

Statutory basis: HSWA 1974 s.2(2)(a) and s.3 — the risk from a water system reaches the people who will occupy the building after the contractor has left — and MHSWR 1999 regs 3 and 5; this document is the recorded safe system of work. Legionella bacteria are a biological agent under COSHH 2002, and ACOP L8 (4th edition, 2013) with HSE HSG274 Part 2 (2014) sets the control regime for hot and cold water systems, including systems filled before they are used, which are flushed, dosed or recommissioned rather than drained down. BS 8558:2015 gives the installation, testing, flushing and disinfection practice for water services. Temporary filling connections must not contaminate the supply under the Water Supply (Water Fittings) Regulations 1999.

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

Controlling legionella risk in new or altered hot and cold water systems from the moment they are first filled — often for pressure testing — until the building is handed over: when and how systems are filled, the regime while they stand unused, cold water storage tanks, dead legs, first heat-up of hot water plant, first running of showers, disinfection before use, and the records passed to the occupier.

This document does not cover: the disinfection and sampling procedure itself (KD-RAMS-WH-001), control tasks under an occupier's written scheme (KD-RAMS-WH-002), pressure testing with water, air or inert gas (KD-RAMS-ME-006), and cooling towers, evaporative condensers and spa pools.

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. Legionella growth in systems filled and then left standing

At risk: Future occupants, operatives

Controls: Filling is delayed as long as the programme allows; where occupation is far off, pipework is pressure tested with air or inert gas under the stored-energy controls in KD-RAMS-ME-006 instead. A filled system is not drained down. It is flushed at least weekly with every flush recorded; for a large system with a long gap to occupation, continuous biocide dosing is considered with the water treatment specialist; otherwise it is recommissioned as new — flushed, cleaned and disinfected — before use.

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

2. A system put into use without disinfection

At risk: Future occupants

Controls: Disinfection before use under KD-RAMS-WH-001 is the default. Only a small, simple development may instead be thoroughly flushed close to occupation, and only where the water hygiene risk assessment records that decision.

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

3. Cold water storage tanks filled early and left standing

At risk: Future occupants

Controls: Tank commissioning delayed until occupation is near; a tank that must be filled earlier is included in the flushing regime and disinfected before use.

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

4. Warm cold water and cool hot water in an unoccupied building

At risk: Future occupants

Controls: Cold pipework kept away from heat and insulated as designed. Temperatures checked at sentinel outlets against HSG274 Part 2 — cold below 20 °C within two minutes, hot at 50 °C or above within one minute (55 °C in healthcare premises), stored hot water at least 60 °C.

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

5. Contamination at first fill — temporary hoses, standpipes and open pipe ends

At risk: Future occupants

Controls: Fill with wholesome water from a supply protected against backflow; hoses dedicated to drinking water, clean and capped; open ends capped during installation so debris and vermin stay out.

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

6. Dead legs and capped spurs left for future fit-out

At risk: Future occupants

Controls: Branches cut back to the flowing main, not capped at length; spurs for future work agreed with the designer and included in the flushing regime; redundant pipework removed.

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

7. Aerosol and scalding when showers and hot outlets are first run

At risk: Operatives

Controls: Shower heads removed or bagged and water run to waste with minimum splash; nobody leans over the outlet; FFP3 where aerosol cannot be avoided; others kept out; temperature checked before hands go near hot outlets.

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

8. Mixing valves set on a dirty system; no evidence of control at handover

At risk: Future occupants, the occupier

Controls: Thermostatic mixing valves commissioned after flushing, fail-safe tests and set temperatures recorded. Flushing, dosing, temperature and disinfection records kept per outlet and handed to the occupier with the system.

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 with the principal contractor the planned fill date, occupation date and the water hygiene risk assessment; agree who flushes, who records, and whether an air or inert gas test is used instead of early filling.
- Cap open ends during installation; cut back branches to the flowing main as the work proceeds.
- Fill and test with wholesome water from a protected supply using clean, dedicated hoses — no earlier than the programme requires.
- Start the flushing regime the day the system is filled; list every outlet and sentinel point on the record.
- Flush every outlet at least weekly; record date, duration and sentinel temperatures. Never drain the system down to stop flushing.
- Where the gap to occupation is long, decide with the water treatment specialist between continued flushing, continuous dosing, or recommissioning as new before use; record the decision.
- Delay filling cold water storage tanks until occupation is near where the programme allows.
- Commission hot water plant and check stored and distribution temperatures. STOP and report if they cannot be achieved.
- Run showers for the first time with heads removed or bagged; commission mixing valves after flushing.
- Disinfect and sample under KD-RAMS-WH-001 before use unless the risk assessment records thorough flushing for a small, simple development; hand all records to the occupier.

SITE-SPECIFIC AMENDMENTS TO THE SEQUENCE

5 PLANT, EQUIPMENT AND MATERIALS

- | | |
|--|--|
| Clean hoses dedicated to drinking water, with caps | Shower head bags and hoses to waste |
| Backflow-protected temporary filling connection | Flushing and temperature record sheets |
| Digital thermometer with probe | |

INSPECTION / THOROUGH EXAMINATION REFS	COSHH ASSESSMENT REFS

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

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|-----------------|---------------------|--|
| Head protection | Gloves — task-rated | FFP3 face-fit tested where aerosol cannot be avoided |
| Safety footwear | Eye protection | |
| 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-MI-029 — Mechanical Isolation and Lock-Off Certificate

PERMIT NUMBER

Where the system is isolated from an occupied or live supply.

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.