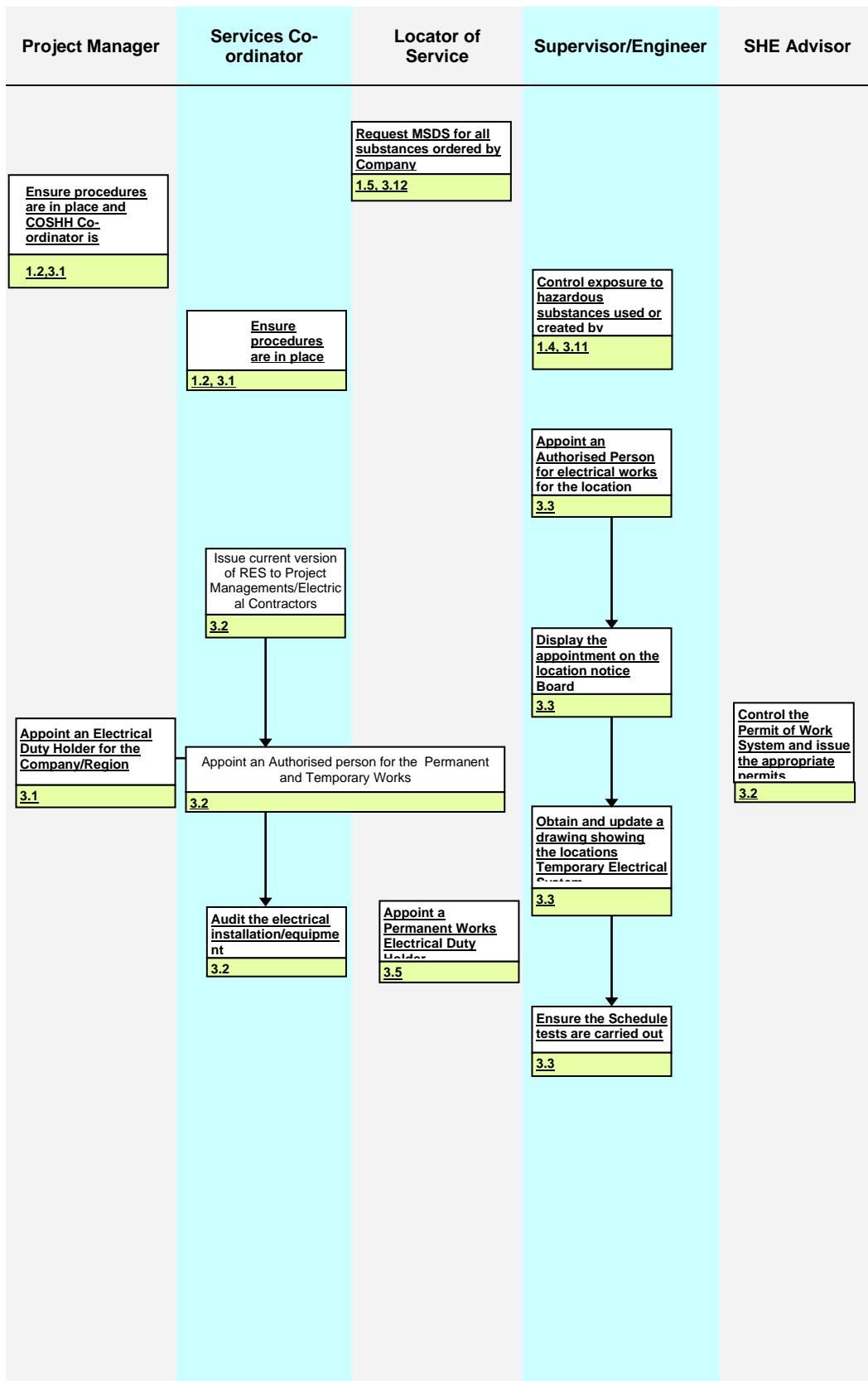


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Process Map - Control of Electrical Operations



Key:

Activity
Guidance

PURPOSE

1 The purpose of this procedure is to assign responsibilities and establish a safe system of work in relation to the design, installation, maintenance, and examination and testing of electrical systems/equipment.

SCOPE

1 This procedure covers all **COMPANY Projects** and locations under the control of **COMPANY**. A **COMPANY** is defined as the organization with responsibility for management of safety at a construction site.

REFERENCE DOCUMENTS

- 1 Qatar Regulatory Document (Construction) RD1.5
- 2 **COMPANY** Rules for Electrical Safety (RES) (Qatar General Electricity & Water Company to Supply)

2.3.4.1 Responsibilities

SHE DIRECTOR

- 1 The SHE Director shall approve this procedure

MANAGING DIRECTOR

- 2 The Managing Director shall appoint in writing an Electrical Duty Holder (EDH) for the Company/Region who shall be a qualified Electrical Engineer or appoint an Electrical Consultant to manage the EDH duties

PROJECT/SITE MANAGER

- 3 Ensure any applicable sections of this procedure are established, and complied with.
- 4 The responsibility for electrical safety of the permanent works under construction shall remain with the operational line management.
- 5 The appointment of a Permanent Works Electrical Duty Holder shall be the responsibility of Site Manager with reference to the EDH.

ELECTRICAL DUTY HOLDER (EDH)

- 6 It is the responsibility of the EDH to implement this procedure and monitor that all portable electrical appliances provided by COMPANY for use by COMPANY personnel or others comply with it.
- 7 The EDH shall be responsible for electrical safety with respect to the whole or defined parts of the Company's electrical systems and/or equipment, ensuring compliance with the Rules for Electrical Safety and, with regard to installations, planned preventative maintenance.
- 8 The vetting/approval of temporary electrical sub-contractors shall be the responsibility of the EDH or the Operational/Area Director following consultation with his/her SHE Adviser in circumstances where the EDH duties are delegated to an approved electrical contractor.
- 9 It is acknowledged that different arrangements exist in respect of site set ups, some being under the control of the client/external partners. In circumstances where deemed necessary the EDH shall endeavour to influence the client/external partners to adopt COMPANY standards.

2.3.4.2 Definitions

- 1 A full set of definitions are contained in the COMPANY Rules for Electrical Safety.

DESIGNATED PERSONS

ELECTRICAL DUTY HOLDER

- 2 An Electrical Engineer appointed by the Managing Director in writing to be responsible for ensuring electrical safety with respect to the whole or defined parts of the Company's electrical system and/or equipment.

AUTHORISED PERSON

3 An electrical contractor or electrically qualified Engineer or Technician appointed by the Electrical Duty Holder in writing, to carry out specified duties on the electrical system or equipment and to take control of any danger that is to be avoided and who is competent to accept such responsibility.

SUB CONTRACTOR'S AUTHORISED PERSON

4 An electrically qualified Engineer or Technician appointed by the Sub-Contractor in writing, to carry out specified duties on the electrical system or equipment and to take control of any danger that is to be avoided and who is competent to accept such responsibility.

SITE ELECTRICAL CO-ORDINATOR

1 The Site/Location Manager will be the Site Electrical Co-ordinator for the site/location under that person's control, unless the position is otherwise delegated in, writing and that person is approved by the Electrical Duty Holder in writing.

2.3.4.3 Actions Required to implement This Procedure

MANAGING DIRECTOR

1 The **MD** for the Company/Region shall appoint in writing an Electrical Duty Holder for their area of responsibility.

ELECTRICAL DUTY HOLDER

2 The Electrical Duty Holder shall :

- (a) Ensure ALL work is carried out in accordance with the COMPANY Rules for Electrical Safety.
- (b) Assess and approve all temporary electrical contractors prior to their appointment.
- (c) In conjunction with the Site/Project Manager appoint in writing an Authorised Person for each location.
- (d) Take reasonable steps to ensure that the Site Electrical Co-ordinator has the competency to undertake the role.
- (e) Ensure that all projects and appropriate contractors have a copy of the latest Rules for Electrical Safety.
- (f) Undertake independent inspection/audit of site electrical installation/equipment under COMPANY UK control.
- (g) During inspection/audit of the temporary electrical installation shall also consider the electrical safety controls in place for the permanent works.

3 The minimum frequency of inspection/audits shall be carried out at a frequency as deemed necessary by the EDH in agreement with the Area Director responsible for the site.

SITE ELECTRICAL CO-ORDINATOR

4 The Site Electrical Co-ordinator shall :

- (a) Ensure ALL work is carried out in accordance with the COMPANY Rules for Electrical Safety.
- (b) After consultation with the EDH, appoint in writing an Authorised person for the location he is responsible for.
- (c) Display the appointment of the Site Electrical Co-ordinator and Authorised Person on the location notice board and electrical switch gear.
- (d) Keep an up-to-date drawing showing the electrical circuits for the location's temporary electrical system.
- (e) Ensure schedule tests are carried out on installations and equipment.

AUTHORISED PERSON

5 The Authorised Person shall :

- (a) Control the permit to work system and issue permits as required.

SITE/PROJECT MANAGER

6 The **Site/Project Manager** shall :

- (a) Ensure **ALL** work is carried out in accordance with the COMPANY Rules for Electrical Safety.
- (b) After consultation with the EDH appoint in writing a permanent works Electrical Duty Holder.
- (c) Ensure that the specification for the temporary site electrics is communicated to the temporary electrical contractor.
- (d) Undertake the duties of the Site Electrical Co-ordinator or appoint appropriate person to undertake those duties.

2.3.4.4 Appendices

**APPENDIX 1 –
SUGGESTED INSPECTION AND TEST FREQUENCIES FOR ELECTRICAL EQUIPMENT**

Equipment/Environment	Formal Visual Inspection	Combined Inspection and Testing
Battery operated: (less than 20 volts)	No	No
Extra low voltage: (less than 50 volts AC) e.g. telephone equipment, low voltage desk lights	No	No
Information technology: e.g. desktop computers, VDU screens	Yes, 2-4 years	No if double insulated – otherwise up to 5 years
Photocopiers, fax machines: NOT hand-held Rarely moved	Yes, 2-4 years	No if double insulated – otherwise up to 5 years
Double insulated equipment: NOT hand-held. Moved occasionally, e.g. fans, table lamps, slide projectors	Yes, 2-4 years	No
Double insulated equipment: HAND-HELD e.g. some floor cleaners	Yes, 6 months – 1 year	No
Earthed equipment (Class 1): e.g. electric kettles, some floor cleaners	Yes, 6 months – 1 year	Yes, 1-2 years
Cables (leads) and plugs connected to the above. Extension leads (mains voltage)	Yes, 6 months – 4 years depending on the type of equipment it is connected to	Yes, 1-5 years depending on the type of equipment it is connected to

OFFICES AND OTHER LOW RISK ENVIRONMENTS ONLY CONSTRUCTION SITES

Equipment/Application	Voltage	Formal Visual Inspection	Combined Inspection and Test
Battery operated power tools and torches	Less than 25 volts	No	No
25V portable hand lamps (confined or damp situations)	25 volt secondary winding from transformer	No	No
50V portable hand lamps	Secondary winding centre tapped to earth (25 volt)	No	Yearly
110V portable and hand-held tools, extension leads, site lighting, moveable wiring systems and associated switchgear	Secondary winding centre tapped to earth (55 volt)	Monthly	Before first use on site and then 3 monthly
230V portable and hand-held tools extension leads and portable floodlighting	230 volt mains supply through 30mA RCD	Weekly	Before first use on site and then monthly
230V equipment such as lifts, hoists and fixed floodlighting	230V supply fuses or MCBs	Monthly	Before first use on site and then 3 monthly
RCDs Fixed**		Weekly	*Before first use on site and then 3 monthly
Equipment in site offices	230 volt office equipment	6 monthly	Before first use on site and then yearly

***Note:**
RCDs need a different range of tests to other portable equipment, and equipment designed to carry out appropriate tests on RCDs will need to be used.
** It is recommended that portable RCDs are tested monthly.

APPENDIX 2 - VISUAL INSPECTION OF ELECTRICAL EQUIPMENT CHECKLIST

THIS IS A SIMPLE INSPECTION REQUIRING THE MINIMUM OF TRAINING. THE FOLLOWING CHECKLIST COVERS THE REQUIREMENTS.

Plug	No damage, cracks or bent pins, cable sheath secured. Inspection of the inside of the plug to check correct fusing/wiring in place can also be part of the visual inspection.
Cable	No damage, significant abrasions, cuts, taped joints
Appliance Casing	No damage, loose parts or screws missing
General	No evidence of overheating (discoloured/hot areas), air intakes not choked, appliance is dry (where appropriate) appliance is dry (where appropriate) appliance is within its test period (check tag)
N.B.	Use the right tool for the job in the right place – don't improvise. UNPLUG APPLIANCES WHILST INSPECTING. IF APPLIANCE IS DEFECTIVE DON'T USE IT – REPORT IT!

2.3.4.5 Author

SECTION	NAME	POSITION IN COMPANY	CONTACT DETAILS
		SHE Manager	

2.3.4.6 Approvals

	NAME	POSITION IN COMPANY	SIGNATURE & DATE
Approved by:		SHEQ Director	

END OF DOCUMENT