Workplace Health and Safety

Hierarchy of Control

Advanced Diploma of Professional Game Development
Advanced Diploma of Screen and Media

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Controlling Risk

- The 6 Steps of Risk Management are:
  - Identification of a hazard
  - Identification of the associated risk
  - Assessment of the risk
  - Control of the risk
  - Documentation of the process
  - Monitoring and Review of the process

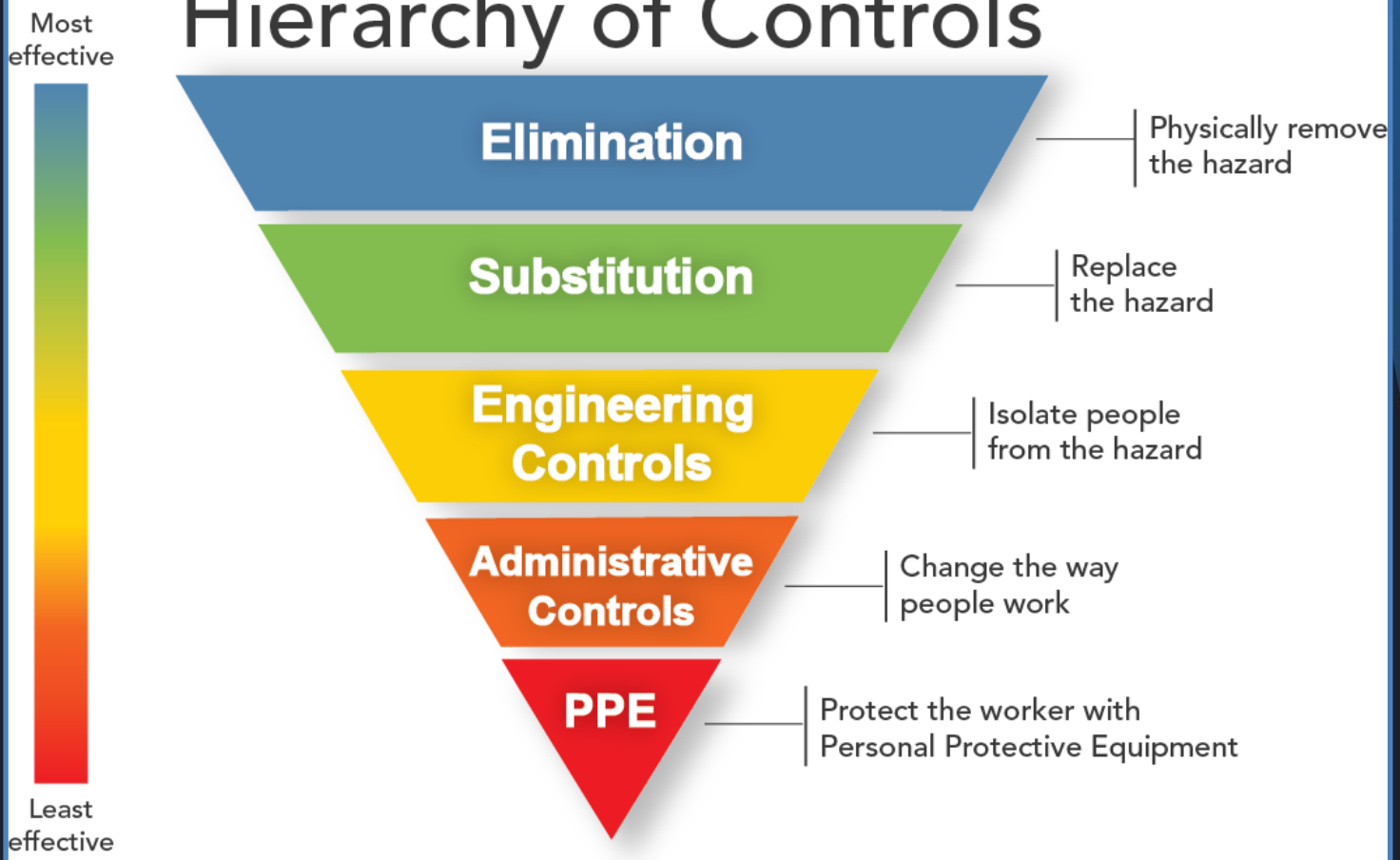
Controlling Risk

- We have already talked about hazards, risk and assessing risk
- This lecture is about controlling risk
- Control of any risk may involve a number of measures drawn from various options

The Hierarchy of Control

- The Risk Control Hierarchy ranks possible risk control measures in decreasing order of effectiveness
  A. Elimination
  B. Substitution
  C. Isolation
  D. Engineering Controls
  E. Administrative Controls
  F. Personal Protective Equipment (PPE)
- Risk control measures should always aim as high in the list as practicable

Hierarchy of Controls



The Hierarchy of Control

- Elimination of the hazard
  - Examples include the proper disposal of redundant items of equipment that contain substances like asbestos or PCBs, or the removal of excess quantities of chemicals accumulated over time in a laboratory
  - The elimination of a hazard is a 100% effective control measure

The Hierarchy of Control

- Substitution of the hazard
  - Examples include the replacement of solvent-based printing inks with water-based ones, or replacement of asbestos insulation or fire-proofing with synthetic fibres
  - The effectiveness of this form of control is wholly dependent on the choice of replacement

The Hierarchy of Control

- Isolation of the hazard
  - Examples include placing a particular piece of machinery in a place where only trained staff are required to interact with it
    - i.e., removing or separating workers from a particular hazard where possible

The Hierarchy of Control

- Engineering Controls
  - Examples include the installation of machine guards on hazardous equipment, like the provision of local exhaust ventilation over a process area releasing noxious fumes
  - The effectiveness of engineering controls is generally around 70-90%

The Hierarchy of Control

- Administrative Controls
  - Examples include
    - training and educating,
    - job rotation to chare the load created by a demanding task
    - Scheduling certain jobs outside normal working hours to reduce general exposure
    - Early reporting of signs and symptoms
    - Instructions and warnings
  - Effectiveness generally ranges from 10-50%
  - Typically requires significant resources to be maintained over long periods for continuing levels of effectiveness
  - Generally highly dependent on worker behaviour

The Hierarchy of Control

- Personal Protective Equipment (PPE)
  - Examples include safety glasses and goggles, earmuffs and earplugs, hard hats, etc.
  - In an office environment this could include ergonomic furniture, ‘gaming’ glasses and RSI supports
  - Effectiveness generally does not exceed 20%

Example

- Hazard – small raise / crack in pathway

Elimination	Engage a contractor to repair the section of path – therefore completely eliminating the hazard
Substitution	Use a different path/walkway to get from A to B
Engineering	Rope the section of path off to employees / visitors
Administration	Ensure all path users are aware of the hazard, paint the raise yellow. Have systems in place to inspect paths regularly so that paths are repaired before injuries occur.
PPE	Provide employees with knee and elbow pads (unrealistic!)

Planning Solutions to WHS Hazards

- Work procedures need to be developed in relation to any new control measures
  - Clearly define responsibilities of management, supervisors and workers
- You may need to prioritize improvements to avoid doing too much at once
- After controls have been implemented, you must reassess the risk with the new controls in place

Planning Solutions to WHS Hazards

- A good plan of action often includes:
  - Priority and quick attention to High or Critical risk hazards
  - A few cheap or easy ‘quick’ improvements, perhaps until more reliable controls can be put in place
  - Long-term solutions to risks likely to cause accidents or ill health
  - Long-term solutions to risks with the worst consequences
  - Training for workers on the main risks that remain, and how they can be controlled
  - Regular checks to ensure control measures stay in place

Planning Solutions to WHS Hazards

- Inform all relevant persons about the control measures being implemented
  - And the reasons why
- Provide adequate supervision to ensure control measures are implemented and used correctly
- The maintenance of control measures is an important part of the process
  - Including the verification of ongoing effectiveness

Planning Solutions to WHS Hazards

- All hazards and their controls should be documented in a Hazard Register
- Hazards and controls should be reviewed regularly
  - At least every 5 years, or
    - Before work of a type not previously performed commences
    - When there is a change in the type of work or work practices that may result in increased risk
    - When information becomes available concerning work or work practices that may impact the risk to workers

Summary

- The Hierarchy of Control specifies measures that can be taken to control risk
- Control measures are listed in order of preference/effectiveness
- Any controls implemented should be communicated, documented and maintained/reviewed
- Hazard management is the responsibility of both employees and management

References

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- Commonwealth of Australia. 2008. *Officewise: A guide to health and safety in the office*. [ONLINE] Available at: https://www.comcare.gov.au/__data/assets/pdf_file/0006/39570/Officewise_OHS1_Apr_10.pdf. [Accessed 02 March 2016].

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