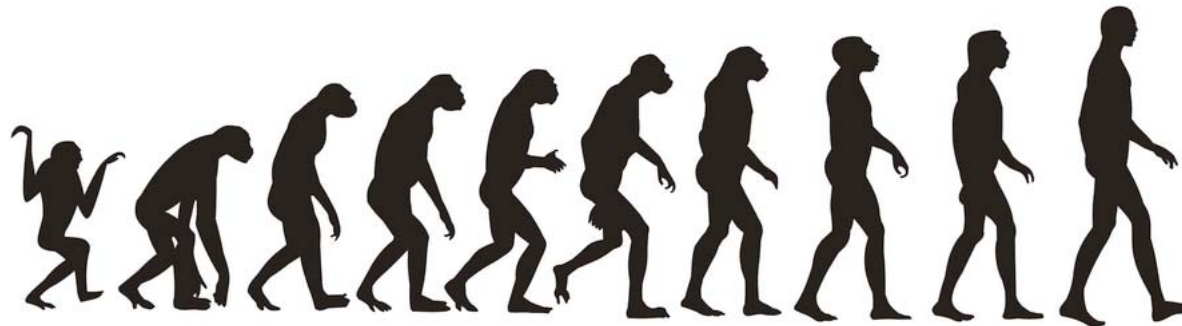


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Managing The Risks Associated With Change



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Change

- Change is inevitable
- Organisations change in response to many factors
- All changes should result in a net benefit/gain
- We need to set expectations before the change is implemented!!!!

Definition of Change

An addition, deletion or modification made to an existing physical asset, procedure, system, standard or process from its current design or state. It excludes routine work and standard repairs to restore the original functionality.

(This is only one definition)

What Triggers Change?

- Improving Efficiency?
- Improving Effectiveness?
- Increasing Capacity?
- Increasing Plant/Facility Life?
- Meeting Stakeholder/Regulatory Expectations?
- Increasing Profits/Reducing Losses?



Types of Change

- Level of Risk: Critical, High, Moderate or Low
- Changes cross many risk domains
 - Safety
 - Environmental
 - Community/Societal
 - Operations/Production
 - Financial
- Simple or Complex?
- Major or Minor?

Management of Change

- The systems used in an organization that are directed towards the effective management of change to avoid potential adverse effects.
- How will the business be transformed after the change?
- How will everyone be prepared for these change?
- Effective MOC process will reduce risks!!!!

Major Management of Change

The process to be applied where there is high or critical potential risk associated with the proposed change, or when a detailed review of a proposed change is required.



Minor Management of Change

The process to be applied where there is low or moderate potential risk associated with a proposed change.



Why perform a MOC?

- To identify all issues caused by the change
- To reduce uncertainty of the change
- Define the Context for a Risk Assessment
(Step 1 - ISO 31000 International Risk Management Standard)

Areas of Change – Mining Industry

- Systems & Government Requirements
- Mine Engineering
- Plant & Equipment
- Organisation & People
- Environmental
- Infrastructure
- Communications & Reporting

Systems & Government Requirements

- Government or company compliance
- Systems: HSE, Financial, etc.
- Standards, Policies, SOP's
- Records and/or forms

Mine Engineering

- Mine Planning
- Mine Plan Parameters
- Mine Resources & Reserves
- Mine Layout and/or Design

Plant & Equipment

- Plant and/or Equipment
- Production or Operational processes
- Maintenance requirements
- Tools and/or Spare Parts requirements
- Programmable System Software
- Emergency Response / Access / Egress

Organisation & People

- Training requirements
- Safety of Personnel
- Health & Hygiene conditions
- Roles & Responsibilities
- Organizational Structure
- Community or Government relations

Environmental

- Environmental Legislation or Permits
- Environmental Management System
- Environmental Conditions

Infrastructure

- Civil works: buildings, roads, underground cables/pipes, etc
- Camp & site facilities
- Utilities:
 - Potable water
 - Electricity
 - Gas

Communications & Reporting

- Internal reporting or communication Systems
- Archive or Data Storage Systems
- Dispatch, GPS or Radio Communications
- External Communication Systems

Why MOC fails?

- No formal process
- Lack of Senior Management Support
- Lack of Supervisor Support
- Process Not Communicated
- Complicated Process
- Not Valued
- Should a changed project be treated as a new project?

MOC Failures

- Longford Gas Plant Explosion (1998)
 - Moving Engineering Staff to Head Office resulted in limited field time for Engineers
 - Interconnection of 2 plants resulted in condensate being treated at a higher than normal temperature
- Texas City Explosion (2005)
 - Placement of Trailers within Exclusion Zone failed to identify risk to personnel

MOC Failures

- Drill Rig Fatality (2007)
 - Installation of oversized Rig Tongs results in Fatal Crush injury
- Mining Production Loss \$200M (2008)
 - Unable to generate power with Backup Diesel due to modification to Natural Gas only
- MORE THAN 80% OF MY INVESTIGATIONS INVOLVE INADEQUATE MOC!!!!!!!!!!!!!!!!!!!!!!!!!!!!

Making MOC Work

- Get Support – at all levels
- Sell the process
- Link changes back to Business Objectives
- Identify Change Managers
- Define KPIs for Change Managers
- Treat Non-Compliance to MOC as an Incident

Questions

