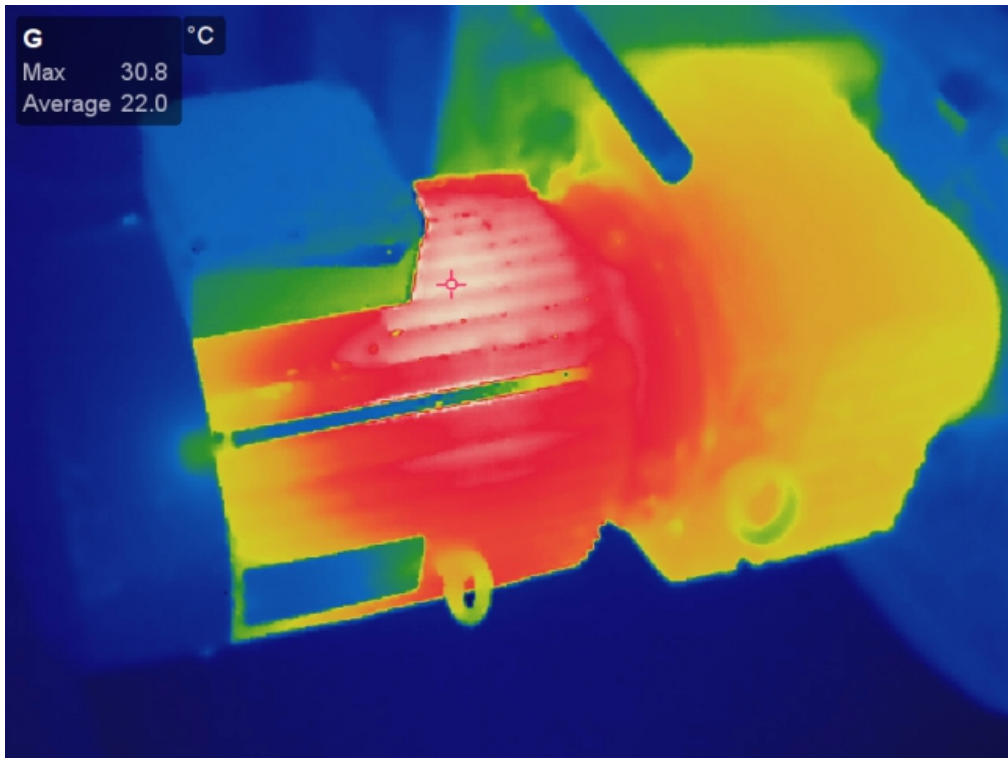
Insurance companies and brokers often require businesses to prove that they are minimising the risk regarding their COSHH liabilities and will require LEV systems to have a TExT to keep annual premiums down. Our Statutory TExTs allow insurers to be confident that the LEV systems are receiving the highest quality inspection. This is also backed up by our impartiality as we do not quote for remedial repair/work on the back of the results of the TExT. Therefore meaning that we are only interested in the honest condition and performance of the LEV system.

Advantages: improve/maintain good workplace health, maintain performance, comply with the Law

Thermography

(Thermal Imaging Surveys)

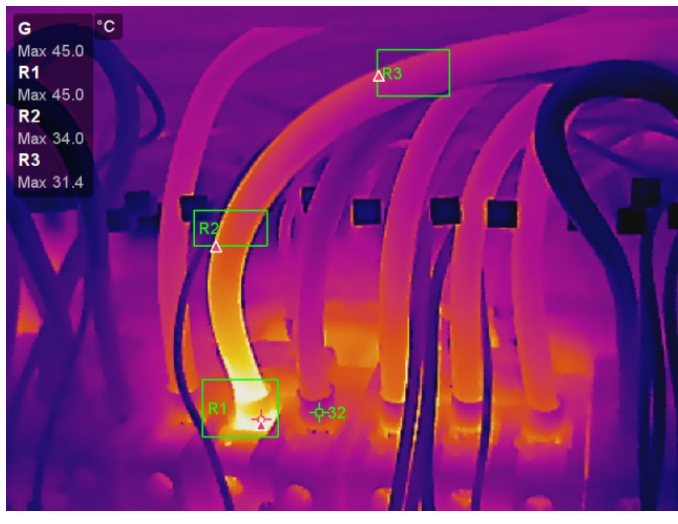
Compliance: to aid in compliance with The Electricity at Work Act 1989

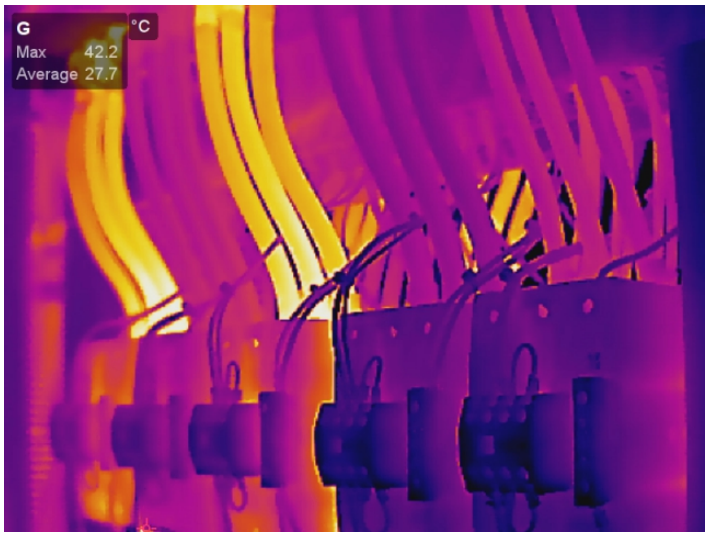


Thermal imaging can find potential 'hot spots' in Electrical installations which if allowed to develop could become a fire risk or may cause the failure of a component; which consequently may result in unwanted and costly downtime.

The Thermographic survey of electrical distribution can be used regularly as part of a planned preventative maintenance regime to try and identify any problems before they arise, or it can be used as a periodic inspection to supplement an Electrical Installation Condition Report.

This type of survey is a modern essential tool to reduce and monitor risk. It also helps comply with requirements within the Electricity at Work Act 1989 to maintain installations to reduce ‘danger’.





All surveys produce a comprehensive report with any issues/ dangers arising and advice on how to action them. Bespoke surveys can also be arranged where the customer wants to check a specific component or item of equipment/ plant. This could be practically anything you require checking, and again a comprehensive report would be produced analysing the Thermograms.

Advantages: reduce downtime risks, reduce fire risks, reduce insurance premiums, aid compliance

Electrical Services

In addition to the core inspection, testing, statutory examinations and surveys, we provide a range of electrical services to aid in compliance and improvement of your electrical installation:

- Emergency Light Testing
- Plant Equipment Inspection/Testing
- Fault-Finding
- Circuit Chart Creation
- Circuit Verification
- Accessory Labelling
- Portable Appliance Testing (PAT - only in conjunction with an EICR)

Portable Appliance Testing (PAT)

Compliance: to aid in compliance with The Electricity at Work Act 1989

To give it its official name: In Service Inspection and Testing of Electrical Equipment, otherwise known as PAT (Portable Appliance Testing) is required for much the same reasons as electrical EICRs are for electrical installations. To aid in compliance of the Electricity at Work Act 1989, electrical equipment must be maintained to prevent danger arising. By doing a periodic inspection and test on the equipment, you are complying with the requirement to maintain and prevent danger arising. In Scotland it is currently mandatory to carry out PAT testing for private rented properties periodically and when a new tenant moves in for certain fixed PAT items. This is normally done at the same time as the EICR. Our EICRs of tenanted properties automatically include the PAT test items required to be tested, which are normally counted along with the house/flat circuits.

We provide PAT testing services for your site, along side an Electrical Installation Condition Report (EICR) only. We do not offer this as a stand alone service. Whether you have computers, chargers or Kettles, mobile Air Compressors, Fridges or Televisions the PAT test will ensure they are checked for safety.

Rest assured, we don't just put a passed label on an item and have your entire premises completed in record time. Safety is our main concern and PAT testing is done properly, with all inspections/ tests possible carried out on an item. (This may sometime mean that inspections discover an old 13A plug top is not compliant with modern standards, or a flex cable is not secured properly. For these type of faults, a repair is carried out to ensure the equipment is still usable.)

After the PAT testing is finished, a schedule of all PAT items is issued to the customer for their records. This includes information on the inspections and tests done on the item.

Emergency Light Testing

Compliance: to comply with BS5266-8

As an emergency system, its essential that Emergency Lighting is maintained and tested periodically to ensure serviceability. BS5266-8 sets out requirements for this monthly and annually. UK fire regulations require that all public buildings and business premises have emergency lighting systems that will illuminate in the event of a power cut and will allow the safe passage of occupants to escape routes. Other requirements include escape routes always being illuminated and firefighting equipment being illuminated. We currently offer Annual testing of emergency lighting systems UK wide and also offer monthly testing locally in the central belt area of Scotland.

The Annual test involves activating the emergency lights (normally by its own battery backup power) and checking that the light fitting stays on for the duration of its rated time (up to 3 hours in most cases). If a failure occurs this is recorded in the logbook and a repair will be necessary. Similarly for the Monthly test but without a long duration drain of its battery. Any failures are again logged in the logbook and flagged for repair.

The certificate will also note any site discrepancies regarding complying with BS5266.

Advantages: increase building safety/fire safety, maintain system performance, comply with the Law

Plant Equipment Inspection & Testing

Compliance: to aid in compliance with The Electricity at Work Act 1989

We offer plant inspection and tests on every conceivable item of plant. This maybe required for insurance purposes or just to monitor and keep a maintenance log on the condition of your plant. Whether it's a motor, robot, production line machine or the electrical aspects of air compressors, boilers or manufacturing machines; have your plant inspected for continued safe service.

Similar to the requirements for Periodic Inspection and testing of electrical installations, Electrical Plant items come under the requirements of the Electricity at Work Act 1989. The following is stated in the act regarding maintenance, inspection/testing and condition:

"Regulation 4 Systems, work activities and protective equipment
(2) As may be necessary to prevent danger, all systems shall be maintained so as to prevent, so far as is reasonably practicable, such danger."

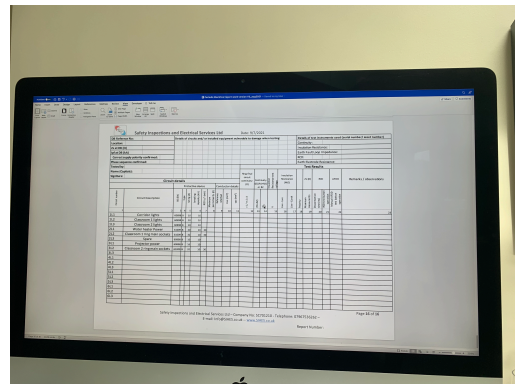
This is where periodic Inspections of plant become a valuable maintenance tool to ensure your item of plant is still working correctly/ is safe and serviceable. Here are just some of the plant items we inspect and test: Electrical Motors, Control panels, Electrical parts of gas/ oil/ bio-fuel fired boilers, Air handling units, Heating systems (pumps), Workshop machines, Electrical parts of Air compressors, Electrical Immersion heaters etc...

Circuit Chart Creation

Circuit Verification

Accessory Labelling

Logbook Creation



Additional to our inspection and testing services.

- We offer circuit chart creation where the circuit chart is missing or is not complete at a distribution board or consumer unit. Note: this would normally require circuit verification first, or can be done after an EICR.

- As mentioned above; we offer circuit verification and identification for installations where the circuit chart is missing or is not complete at a distribution board or consumer unit.

- Additionally we offer an accessories labelling service were electrical items (socket outlets, light switches etc..) are labelled to indicate their correct circuit origin. Note: accessory labelling can only be done after successful circuit verification/ identification.

- The documentation for a sites Emergency Lighting can be extensive, as can all the different requirements for a Logbook for your LEV system(s). We can make up these Logbooks for your site to comply with Emergency Lighting records and Local Exhaust Ventilation records/ documentation. Using the regulations and British standards to produce the logbooks to a high level; the logbooks will aid your site to compliance with the regulations and standards, and will aid in future maintenance/testing.

Advantages: aid compliance, aid maintenance, increase fire safety, increase health & safety

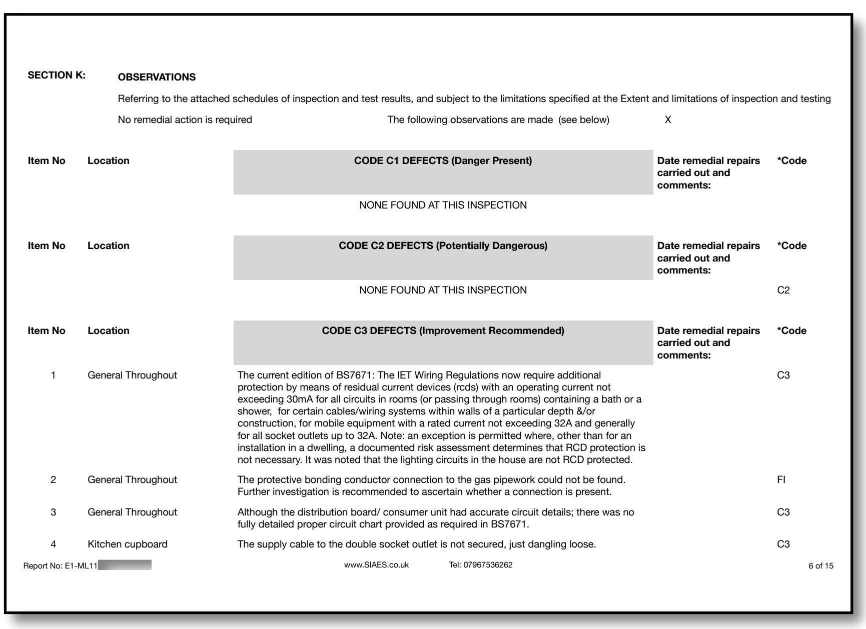
Report examples

All reports are issued electronically shortly after the inspection/ surveys are completed, normally either on the day or the following working day. If the inspection/ survey is large then it can take several days to ensure the report is checked for quality and accuracy.

Every report is issued via Microsofts secure Onedrive cloud storage, where only the recipients email address can view/ download the report file(s) if required.

SIAES Data protection is registered with the Information Commissioners Office (ICO) with Registration reference: ZB263756

Electrical Installation Condition Report (EICR)



SECTION K: **OBSERVATIONS**

Referring to the attached schedules of inspection and test results, and subject to the limitations specified at the Extent and limitations of inspection and testing

No remedial action is required The following observations are made (see below) X

Item No	Location	CODE C1 DEFECTS (Danger Present)	Date remedial repairs carried out and comments:	*Code
		NONE FOUND AT THIS INSPECTION		

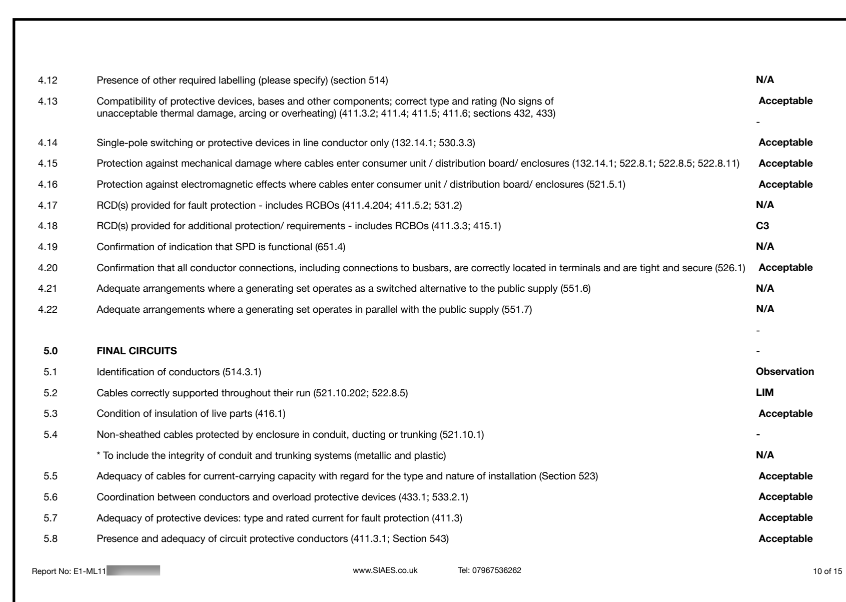
Item No	Location	CODE C2 DEFECTS (Potentially Dangerous)	Date remedial repairs carried out and comments:	*Code
		NONE FOUND AT THIS INSPECTION		C2

Item No	Location	CODE C3 DEFECTS (Improvement Recommended)	Date remedial repairs carried out and comments:	*Code
1	General Throughout	The current edition of BS7671: The IET Wiring Regulations now require additional protection by means of residual current devices (rcds) with an operating current not exceeding 30mA for all circuits in rooms (or passing through rooms) containing a bath or a shower, for certain cables/wiring systems within walls of a particular depth &/or construction, for mobile equipment with a rated current not exceeding 32A and generally for all socket outlets up to 32A. Note: an exception is permitted where, other than for an installation in a dwelling, a documented risk assessment determines that RCD protection is not necessary. It was noted that the lighting circuits in the house are not RCD protected.		C3
2	General Throughout	The protective bonding conductor connection to the gas pipework could not be found. Further investigation is recommended to ascertain whether a connection is present.		FI
3	General Throughout	Although the distribution board/ consumer unit had accurate circuit details; there was no fully detailed proper circuit chart provided as required in BS7671.		C3
4	Kitchen cupboard	The supply cable to the double socket outlet is not secured, just dangling loose.		C3

Report No: E1-ML11[redacted] www.SIAES.co.uk Tel: 07967536262 6 of 15

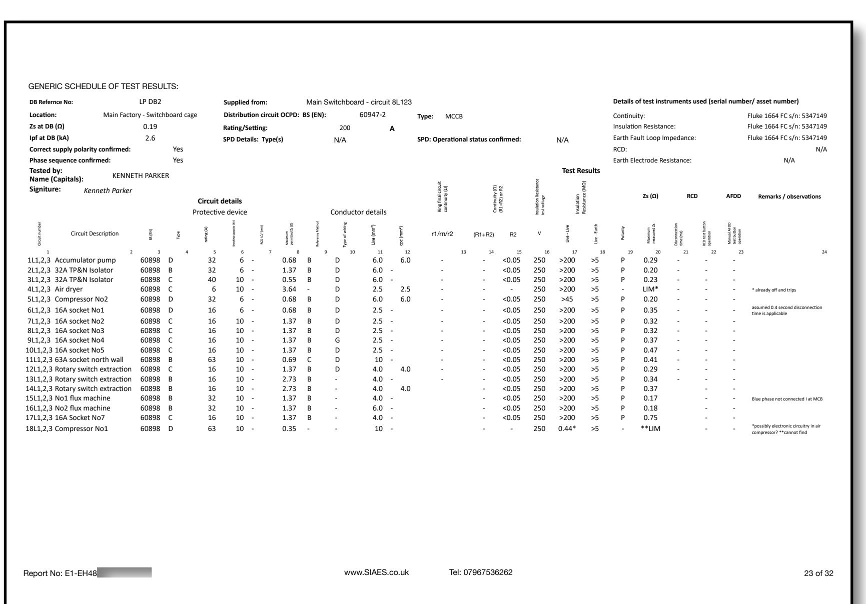
Defects / observations sheets

Inspection checklists sheet



4.12	Presence of other required labelling (please specify) (section 514)	**N/A**
4.13	Compatibility of protective devices, bases and other components; correct type and rating (No signs of unacceptable thermal damage, arcing or overheating) (411.3.2; 411.4; 411.5; 411.6; sections 432, 433)	**Acceptable**
		-
4.14	Single-pole switching or protective devices in line conductor only (132.14.1; 530.3.3)	**Acceptable**
4.15	Protection against mechanical damage where cables enter consumer unit / distribution board/ enclosures (132.14.1; 522.8.1; 522.8.5; 522.8.11)	**Acceptable**
4.16	Protection against electromagnetic effects where cables enter consumer unit / distribution board/ enclosures (521.5.1)	**Acceptable**
4.17	RCD(s) provided for fault protection - includes RCBOs (411.4.204; 411.5.2; 531.2)	**N/A**
4.18	RCD(s) provided for additional protection/ requirements - includes RCBOs (411.3.3; 415.1)	**C3**
4.19	Confirmation of indication that SPD is functional (651.4)	**N/A**
4.20	Confirmation that all conductor connections, including connections to busbars, are correctly located in terminals and are tight and secure (526.1)	**Acceptable**
4.21	Adequate arrangements where a generating set operates as a switched alternative to the public supply (551.6)	**N/A**
4.22	Adequate arrangements where a generating set operates in parallel with the public supply (551.7)	**N/A**
		-
5.0	**FINAL CIRCUITS**	-
5.1	Identification of conductors (514.3.1)	**Observation**
5.2	Cables correctly supported throughout their run (521.10.202; 522.8.5)	**LIM**
5.3	Condition of insulation of live parts (416.1)	**Acceptable**
5.4	Non-sheathed cables protected by enclosure in conduit, ducting or trunking (521.10.1)	**-**
	* To include the integrity of conduit and trunking systems (metallic and plastic)	**N/A**
5.5	Adequacy of cables for current-carrying capacity with regard for the type and nature of installation (Section 523)	**Acceptable**
5.6	Coordination between conductors and overload protective devices (433.1; 533.2.1)	**Acceptable**
5.7	Adequacy of protective devices: type and rated current for fault protection (411.3)	**Acceptable**
5.8	Presence and adequacy of circuit protective conductors (411.3.1; Section 543)	**Acceptable**

Report No: E1-ML11[redacted] www.SIAES.co.uk Tel: 07967536262 10 of 15



GENERIC SCHEDULE OF TEST RESULTS:

DB Refernce No: LP DB2 **Supplied from:** Main Switchboard - circuit 8L123

Location: Main Factory - Switchboard cage **Distribution circuit OCPD: BS (EN):** 60947-2 **Type:** MCCB

Zs at DB (Ω) 0.19 **Rating/Setting:** 200 **A**

Ipf at DB (kA) 2.6 **SPD Details: Type(s)** N/A **SPD: Operational status confirmed:** N/A

Correct supply polarity confirmed: Yes

Phase sequence confirmed: Yes

Tested by: Name (Capitals): KENNETH PARKER

Signiture: *Kenneth Parker*

Details of test instruments used (serial number/ asset number)

Continuity: Fluke 1664 FC s/n: 5347149

Insulation Resistance: Fluke 1664 FC s/n: 5347149

Earth Fault Loop Impedance: Fluke 1664 FC s/n: 5347149

RCD: N/A

Earth Electrode Resistance: N/A

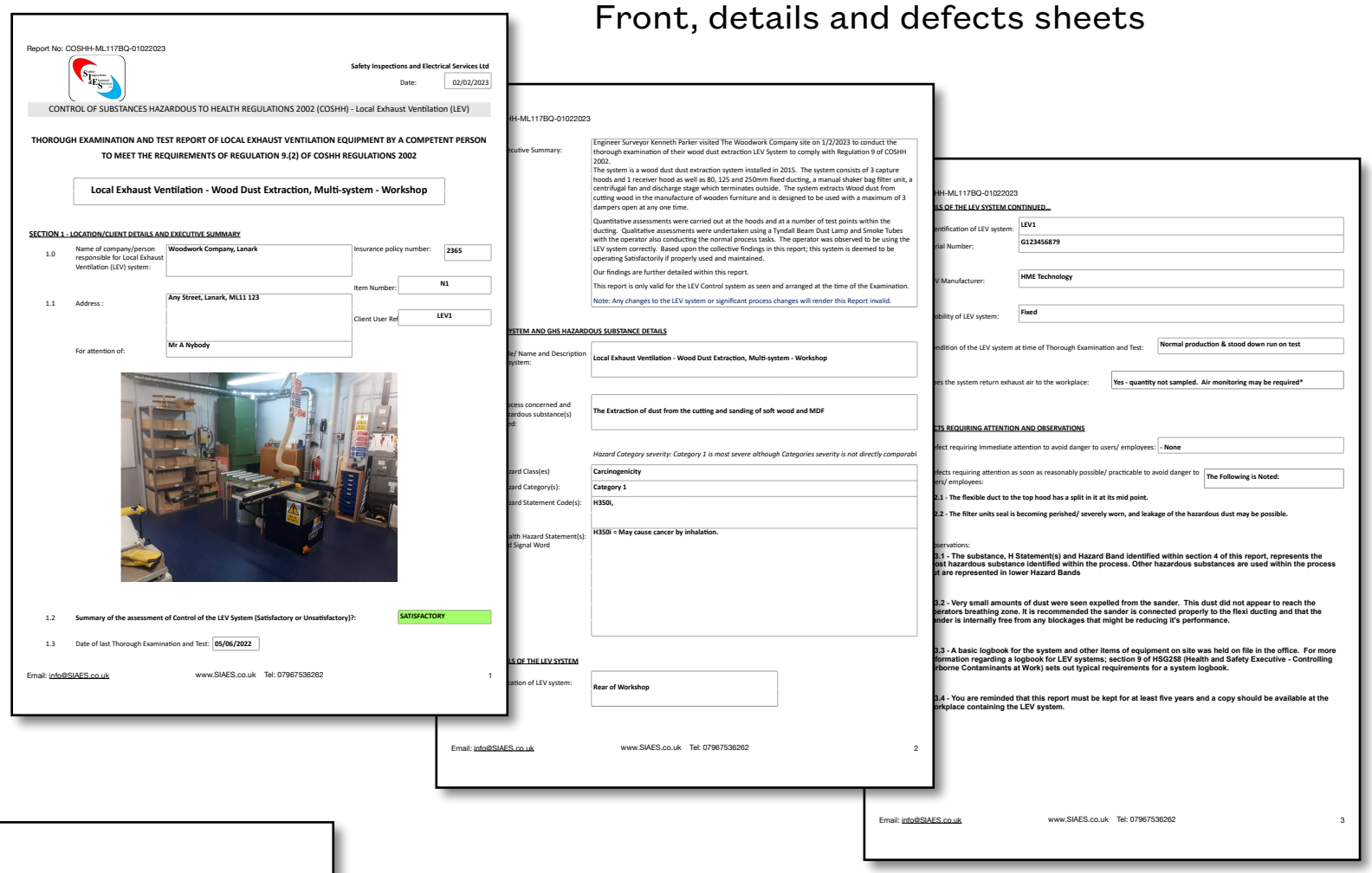
Circuit details		Protective device						Conductor details				Test Results											
												Ring final circuit continuity (Ω)	Continuity (Ω) (R1+R2) or R2		Insulation Resistance test voltage	Insulation Resistance (MΩ)			Zs (Ω)	RCD		AFDD	Remarks / observations
Circuit number	Circuit Description	BS (EN)	Type	rating (A)	Breaking capacity (kA)	RCD IΔn (mA)	Maximum permitted Zs (Ω)	Reference Method	Type of wiring	Live (mm²)	cpc (mm²)	r1/rn/r2	(R1+R2)	R2	V	Live - Live	Live - Earth	Polarity	Maximum measured Zs	Disconnection time (ms)	RCD test button operation	Manual AFDD test button operation	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1L1,2,3	Accumulator pump	60898	D	32	6	-	0.68	B	D	6.0	6.0	-	-	<0.05	250	>200	>5	P	0.29	-	-	-	
2L1,2,3	32A TP&N Isolator	60898	B	32	6	-	1.37	B	D	6.0	-	-	-	<0.05	250	>200	>5	P	0.20	-	-	-	
3L1,2,3	32A TP&N Isolator	60898	C	40	10	-	0.55	B	D	6.0	-	-	-	<0.05	250	>200	>5	P	0.23	-	-	-	
4L1,2,3	Air dryer	60898	C	6	10	-	3.64	-	D	2.5	2.5	-	-	-	250	>200	>5	-	LIM*	-	-	-	* already off and trips
5L1,2,3	Compressor No2	60898	D	32	6	-	0.68	B	D	6.0	6.0	-	-	<0.05	250	>45	>5	P	0.20	-	-	-	
6L1,2,3	16A socket No1	60898	D	16	6	-	0.68	B	D	2.5	-	-	-	<0.05	250	>200	>5	P	0.35	-	-	-	assumed 0.4 second disconnection time is applicable
7L1,2,3	16A socket No2	60898	C	16	10	-	1.37	B	D	2.5	-	-	-	<0.05	250	>200	>5	P	0.32	-	-	-	
8L1,2,3	16A socket No3	60898	C	16	10	-	1.37	B	D	2.5	-	-	-	<0.05	250	>200	>5	P	0.32	-	-	-	
9L1,2,3	16A socket No4	60898	C	16	10	-	1.37	B	G	2.5	-	-	-	<0.05	250	>200	>5	P	0.37	-	-	-	
10L1,2,3	16A socket No5	60898	C	16	10	-	1.37	B	D	2.5	-	-	-	<0.05	250	>200	>5	P	0.47	-	-	-	
11L1,2,3	63A socket north wall	60898	B	63	10	-	0.69	C	D	10	-	-	-	<0.05	250	>200	>5	P	0.41	-	-	-	
12L1,2,3	Rotary switch extraction	60898	C	16	10	-	1.37	B	D	4.0	4.0	-	-	<0.05	250	>200	>5	P	0.29	-	-	-	
13L1,2,3	Rotary switch extraction	60898	B	16	10	-	2.73	B	-	4.0	-	-	-	<0.05	250	>200	>5	P	0.34	-	-	-	
14L1,2,3	Rotary switch extraction	60898	B	16	10	-	2.73	B	-	4.0	4.0		-	<0.05	250	>200	>5	P	0.37		-	-	
15L1,2,3	No1 flux machine	60898	B	32	10	-	1.37	B	-	4.0	-		-	<0.05	250	>200	>5	P	0.17		-	-	Blue phase not connected I at MCB
16L1,2,3	No2 flux machine	60898	B	32	10	-	1.37	B	-	6.0	-		-	<0.05	250	>200	>5	P	0.18		-	-	
17L1,2,3	16A Socket No7	60898	C	16	10	-	1.37	B	-	4.0	-		-	<0.05	250	>200	>5	P	0.75		-	-	
18L1,2,3	Compressor No1	60898	D	63	10	-	0.35	-	-	10	-		-	-	250	0.44*	>5	-	**LIM		-	-	*possibly electronic circuitry in air compressor? **cannot find

Report No: E1-EH48[redacted] www.SIAES.co.uk Tel: 07967536262 23 of 32

Circuit chart & test records schedules

Reports - Local Exhaust Ventilation (LEV)

Front, details and defects sheets


Report No: COSHH-ML117BQ-01022023

Safety Inspections and Electrical Services Ltd

Date: 02/02/2023

CONTROL OF SUBSTANCES HAZARDOUS TO HEALTH REGULATIONS 2002 (COSHH) - Local Exhaust Ventilation (LEV)

THOROUGH EXAMINATION AND TEST REPORT OF LOCAL EXHAUST VENTILATION EQUIPMENT BY A COMPETENT PERSON TO MEET THE REQUIREMENTS OF REGULATION 9.(2) OF COSHH REGULATIONS 2002

Local Exhaust Ventilation - Wood Dust Extraction, Multi-system - Workshop

SECTION 1 - LOCATION/CLIENT DETAILS AND EXECUTIVE SUMMARY

1.0 Name of company/person responsible for Local Exhaust Ventilation (LEV) system: Woodwork Company, Lanark

Insurance policy number: 2365

Item Number: N1

1.1 Address : Any Street, Lanark, ML11 123

Client User Ref: LEV1

For attention of: Mr A Nybody

1.2 Summary of the assessment of Control of the LEV System (Satisfactory or Unsatisfactory)?: SATISFACTORY

1.3 Date of last Thorough Examination and Test: 05/06/2022

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HH-ML117BQ-01022023

Executive Summary: Engineer Surveyor Kenneth Parker visited The Woodwork Company site on 1/2/2023 to conduct the thorough examination of their wood dust extraction LEV System to comply with Regulation 9 of COSHH 2002.
The system is a wood dust dust extraction system installed in 2015. The system consists of 3 capture hoods and 1 receiver hood as well as 80, 125 and 250mm fixed ducting, a manual shaker bag filter unit, a centrifugal fan and discharge stage which terminates outside. The system extracts Wood dust from cutting wood in the manufacture of wooden furniture and is designed to be used with a maximum of 3 dampers open at any one time.

Quantitative assessments were carried out at the hoods and at a number of test points within the ducting. Qualitative assessments were undertaken using a Tyndall Beam Dust Lamp and Smoke Tubes with the operator also conducting the normal process tasks. The operator was observed to be using the LEV system correctly. Based upon the collective findings in this report; this system is deemed to be operating Satisfactorily if properly used and maintained.

Our findings are further detailed within this report.

This report is only valid for the LEV Control system as seen and arranged at the time of the Examination.

Note: Any changes to the LEV system or significant process changes will render this Report invalid.

YSTEM AND GHS HAZARDOUS SUBSTANCE DETAILS

e/ Name and Description ystem: **Local Exhaust Ventilation - Wood Dust Extraction, Multi-system - Workshop**

ocess concerned and zardous substance(s) ed: **The Extraction of dust from the cutting and sanding of soft wood and MDF**

Hazard Category severity: Category 1 is most severe although Categories severity is not directly comparabl

zard Class(es): **Carcinogenicity**

zard Category(s): **Category 1**

zard Statement Code(s): **H350i,**

alth Hazard Statement(s): d Signal Word **H350i = May cause cancer by inhalation.**

S OF THE LEV SYSTEM

cation of LEV system: **Rear of Workshop**

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HH-ML117BQ-01022023

LS OF THE LEV SYSTEM CONTINUED...

entification of LEV system: LEV1

rial Number: G123456879

V Manufacturer: HME Technology

obility of LEV system: Fixed

ndition of the LEV system at time of Thorough Examination and Test: Normal production & stood down run on test

es the system return exhaust air to the workplace: Yes - quantity not sampled. Air monitoring may be required*

CTS REQUIRING ATTENTION AND OBSERVATIONS

fect requiring Immediate attention to avoid danger to users/ employees: - None

fects requiring attention as soon as reasonably possible/ practicable to avoid danger to ers/ employees: The Following is Noted:

2.1 - The flexible duct to the top hood has a split in it at its mid point.

2.2 - The filter units seal is becoming perished/ severely worn, and leakage of the hazardous dust may be possible.

bservations:

3.1 - The substance, H Statement(s) and Hazard Band identified within section 4 of this report, represents the ost hazardous substance identified within the process. Other hazardous substances are used within the process t are represented in lower Hazard Bands

3.2 - Very small amounts of dust were seen expelled from the sander. This dust did not appear to reach the erators breathing zone. It is recommended the sander is connected properly to the flexi ducting and that the nder is internally free from any blockages that might be reducing it's performance.

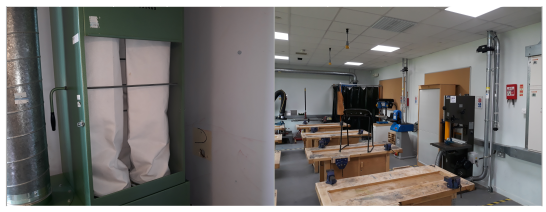
3.3 - A basic logbook for the system and other items of equipment on site was held on file in the office. For more formation regarding a logbook for LEV systems; section 9 of HSG258 (Health and Safety Executive - Controlling rborne Contaminants at Work) sets out typical requirements for a system logbook.

3.4 - You are reminded that this report must be kept for at least five years and a copy should be available at the orkplace containing the LEV system.

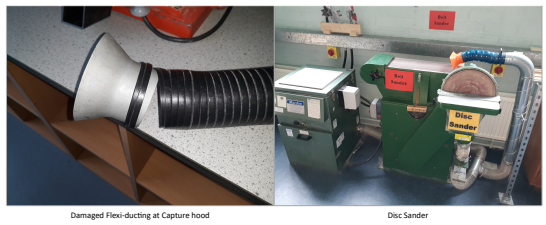
Email: info@SIAES.co.uk www.SIAES.co.uk Tel: 07967536262 3

Report No: COSHH-ML117BQ-01022023

SECTION 6- ADDITIONAL RELEVANT PHOTOGRAPHS


Filter Unit

Typical workshop with extraction points at machines


Damaged Flexi-ducting at Capture hood

Disc Sander

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HH-ML117BQ-01022023

ESULTS

PERFORMANCE DATA MEASURED AT THIS THOROUGH EXAMINATION AND TEST

EXTRACTION HOODS

Maximum to be used at any one time:

S.A (m²) if pplicable	Location / position	Static Pressure (kPa)		Face Velocity (m/s)		Volume flow (m³/s) - if applicable
		Measured	I.O.P	Measured	I.O.P	
0.0043	Circular Saw Top	-0.013	_	9.56	_	0.041
_	Circular Saw Table	-0.016	_	3.78	_	_
_	Planer/ Thicknesser	-0.019	_	_	_	_

DUCTING

Diameter (mm)	C.S.A (m²)	Transport Velocity (m/s)			Volume flow (m³/s)		
		Measured	Calc from Hood	I.O.P	Measured	Calc from Hood csa & face velocity	I.O.P
80	0.0050	9.56	8	_	0.048	0.041	_
125	0.0123	16.95	_	_	0.208	_	_
125	0.0123	17.54	_	_	0.215	_	_
80	0.0050	7.26	0	_	0.036	0.000	_
125	0.0123	11.38	0	_	0.140	0.000	_
125	0.0123	12.76	0	_	0.157	0.000	_
250	0.0491	9.56	0	_	0.469	0.000	_

FILTER

	Volume Flow (m³/s)	Static Pressure at Inlet (kPa)		Static Pressure at Outlet (kPa)		Static Pressure across filter		
		Measured	I.O.P	Measured	I.O.P	Measured	I.O.P	From gauge
s	0.469	-1.38	_	-0.76	_	(0.62)	_	_

FAN(S) / AIR MOVER

ted power (kW)	Direction of Rotation	Volume flow			Static Pressure at Inlet (kPa)	
		Measured (m³/s)	Measured (m³/h)	I.O.P	Measured	I.O.P
2.2	Anti CW viewed from upstream of flow	0.469	1688.40	_	-0.76	_

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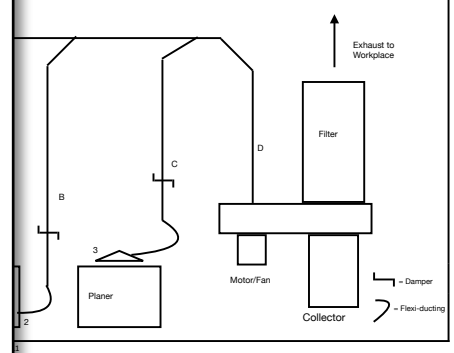
TBQ-01022023

TCH



tisfies the statutory requirements in respect of a Thorough Examination and Test (TExT) of the above Local lation system, as is required for the purposes of Regulation 9.2 of the COSHH Regulations.

otherwise, this Thorough Examination and Test has been carried out to Safety Inspections & Electrical Services standard pr

ination: 15/01/2023

02/02/2023

h Examination and Test date du 15 Jan 2024

Mr K Parker BOHS P601 qualified LEV Engineer Surveyor to Safety Inspections and Electrical Services Ltd.

V Thorough Examination and Tests, Electrical Periodic EICRs, Compex Electrical Hazardous area inspections and Electrical

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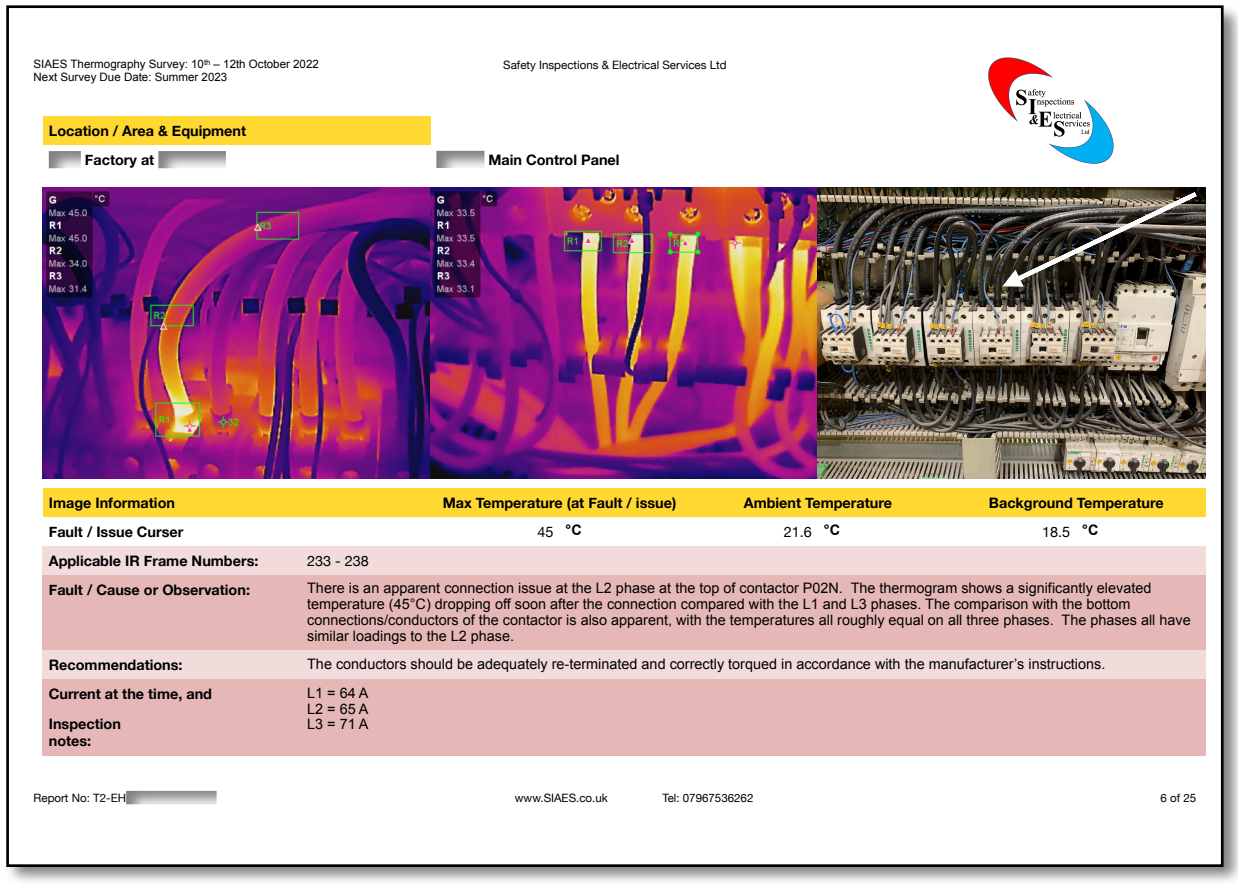
Extra photos, test results and LEV layout sheets

Reports - Thermal Imaging Survey

Defect analysis sheets



SIAES Thermography Survey: 10th – 12th October 2022
Next Survey Due Date: Summer 2023

Safety Inspections & Electrical Services Ltd

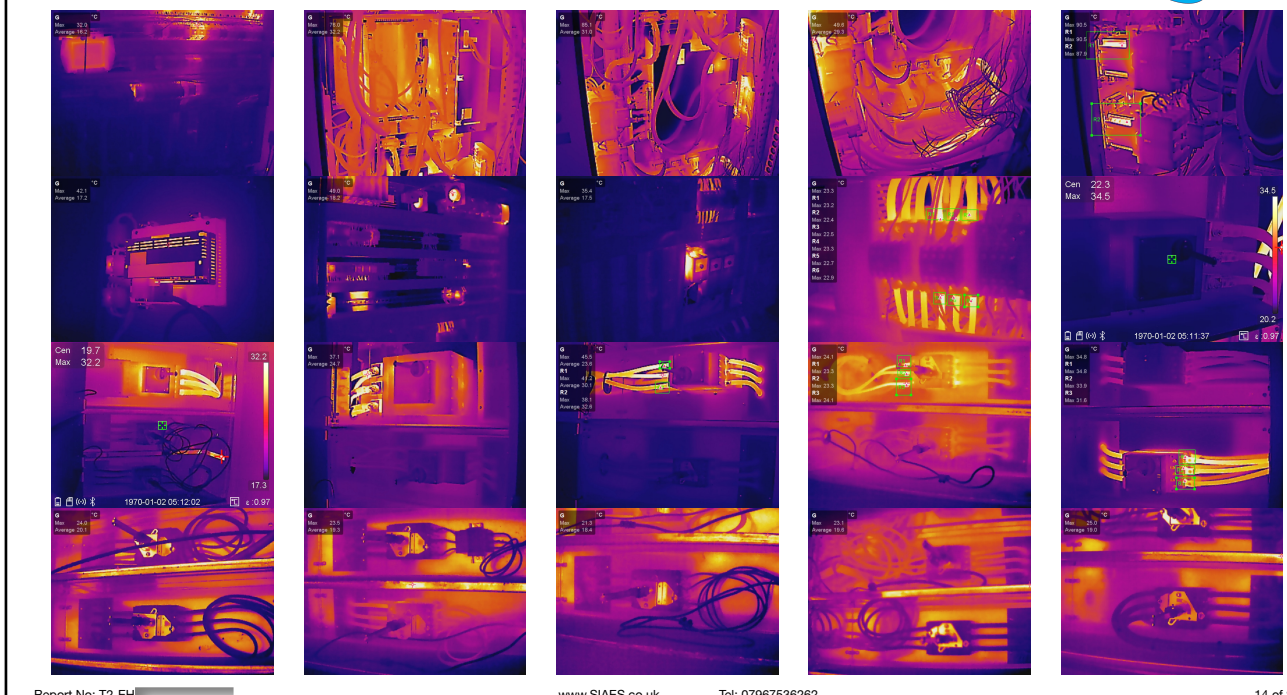
Location / Area & Equipment

[redacted] **Factory at** [redacted] **Main Control Panel**

Image Information	Max Temperature (at Fault / issue)	Ambient Temperature	Background Temperature
Fault / Issue Curser	45 °C	21.6 °C	18.5 °C

Applicable IR Frame Numbers:	233 - 238
Fault / Cause or Observation:	There is an apparent connection issue at the L2 phase at the top of contactor P02N. The thermogram shows a significantly elevated temperature (45°C) dropping off soon after the connection compared with the L1 and L3 phases. The comparison with the bottom connections/conductors of the contactor is also apparent, with the temperatures all roughly equal on all three phases. The phases all have similar loadings to the L2 phase.
Recommendations:	The conductors should be adequately re-terminated and correctly torqued in accordance with the manufacturer's instructions.
Current at the time, and Inspection notes:	L1 = 64 A L2 = 65 A L3 = 71 A

Report No: T2-EH[redacted] www.SIAES.co.uk Tel: 07967536262 6 of 25



SIAES Thermography Survey: 10th – 12th October 2022
Next Survey Due Date: Summer 2023

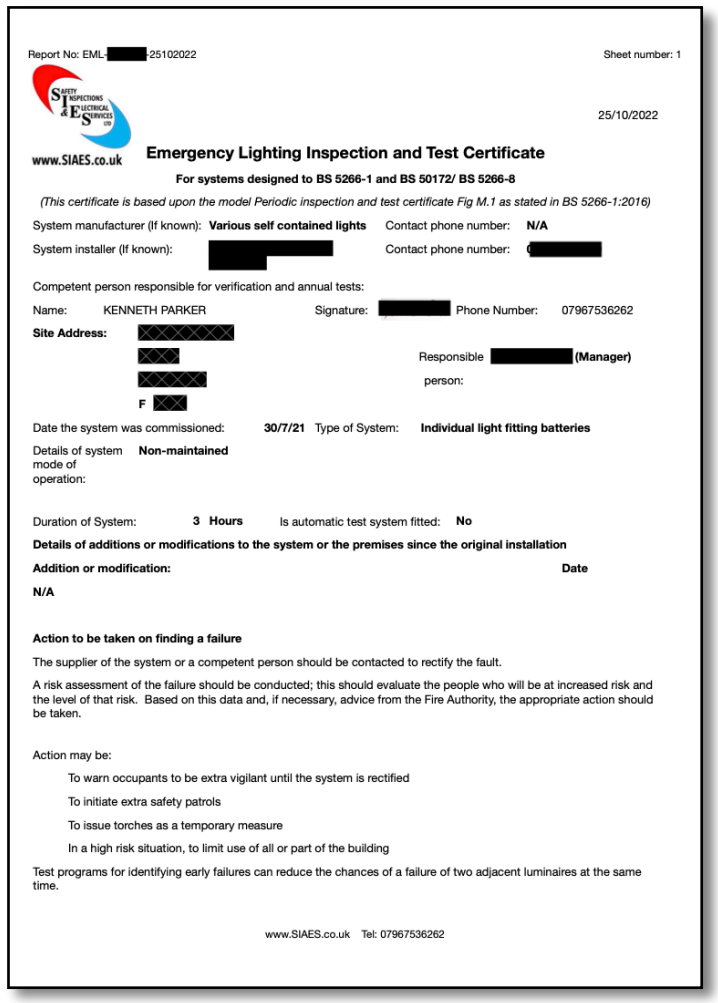
Safety Inspections & Electrical Services Ltd

Report No: T2-EH[redacted] www.SIAES.co.uk Tel: 07967536262 14 of 25

Images of Survey sheets

Reports - Emergency Lighting Certificate

Front Certificate details sheet



Report No: EML-[redacted]-25102022 Sheet number: 1

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25/10/2022

Emergency Lighting Inspection and Test Certificate

For systems designed to BS 5266-1 and BS 50172/ BS 5266-8

(This certificate is based upon the model Periodic inspection and test certificate Fig M.1 as stated in BS 5266-1:2016)

System manufacturer (If known): **Various self contained lights** Contact phone number: **N/A**

System installer (If known): [redacted] Contact phone number: [redacted]

Competent person responsible for verification and annual tests:

Name: KENNETH PARKER Signature: [redacted] Phone Number: 07967536262

Site Address: [redacted]

Responsible [redacted] **(Manager)** person:

Date the system was commissioned: **30/7/21** Type of System: **Individual light fitting batteries**

Details of system mode of operation: **Non-maintained**

Duration of System: **3 Hours** Is automatic test system fitted: **No**

Details of additions or modifications to the system or the premises since the original installation

Addition or modification: **Date**

N/A

Action to be taken on finding a failure

The supplier of the system or a competent person should be contacted to rectify the fault.

A risk assessment of the failure should be conducted; this should evaluate the people who will be at increased risk and the level of that risk. Based on this data and, if necessary, advice from the Fire Authority, the appropriate action should be taken.

Action may be:

To warn occupants to be extra vigilant until the system is rectified

To initiate extra safety patrols

To issue torches as a temporary measure

In a high risk situation, to limit use of all or part of the building

Test programs for identifying early failures can reduce the chances of a failure of two adjacent luminaires at the same time.

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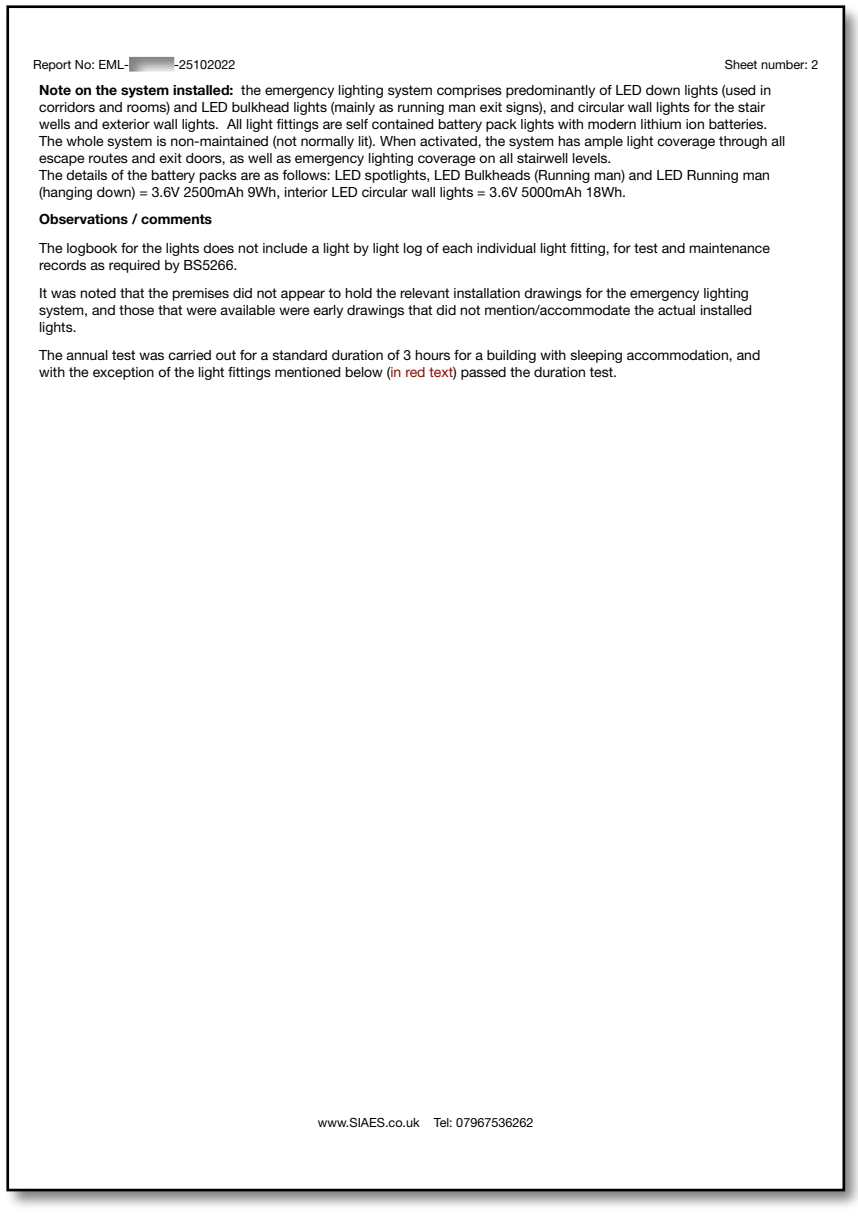

Report No: EML-[redacted]-25102022 Sheet number: 2

Note on the system installed: the emergency lighting system comprises predominantly of LED down lights (used in corridors and rooms) and LED bulkhead lights (mainly as running man exit signs), and circular wall lights for the stair wells and exterior wall lights. All light fittings are self contained battery pack lights with modern lithium ion batteries. The whole system is non-maintained (not normally lit). When activated, the system has ample light coverage through all escape routes and exit doors, as well as emergency lighting coverage on all stairwell levels.
The details of the battery packs are as follows: LED spotlights, LED Bulkheads (Running man) and LED Running man (hanging down) = 3.6V 2500mAh 9Wh, interior LED circular wall lights = 3.6V 5000mAh 18Wh.

Observations / comments

The logbook for the lights does not include a light by light log of each individual light fitting, for test and maintenance records as required by BS5266.

It was noted that the premises did not appear to hold the relevant installation drawings for the emergency lighting system, and those that were available were early drawings that did not mention/accommodate the actual installed lights.

The annual test was carried out for a standard duration of 3 hours for a building with sleeping accommodation, and with the exception of the light fittings mentioned below (in red text) passed the duration test.

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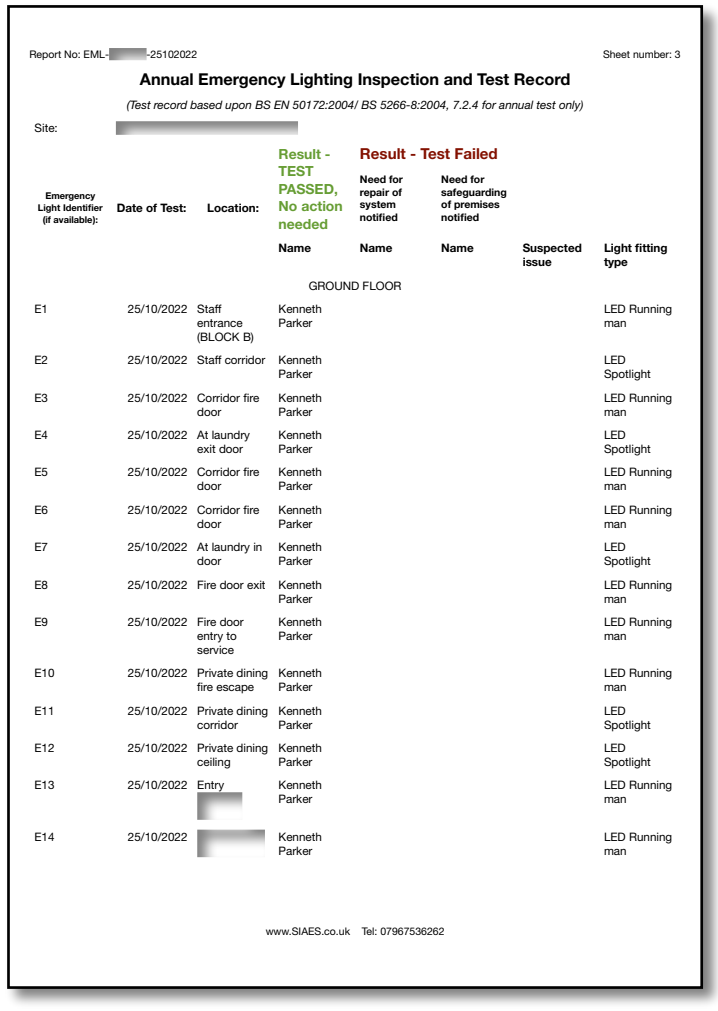
Observations / Comments sheet



Report No: EML-[redacted]-25102022 Sheet number: 3

Annual Emergency Lighting Inspection and Test Record

(Test record based upon BS EN 50172:2004/ BS 5266-8:2004, 7.2.4 for annual test only)

Site: [redacted]

Emergency Light Identifier (if available):	Date of Test:	Location:	Result - TEST PASSED, No action needed	Result - Test Failed: Need for repair of system notified	Need for safeguarding of premises notified		Light fitting type
			Name	Name	Name	Suspected issue	
		GROUND FLOOR					
E1	25/10/2022	Staff entrance (BLOCK B)	Kenneth Parker				LED Running man
E2	25/10/2022	Staff corridor	Kenneth Parker				LED Spotlight
E3	25/10/2022	Corridor fire door	Kenneth Parker				LED Running man
E4	25/10/2022	At laundry exit door	Kenneth Parker				LED Spotlight
E5	25/10/2022	Corridor fire door	Kenneth Parker				LED Running man
E6	25/10/2022	Corridor fire door	Kenneth Parker				LED Running man
E7	25/10/2022	At laundry in door	Kenneth Parker				LED Spotlight
E8	25/10/2022	Fire door exit	Kenneth Parker				LED Running man
E9	25/10/2022	Fire door entry to service	Kenneth Parker				LED Running man
E10	25/10/2022	Private dining fire escape	Kenneth Parker				LED Running man
E11	25/10/2022	Private dining corridor	Kenneth Parker				LED Spotlight
E12	25/10/2022	Private dining ceiling	Kenneth Parker				LED Spotlight
E13	25/10/2022	Entry [redacted]	Kenneth Parker				LED Running man
E14	25/10/2022	[redacted]	Kenneth Parker				LED Running man

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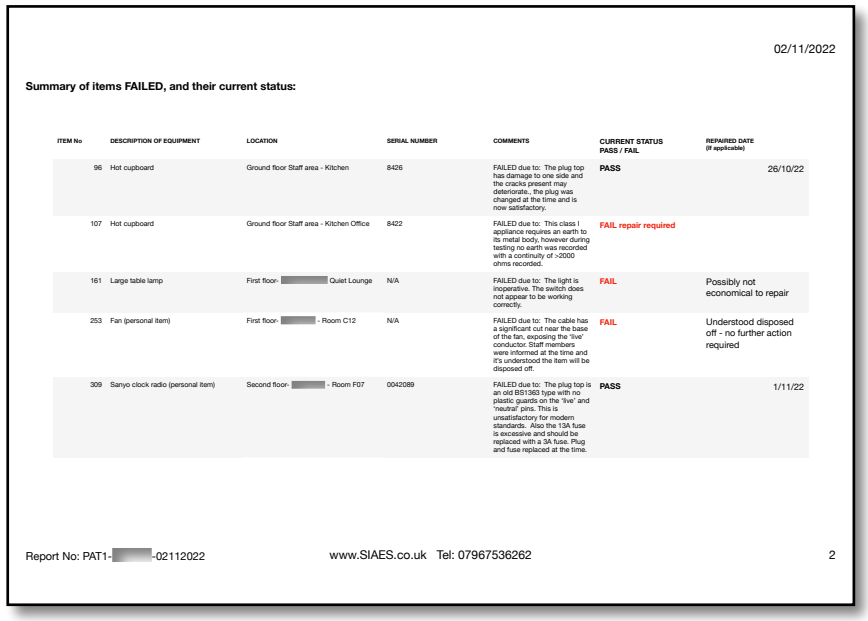
Schedule of Tests sheets

Reports - Portable Appliance Testing Schedule



02/11/2022

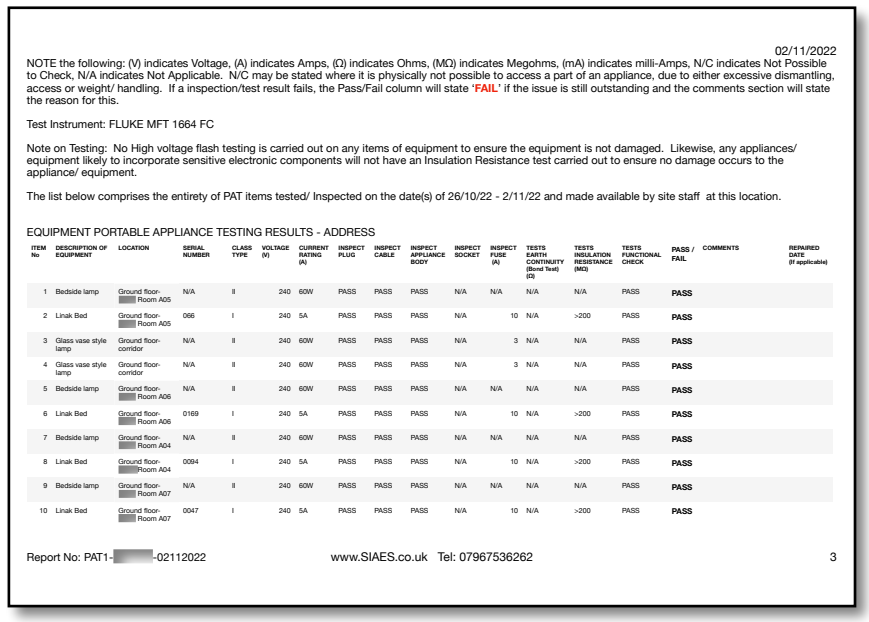
Summary of items FAILED, and their current status:

ITEM No	DESCRIPTION OF EQUIPMENT	LOCATION	SERIAL NUMBER	COMMENTS	CURRENT STATUS PASS / FAIL	REPAIRED DATE (If applicable)
96	Hot cupboard	Ground floor Staff area - Kitchen	8426	FAILED due to: The plug top has damage to one side and the cracks present may deteriorate., the plug was changed at the time and is now satisfactory.	PASS	26/10/22
107	Hot cupboard	Ground floor Staff area - Kitchen Office	8422	FAILED due to: This class I appliance requires an earth to its metal body, however during testing no earth was recorded with a continuity of >2000 ohms recorded.	FAIL repair required	
161	Large table lamp	First floor- [redacted] Quiet Lounge	N/A	FAILED due to: The light is inoperative. The switch does not appear to be working correctly.	FAIL	Possibly not economical to repair
253	Fan (personal item)	First floor- [redacted] - Room C12	N/A	FAILED due to: The cable has a significant cut near the base of the fan, exposing the 'live' conductor. Staff members were informed at the time and it's understood the item will be disposed off.	FAIL	Understood disposed off - no further action required
309	Sanyo clock radio (personal item)	Second floor- [redacted] - Room F07	0042089	FAILED due to: The plug top is an old BS1363 type with no plastic guards on the 'live' and 'neutral' pins. This is unsatisfactory for modern standards. Also the 13A fuse is excessive and should be replaced with a 3A fuse. Plug and fuse replaced at the time.	PASS	1/11/22

Report No: PAT1-[redacted]-02112022 www.SIAES.co.uk Tel: 07967536262 2

Summary of failed items sheets

Schedule of Inspections / Tests with notes and explanations



02/11/2022

NOTE the following: (V) indicates Voltage, (A) indicates Amps, (Ω) indicates Ohms, (MΩ) indicates Megohms, (mA) indicates milli-Amps, N/C indicates Not Possible to Check, N/A indicates Not Applicable. N/C may be stated where it is physically not possible to access a part of an appliance, due to either excessive dismantling, access or weight/ handling. If a inspection/test result fails, the Pass/Fail column will state '**FAIL**' if the issue is still outstanding and the comments section will state the reason for this.

Test Instrument: FLUKE MFT 1664 FC

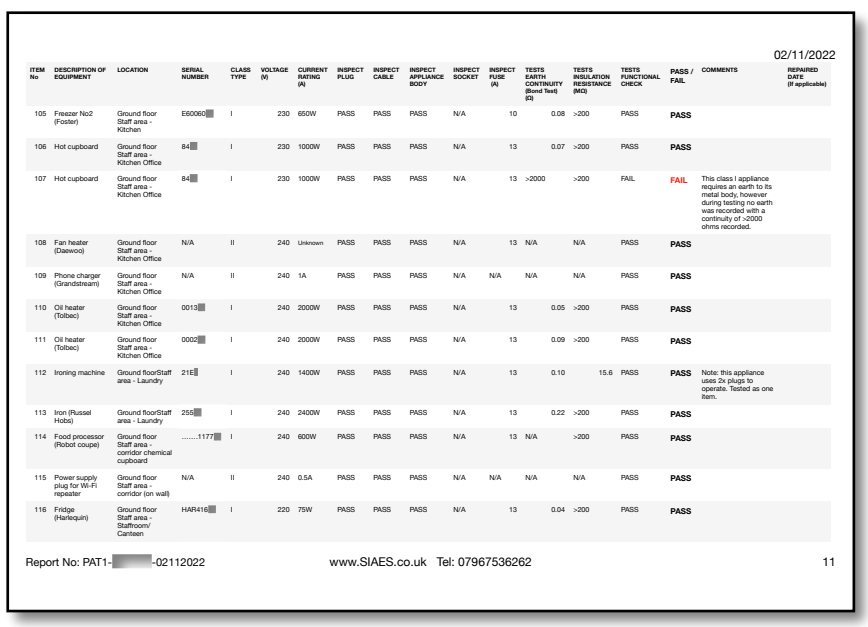
Note on Testing: No High voltage flash testing is carried out on any items of equipment to ensure the equipment is not damaged. Likewise, any appliances/ equipment likely to incorporate sensitive electronic components will not have an Insulation Resistance test carried out to ensure no damage occurs to the appliance/ equipment.

The list below comprises the entirety of PAT items tested/ Inspected on the date(s) of 26/10/22 - 2/11/22 and made available by site staff at this location.

EQUIPMENT PORTABLE APPLIANCE TESTING RESULTS - ADDRESS

ITEM No	DESCRIPTION OF EQUIPMENT	LOCATION	SERIAL NUMBER	CLASS TYPE	VOLTAGE (V)	CURRENT RATING (A)	INSPECT PLUG	INSPECT CABLE	INSPECT APPLIANCE BODY	INSPECT SOCKET	INSPECT FUSE (A)	TESTS EARTH CONTINUITY (Bond Test) (Ω)	TESTS INSULATION RESISTANCE (MΩ)	TESTS FUNCTIONAL CHECK	PASS / FAIL	COMMENTS	REPAIRED DATE (If applicable)
1	Bedside lamp	Ground floor- [redacted] Room A05	N/A	II	240	60W	PASS	PASS	PASS	N/A	N/A	N/A	N/A	PASS	PASS		
2	Linak Bed	Ground floor- [redacted] Room A05	066	I	240	5A	PASS	PASS	PASS	N/A	10	N/A	>200	PASS	PASS		
3	Glass vase style lamp	Ground floor- corridor	N/A	II	240	60W	PASS	PASS	PASS	N/A	3	N/A	N/A	PASS	PASS		
4	Glass vase style lamp	Ground floor- corridor	N/A	II	240	60W	PASS	PASS	PASS	N/A	3	N/A	N/A	PASS	PASS		
5	Bedside lamp	Ground floor- [redacted] Room A06	N/A	II	240	60W	PASS	PASS	PASS	N/A	N/A	N/A	N/A	PASS	PASS		
6	Linak Bed	Ground floor- [redacted] Room A06	0169	I	240	5A	PASS	PASS	PASS	N/A	10	N/A	>200	PASS	PASS		
7	Bedside lamp	Ground floor- [redacted] Room A04	N/A	II	240	60W	PASS	PASS	PASS	N/A	N/A	N/A	N/A	PASS	PASS		
8	Linak Bed	Ground floor- [redacted]Room A04	0094	I	240	5A	PASS	PASS	PASS	N/A	10	N/A	>200	PASS	PASS		
9	Bedside lamp	Ground floor- [redacted] Room A07	N/A	II	240	60W	PASS	PASS	PASS	N/A	N/A	N/A	N/A	PASS	PASS		
10	Linak Bed	Ground floor- [redacted] Room A07	0047	I	240	5A	PASS	PASS	PASS	N/A	10	N/A	>200	PASS	PASS		

Report No: PAT1-[redacted]-02112022 www.SIAES.co.uk Tel: 07967536262 3



02/11/2022

ITEM No	DESCRIPTION OF EQUIPMENT	LOCATION	SERIAL NUMBER	CLASS TYPE	VOLTAGE (V)	CURRENT RATING (A)	INSPECT PLUG	INSPECT CABLE	INSPECT APPLIANCE BODY	INSPECT SOCKET	INSPECT FUSE (A)	TESTS EARTH CONTINUITY (Bond Test) (Ω)	TESTS INSULATION RESISTANCE (MΩ)	TESTS FUNCTIONAL CHECK	PASS / FAIL	COMMENTS	REPAIRED DATE (If applicable)
105	Freezer No2 (Foster)	Ground floor Staff area - Kitchen	E60060[redacted]	I	230	650W	PASS	PASS	PASS	N/A	10	0.08	>200	PASS	PASS		
106	Hot cupboard	Ground floor Staff area - Kitchen Office	84[redacted]	I	230	1000W	PASS	PASS	PASS	N/A	13	0.07	>200	PASS	PASS		
107	Hot cupboard	Ground floor Staff area - Kitchen Office	84[redacted]	I	230	1000W	PASS	PASS	PASS	N/A	13	>2000	>200	FAIL	FAIL	This class I appliance requires an earth to its metal body, however during testing no earth was recorded with a continuity of >2000 ohms recorded.	
108	Fan heater (Daewoo)	Ground floor Staff area - Kitchen Office	N/A	II	240	Unknown	PASS	PASS	PASS	N/A	13	N/A	N/A	PASS	PASS		
109	Phone charger (Grandstream)	Ground floor Staff area - Kitchen Office	N/A	II	240	1A	PASS	PASS	PASS	N/A	N/A	N/A	N/A	PASS	PASS		
110	Oil heater (Tolbec)	Ground floor Staff area - Kitchen Office	0013[redacted]	I	240	2000W	PASS	PASS	PASS	N/A	13	0.05	>200	PASS	PASS		
111	Oil heater (Tolbec)	Ground floor Staff area - Kitchen Office	0002[redacted]	I	240	2000W	PASS	PASS	PASS	N/A	13	0.09	>200	PASS	PASS		
112	Ironing machine	Ground floorStaff area - Laundry	21E[redacted]	I	240	1400W	PASS	PASS	PASS	N/A	13	0.10	15.6	PASS	PASS	Note: this appliance uses 2x plugs to operate. Tested as one item.	
113	Iron (Russel Hobs)	Ground floorStaff area - Laundry	255[redacted]	I	240	2400W	PASS	PASS	PASS	N/A	13	0.22	>200	PASS	PASS		
114	Food processor (Robot coupe)	Ground floor Staff area - corridor chemical cupboard	.....1177[redacted]	I	240	600W	PASS	PASS	PASS	N/A	13	N/A	>200	PASS	PASS		
115	Power supply plug for Wi-Fi repeater	Ground floor Staff area - corridor (on wall)	N/A	II	240	0.5A	PASS	PASS	PASS	N/A	N/A	N/A	N/A	PASS	PASS		
116	Fridge (Harlequin)	Ground floor Staff area - Staffroom/ Canteen	HAR416[redacted]	I	220	75W	PASS	PASS	PASS	N/A	13	0.04	>200	PASS	PASS		

Report No: PAT1-[redacted]-02112022 www.SIAES.co.uk Tel: 07967536262 11

Schedule of Inspections / Tests sheets

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