

Statutory basis: Electricity at Work Regulations 1989 regs 4, 12, 13, 14 and 16, with HSE guidance HSR25 (3rd edition, 2015) and HSG85 (3rd edition, 2013). Regulation 14 permits work on or near live conductors only where it is unreasonable for them to be dead, reasonable to work while they are live, and suitable precautions are taken. The Regulations do not require a written record; this document does. Voltage indicators, test leads and proving units to GS38 (4th edition, 2015). Arc-rated and insulating protective equipment is provided, maintained and used under the Personal Protective Equipment at Work Regulations 1992. This document is the recorded safe system of work required by HSWA 1974 s.2(2)(a) and MHSWR 1999 regs 3 and 5.

1 DOCUMENT AND PROJECT IDENTIFICATION

RAMS REFERENCE	PROJECT / SITE REF	SITE NAME AND ADDRESS	DATE PREPARED	NEXT REVIEW DATE
CLIENT / PRINCIPAL CONTRACTOR	PLANNED START	DURATION	OPERATIVES	SUPERVISING THE WORK

2 SCOPE OF WORKS

The operations on low-voltage switchgear and distribution assemblies where the main exposure is arc flash rather than direct contact: switching and isolating at main switchboards, withdrawing and racking air circuit breakers, removing and replacing fuse carriers off load, and removing covers or opening doors on assemblies that remain energised so that isolation, proving or inspection can take place.

This document does not cover: work on or near exposed live conductors as a task in its own right (KD-RA-EL-002), dead working once isolation is proved (KD-RAMS-EL-004), testing and commissioning (KD-RAMS-EL-005), HV switching of any kind, and switching on a network whose owner has not authorised it in writing.

SITE-SPECIFIC SCOPE, LOCATIONS AND LIMITATIONS

3 RISK ASSESSMENT — SCORE EACH RISK FOR THIS SITE, THEN ADD WHAT IS MISSING

The hazards and controls below are the starting point for this activity, written by a working main contractor. They are not complete for your site until a competent person has scored each risk, added the site-specific hazards, and struck out anything that does not apply. Rate risks High / Medium / Low before and after controls.

1. Arc flash from a fault during switching, racking or cover removal — burns, blast, molten metal

At risk: The operator, anyone in front of the assembly

Controls: The energy depends on the prospective fault current and how fast the upstream protection clears — a main switchboard beside its transformer is the worst case. The arc flash study must describe the installation as it is now, including transformers or generators run in parallel, UPS and the current protection settings. The assessment gives the incident energy at the working distance and the arc flash boundary for that board. With no current study, a competent person assesses fault level and clearing time first; if that cannot conclude, the operation is re-planned with the supply dead upstream.

INITIAL (H/M/L)	RESIDUAL (H/M/L)	SITE-SPECIFIC ADDITIONAL CONTROLS, OR N/A	ACTION OWNER	BY WHEN

2. Operating switchgear that is defective, damaged or of unknown condition

At risk: The operator

Controls: Visual check before touching any handle — heating, tracking, damage, moisture, pests, missing shrouds. Defective or doubtful switchgear is not operated; it is reported and made dead from upstream. Only persons authorised and instructed on that make and type operate it.

INITIAL (H/M/L)	RESIDUAL (H/M/L)	SITE-SPECIFIC ADDITIONAL CONTROLS, OR N/A	ACTION OWNER	BY WHEN

3. Standing in front of the assembly, or unable to get out of the switchroom

At risk: The operator, the second person, passers-by

Controls: Operate from the side where the handle allows; remote racking or remote operation where fitted; doors closed for switching unless the manufacturer's procedure says otherwise. Everyone not taking part leaves the switchroom; the second person stands outside the arc flash boundary. The exit door and the route to it stay clear and openable from inside throughout.

INITIAL (H/M/L)	RESIDUAL (H/M/L)	SITE-SPECIFIC ADDITIONAL CONTROLS, OR N/A	ACTION OWNER	BY WHEN

4. Protective device left on a slow setting while people work in front of it

At risk: The operator

Controls: Where the upstream breaker has a maintenance setting that shortens its clearing time, the competent person selects it for the work, records it, and restores the normal setting before hand-back. Nobody else alters settings.

INITIAL (H/M/L)	RESIDUAL (H/M/L)	SITE-SPECIFIC ADDITIONAL CONTROLS, OR N/A	ACTION OWNER	BY WHEN

5. Tools, test probes or loose parts dropped across live busbars

At risk: The operator

Controls: Insulated tools only; nothing in top pockets; tethers above open busbar chambers; tools and parts counted in and out; shrouds removed only as far as the task needs and replaced before the door is closed.

INITIAL (H/M/L)	RESIDUAL (H/M/L)	SITE-SPECIFIC ADDITIONAL CONTROLS, OR N/A	ACTION OWNER	BY WHEN

6. Arc-rated PPE not matched to the hazard — synthetic clothing that melts, no face protection*At risk: The operator*

Controls: The competent person matches arc-rated clothing, hood or face shield and gloves to the assessed incident energy. Clothing tested by the box method carries a protection class, not a cal/cm² value, so the match is made from the manufacturer's data. No synthetic base layers; PPE inspected before use. PPE is the last control and never justifies an operation that could be done dead.

INITIAL (H/M/L)	RESIDUAL (H/M/L)	SITE-SPECIFIC ADDITIONAL CONTROLS, OR N/A	ACTION OWNER	BY WHEN

7. Closing onto a fault — earths, tools or rags left inside after work*At risk: The operator, everyone on the installation*

Controls: Before re-closure, the person who applied the isolation confirms every earth, lead and tool is out, every door and cover fitted and the permit cleared. Close from the side, doors shut, area cleared.

INITIAL (H/M/L)	RESIDUAL (H/M/L)	SITE-SPECIFIC ADDITIONAL CONTROLS, OR N/A	ACTION OWNER	BY WHEN

8. Wrong circuit switched — a supply lost, or a live circuit believed dead*At risk: Occupants, other trades, critical loads*

Controls: Switching schedule written in advance and checked against the labelled single-line diagram on the day; critical and life-safety loads identified with the occupier; every operation called and confirmed by the second person.

INITIAL (H/M/L)	RESIDUAL (H/M/L)	SITE-SPECIFIC ADDITIONAL CONTROLS, OR N/A	ACTION OWNER	BY WHEN

Site-specific hazards not listed above — every site has at least one:

HAZARD	WHO IS AT RISK	CONTROLS	INITIAL HI...	RESIDUAL...	ACTION OWNER	BY WHEN

4 METHOD — SEQUENCE OF WORK

- 01 Obtain the single-line diagram, the switching schedule and the arc flash study; confirm the study reflects the installation as it is now and the operation is authorised in writing by the person in control.
- 02 Decide, with the competent person, whether the operation can be done with the supply dead upstream. If it can, it is; record the decision either way.
- 03 Where the operation proceeds energised, record the incident energy at the working distance, the arc flash boundary, the PPE selected and any maintenance setting used.
- 04 Brief the operator and second person on the schedule, the boundary, the exit route, the stop conditions and the response to an arc flash casualty — burns cooled, emergency services called.
- 05 Clear the switchroom of everyone not involved; confirm the exit route is clear; post barriers and signs at the entrance.
- 06 Inspect the switchgear before touching it. STOP if there is any sign of heating, damage, moisture or missing shrouds — report and re-plan dead.
- 07 Put on and check arc-rated PPE; lay out insulated tools; check the voltage indicator on its proving unit.
- 08 Carry out each operation in schedule order from the side of the assembly, calling each step and having it confirmed.
- 09 Apply locks and caution notices at every point of isolation; prove dead at the point of work (live–dead–live) before any work begins under the permit.
- 10 On completion, account for every tool and earth, refit shrouds and covers, restore any maintenance setting, clear the permit, re-close, and record the operations and time of hand-back.

SITE-SPECIFIC AMENDMENTS TO THE SEQUENCE**5 PLANT, EQUIPMENT AND MATERIALS**

Arc-rated clothing, hood or face shield and gloves to the assessed rating	GS38 voltage indicator and proving unit
Insulating gloves and insulated tools	Lock-off kit — personal locks, hasps, caution notices
Remote racking device where the switchgear accepts one	Barriers and switchroom signage

INSPECTION / THOROUGH EXAMINATION REFS**COSHH ASSESSMENT REFS****6 PPE — THE LAST LINE OF CONTROL, NOT THE FIRST**

Head protection	Gloves — task-rated	Arc-rated PPE where assessed
Safety footwear	Eye protection	Arc-rated face shield or hood
High visibility	Hearing protection	

RPE TYPE, FACE-FIT STATUS, AND ANY OTHER PPE REQUIRED

7 PERMITS REQUIRED BEFORE THIS WORK STARTS

A permit authorises this work in that place, on that day. It extends the safe system of work in this document — it does not replace it (HSE HSG250). The site issues the permit; record its number before work starts.

KD-PTW-EL-010 — Electrical Permit to Work

For the work that follows the isolation.

PERMIT NUMBER

KD-PTW-EI-011 — Electrical Isolation Certificate

The record of every isolation point, lock and proving.

PERMIT NUMBER

KD-PTW-LW-032 — Live Electrical Working Authorisation

Where any part of the operation is carried out with conductors exposed and live.

PERMIT NUMBER

8 EMERGENCY ARRANGEMENTS — COMPLETE FOR THIS SITE

FIRST AIDER AND LOCATION

NEAREST A&E

ASSEMBLY POINT

HOW THE ALARM IS RAISED

EMERGENCY ACCESS FOR THIS WORK AREA

SPILL / ENVIRONMENTAL RESPONSE

9 BRIEFING RECORD — EVERYONE WORKING UNDER THIS RAMS SIGNS BEFORE STARTING

By signing you confirm the contents of this RAMS have been explained to you, you understand the hazards and controls, and you will work to the sequence stated. Tell the supervisor if the work or the site does not match this document — work stops until it does.

NAME	COMPANY	SIGNATURE	DATE

10 PREPARED AND ACCEPTED

Prepared / adapted for this site by — I confirm I have adapted this document to the site, scored the risks, and that it describes how the work will actually be done.

PRINTED NAME	ROLE / COMPETENCE	COMPANY	SIGNATURE	DATE	TIME

Accepted for the site by — principal contractor or site manager review.

PRINTED NAME	ROLE	COMPANY	SIGNATURE	DATE	TIME

Review this RAMS if the work, the site or the law changes, and at least before each new phase of the works. Flatten the completed PDF before filing so the record cannot be silently edited.

R REVISION HISTORY

Every revision of this document, and every review that found nothing to change. The revision on the front of this sheet is the one you are holding — check kubitdocs.com for the current one before use.

Rev	Date	Class	What changed	Authorised by
D0	2026-09-11	first-issue	First issue.	— not yet approved —
A0	2026-09-11	review	Approved for issue by the author. Content unchanged from the reviewed draft; the draft status strip is removed. No independent third-party review has been carried out.	Author — director, UK principal contractor, SMSTS. Not an independent review.

Class: first-issue · material (the law, a control, a field or the scope changed — past buyers are notified) · editorial (wording or layout only) · review (checked, nothing changed) · withdrawal. Revision prefix D = draft, not approved and not for sale; A = approved for issue by the person named, on the date shown.