



# SHE005 – Electrical Safety Requirements

## 1 Introduction

It is recognised within Arqiva that Electrical work is a high-risk activity; therefore, it is important that any contractors and their sub-contractors undertaking electrical work specified below adhere to the following rules

If you undertake any of the following activities, you are deemed as undertaking electrical work for Arqiva

- Electrical design work
- Electrical Installation
- Electrical Maintenance
- Electrical Decommissioning

## 2 Absolute Rules

Hazard	SHE Rule	Background wording
Electricity	Anyone who carries out electrical activities shall be competent and authorised	Anyone undertaking electrical work shall be competent and authorised to undertake the work in question. This may include electrical design, installation, maintenance and decommissioning
Electricity	Electrical systems and equipment shall be isolated and proven dead before any installation work takes place	Electrical supplies and equipment shall be isolated, locked off and warning notices will be displayed. A HSE approved voltage indicator shall be used to prove a supply is dead. Live fault finding and testing shall only take place if authorised by a senior electrical person and a member of the Arqiva SHE team. Installation includes the physical work of installing, altering, removing or adding to an electrical installation

## 3 Arqiva Category Levels of Electrical Authorisation

There are currently four Arqiva category levels for electrical work, these will not change:

- Category CE1: Electrical Designer – Electrical system design and specification for technical & domestic installation.
- Category CE2: Low Voltage Electrical Installation and Decommissioning.
- Category CE3: Electrical and Electromechanical Maintenance Examples AC, lift, HVAC etc.
- Category CE4: High Voltage AC Electrical Installation and Maintenance.

If you are undertaking any electrical work you will need to be authorised to the appropriate level above, further details can be found in the appendix.

## 4 Authorisation Process

If you need to undertake electrical work, then you must complete the electrical authorisation section of the accreditation form. For the form to be completed the following information will be required as a minimum:

### Category CE1

- The designer must provide evidence of completing an IET Electrical design course or be able to demonstrate equivalent standard.

## Category CE2

- General scope of electrical work to be carried out
- Any subcontractors used to undertake electrical work
- NICEIC (minimum Approved Contractor level) or ECA registration certificate
- Electrical safety policy
- Policy / procedure for isolation

If you subcontract electrical work, then the subcontractor will also need to supply the above. The instructing contractor will be required to supply a copy of their Electrical Safety Policy.

Individual Authorisation - Any person wishing to become authorised must hold a relevant Electrotechnical Certification Scheme (ECS) card for the level of work being undertaken. Examples can be found in the appendix.

## Category CE3

- Any person wishing to become authorised must hold an EC3 card for Electrical and Electromechanical Maintenance Examples AC, lift, HVAC etc. Examples can be found in the appendix.

## Category CE4

This authorisation is not required for the DNO, (Distribution Network Operator), or its subcontractors

The company must provide the following:

- Proven and traceable work history of working on 11 kV systems Electrical safety policy
- High Voltage Safety Rules
- Policy / procedure for isolation / lock off

The following appointments must also be in place:

- Senior Authorised Person (Electrical) with in the company who has proven experience of working on Distribution Network Operator Networks or Private Networks as an SAP(E) or Authorised Person (Electrical).
- Appointed AP (E) for works on the HV equipment.
- Any person wishing to become authorised must ideally hold a relevant Electrotechnical Certification Scheme (ECS) card for Distribution Networks. Examples can be found in the appendix. A photocopy of the card must be provided.

## 5 Training and Competency

Any persons undertaking electrical work must hold a suitable Electrotechnical Certification Scheme (ECS) examples can be found in Appendix A.

Any person undertaking work in equipment racks which typically involve the installation of equipment using pre-manufactured IEC leads will require to have completed a DC Electrical Installations within the Telecommunications Industry course.

## 6 Audits

- It is the contractor's responsibility to ensure that the persons undertaking electrical work hold a relevant ECS card.
- Any persons undertaking electrical work will be required to have the ECS card available for inspection if requested.
- The Arqiva SHE team will undertake a review of persons undertaking electrical work and check that they are authorised by various means including project inspections, Service Now application reviews etc.
- If any company is found to be using unauthorised persons, they will be required to attend a breach hearing as you will have been in breach of the site accreditation rules. Remedies available to Arqiva include removal of contractor accreditation.

## 7 Dispensation Process

Dispensation will only be given in exceptional circumstances i.e. critical service effecting fault, emergency situations. If you require dispensation then this must be requested through [accreditation.arqiva@arqiva.com](mailto:accreditation.arqiva@arqiva.com) before the work is undertaken. Dispensation can be applied for holders of ECS card or non-holders of an ECS card.

## 8 General Requirements

Drawings maybe provided for existing services. They should be referred to but should not be relied upon entirely for their accuracy.

All electrical equipment provided by the Contractor and any temporary installations must comply with the provisions of the Electricity at Work Regulations and the Provision and Use of Work Equipment Regulations.

Before working on any electrical systems or equipment a Contractor must where appropriately prove dead using an approved voltage indicator including proving unit. When the supply is to be isolated it must be locked off and warning notices attached.

Live working is not normally permitted on Arqiva sites. If there is a requirement to undertake live working, it must be approved by the SHE team before commencing work.

Access to high risk areas e.g. HV switch rooms is not permitted without written approval from Arqiva.

Temporary electrical installations, including distribution boards, cabling and switchgear shall comply with BS7671 irrespective of the intended life of the installation. The installation may be subject to an electrical inspection by Arqiva representative prior to energising.

If work involves intrusive work i.e. drilling walls etc. then Asbestos Information Sheet SHE004 must be adhered too.

All work will require a method statement and risk assessment that meets the requirements specified in Method Statements and Risk Assessment Information sheet SHE002

You can find more details on the ECS card on this website [www.ecscard.org.uk](http://www.ecscard.org.uk)




If you have any questions, please contact the SHE team by emailing [SHE@arqiva.com](mailto:SHE@arqiva.com)




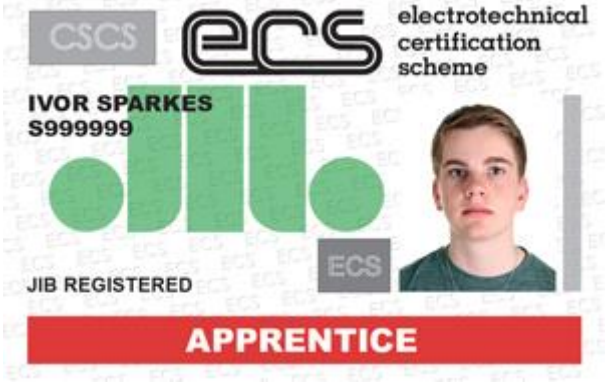
## 9 List of related documents

SHE002	Method Statements and Risk Assessments
SHE004	Asbestos

## Appendix A

### A.1 CE Categories and Cards

Category	Type of ECS Card	Example of work Covered by Card
Category CE1 - Electrical Designer	Not required	<ul style="list-style-type: none"> <li>Electrical system design and specification for technical and domestic installation.</li> </ul>
Category CE2 - Low Voltage Electrical Installation and Decommissioning	Installation Electrician 	<ul style="list-style-type: none"> <li>Installation of electrical plant, switchgear and cabling to be certified in accordance with BS7671 and typically operating at 400v, 230v and 115v AC and 24v or 48v DC.</li> </ul>
	Telecommunications Fitter 	<ul style="list-style-type: none"> <li>Installation of power supply within equipment racks using power leads only.</li> <li>Connection of power supply into distribution boards, fused spur etc. is not permitted.</li> <li>Installation, testing and certification of power leads including manufacture.</li> <li>Installation of equipment within racks.</li> <li>Installation of earthing for equipment racks.</li> <li>Repairs /installation and maintenance of telecommunication equipment.</li> </ul>
	Wireman / Panel Builder 	<ul style="list-style-type: none"> <li>Installation of power supply within equipment racks using power leads only.</li> <li>Connection of power supply into distribution boards, fused spur etc. is not permitted.</li> <li>Installation, testing and certification of power leads including manufacture.</li> </ul>

Category	Type of ECS Card	Example of work Covered by Card
	 <p>The card shows the CSCS logo, the ECS logo, and the text 'electrotechnical certification scheme'. The holder's name is IVOR SPARKES, ID number C234156, and the role is WIREMAN / PANEL BUILDER. A photo of the holder is on the right. A disclaimer at the bottom states: 'The registered holder of this card holds the qualifications listed on the reverse'.</p>	<ul style="list-style-type: none"> <li>• Installation of equipment within racks.</li> <li>• Installation of earthing for equipment racks.</li> <li>• Repairs /installation and maintenance of telecommunication equipment.</li> </ul>
<p>Category CE3 -- Electrical and Electromechanical Maintenance Examples AC, lift, HVAC etc.</p>	<p>Maintenance Electrician</p>  <p>The card shows the CSCS logo, the ECS logo, and the text 'electrotechnical certification scheme'. The holder's name is IVOR SPARKES, ID number C234156, and the role is MAINTENANCE ELECTRICIAN. A photo of the holder is on the right. A disclaimer at the bottom states: 'The registered holder of this card holds the qualifications listed on the reverse'.</p>	<ul style="list-style-type: none"> <li>• Competent to commission, maintain and repair electrical and electro-mechanical equipment already connected to an AC or DC supply. Including the replacement of components and subsequent testing/proving of function and safety integrity.</li> <li>• Connection of power supply using IEC leads or connection to dedicated fused spur.</li> </ul>
<p>Category CE4 - High Voltage AC Electrical Installation and Maintenance</p>	<p>Distribution Networks Electrician</p>  <p>The card shows the CSCS logo, the ECS logo, and the text 'electrotechnical certification scheme'. The holder's name is IVOR SPARKES, ID number C2341567, and the role is DISTRIBUTION NETWORKS ELECTRICIAN. A photo of the holder is on the right. A disclaimer at the bottom states: 'The registered holder of this card holds the qualifications listed on the reverse'.</p>	<ul style="list-style-type: none"> <li>• The installation, testing and commissioning of high voltage electrical networks and their components for distribution, both above and below ground.</li> </ul>
<p>All categories</p>	<p>Apprentice</p>  <p>The card shows the CSCS logo, the ECS logo, and the text 'electrotechnical certification scheme'. The holder's name is IVOR SPARKES, ID number S999999. The role is JIB REGISTERED APPRENTICE. A photo of the holder is on the right. A red banner at the bottom says 'APPRENTICE'. A disclaimer at the bottom states: 'The registered holder of this card holds the qualifications listed on the reverse'.</p>	<ul style="list-style-type: none"> <li>• Arqiva recognises and allows the use of Apprentices.</li> <li>• Apprentices must be under the control of a supervisor at all times.</li> </ul>