

Statutory basis: Work at Height Regulations 2005 and HSE HSG33 (5th edition, 2020) — roof work is planned from the assumption that unprotected roof work kills; the Joint Code of Practice, 10th edition (2022) incorporating Amendment 2 (2025), and HSE HSG168 (3rd edition, 2022) for hot works and fire watch; COSHH 2002 for bitumen fume; DSEAR 2002 for LPG; Manual Handling Operations Regulations 1992; CDM 2015 regs 13 and 15. Every roof is treated as fragile until a competent person confirms otherwise in writing. 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

Heating bitumen in boilers and applying it on flat roofs — siting and lighting the boiler, controlling temperature, the LPG supply, moving blocks and hot bitumen to the workplace, pour-and-roll and mopping, and shutting down — under hot works control throughout.

This document does not cover: torch-applied membranes (KD-RAMS-RO-001, which does not cover bitumen boilers), cold-applied and single-ply systems (KD-RAMS-RO-002), and the fire watch arrangements themselves, which the certificate governs (KD-PTW-FW-002).

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. Burns from hot bitumen — splashes and spills

At risk: Roofers, people below

Controls: Heat-resistant gauntlets, long sleeves, trousers over boots and a face shield when drawing off and pouring; carriers never filled so full they slop; cold running water at the boiler and workplace — burns cooled at once, and bitumen stuck to the skin left for hospital treatment, never pulled off.

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

2. Boiler fire — bitumen overheated until it gives off flammable vapour

At risk: Roofers, the building

Controls: Thermometer or thermostat working; bitumen kept within the manufacturer's data-sheet temperature range; lid closed except when charging or drawing off; boiler attended while lit; extinguisher per the hot works permit and fire blanket at hand. If a fire starts: close the lid if safe to do so, turn off the burner and close the cylinder valve if they can be reached safely, never move the boiler or use water; raise the alarm, and if it is not out at once, evacuate and call the fire and rescue service.

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

3. Water or wet material meeting hot bitumen — violent foaming and spattering

At risk: Roofers

Controls: Carriers, ladles and the boiler kept dry; blocks charged dry and one at a time; boiler covered and pouring stopped in rain; nothing wet ever goes into the pot.

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

4. Boiler siting — heat and flame near the building and combustible materials

At risk: The building, occupants

Controls: Boiler sited where the hot works permit places it, at ground level wherever the site allows, level on a non-combustible base, away from openings, air intakes, stored materials and site accommodation; where a boiler must stand on the roof, the permit sets the base and position, and the fire watch checks the deck and roof void beneath it after work.

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

5. LPG cylinders and hoses feeding the boiler

At risk: Roofers, everyone nearby

Controls: Cylinders upright, secured and at the separation from the burner the boiler manufacturer states; hoses and regulators inspected before lighting and leak-tested on connection; cylinder valves closed at every stop; cylinders returned to the ventilated compound at the end of the day (DSEAR 2002).

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

6. Moving blocks, carriers and hot bitumen to and across the roof

At risk: Roofers, people below

Controls: Blocks and hot bitumen raised by hoist, hot bitumen in lidded carriers only — never carried up a ladder; exclusion zone below the hoist; blocks broken and carriers loaded to weights one person can handle without strain, set down on stable, level surfaces away from edges; routes kept clear.

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

7. Bitumen fume

At risk: Roofers, occupants

Controls: COSHH assessment from the product data sheet; temperature kept no higher than the work needs, because fume rises with temperature; boiler and pouring positioned so fume is carried away from workers and building air intakes; RPE where the assessment requires it.

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

8. Falls from the edge and through fragile surfaces while working with hot bitumen

At risk: Roofers

Controls: Edge protection in place before the boiler or bitumen goes up; every roof treated as fragile until confirmed otherwise in writing — rooflights and fragile sheets covered or barriered and routes kept off them; nobody carries a hot carrier near an unprotected edge or across a fragile area.

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 H/...	RESIDUAL...	ACTION OWNER	BY WHEN

4 METHOD — SEQUENCE OF WORK

- Confirm the hot works permit, the boiler position it allows, edge protection, fragile-surface protection and access before the boiler is delivered.
- Set the boiler level on its non-combustible base; check the thermometer or thermostat, lid and burner.
- Connect LPG with the cylinder upright and secured; check hose and regulator; leak-test on connection.
- Place the extinguisher, fire blanket and cold water at the boiler, and water at the workface; brief the fire procedure.
- Light to the manufacturer's procedure; charge with dry blocks; heat within the data-sheet range with the lid closed.
- Draw off into dry lidded carriers without overfilling; raise by hoist with the exclusion below held.
- Pour and roll or mop working away from edges, with fume carried away from the gang and air intakes.
- Stop in rain, rising wind, or if the temperature cannot be controlled; burner off and lid closed.
- Shut down in time for the fire watch the permit requires to finish within the shift: burner off, cylinder valve closed, lid on, boiler attended while it cools.
- Carry out the fire watch per the certificate, including roof voids and the deck under any on-roof boiler position; close the permit.

SITE-SPECIFIC AMENDMENTS TO THE SEQUENCE

5 PLANT, EQUIPMENT AND MATERIALS

- Bitumen boiler with thermometer or thermostat
- LPG cylinders, hoses and regulators (inspected)
- Lidded carriers and hoist
- Extinguisher and fire blanket
- Non-combustible boiler base
- Cold water for burns first aid

INSPECTION / THOROUGH EXAMINATION REFS

COSHH ASSESSMENT REFS

6 PPE — THE LAST LINE OF CONTROL, NOT THE FIRST

- Head protection
- Safety footwear
- High visibility
- Gloves — task-rated
- Eye protection
- Hearing protection
- Heat-resistant gauntlets
- Face shield for drawing off and pouring
- Long sleeves; trousers over boots

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-RF-007 — Roof Work Permit
For the roof access and fragility controls.

PERMIT NUMBER

KD-PTW-HW-001 — Hot Works Permit
Before the boiler is lit.

PERMIT NUMBER

KD-PTW-FW-002 — Fire Watch Certificate

After the boiler is shut down — roof voids and the deck included.

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.