Enter and work in confined spaces

RIIWHS202E

Marking Guide

Learner Workbook – Trainer's Copy
(Formative Assessment)

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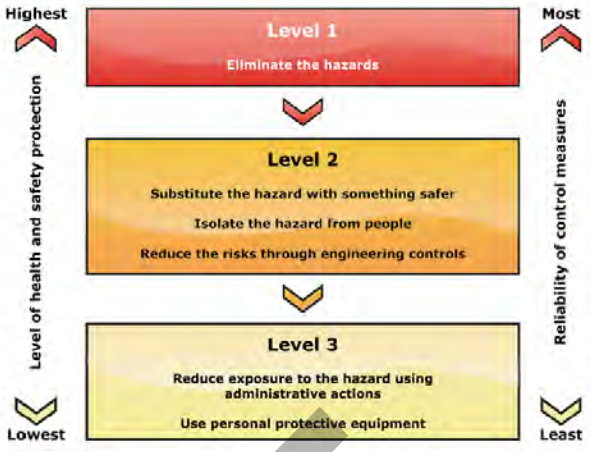
Performance Evidence Tasks……16

Question 3 (PC 1.3)

The Hierarchy of Hazard Controls has six steps to follow to control hazards. The first (and most effective) is elimination. List the other five.



Substitution; Isolation; Engineering Control Measures; Administrative Practices; PPE.

Question 4 (PC 1.1)

Before you start work, what should you check so you know what to do?

Answer may include but is not limited to:

- Ask your supervisor for instructions
- Check plans and specifications
- Find instructions about the quality of the work.

Question 5 (PC 1.2)

What documents (paperwork) will help you work out the safety needs of the worksite?

Answer may include but is not limited to:

- Safety instructions
- Site rules
- Local or state laws
- Maps or Signs
- Drawings, sketches or diagrams about the job
- Manufacturer's instructions.

Question 9 (PC 2.2)

What type of tests/inspections should be carried out on a confined space before a work permit can be issued?

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What type of tests/inspections should be carried out on a confined space before a work permit can be issued?

Answer may include but is not limited to:

- Atmosphere, oxygen/breathability
- Temperature/humidity
- Combustibles, oxygen, enriched or reduced
- Electricity
- Stored pressure/energy
- Flammability/explosivity
- Toxicity

Question 10 (PC 1.4, 2.6, 3.5)

What sort of information must you provide for a Confined Space Entry Permit?

Answer may include but is not limited to:

- Information about the confined space that you will work in
- The name of all the workers entering the space. They must sign in and out. This makes sure everyone has left the space.
- The date and time of the work
- The risk control measures
- The equipment you will take into the space for work
- The equipment you may need for an emergency or rescue.

Question 11 (PC 1.1)

How do you get a permit to work in a confined space?

Answer:

Refer to company procedures. A competent person should be nominated and authorised by the business or undertaking to issue the permit on their behalf.

Question 12 (PC 1.1)

A Confined Space Entry Permit has been granted for the job. What must you do with it?

Answer:

You must put it in a weather-proof cover and display it at the entrance of the confined space for the whole time work is being done.

Question 13 (PC 1.1)

What do you do to warn people about a confined space?

Answer may include but is not limited to:

- put up warning / danger signs
- put up barricades to stop people walking into the space
- tell workers they cannot enter the space without a permit
- put up signs telling people the space is a permit entry zone
- you may need to put up a lockable barricade, fence or gate

Question 14 (PC 1.1)

You arrive at work and discover there has been heavy rain over night. Work conditions have changed. What must you do?

Answer:

You must check if the new hazard is on the permit. If the work conditions do not match the work permit, you must get the permit changed and approved again, before you start work.

Question 15 (PC 1.1)

How can you be sure that the incident/emergency response plan is appropriate to the job?

Answer:

By rehearsing (practicing) the plan before you start work.

Question 16 (PC 1.4, 2.7)

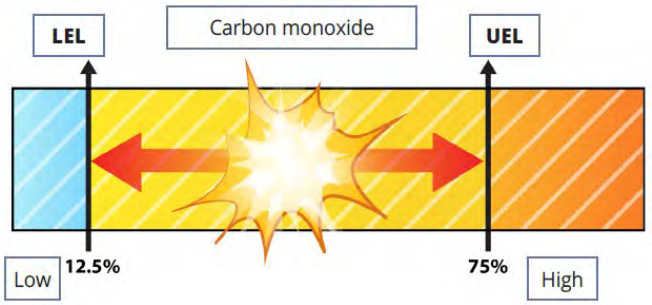
The work you need to do in the confined space is going to take longer than what has been approved on the entry permit. What must you do?

Answer:

You must get an extension to the permit from the person who originally granted it.

Question 17 (PC 1.6, 1.8)

Your gas monitor sounds an alarm for LEL. Why would you stop using power tools and leave the confined space as quickly as possible?



Answer:

Because the LEL (Lower explosive limit) alarm means the level of gas is rising to a point where it could explode. You don't do anything that would cause a spark – and you leave immediately.

Question 18 (PC 2.2)

What steps do you take to test gas levels before entering a duct, vent or shaft?

Answer may include but is not limited to:

- Use your gas monitor to test the air around the duct / vent / shaft cover.
- If gas levels are safe, attach the gas monitor to a lanyard or rope and lower it to the top of the space.
- If gas levels are safe, lower the gas monitor to halfway down the space.
- If gas levels are safe, lower the gas monitor to the bottom of the space.
- Test any other pockets that could hold gas

Question 19 (PC 2.2)

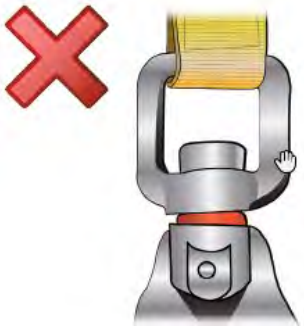
What should be done with atmosphere/atmospheric monitoring instruments before they are used?

Answer may include but is not limited to:

All instruments and equipment should be challenge tested (for example calibrated) before use as per manufacturer's instructions.

Question 28 (PC 1.8)

The equipment you need to use is damaged and unusable, what should you do?

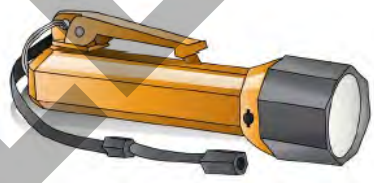


Answer:

Tag the equipment and separate it from the good equipment, report the damage to your supervisor and have the equipment fixed or destroyed.

Question 29 (PC 1.5)

When should you make sure you are using intrinsically safe equipment? Why?

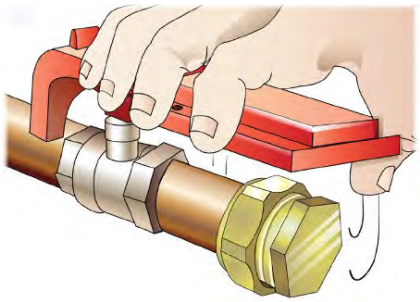


Answer:

Whenever you are going into a space which might have high levels of explosive gas. Because intrinsically safe equipment does not give off sparks or heat that might cause a fire.

Question 30 (PC 3.1, 3.2, 3.3, 3.4, 3.5)

List some steps you must take as you finish the job and leave a confined space.



Answer may include but is not limited to:

- Make sure you get all tools and equipment out of the confined space. Your boss will be unhappy if you lose tools. Also, the tools could cause a hazard in the future.
- Inspect (check) the space. Make sure you have not left anything behind.
- Remove tagging or lock-outs.
- Finish filling out the confined space entry permit.
- Secure the site by closing off or replacing any hatches or access covers. This stops someone accidentally entering the confined space in the future.
- Tell your customer, supervisor or boss that the work is finished.

Question 31 (PC 3.1, 3.2, 3.3)

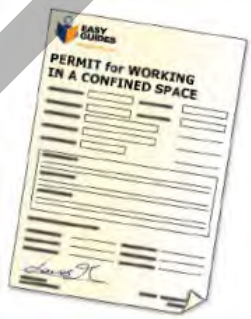
Why do you inspect the confined space as you are leaving?

Answer may include but is not limited to:

- To make sure you have done all the work on the permit
- To make sure you haven't left anything behind.

Question 32 (PC 3.5)

When the work is finished, who must sign the permit?



Answer may include but is not limited to:

- All workers must sign out on the permit
- Your supervisor (boss) must sign off the permit.

Question 33 (PC 4.3)

Why must you give your harness fall equipment a good clean and then store it in a cool dry place?

Answer:

Because dirt, solvents and mould can damage the equipment.

Score for Knowledge assessment

RIIWHS202E Enter and work in confined spaces

Knowledge Assessment		
Correct answers:	_____ / 38	
PASS	30+ answers correct	
Percentage:		
Result (circle):	Satisfactory	Not satisfactory
Trainer/supervisor name:		
Trainer/supervisor ID:		
Signature:		
Student name:		
Student ID		
Student signature:		

Assessor comments to clarify assessment results:

.....

.....

.....

If you have any questions about your results, speak to your trainer/supervisor.

Enter and work in confined spaces

RIIWHS202E

Practical Evidence Tasks

(Formative assessment)

Practical task 1
Identify a confined space (PC 1.1)

Welcome to the first practical task of this course. The practical tasks help you practise planning, and doing work in a confined space.

In this task, you will look at some example work areas. Use the Confined Space Criteria form to work out if the spaces are confined spaces.

Once you have finished, your trainer will discuss your answers as a group.

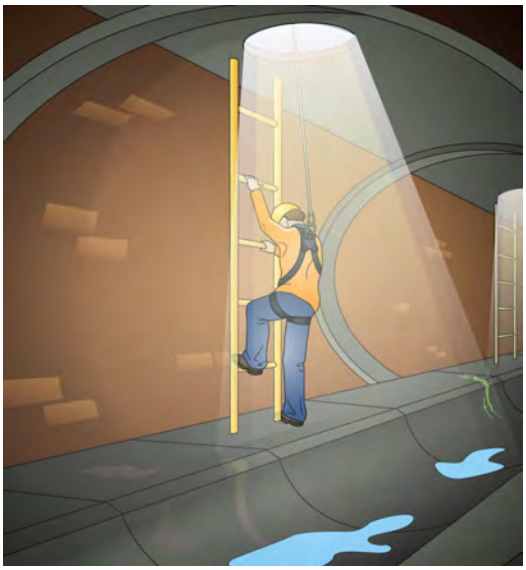
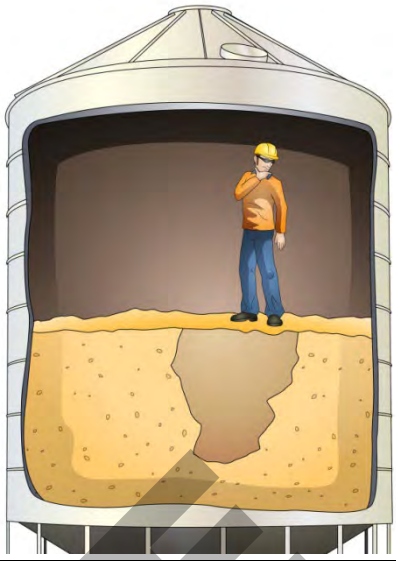
Your trainer may also show you other work areas.

What you need for this task

- Example work areas. Your trainer will give you these.
- Confined Space Criteria form
- Pen

How to do this task		✓
1	Look at each example work area carefully. Think about the type of work that you need to do in the area.	
2	Use the Confined Space Criteria form to check if the area is a confined space.	
3	When you finish the worksheet, discuss the results.	

Following are some examples of confined spaces:

	
Inspecting a sewer	Entering a silo to clear a blockage below
	
Unloading a shipping container by hand	Unloading a shipping container using a petrol forklift truck
	
Entering a trench to retrieve a shovel	Entering a trench to do some plumbing using primer and glue
Your confined spaces training area. *Your trainer will show you this area.*	

	Confined Space Criteria						**Confined space?**
	For the work area to be considered a 'confined space', you must answer 'YES' to all 3 of the following, and, any one of the following						
Description of the space and work	**A** Is the space enclosed or partially enclosed?	**B** Is the space not designed or intended to be occupied by a person?	**C** Is the space designed or intended to be, at normal atmospheric pressure while any person is in the space?	**D** Does the space represent a risk from: Harmful airborne contaminants	An unsafe oxygen level	Engulfment	If you answer yes to A, B, C and at least one of D, then the space is a confined space.
Inspecting a sewer							
Entering a silo to clear a blockage below							
Unloading a shipping container by hand							
Unloading a shipping container with a petrol powered forklift truck							
Entering a trench to retrieve a shovel							
Entering a trench to do some plumbing using primer and glue							
Your confined spaces training area							

Practical task 4

Emergency Plan (PC 1.6)

In this task, you will work in a group of 3-4 to write an emergency plan. Your plan must let you rescue someone who is injured or unconscious in the confined space. As part of this plan, you will also need to inspect equipment, anchor points and/or static lines, and recommend the best course of action if something does not pass your checks.

For this task, you will assume that workers will connect to a harness system. Each person in the group must take on part of the responsibility for the rescue. You must fill out each section of the rescue plan. You should make sure you could rescue someone as quickly as possible.

What you need for this task

- Tour of the work area
- Pen
- Paper
- Emergency plan template
- Rescue equipment (this may be static lines, lanyards, harnesses, inertia reels, energy absorbers, etc. Your trainer will advise what is available)

How to do this task		✓
1	Start at the top of the rescue plan and fill out the emergency contact, type of work and workers details. For this exercise, you can be a rescuer and a worker.	
2	Work out who will be in charge of what part of the rescue. In some cases, the same person can be responsible for a couple of things. For example; the person responsible for calling the ambulance, can also administer first aid once the person has been rescued.	
3	In the rescue tasks, fill out each section and work out how much time each step would take. Add up all the steps and make sure you can rescue someone as quickly as possible.	
4	Conduct pre-work inspections of all the equipment you will use for the work. This should include any harness, lanyard, energy absorber, anchor points, etc	
5	Discuss the First Aid and Treatment requirements, and make sure all workers are aware of the correct treatments.	
6	Put your harness on and make sure it fits correctly. Check the other members of your team.	
7	Do the final checks and have your trainer sign off for approval	

Emergency Rescue Plan

10012

Emergency Contact ✆ 000

Other emergency numbers: .....

Site address: .....

Nearest cross road (other directions): .....

Site access information: (level, floor, entrances, etc): .....

.....

Access point for emergency services: .....

.....

WORK DETAILS (TYPE OF WORK BEING PERFORMED)

WORKERS NAMES	CONTACT INFO

PRE WORK EQUIPMENT CHECKS (TO BE INITIALLED BY PERSON CHECKING THE EQUIPMENT)

Anchor points	Initial:	Static lines	Initial:	Lanyards	Initial:	Harnesses	Initial:
EWP	Initial:	Inertia reels/lifelines	Initial:	Tripod	Initial:	Scaffold	Initial:
Snap hooks/karabiners	Initial:	Ropes/Slings	Initial:	Energy absorbers	Initial:	Trauma straps	Initial:
OTHER	Initial:		Initial:		Initial:	Gas Monitors/B.A	Initial:
	Initial:		Initial:	Name:		Signature:	

WHO IS IN CHARGE OF:	NAME	CONTACT INFORMATION
The rescue (primary contact)		
Contacting emergency services		
Stand-by person (observing if a fall occurs)		
Ensuring rescuers are safe		
First Aid (including suspension trauma treatment)		

RESCUE TASKS	DETAILS OF STEPS IN RESCUE	PEOPLE RESPONSIBLE (NAME AND CONTACT)	EQUIPMENT NEEDED FOR RESCUE	TIME NEEDED
Does equipment need to be set up or moved before you can perform the rescue?	Practiced and timed: Yes/No		Equipment tested: Yes/No	:
What are the steps to rescue the person?	Practiced and timed: Yes/No		Equipment tested: Yes/No	:
Other factors: *Layout of building, access problems, weather conditions, language barriers, etc.*	Practiced and timed: Yes/No		Equipment tested: Yes/No	:
If the person is injured or unconscious, will this affect your ability to rescue them?	Practiced and timed: Yes/No		Equipment tested: Yes/No	:
			TOTAL TIME NEEDED FOR RESCUE :	:

EQUIPMENT NEEDED FOR RESCUE (TO BE INITIALLED BY PERSON CHECKING THE EQUIPMENT)

Rescue ladder	Initial:	Static lines	Initial:	Lanyards	Initial:	Harnesses	Initial:
EWP	Initial:	Inertia reels/lifelines	Initial:	Tripod/scaffold	Initial:	Winches	Initial:
Snap hooks/karabiners	Initial:	Ropes/Slings	Initial:	Energy absorbers	Initial:	Trauma straps	Initial:
First Aid kit	Initial:	Crane	Initial:	Spreader bars	Initial:	Stretcher	Initial:
OTHER	Initial:	Gas Monitors/B.A	Initial:	Name:		Signature:	

COMMUNICATIONS TASKS	COMMUNICATIONS METHOD	TESTED?
Communication during work		YES / NO
Stand-by Person to raise alarm		YES / NO
Rescuers will communicate		YES / NO
Trapped/suspended person		YES / NO
Emergency services contacted		YES / NO

FINAL CHECKLIST (to be done immediately before work commences)	
All fall restraint/arrest equipment and anchor points are checked	YES / NO
Harnesses have been checked and fitted correctly	YES / NO
Rescue equipment is set up and in place	YES / NO
First aid procedure is in place	YES / NO
Workers are aware of roles and responsabilities for the rescue	YES / NO

Written by: ..... Authorised by: .....

Signature: ..... Date: / / 20 Signature: ..... Date: / / 20

Practical task 5

Part 1 – Confined Space Entry Permit

Work and People – Hazards and Controls (PC 1.4, 1.9, 2.7, 3.5)

In this task you will work in groups to complete a confined space entry permit. This task will be done in 2 parts. In part 1 you will fill out the 'Work and People' and 'Hazards and Controls' section of the confined space entry permit. You will then get the permit approved by your trainer.

What you need for this task

- Completed SWMS/JSEA
- Description of work
- Confined space entry permit
- Pen

	How to do this task	✓
1	Think about the type of work your trainer has explained to you. Read back over your 'Description of work' and 'SWMS/JSEA' form.	
2	Look at the work area. Describe it clearly, so that a supervisor can understand which area you are working in.	
3	Discuss in your groups who will be in charge of doing what tasks in the work. Who will be in charge? Who will be the standby person? Fill in the names of the workers.	
4	In your groups, talk about the hazards, ventilation, PPE, controls, etc.	
5	Fill out all this information in your confined space entry permit.	
6	Comply with entry permit requirements	
7	Monitor and adhere to allocated entry time	
8	Complete confined space entry permit requirements according to workplace procedures	
9	Position rescue equipment by the entry permit.	
10	When you have finished this section, get your trainer to sign the 'Authorised By' section.	

Practical task 5

Part 2 - Gas testing (PC 2.2)

In this task you will use gas testing equipment to test the entrance of a confined space. You will check and calibrate your gas monitor. Test for carbon monoxide and hydrogen sulphide. You will test the oxygen levels, and the flammability range. You will record the test results as you go on your confined space entry permit.

What you need for this task

- Gas testing/monitoring equipment
- Calibration equipment
- Description of work
- Confined space entry permit

How to do this task		✓
1	Get your personal gas monitor. (see your trainer)	
2	Inspect the gas monitor for faults, battery life, your instructor will show you what to look for.	
3	Calibrate your gas monitor. (see your trainer)	
4	Fill out the details of the gas monitor on your confined space entry permit. Include the ID, battery checks and calibration details.	
5	Move to the work area.	
6	Test the air around the opening of the confined space for gasses. Record the results.	
7	Open the lid/door to the opening. Test the air escaping from the opening for gasses. Record the results.	
8	Correctly apply tagging and lock-out procedures	
When your trainer says to do so:		
9	Test the air at the top, bottom and middle of the space.	
10	Record the results.	
11	Discuss the gas tests with your group and your trainer.	

Confined Space Entry Permit

Number: 110012

Location of Work:	Type of Work:
Site / Hatch / Area ID:	
Work Is Authorised for: Date: Time:	Authorised by: Signed: Date: / /

PEOPLE AUTHORISED TO ENTER CONFINED SPACE	Trained	Entry		Exit	
		Time	Signed	Time	Signed
(Person In Control)	☐	:		:	
(Standby Person)	☐	:		:	
	☐	:		:	
	☐	:		:	
	☐	:		:	

EXPECTED HAZARDS OF SPACE			
☐ Unsafe oxygen levels	☐ Risk of engulfment	☐ Fumes or gasses	☐ Explosive environment
☐ Slips / Trips / Falls	☐ Heat / Cold	☐ Airborne Contaminants	☐ Manual handling
☐ Biohazards	☐ Mechanical / Electrical	☐ Poor lighting	☐ Steam / Water / Gas
Other:		☐ Noise levels	☐ Hot work

VENTILATION METHOD	☐ Natural	☐ Purging	☐ Inerting	☐ Other	Details:

(P.P.E.) REQUIRED			
☐ Protective Clothing	☐ Hearing Protection	☐ Safety Glasses	☐ Gloves
☐ Safety Helmet	☐ Harness/Lifeline	☐ Suitable Footware	☐ Breathing Apparatus
	Other:		

ISOLATION REQUIRED FROM	Needed	Initial	Time	ISOLATION REQUIRED FROM	Needed	Initial	Time
Water / Gas / Steam				Mechanical / Electrical Drives			
Fire Extinguishing Systems				Sludge / Deposits / Wastes			
Chemicals / Substances				Grains / Dust / Chips			
Other:				Other:			
Isolation method:				Locks / Tags fixed to isolation points ☐			

OTHER CHECKS		
BA Required? YES / NO	Hot Work Permit Required? YES / NO	Intrinsically Safe Equipment Needed? YES / NO
Comms Organised? YES / NO	Signs/Barricades Up? YES / NO	Fire Fighting/Protection Equipment Needed? YES / NO
	Rescue Plan Complete? YES / NO	Equipment needed for rescue is available? YES / NO

OTHER CONTROLS	

GAS TESTING REGIME	☐ Before entry	☐ Every _____mins	☐ As required	☐ Continuously

ATMOSPHERE GAS TESTING EQUIPMENT	
ID No.: Calibrated ☐ Battery Charged ☐ Inspected ☐	ID No.: Calibrated ☐ Battery Charged ☐ Inspected ☐
ID No.: Calibrated ☐ Battery Charged ☐ Inspected ☐	ID No.: Calibrated ☐ Battery Charged ☐ Inspected ☐

ATMOSPHERE/ GAS TESTS	Entrance/Exit			Other tests (Should include top centre and bottom of space)						
	Before Opening	Slightly Ajar	Fully Open	1	2	3	4	5	6	7
TIME:	:	:	:	:	:	:	:	:	:	:
% of Oxygen										
% of LEL										
Carbon Monoxide - CO^2										
Hydrogen Sulfide - H^2S										
Other:										
Other:										

EXITING SPACE CHECKLIST			
All persons accounted for ☐	Tools/Equipment Checked ☐	Gas Monitors Checked & Returned ☐	Permit complete ☐
Signed (Person in Control):		Date: Time:	

WORK AND PEOPLE

HAZARDS AND CONTROLS

GAS/ATMOSPHERE TESTING

EXIT

Practical task 6

Enter and work in a confined space (PC 1.6, 1.7, 1.8, 1.9, 2.5, 2.6, 4.1, 4.2, 4.3, 4.4)

This task must be done under the direct supervision of your trainer

In this task you will safely move people, tools and equipment to the work area. You will check your safety systems, and make sure they work and are adjusted properly. Once you have done this you will pack up, clean the work site and properly store all tools and equipment.

What you need for this task

- Completed Emergency Rescue Plan (if connecting to a fall arrest system).
- Completed SWMS or JSEA.
- Completed confined space entry permit.
- Tools and equipment for work (your trainer will supply these). The actual equipment will vary depending on the type of work you are doing.
- Confined spaces equipment. This may be static lines, lanyards, harnesses, inertia reels, energy absorbers and so on (your trainer will advise what is available).

How to do this task			
Item	✓	**Item**	✓
1. Sign onto/receive the work permit		10. Safely move people into the work area. You should take on a range of roles in your team. Each person should get practice at performing the duties of the standby person	
2. Get the tools and equipment you will use ready to move to the work area		11. Move the tools, equipment and people to the work area. Make sure you practice safe manual handling practices	
3. Organise your rescue equipment		12. Check your safety systems. For example, you may need to check your tripod, check tension of the harness or check lifeline, etc	
4. Set up any signs / barricades etc, as needed by the SWMS / JSEA or entry permit		13. Monitor the space for changes that could cause the entry permit to be revoked	
5. Prepare the space for entry. Set up any heating / cooling / ventilation, etc		14. Ensure time frames for working inside the confined space are followed. Seek extension to permit if/when required.	
6. Display the entry permit at the entrance of the space		15. Pack up the work area making sure to account for all tools and equipment taken to the area. Your trainer will tell you the right location for the tools and equipment you are using	
7. Do final checks on entry permit requirements. **If permit requirements are not met you cannot enter the space.** Seek a variation or new permit if required.		16. Inspect your safety equipment (harnesses, gas monitoring equipment, etc.) You may need to charge batteries, clean equipment etc	