

Safe systems of work and good organisation

- 1.** It is important to keep your work area clean and tidy to minimise the risk of accidents and injuries, particularly from tripping hazards or if working from height, from falling objects.
- 2.** Removal of floorboards will create a hole and the possibility of someone falling into the hole and injuring themselves. If working with a colleague, make them aware of the dangers. This also applies to the building's occupants. If called away from the working area, all boards should be replaced or the area should be cordoned off.
- 3.** If working in a roof space, safe access by an appropriate ladder must be provided at all times. Once in the roof space, safe access across the ceiling joists must also be provided. This usually consists of boarding being laid across the joists. Beware of traps, this is where the boards meet but have no joist support. The working area and walkway should also be illuminated.
- 4.** Wherever and whenever you are working, you should always report any unsafe conditions that you come across to your supervisor.
- 5.** Always read the notice boards so that you are aware of any site rules or procedural changes.
- 6.** If electrical cables that have wires showing become exposed whilst working (removal of boards etc.), the matter should be reported to your supervisor. Do not continue working in this area until the cable has been isolated from the supply or repaired by a competent electrician.
- 7.** Always use a cable/pipe detector before drilling a wall.
- 8.** You should never enter a trench if the sides show any sign of collapse. Your supervisor should be informed immediately.
- 9.** Only people who have been trained, are competent to do so and work to a safe system prepared by their employer should enter a manhole.
- 10.** A risk assessment should be carried out and possible alternatives should be considered before working beneath a ground level suspended timber floor or an underfloor duct.

Health and Hygiene

- 11.** If you have been handling sheet lead, minute lead particles are likely to be on your hands, so you should always wash your hands before eating or drinking to avoid ingestion and particles getting into your bloodstream.
- 12.** If you come across any dry, powdery or fibrous substance while you are removing old lead sheet, this substance could be hazardous to your health and must be reported to your supervisor immediately.
- 13.** If you come across pipework that is insulated with a hard white powdery material, it could be asbestos. Stop work immediately and inform your supervisor who should request for the material to be examined and assessed.
- 14.** If you are using any substance for the first time, such as flux, you should always discuss the COSHH assessment with your supervisor. This should be provided by your employer.

15. Legionella bacteria can be passed to humans in very fine water droplets, water sprays and water mist. The bacteria live in the water and are inhaled as you breathe. Legionella can be found in shower hoses and outlets but you must be aware that this is not the only place.

16. Weil's disease can be spread by rats urinating in such places as drains and manholes. Care must be taken when working in these areas as this form of jaundice can cause serious and sometimes fatal illness.

17. If you come across a hypodermic syringe, inform your supervisor immediately and be careful not to touch the needle or sustain a needlestick injury.

Electrical equipment

18. The reason for a temporary continuity bonding before removing or replacing metal pipework, is to provide a continuous earth for the pipework, to prevent an electric shock in the event of any electrical mishap.

19. In a domestic property, the correct electrical supply for a central heating pump is 240 volts, the standard household electrical supply.

20. Battery powered drills operate at a very low voltage and have no trailing cables, making them the most suitable drill for use in damp conditions.

21. Always switch off and isolate the supply to an immersion heater at the mains board before replacing it.

22. Only people who have been trained and are competent to do so, should use any powered equipment, such as a threading machine. If you are asked to use this type of equipment without the necessary training, you should tell your supervisor.

23. When you are using a powered threading machine, you should ensure that none of your clothing can get caught on the rotating parts of the machine.

24. Vibration white finger is caused by the use of rotary or percussive tools over long periods.

Gases

25. Propane gas cylinders are red.

26. The main difference between propane and butane is that propane equipment operates at a higher pressure. You must ensure that the appropriate gas is used for the equipment you have. Both propane and butane are heavier than air and would sink to the ground if released into the atmosphere. This could create a dangerous pocket of highly flammable, explosive gas.

27. LPG cylinders must never be placed on their sides during use. This is because liquid gas could be drawn from them, creating a serious safety hazard.

28. The correct method of checking for gas leaks when assembling LPG equipment is by using proper leak detection fluid to all connections.

29. You should have a fire extinguisher in your immediate work area at all times when using heat-producing equipment and you should stop using it at least 1 hour before you leave your place of work. This gives you enough time to ensure that you have not left anything smouldering that could lead to a fire.

30. If you are using a blow torch/lamp anywhere near timber, you should protect the timber with non-combustible materials.

31. All pipe insulation should be removed for at least 1m on either side of the joint to prevent risk of fire, when using a blow torch/lamp on pipework.

Oxyacetylene Equipment

- 32.** Acetylene cylinders for use in oxyacetylene welding are maroon.
- 33.** Oxygen cylinders and all other compressed gas cylinders are filled to extremely high pressures and should be handled with care.
- 34.** If you are using oxyacetylene welding equipment, you need to wear green tinted goggles to protect your eyes.
- 35.** The gas bottles should be stood upright at all times when using oxyacetylene welding equipment.
- 36.** The correct place to store oxyacetylene gas bottles when not in use, is outside the building in a special storage compound.

Transportation

- 37.** The best and safest method of transporting long lengths of pipe by van is by using a properly fixed tube rack on the roof.
- 38.** The driver of a dumper truck must be authorised and competent to do so.
- 39.** If you are authorised to drive a dumper truck, you must wear the safety belt at all times if it is provided.
- 40.** The driver of a forklift truck must be authorised and competent to do so.
- 41.** If employees are being carried to the workplace in the back of a van, it must be fitted with proper seating and safety belts/restraints.
- 42.** If LPG cylinders, weighing more than 5 kilograms are being transported in an enclosed van, the driver must be trained and be competent in the hazards relating to the transportation of LPG.
- 43.** Nobody should use any item of mobile plant unless they are both authorised and competent to do so.

Working at heights

- 44.** Before using a stepladder, you should on every occasion, inspect it to make sure that it is in good condition and suitable for use.
- 45.** If you find a ladder that has been painted, it could be hiding some serious defects and should be reported to your supervisor.
- 46.** If you are removing heavy materials from a height, such as metallic guttering, the most appropriate access equipment would be a mobile tower scaffold.
- 47.** When dismantling lengths of cast iron soil pipe at height, always work in pairs, removing the lengths of pipe section by section, breaking it at the collar if necessary.
- 48.** Flue liners should be installed from the roof downwards. You will need to use properly positioned roof ladders or a chimney scaffold and the work should be carried out by two people.
- 49.** Whenever you are working at height, make proper and effective provision to protect people from any objects that could fall, including tools, materials or equipment.

Lifting

50. When lifting heavy equipment or materials to a height, a proper assessment should be carried out to assess if the task can be completed safely.

51. If you need to remove a cast iron bath, speak to your supervisor and ask for help, do not try to do it yourself.

52. If you have to move heavy objects over any distance, you should always use some form of manual handling aid such as a trolley. You should never try to lift or carry something that is too heavy.

Personal protective equipment

53. The appropriate person to carry out a noise assessment is someone who has been trained and is competent to do so.

54. When breaking up a cast iron bath, you should always wear ear defenders.

55. You should always wear eye protection when you are drilling into metal, irrespective of the size of the drill bit.

56. When drilling a wall using a hammer drill, irrespective of the size of hole, you should always wear ear defenders, facemask and clear goggles.

57. When working with fibreglass insulation, you should always wear overalls, gloves, facemask and clear goggles.

58. When using strong smelling solvents inside, respiratory protective equipment may be required. Ask your supervisor for clarification.

59. When using pipe freezing equipment, always wear gloves.

60. Protect your knee when bending copper pipe with an internal spring, as there is a danger of injury or long term damage to your knee if used frequently.

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