

Construction Hazards and Risks Control

Lecture Title: Recap of the construction hazard and risk control

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**Undergraduate Diploma in
Occupational Health and Safety**

Legislation

- Chapter 646 of 2024 – Health and safety at Work Act



- LN 88 of 2018 -Work Place (Minimum Health and Safety Requirements for Work at Construction Sites) Regulations,



5. The project supervisor shall:

Project
regulations
Orders

(1) take account of the general principles of prevention concerning health and safety referred to in the Act and subsidiary regulations as appropriate, during the various stages of designing and preparing the project, in particular:

(a) when architectural, technical and, or organizational aspects are being decided, in order to plan the various items or stages of work which are to take place simultaneously or in succession;

(b) when estimating the period required for completing such work or work stages.

Account shall also be taken, each time this appears necessary, of all health and safety plans and of files drawn up in accordance with sub-regulation (4) or adjusted in accordance with paragraph (e) of sub-regulation (4).

(2) The health and safety plan shall set out the rules applicable to the construction site concerned, taking into account where necessary the industrial activities taking place on the site; this plan shall also include specific measures concerning work which falls within one or more of the categories of Schedule II.



(3) In the case of construction sites on which work is scheduled to last longer than 30 working days and on which more than 20 workers are occupied simultaneously, or on which the volume of work is scheduled to exceed 500 person-days, the project supervisor shall communicate a prior notice drawn up in accordance with Schedule III to the Authority at least four calendar weeks before work starts on the project. Once any work activity on the project commences, a copy of the prior notice shall be clearly displayed on the construction site and, if necessary, periodically updated.

Prior notice.

(4) The project supervisor shall also:

Health and
safety plan.

(a) co-ordinate the implementation of the provisions of this regulation, and shall draw up a health and safety plan prior to the setting up of a construction site;

(b) prepare a file appropriate to the characteristics of the project containing relevant health and safety information to be taken into account during any subsequent works;

Health and
safety file.



(c) coordinate the implementation of the general Coordination principles of prevention and safety;

(i) when technical and, or organizational aspects are being decided, in order to plan the various items or stages of work which are to take place simultaneously or in succession;

(ii) when estimating the period required for completing such work or work stages;

(d) coordinate the implementation of the relevant provisions of these regulations in order to ensure that employers and, if necessary for the protection of workers, self-employed persons:

(i) apply the principles referred to in regulation 9 in a consistent manner;

(ii) where required, follow the health and safety plan referred to in sub-regulation (4) of regulation 5;

(e) make, or cause to be made, any adjustments required to the health and safety plan referred to in sub-regulation (4) of regulation 5 and the file referred to in sub-regulation (4) of regulation 5 to take account of the progress of the work and any changes which have occurred;



(e) make, or cause to be made, any adjustments required to the health and safety plan referred to in sub-regulation (4) of regulation 5 and the file referred to in sub-regulation (4) of regulation 5 to take account of the progress of the work and any changes which have occurred;

(f) organize cooperation between contractors, including successive contractors on the same site, coordination of their activities with a view to protecting workers and preventing accidents and occupational health hazards and reciprocal information as provided for in regulation 7 of the General Provisions for Health and Safety at Work Places Regulations, ensuring that self-employed persons are brought into this process where necessary;

(g) coordinate arrangements to check that the working procedures are being implemented correctly;

(h) take the steps necessary to ensure that only authorized persons are allowed onto the construction site.

6. The project supervisor shall take all the necessary measures for the safeguard of occupational health and safety.



LN 36 of 2003 General Provisions for Health and Safety at Work Places Regulations.

10. (1) It shall be the duty of every employer and of every self-employed person to carry out, or to ensure that is carried out, a suitable, sufficient and systematic assessment of all the occupational health and safety hazards which may be present at the place of work and the resultant risks involved concerning all aspects of the work activity. Such assessments shall consider the risks to the health and safety of workers and of self-employed persons to which they are exposed whilst at work, as well as the risks to the health and safety of other persons, including

Risk assessments,

visitors to the place of work, which risks arise out of, or in connection with the work being carried out, or by the conduct of the undertaking:



Risk Assessments

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IR 392

visitors to the place of work, which risks arise out of, or in connection with the work being carried out, or by the conduct of the undertaking:

Provided that when carrying out such assessments, an employer and a self-employed person shall also take into consideration changes to the work activities being carried out and to the workplace, and shall take appropriate action.



located.

**Obligations of
contractors.**

10. In order to preserve health and safety on the construction site, contractors shall:

(a) not commence any work related to the project before a project supervisor has been appointed by the client in terms of regulation 3;

(b) in particular when implementing regulation 9, take measures that are in line with the minimum requirements set out in Schedule IV

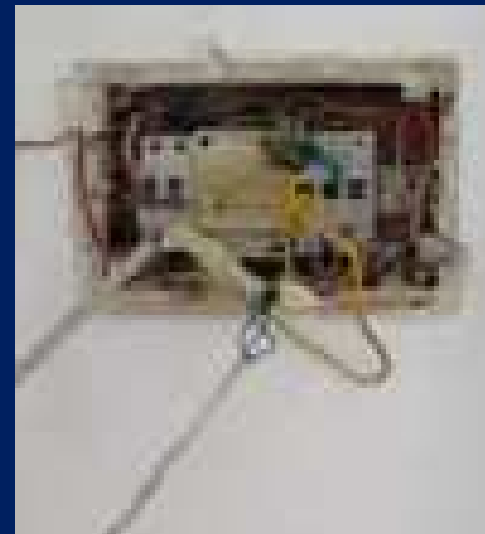
(c) take into account directions from any project supervisor on health and safety matters;

(d) take all the necessary measures for the adequate safeguard of occupational health and safety.



Electrical Hazards:

- Electrocution from faulty wiring, exposed cables, unprotected circuits.
- Preventative Measures:** Proper insulation, regular electrical inspections, lockout/tagout (LOTO) procedures.



Heavy Machinery & Moving Vehicles:

- Cranes, forklifts, trucks moving around the site pose serious risks.
- **Safety Tips:** Use of spotters, site traffic management plans, and daily inspections of machinery.



Hazardous Substances:

- Exposure to asbestos, silica dust, lead, chemicals like solvents or adhesives.
- **Control Measures:** Ventilation systems, protective clothing, asbestos abatement programs, proper labelling of hazardous materials, ensure Safety Data Sheet is at hand.



Mobile Cranes

Inspected by a competent person every
12 months

Daily checks before use

Record any repairs and maintenance
carried out

Operated by a trained person

Open legs on solid ground



MEWPS

- Certified every 6 months
- Checked daily before use
- Outriggers opened on solid ground
- Person using MEWPS shall be trained



Earth moving machinery & plant

- Certified by a competent person every 12 months
- Checklist before use
- All maintenance and repairs have to be recorded
- Person using equipment shall be trained.



Forklift

- Certified by a competent person every 12 or 6 months.
- Checked before usage
- Operator shall be trained
- In closed areas battery powered is recommended



Hierarchy of Fall Protection

A ranked or graded series of fall protection solutions ranging from the best solution to the worst. In order of best to worst, these solutions are:

Hazard Elimination

- The preferred solution to all fall hazards is elimination.
- Can the work be done at ground level

Passive Fall Protection:

- Physical barriers like guardrails around unprotected edges and covers over holes are examples of passive fall protection

Fall Restraint:

- Fall restraint systems are erected in such a manner that a fall cannot occur
- Fall restraint systems use PPE to restrict the worker's range of movement so they cannot physically travel to the fall hazard.

Fall Arrest:

- Fall arrest systems are erected in such a manner that a fall can occur but the fall is arrested within acceptable force and clearance margins

Administrative Controls:

- Administrative controls are work practices or procedures that increase a worker's awareness of a fall hazard



PDCA CYCLE

Plan

- Determine and assess the health and safety risks, health and safety opportunities and other risks and opportunities.
- Establish health and safety objectives and processes necessary to deliver results.

Do

- Implement the processes required to convert the inputs into the outputs, as planned.

Check

- Monitor and measure activities and processes regarding the health and safety policy and health & safety objectives and report the results.

Act

- Take actions to continually improve the health and safety performance to achieve the intended outcomes.

Incident Reporting

- Importance of reporting incidents
- Helps identify trends and prevent future accidents
- Ensure you have a register for all incidents, root causes and control measures.

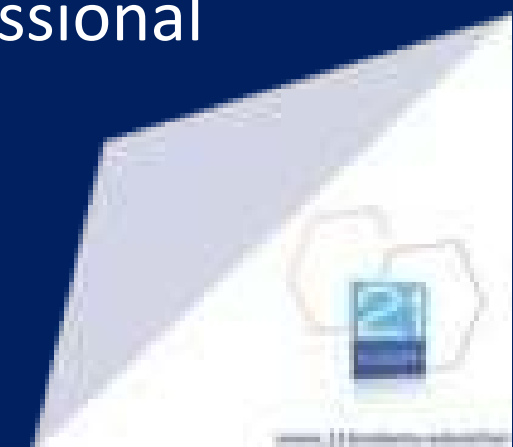


What is the priority, when an incident happens?

- When an incident occurs, the priority is to ensure the safety and well-being of the individuals involved.
- This involves taking prompt actions such as providing first aid, evacuating the area if necessary, and implementing emergency response protocols to contain potential hazards.



- If necessary, establish a safe perimeter to protect others from harm. Use barriers, cones, or warning signs to keep non-involved personnel away from the incident site.
- If it's safe to do so, take steps to eliminate any ongoing hazards. For example, turn off machinery or power sources to prevent further injuries.
- Trained personnel should provide first aid to injured individuals as soon as it is safe. This could include basic wound care, CPR, or controlling bleeding.
- If injuries are severe, promptly call 112 to ensure that professional medical assistance is on the way.



Audits

- Safety audits help pinpoint potential hazards in the workplace.
- Encourages a proactive approach to safety among employees.
- Fosters an environment where safety is prioritized and valued.



Training

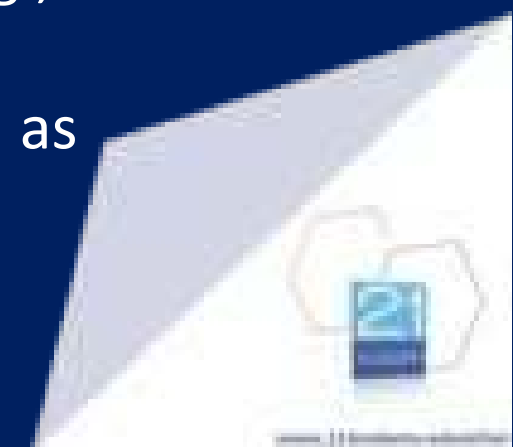
Always remember:

- Give induction training
- Give briefing on risk assessment
- Give tool box talks
- Always ensure employees sign off a formal document for any type of training



Chemicals

- Chemical Inventory: List all chemicals used in the workplace.
- Review Safety Data Sheets (SDS): Examine SDS for hazard information.
- Consult Regulations: Check regulatory lists for hazardous substances.
- Inspect Workplace: Identify potential sources of chemical exposure.
- Determine Who Might Be Harmed and How
- Identify Exposed Individuals: Consider employees, contractors, visitors, and the public.
- Exposure Routes: Determine how individuals might be exposed (e.g., inhalation, skin contact, ingestion).
- Vulnerable Groups: Pay special attention to vulnerable groups such as pregnant women and those with pre-existing conditions.



Site Specific

- Confined Spaces
- Asbestos
- Pregnant workers
- Young Workers



Questions?

