

Health and safety at construction

BUTE – Faculty of Architecture
Department of construction technology
and management

István Vidovszky PhD

Controlling of construction technology



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Rules and prescriptions

introduction

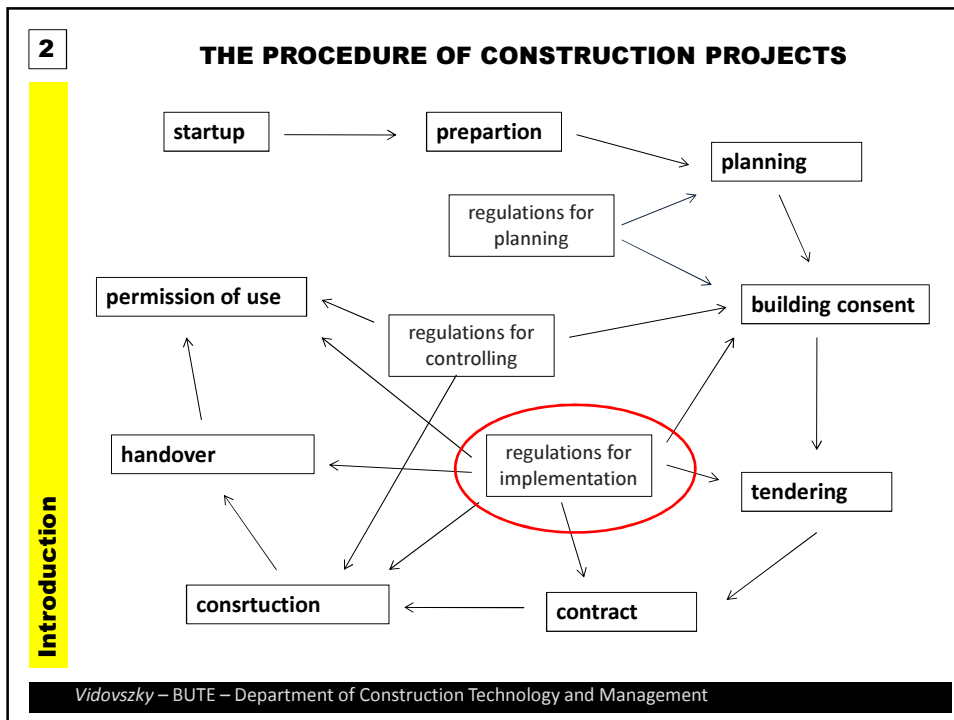
definitions

principals

safe operation

Introduction

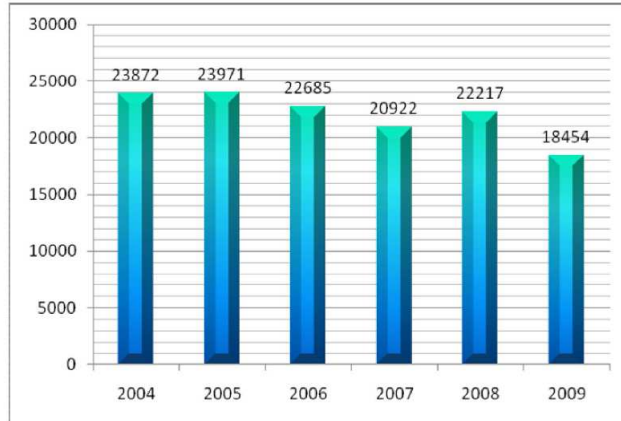
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ACCIDENT STATISTICS

Introduction



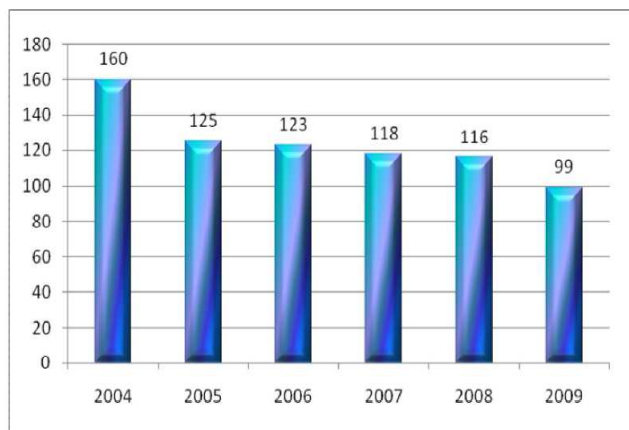
Accidents at work

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ACCIDENT STATISTICS

Introduction






Fatal accidents at work

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TYPES OF PROTECTION

Definitions

- preventive protection 
- collective protection 
- personal protection 


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PREVENTIVE PROTECTION

Definitions

- 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
- wheather condition forecast
- warnings
- etc.



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COLLECTIVE PROTECTION

Definitions

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



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PERSONAL PROTECTION

Definitions

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



PPE = Personal Protective Equipment

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ZERO ACCIDENT POLICY

Principals

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

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PERSONAL AND SOCIAL RESPONSIBILITY

Principals

- 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)

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LABOR SAFETY PLAN

Operation safety

- 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!

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LABOR SAFETY DOCUMENTATION

Operation safety


- 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

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Operation safety

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SAFETY SIGNS



signs of PPE



caution signs



prohibition signs

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Operation safety

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SAFETY SIGNS

signs are uniform in the EU





regulations on signs are different in each country

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SAFETY SIGNS



...signs are international

Operation safety

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POWER TOOLS AND MACHINERY

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

Operation safety

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EXAMPLES

Falling off = working in height

↓

human

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

Preventive protection

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Collective protection!

&

Individual protection!

→

objects

- site zones
- minimizing the number of the workers under the item
- health and psychological test
- H&S induction
- guard rail
- safety mesh
- safety roof above side walks
- safety helmets and boots

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EXAMPLES

Earthwork

- site areas
- health and psychological test
- induction


Preventive protection


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Collective protection!

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Individual protection!





- guard rail
- soil supports

safety helmets & boots

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HINTS FOR LABOR SAFETY

Operation 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!

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SOURCES

Sources

Pém, A.: Health and safety during construction (presentation)
https://en.wikipedia.org/wiki/High-visibility_clothing 26-02-2017

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