

CONFINED SPACE ENTRY — MANHOLES AND DUCTS

ACTIVITY RAMS — ADAPT TO SITE BEFORE USE

Manholes, chambers, draw pits and service ducts · can entry be avoided · gas testing · top person and rescue · cleaning out silt

KD-RA-GW-002 Rev A0

Statutory basis: Confined Spaces Regulations 1997 reg 4(1) — no entry where the purpose can reasonably be achieved without it; reg 4(2) — a safe system of work for any entry; reg 5 — emergency arrangements; with ACOP L101 (3rd edition, 2014), which expects a permit system where there is a reasonably foreseeable risk of serious injury. COSHH 2002 for sewer and ground gases, with the workplace exposure limits in EH40/2005 (4th edition, 2020). 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

Entry by operatives into external manholes, inspection chambers, valve and draw pits, service tunnels and ducts for inspection, connection, repair and cleaning out silt and debris: deciding whether entry can be avoided, lifting covers, atmosphere testing before and during entry, the top-person and rescue arrangements, raising silt and debris, and the entry and exit itself.

This document does not cover: building chambers and making drain connections (KD-RAMS-GW-003), cleaning out lift pits, sumps and building voids (KD-RA-LG-003), entry into public sewers (the sewerage undertaker's own entry procedures and authority), and chambers containing live electrical or pressurised plant without the owner's isolation.

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. Toxic and asphyxiant gases — hydrogen sulphide, carbon dioxide, carbon monoxide

At risk: Anyone entering, the top person

Controls: No entry without a current gas test with a calibrated detector, taken at the levels the gas test record sets out, and continuous monitoring during entry by a personal detector in the breathing zone. Entry criteria on the record are set with reference to the workplace exposure limits in EH40/2005 (4th edition, 2020) under COSHH 2002; any alarm means immediate exit. Disturbing silt and sludge releases trapped gas, so monitoring continues throughout cleaning. Hydrogen sulphide deadens the sense of smell — nobody relies on smell.

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

2. Flammable gas — methane and fuel vapour

At risk: Anyone entering, the top person

Controls: A flammable reading means no entry and no ignition sources — no smoking, no hot work, only lamps and detectors rated for the atmosphere; the space is ventilated and retested before entry is reconsidered.

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

3. Entry that was never necessary

At risk: Operatives

Controls: Before any entry the supervisor records why the task cannot be done from the surface — cameras, rods, long-reach tools, suction or jetting from the top. Entry goes ahead only where the purpose cannot reasonably be achieved without it.

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

4. Collapse, incapacitation and delayed rescue below ground

At risk: Anyone entering

Controls: Never alone: the permit states the minimum team, and a trained top person stays at the opening for the whole entry, in contact and with the readings in view. Rescue arrangements — escape sets, a means of lifting a casualty out, the emergency call — are in place and briefed before entry; escape sets are carried only by people trained to use them.

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

5. Falls through open covers and during descent

At risk: Operatives, others, the public

Controls: Opening barriered as soon as the cover is lifted; step irons and ladders inspected before use — corroded step irons are not trusted; a ladder or fall-arrest device used where step irons are missing or doubtful.

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

6. Handling covers and silt buckets; struck by a falling load

At risk: Operatives

Controls: Covers lifted with keys or a mechanical lifter, by two people or by machine, and laid flat. Silt removed by suction from the surface wherever possible; otherwise buckets part-filled and raised by rope and pulley or hoist — never carried up a ladder — with nobody beneath the opening while a load is raised; tools lowered in a bag.

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

7. Sudden flows and surcharging

At risk: Anyone entering

Controls: Upstream flows checked and stopped or diverted where possible; no entry, or immediate exit, if heavy rain could surcharge the system; entrants stay within reach of the exit.

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

8. Biological hazards — sewage, rats and leptospirosis

At risk: Anyone entering

Controls: Entrants have had occupational health advice on fitness and protection for work with sewage. Waterproof gloves and overalls; cuts covered; washing before eating, drinking or smoking; leptospirosis card carried, and any flu-like illness reported to a doctor with the card.

INITIAL (H/M/L)	RESIDUAL (H/M/L)	SITE-SPECIFIC ADDITIONAL CONTROLS, OR N/A	ACTION OWNER	BY WHEN
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9. Traffic and the public at the opening

At risk: Top person, entrants, the public

Controls: Openings in roads or footways guarded and signed before the cover is lifted: the top person works inside the guarding.

INITIAL (H/M/L)	RESIDUAL (H/M/L)	SITE-SPECIFIC ADDITIONAL CONTROLS, OR N/A	ACTION OWNER	BY WHEN
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Site-specific hazards not listed above — every site has at least one:

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4 METHOD — SEQUENCE OF WORK

- 01 Record why entry cannot be avoided. If the task — silt removal included — can be done from the surface, do it from the surface.
- 02 Obtain the confined space entry permit: the space, the task, the entrants, the minimum team, the top person, the rescue arrangements and the stop conditions.
- 03 Guard and sign the opening before lifting the cover; lift with keys or a lifter.
- 04 Let the space vent, then test the atmosphere at the levels the gas test record sets out and record the readings. No entry on a flammable reading or on readings outside the record's entry criteria.
- 05 Check upstream flows, weather, step irons and ladders; confirm the top person and rescue equipment are in place and escape-set wearers are trained.
- 06 Brief entrants and top person: the task, what each detector alarm means, the exit signal and the time limit on the permit.
- 07 Enter one at a time wearing personal detectors; lower tools separately; raise silt by rope or hoist with nobody beneath the opening.
- 08 The top person monitors readings — closely while silt is being disturbed — and contact for the whole entry, and does not leave the opening.
- 09 STOP and exit at once on any alarm, any symptom — headache, dizziness, nausea, breathlessness — a rise in flow, or loss of contact.
- 10 After exit, replace and seat covers, wash, close the permit and file the gas readings.

SITE-SPECIFIC AMENDMENTS TO THE SEQUENCE

5 PLANT, EQUIPMENT AND MATERIALS

- | | |
|--|--|
| Calibrated gas detector and personal gas monitors | Ladder or fall-arrest device where step irons are doubtful |
| Cover keys or mechanical cover lifter | Lighting rated for the atmosphere |
| Suction unit, or rope and pulley or hoist for silt buckets | Rescue and escape equipment as the rescue arrangements specify |
| Barriers and signs | |

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
- Waterproof gloves and overalls

Personal gas monitor

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-CS-004 — Confined Space Entry Permit
 For every entry.

PERMIT NUMBER

KD-SYS-GT-017 — Gas Test & Atmospheric Monitoring Record
 Before entry and throughout it.

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.