Management of Change Guidance

Objective

Establish best practice processes and guidance for the Management of Change, including health, safety, environment, quality and process safety considerations.

Introduction

Any change to plant, equipment, process (including software and control systems), personnel or infrastructure could have a potentially negative impact on the safe operation and maintenance of plant, and equipment. Subsequently all changes should be assessed against a management of change framework, and approved before being implemented.

Definitions

Types of Change Covered by this Guidance

Any change (minor and major) that falls into the categories below should go through a full management of change framework to ensure that the change has been considered by a technically competent person, and has been subject to the relevant approvals to ensure the change doesn't impact on the safe operation and maintenance of plant, equipment or infrastructure.

- Key Personnel
- Fixed and moveable plant and equipment / Infrastructure changes
- Systems and processes
- Policies, procedures or processes

In addition, any change will be included that may affect for example (this list is not exhaustive):

- the existing plant or systems
- software control systems
- competency and or staffing levels
- crisis management, emergency arrangements, emergency plans
- terms of a lease agreement
- insurances
- impact on environmental consents and permits
- security
- the hazard profile, risk levels and safe operation of plant / equipment

Replacement in Kind

Replacement in kind means any change that is within the current approved process / equipment specifications. Where a change proposal doesn't meet the below criteria it does not meet the requirements of a 'replacement in kind' and subsequently the management of change process will apply. To be classed as 'replacement in kind' the activity should satisfy the following conditions:

- No new added or change to functionality / improvements / capacity or throughput
- No documentation or procedural changes / updates required to operating procedures, maintenance instructions, start-up / shut down procedures, emergency procedures, isolation schedules etc

- No change to training requirements
- No changes to infrastructure, buildings, roads, utilities or fire protection systems
- No changes to substances / materials required to operate / maintain equipment
- Where maintenance is carried out it must bring the equipment back to the original approved specification
- Replacement of any equipment must be with equipment of the same model and specification, and not require additional training or changes to maintenance or operation

Emergency Change

Organisations should have a process in place to manage emergency changes. Any changes that are classified as an Emergency Change must be a genuine emergency e.g. where there is an immediate threat to life or the environment. Emergency changes can be reduced through proper planned preventative maintenance.

In these instances when the management of change team / personnel are unavailable, it is recommended that the most senior person available e.g. shift / site manager must review the change, determine if there is an emergency requirement, and ensure that health and safety has been fully considered before the change can commence. Emergency change must not be used to justify continued operation in an unsafe state.

In all instances it is recommended that emergency changes are recorded and are time limited, and within a specified period the full management of change framework should be completed to verify that all considerations have been made.

Where the requirement doesn't meet the criteria above for an emergency change, rather it is an out of hours change, this should be planned in rather than being reactive.

Temporary Change

There may be instances where short term changes are required, and in such instances the full management of change framework will still apply.

Organisations should determine a suitable review period for temporary changes, the frequency of this should be determined by the scale or impact of the change.

Competence

Competence is defined as an ability to carry out tasks successfully and safely within an individual's field of practice. This includes having the individual skills, knowledge and understanding, personal behaviour and approach, to be able to work collaboratively with others to achieve the intended outcomes. Competence includes the ability to make judgments and an awareness of the limits of one's own ability and knowledge in order to seek assistance when required.

Responsibilities

It is recommended that appropriate competent persons are designated for each stage of the management of change cycle. Typical roles include:

- **Initiator**
    - In most instances, anyone can recommend a change. This is then submitted to a change approver / panel for further technical review / approval.
- **Reviewer**
    - Independent competent person who can provide technical advice / review throughout the change cycle. The reviewer must be a different person than the initiator to provide independence; this could also be a team of people.
- **Approver**
    - A competent person / panel of people responsible for assessing and approving a change request. This typically includes technically competent persons relevant to the change, e.g. a mechanical engineering bias may be required to review changes to plant / equipment. The approver must be a different person than the initiator to provide independence; this could also be a team of people.
- **Owner / Project Manager**
    - A technically competent person responsible for managing the changes through to close out, ensuring that the relevant assessments and subsequent controls have been implemented throughout, and also ensuring that other considerations such as training, updating processes / systems, etc have been implemented.

All persons should be competent for the role in which they are undertaking, and this also includes recognition of any skills / knowledge gaps / limitations. Where a skills gap exists, it may be appropriate to outsource to a competent third party provider for advice, guidance and support. This could be at any stage throughout the process.

Risk Based Approach

The change proposal should not progress until a Change Risk Assessment has been completed to determine whether the changes could have an adverse impact on the safe integrity of the plant, process or operations.

It may be acceptable for minor/routine or short-term changes to follow existing risk assessment processes and checklists however more complex and detailed changes may require a separate more detailed assessment, such as Process Hazard Analysis.

The Change Risk Assessment should be maintained throughout the change cycle to ensure it remains current.

The Change Risk Assessment does not replace any Risk Assessment and Safe System of Work required for the safe implementation of the change and normal operation of the site / plant / equipment.

Stages to Management of Change

There are multiple stages to managing change, as detailed below. It's recommended that organisations consider approval requirements. In some instances, this could be required following each stage of the process.

Initiate – this is the initial change request. This could be documented and recorded through a form or other format. There is typically approval required with this step, with a go / no go decision required regarding if the change should be progressed beyond an initial idea. Some considerations include: risk, resource availability, impact on other processes, cost / benefit analysis etc.

Verify – this stage builds upon the initial change request above. This stage will explore the detail surrounding the change, including other implications such as:

- Health and Safety implications
- Environmental implications
- Risks associated with the change
- Service provision impact
- Stakeholder impact
- Internal and External Communications (if required)
- Timescale and cost for implementation
- Design development and Specification
- Planning how to implement the change safely

During this phase it is advisable that technically competent persons are involved, e.g. an engineering change to existing plant could require the input of an engineer.

The information collated during this phase should influence the risk assessment.

It is also good practice to produce an assessment that reviews the consequences of not making the change versus making the change.

Some organisations develop a change framework. Consideration should be given to including change categories or levels, which would be determined using the information collated during the verify phase. Each stage may have specific documentation / review requirements. Typical examples include:

- Level 1 – Minor change (low risk / impact change)
- Level 2 – Major change / modification / safety critical systems affected
- Level 3 – Project (additional management of change requirements / records may be required in accordance with the Construction Design and Management Regulations (CDM)

Implement – this is the phase where the change is being physically introduced – during which time there should be sufficient pre-planning, risk assessments and controls identified and implemented to enable a smooth transition.

Review – once the change has been implemented a process of testing / commissioning and validation should be undertaken (dependent upon the type / complexity of the change) to verify if the change was a success, and if any further action is required.

Additional training may be required for operators etc during this phase to ensure safe operation, and any documentation associated with the change should also be updated e.g. maintenance protocols, risk assessments, safe systems of work for the safe operation.

Close Out – following completion of the change, a review should be undertaken to ensure that the required objectives / deliverables were met and that the change was appropriately managed throughout. This should be completed within a reasonable time frame following completion e.g. within three months.

Typical Associated Documents

- Change management form – this provides a way of tracking the change throughout the stages of the change lifecycle.
- Site / Facility log / record of changes / change ideas.
- Approval / Sign off – this could be included in the change management form or recorded separately
- Review / Close out – again this could be included in the original change management form or recorded separately. The review should map the project against the original objectives, verify if they were met and if any additional work is required.

Appendix A – Example Scenario

Management of Change Example Scenario

Level 1 - Low Risk Change

Example provided by: FCC Environment

The Scenario - Building Modification

- Modification to control room building to install a dedicated access door removing the need for temporary cables being run through the main access doors.
- This change removed security risks associated with access doors being propped open which could also affect the integrity of the automatic fire control system.

Approach to Management of Change

- This change was classed as low risk.
- The Management of Change Form was completed and photos provided to aid during reviews.
- The change was reviewed by two people (Electrical Engineer and Maintenance Engineer) - reflecting the assessed change risk profile.
- The initial and design reviews took place simultaneously.

The Benefits of Management of Change

- FCC has found Management of Change beneficial by encouraging a more holistic review of a modification.
- Previously key considerations may have been missed from a project scope

Appendix B – Example Form

Note: These forms are intended as example templates to record Management of Change conversations. Additional considerations may be required dependent upon the type of change and any specific business requirements.

Initial Change Request (Initiate)

Initial Change Idea			
Name of Requestor:		**Position:**	
Contact No:		**Date Raised:**	
Site:			
Change Title:			
Description of the Proposed Change:			
Change Reason / Justification:			

Initial Review		
Proposal Categorisation (please tick):		
☐ Unsupported	☐ Emergency Change	☐ Temporary Change
☐ Minor	☐ Major	☐ Project
Immediate impacts (please tick):		
☐ Health and Safety	☐ Environmental	☐ Plant Integrity
Other (please state):		

Proposal Approval			
Competent Person:			
CP Signature:		Date:	
Details:			
Change Reference:			

Appointment of Change Owner (CO)			
Name:		Role:	
CO Signature:		Date:	

Proposal Rejection			
Name:		Role:	
Signature:		Date:	
Details:			

Change Development (Verify)

Change Development Details			
Change Owner:		**Change Ref:**	
Change details (attach additional documents where required)			
Systems / Plant / Process / Personnel affected:			
Health and Safety Implications:			
Environmental Implications:			
Risks:			
Stakeholder impact:			
Internal / External Communications:			
Timescales and Costs:			
Change deliverables):			

Development Approval (Change Panel / Competent Person)					
Name:		Role:		Sign/Date:	
Name:		Role:		Sign/Date:	
Name:		Role:		Sign/Date:	
Details if not approved:					

Comments / Actions Record				
Review Phase	**Date**	**Comments**	**Actions**	**Status**
Initial Review (Initiate)				
Development Review (Verify)				
Implementation Review (Implement)				
Completion Review (Review)				
Closeout/ Approve (Close Out)				