Health and safety at construction

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Controlling of construction technology

Rules and prescriptions

introduction

definitions

principals

safe operation
**THE PROCEDURE OF CONSTRUCTION PROJECTS**

- Startup
- Prepartion
- Planning
  - Regulations for planning
  - Permission of use
  - Regulations for controlling
- Handover
  - Regulations for implementation
- Construction
  - Contract
- Tendering
  - Building consent

**HEALTH AND SAFETY**

- Health protection
- Behavior at work
- Special work equipment
  - Safety wear
  - Evacuation rules
  - Visibility
ACCIDENT STATISTICS

Introduction

Accidents at work

Fatal accidents at work
TYPES OF PROTECTION

- preventive protection
- collective protection
- personal protection

PREVENTIVE PROTECTION

- site and work induction
- health and safety induction
- daily briefing
- right equipment and tools
- skilled workers
- documentation
- labor hours - break times
- analyses of risks of each activities
- weather condition forecast
- warnings
- etc.
COLLECTIVE PROTECTION

- fences
- informative signs and tables
- protectable roof above the sidewalks
- guard rail
- soil support
- site areas
- slopes
- ladders
- etc.

PERSONAL PROTECTION

- safety helmet
- gloves
- glasses
- safety wear
- ropes
- safety boots
- respirators
- ear protection
- etc.

PPE = Personal Protective Equipment
ZERO ACCIDENT POLICY

- preventive, collective, personal protection
- analyses risk, eliminate risk
- prevent negative event

PERSONAL AND SOCIAL RESPONSIBILITY

- risk one's own ability of work is non-professional behavior
- risk other people's life or property is non-ethical behavior
- causing damage is not lawful behavior (and penalized)
LABOR SAFETY PLAN

- Identify the work phases!
- Determine the activities that have to be conducted in each phase!
- Analyze the possible risks at all the activities!
- Find the solution to eliminate all the risks!
- Define the protocol of acting in case of any kind of accident!

LABOR SAFETY DOCUMENTATION

- site induction protocol – attendance to be confirmed with signatures
- work safety protocol – attendance to be confirmed with signatures
- daily briefing protocol
- safety policy statement
- risk analyses protocol
- accident report
SAFETY SIGNS

Operation safety

Operation safety

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Operation safety

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signs of PPE

signs of PPE

prohibition signs

caution signs

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SAFETY SIGNS

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signs are uniform in the EU

regulations on signs are different in each country

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SAFETY SIGNS

...signs are international

POWER TOOLS AND MACHINERY

- electric shock protection
- protective covering (do not remove)
- safe use
- special safe blades
EXAMPLES

Falling off = working in height

**human**
- site zones
- health and psychological test
- H&S induction

**Preventive protection**
- guard rail
- safety mesh

**Collective protection!**
- safety roof above side walks

**Individual protection!**
- safety rope (and rope fixing)

**objects**
- site zones
- minimizing the number of
- the workers under the item
- health and psychological test
- H&S induction

**Earthwork**

**Preventive protection**

- site areas
- health and psychological test
- induction

**Collective protection!**
- guard rail
- soil supports

**Individual protection!**
- safety helmets & boots

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HINTS FOR LABOR SAFETY

• Do not work alone!
• Be able to do your work! (No alcohol, no ...!)
• Do not step reverse!
• Take your time!
• Never take off your PPE during work!
• Never eliminate the collective protection!
• Be aware of the protocol for all activity and emergency event!
• Be aware of the risks of your work and the risks around you!
• Sign documentation!
• Escape and help others to escape!

SOURCES

Pém, A.: Health and safety during construction (presentation)