



Guidance Note GN5

Site Safety for Commissioning engineers

1. GENERAL

- 1.1. In practical terms commissioning engineers should be aware of, and follow, logical health and safety procedures in all the work they do on site.
- 1.2 There are many aspects of the work on site that you may come across which will be concerned with safety. In all cases, the bottom line is that you must take responsibility for both your own safety and the safety of those around you when carrying out your work.
- 1.3 If you act safely, and expect the same from others around you, the risk of accidents will be greatly reduced.

2. TRAINING

- 2.1 Your employer should ensure that you have experience in all the work that you are required to do and training in the use of any instrumentation or equipment that is required.
- 2.2. It is also your responsibility to ensure that you are competent in all the work that your job involves.
- 2.3 The main contractor may require to see some evidence of your training and skills, particularly where the work involved is especially hazardous. You may, therefore, need to have certificates of training or competence. (See also Item 5, Safety Related Paperwork).

3. PERSONAL SAFETY

- 3.1 Before setting off to work on site, make sure you are properly equipped to carry out your work safely.
- 3.2 You should have, as a minimum, the following items of Personal Protective Equipment (PPE):-

Hard hat
Fluorescent waistcoat
Safety glasses/goggles for eye protection
(e.g. when you are drilling holes)
Ear defenders/plugs
(for protection in noisy areas).



- 3.3. You are responsible for looking after your own Personal Protective Equipment and making sure that it is in fully serviceable condition:-
 - (a) never leave your hard hat in the sun; this can make it become brittle.
 - (b) do not put stickers on your hard hat other than those provided by the main contractor (e.g. to certify your safety induction training). The use of stickers can also make the hard hat brittle.
 - (c) if you see any signs of brittleness, or other damage, have your hard hat replaced.

4. RISK ASSESSMENT AND TYPICAL SITE HAZARDS

- 4.1. Your employer should consider the general and particular safety aspects involved in our work and prepare a written Risk Assessment covering these.

- 4.2. For particular sites, the main contractor may prepare a Risk Assessment covering safety aspects especially applicable to his project/contract.
- 4.3. You should ensure that copies of any Risk Assessments are available to you and familiarise yourself with the contents.
- 4.4. There are a number of typical site hazards which will often be present. These include:-
 Open trenches
 Holes in the floor slabs or missing tiles in false floor systems.
 Open shafts
 Noise from other trades or processes (causing distraction or ear damage).
 Arc welding flashes (causing eye injury or distraction)
 Working at height (over 2m) or on roofs.
 Working in confined spaces
 Persons working overhead
 Risk of tripping (e.g. over pipe work, cables etc.)
 Live electrical equipment, panels and distribution boards.
 HV and LV switch rooms.
 Rotating plant.
 Hot work (fire and fume risks)
 HTHW, MTHW and Steam distribution systems.
 Water treatment chemicals.
 Explosive or flammable atmosphere (e.g. battery charging rooms).

5. SAFETY RELATED PAPERWORK

- 5.1. The main contractor or site safety officer may require to inspect items of your paperwork relating to health and safety such as the following:-
 Your employer's health and safety policy or project.
 Health & Safety Plan
 Your employer's project risk assessment
 Your employer's project method statement or work procedures: the erection of standing or mobile towers.
 Your training certificates (e.g. for the erection of standing or mobile towers or scaffolding).
 Your certificate/operator's licence for high level access plant.

- 5.2. Make sure you have all necessary paperwork with you at all times.
- 5.3. Where the main contractor operates permit-to-work schemes, make sure that you understand the requirements and comply with them.

6. ARRIVAL AND ATTENDANCE AT SITE (see also item 9.2 below)

- 6.1. *On first arrival at site:-*
- book in with the main contractor and acquaint yourself with site safety procedures.
 - you may be required to undergo a site safety induction organised by the main contractor or safety officer.
 - familiarise yourself with site arrangements including:-
 - exit routes and emergency assembly points.
 - where to obtain first aid
 - fire extinguisher locations and what to do in the event of a fire.
 - the location and layout of pedestrian and vehicle access routes on site.
- 6.2. *Special safety requirements* often apply on particular sites. It is up to you to enquire whether there are any such requirements on your site and to find out what they entail.
- 6.3. *During your period of working on site:-*
- always remember to sign in and out each day
 - beware of site traffic and visiting vehicles
 - look out for hazards which may affect you and the work you have to carry out
 - take notice of, and comply with the safety signs displayed on site
 - report any unsafe situations or practices to the safety officer
 - make sure you are aware of any special conditions on site which may affect safety and ensure you comply with any special instructions.

7. HIGH LEVEL ACCESS PROVISIONS

- 7.1. The main contractor may require you to use only the access platforms, fixed or mobile towers, ladders or stepladders that he has provided on site. Where this is so, you must comply with his instructions.

7.2. Where your employer provides their own access equipment, platforms, ladders and step-ladders, your employer should ensure that these are inspected regularly to ensure they remain safe for use. The main contractor may also require to inspect your access equipment as he has an overall responsibility for safety on site.

7.3. Unless you have received approved training and have an appropriate and current certificate, you must not:-

- (a) operate mechanical access plan such as “cherry-pickers” or “flying-carpets”
- (b) erect standing or mobile towers or scaffolding.

7.4. When working on high-level access equipment, always use a safety harness and lanyard attached to a secure fixing.

8. HAZARDOUS WORKING PROCEDURE

8.1. Commissioning work may involve inherently hazardous working procedures. The following items indicate examples of particular dangers.

8.2. Burning/Scalding Hazards from medium and high temperature hot water or steam distribution systems. Wherever possible, carry out work on such systems when they are circulating ambient or reduced temperature fluids. Where this is not possible, wear suitable protective clothing, particularly gloves and goggles. Use non-invasive instruments to measure fluid flow rates (e.g. ultrasonics) and temperatures (e.g. surface thermometers).

8.3. Permit-to-Work schemes may be operated by the main contractor for hot work, work in confined spaces or areas with difficult access (e.g. roofs), work on running plant (e.g. fans, pumps etc) or work on “live” electrical plant or high temperature fluid systems (e.g. HTHW, MTHW or Steam). Ensure that you understand fully the requirements of the schemes and comply with them.

8.4. Hazardous Environments

- (a) *dangerous fumes* can be emitted from fume cupboard extract systems and even from combustion outlets (e.g. boiler flues).
- (b) *Refrigerant leakage's*, while not necessarily toxic, can result in injury particularly in poorly ventilated areas.
- (c) *Radioactive areas* are clearly marked and must only be entered by properly trained and equipped authorised personnel.
- (d) *Exposure to microwave radiation* from communications aerials and dishes should be controlled in accordance with the instruction provided.
- (e) *Explosive/flammable atmospheres*. You may need to use appropriate electrical equipment and spark-proof tools (e.g. copper-beryllium).

8.5. Other Hazards

- (a) Special equipment which you may have to operate should have full instructions for its safe use. Make sure you read these and follow them carefully.
- (b) Inverter drives used on variable speed motors can hold a dangerously high electrical voltage charge for at least 5 minutes after they have been isolated. Again, read the Manufacturer's instructions and comply with them.

9. SAFETY SUGGESTIONS

9.1. Most employer's and construction sites have some form of Suggestion Scheme. If you think there is a way of doing your job more safely you should suggest this. Remember, nobody knows more about doing your job than you!

9.2. When you take your first look round on a new site, try to keep safety arrangements in mind. If you notice that some good safety arrangements which you have seen on previous sites are not being used, suggest that they are adopted here. The main contractor has a duty in law to take notice of your suggestions. (See Regulation 18, CDM Regulations).

10. SITE SAFETY ARRANGEMENTS (or “The last Word”)

10.1. Site safety arrangements are made for your benefit. Make sure that you take notice of them and comply with them.

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