

A BASIC GUIDELINES TO CHANGE MANAGEMENT

WHAT IS CHANGE?

A change is described as any deviation from the baseline documents and underlying assumptions that impact the Project's scope, cost, or schedule.

This guideline will define the method and obligation relating to the identification, documentation, review, approval, management and integration of changes to scope, cost, and schedule of the Project.

The primary objective in Change Management is to establish a robust structure in which Trends and Changes can be validated, analysed and agreed in a timely manner to minimise impact to the Project.

SCOPE AND OBJECTIVES

The Change Management practice allows the project team to identify any change to the project baseline early, and in doing so, enable the control, management of changes and potential risks that could affect the project outcomes.

The objectives of change management are to:

- Set up a change management system for the project.
- Develop a method that allows anyone engaged on the project to initiate a notice of a potential change.
- Facilitate effective management and reporting of all changes, irrespective of origin.
- Deliver early warning and identification of trends (potential changes) to allow for timely assessment (scope, alternatives, cost and schedule) and decision making for work to proceed as required / approved.
- Expedite the processing and resolution of change impacts.
- Ensure that the Project's change management system is maintained and correctly reflects the current scope changes, cost forecast and schedule impacts on an ongoing basis.
- Effective evaluation of trends and development of identified changes into approved budget reallocations and scope changes.
- Enable the change management validation against budget. Ensure that all changes are approved prior to implementation or commencement of any work.
- Ensure all approved changes are effectively communicated to all affected disciplines, groups and organisations.
- Prevention of unauthorised work being executed.

BASELINE DOCUMENTS

A clearly defined Scope of Work – Each project team member shall be expected to understand his or her scope of work, baseline documents, and work plan, and is responsible for immediately communicating any changes before spending either time or money on such deviations without proper authorisation. Proper authorisation is generally construed to be an approved Change Order, Budget Shift, or Trend, although in certain cases (authorised by the Project Manager) this may be written direction from Contract Administrator to perform the work. When Contract Administrator have provided written direction to perform the work the Potential Variation Notice will still need to be submitted to maintain control and meet audit requirements.

As a guide, below are my suggested Baseline Document that can be used for effective change management process. These documents are developed during the bid proposal effort and contract negotiations prior to contract award.

- Project Development Plan
- Project Execution Plan
- Contract Scope of Work Cost Estimate (budget including effort-hours and material quantities, and estimate basis)
- Management Level Schedule
- Risk Assessment
- Commercial Baseline

Additional detail may be developed during the initial alignment process, and communicated to the entire project team, but change management is measured against the project baseline documents.

The change management process provides Project Management with early warning of conditions that might affect the project cost and/or schedule. This practice allows Project Management the opportunity to minimise or neutralise impacts of the potential change.

RECOMMENDED ROLES AND RESPONSIBILITIES

Once the change was identified or in anticipation of a change, all personnel on the Project are authorised to raise a Trend/ Potential Variation Notice/ Change Notice and must follow this practice to complete the required documentation for further processing. Personnel are required to process change paperwork rapidly to minimise any risk to the Project, particularly as some changes may have time-related contractual implications.

The objective on the Project is to identify changes as early as possible. Early identification is critical and will provide the team sufficient time to manage and mitigate the effect of any negative changes; the opportunity to influence the outcome of the change will likely decrease over time.

The cumulative effect of changes should also be adopted because it can greatly increase the cost impact of individual changes. Depending on the project, the cost of the cumulative effect of

changes can be included in each individual change, or a separate change impact analysis can be developed quarterly.

Depending on the size of the Project, the Change Management group on major projects and or otherwise project lead and team will be acting as change management group is responsible for:

- administering the change management process
- assisting the project team to identify and quantify potential changes
- providing estimating and forecasting services on identified changes
- facilitating communication of approved changes to the Project manager.

The Change Management group is led by a project lead, who manages the flows and developments, and reports the status of changes to the project team. The Change Management Register and numbering system will be managed by the project controls. The Change Management group will be supported by a project controls team (cost / estimate / schedule). Planning and Cost Control shall assist as required on Trends / Potential Variation Notice / Change Notices as requested by the Project Manager. These roles will be utilised to expedite reviews and processing notifications received within the team or from contractors.

PROJECT MANAGER

Reporting to the Project Director and is responsible for:

- Overall management of the Change Management System.

RESPONSIBILITIES OF PROJECT LEAD (OR CHANGE MANAGEMENT LEAD)

Reporting to the Project Manager and is responsible for:

- Set up change management processes and procedures including maintenance, management Change Management Register, development of change, issue of event change number and ensuring proper sequence numbering system.
- Managing Trend Review Meetings within a structured environment that ensures acceptable Trends are processed into approved changes
- Coordinating approved changes and ensuring that they are distributed to the Project team for execution and inclusion into the Project baseline
- Ensuring proper establishment and use of change management system and trend registers
- Review all Changes for impact on overall project schedule and milestones.
- Ensure that approved changes are incorporated into all schedules and reported.
- Supporting project team in all aspects of change management, including expediting reviews and approvals.

- Organising and holding regular change management meetings with the project teams and or with stakeholders
- Providing summary reporting of changes and monitoring impact on Project growth allowances and contingencies.
- Ensuring changes received comply with the Change Management System and issue approved changes to the team for further action.
- Manage the central filing of change documentation, assuring proper document control over change documentation.

RESPONSIBILITIES OF THE ORIGINATOR

All personnel on the Project Team are authorised to:

- Raising the Trend / Potential Variation Notice / Change Notice form and
- Providing a full and detailed description of the proposed change
- Providing a description of the current design
- Providing full and detailed justification for the change
- Identifying any impacts, the change might have
- Submitting the completed form to the Project Lead/Project Manager.

PLANNER

Reporting to Project Controls Manager and responsible for:

- Review all Changes for impact on overall project schedule and milestones.
- Ensure that approved changes are incorporated into all schedules and reported.
- Monitor, analyse and report status of all approved schedule changes.
- Ensure that resource forecasting includes approved changes.

COST CONTROLLER

Reporting to Project Controls Manager and responsible for:

- Provide cost control assistance to the change control process.
- Review changes submitted for compliance with project coding systems.
- Updating forecast in cost system to reflect approved trends.
- Updating cost system, budgets and commitments with approved changes
- Provide cost report budget vs revised budget

- Report the impact of all approved Potential Variation Notices on the cost and schedule forecast.

ESTIMATOR

Reporting to Project Controls Manager and responsible for:

- Prepare and assist with the development of estimates and backup documentation to support identified changes.
- Review estimate details from external sources and advise team of findings.

DOCUMENT CONTROLLER

Reporting to Project Controls Manager and responsible for:

- Management of correspondence and change management document.

CHANGE MANAGEMENT PROCESS

The “**Project**” will have well-defined scope and varied responsibilities between contracting parties, subject to various types of contract conditions, linked to an aggressive schedule and tightly controlled budgets. This demands a rapid and structured process to deal with change management. A three staged process are suggested to be used.

Note: It's projects manager's discretion to use full change management stages or only “change notice or Potential Change Notice” method based on the smaller size and less complexity of the project, however, the change management system would remain same in either case.

PROPOSED STAGES OF CHANGE APPROVAL

STAGE 1 – TREND NOTIFICATION

A Trend is any deviation from the approved cost or schedule baseline within the existing approved scope of work. A Trend will provide a detailed description and estimate of any cost and schedule impacts.

The Trend Notification is the earliest recognition of a potential change. Trends can be and are encouraged to be raised in advance of a Project Variation Notice (PVN). The purpose of a Trend is to identify a possible condition during execution that needs to be elevated and mitigated at the earliest. Trend Notifications are considered immature in their development and are presented as “possibilities” for future Potential Variation Notices

Trends are tracked in the Change Management Register showing the Trend identification number, lodgement date, Trend description, actions required, and pending status regarding approval to advance further.

Trends shall be logged using a separate tracking number to allow historical tracking of suspended and mitigated trends for reference.

A Trend is not a scope change, and it impacts the project forecast only.

Trends that proceed to a Potential Variation Notice or directly to a Change Notice (CN) will follow the change process.

STAGE 2 – POTENTIAL VARIATION NOTICE

The Potential Variation Notice is the initial document that identifies a potential change to the project baseline or forecast. A Potential Variation Notice can be initiated by anyone on the project team (known as originator). Each team member must have a clear understanding of their scope, estimate, and schedule including quantities and initiate a Potential Variation Notice where there is any deviation and provides notification to the project team of a potential change to the project and is raised immediately upon identification of a change or when a Trend is authorised to advance to Stage 2.

The Potential Variation Notice will go through a process where the type of potential is determined. If the submission is accepted, the formal Change Notice Process (Stage 3) will be followed.

STAGE 3 – CHANGE NOTICE

Change Notice represents the fully substantiated, detailed and quantified change and forms the basis on which the potential change will either be fully approved, or subject to limited approval, rejected, or returned to the originator for revision and further detailing to enable a final decision, except where circumstances determine otherwise.

Where a Change Notice originates with a contractor the allocated Contracts Administrator must be involved in the review process and final drafting of any Contract or Purchase Order variation.

Work on the identified change will not commence without formal approval of the Change Notice. Where the change involves an active contract, work will not commence until a contract variation has been approved and executed by both Project management and the Contractor.

From a cost control perspective, the Change Order Request (COR) will be used as the primary means of capturing, formalizing, and approving all project changes such that the Approved Budget can be adjusted accordingly.

From a scheduling perspective, a Change Notice will be prepared to ensure all potential impacts to the project baseline schedule can be assessed and integrated to reflect the revised project milestone/completion dates, including all adjustments to ancillary schedule components such as project resources.

CRITICAL CHANGE APPROVAL

Should the change be considered critical and likely to impact the critical path, contracted milestones or planned project outcomes, a special meeting is to be convened by the project lead to expedite the process. Recommended general rule, due to the timing required for approval, all changes which impact milestone or activities having less than 5 days float, will be considered critical.

Where a Change Notice originates with a contractor, the assigned Contracts Administrator must be involved in the review process and final drafting of any Contract or Purchase Order variation.

Work on the identified change will not commence without formal approval of the change notice. Where the change involves an active contract, work will not commence until a contract variation has been approved and executed by both Project management and the Contractor.

MINIMUM INFORMATION REQUIREMENTS

To ensure any change or potential change is understood, the following minimum information is required for the submission to be evaluated and a recommendation put forward to project lead / project manager.

TREND NOTIFICATION:

- Description of Trend
- Title of Trend
- Originator
- Package Number
- Order of magnitude estimate, if available.

POTENTIAL VARIATION NOTICE:

- Fully completed Potential Variation Notice form including Potential Variation Notice reference number
- Description of Potential Variation Notice
- Title of Potential Variation Notice
- Brief basis or justification of the Potential Variation Notice
- Originator interpretation of the change classification
- Package Number/ Contract Number
- Order of magnitude (OOM) estimate.

CHANGE NOTICE:

- Fully completed Change Notice form
- Full substantiated justification of change, scope, commercial and technical aspects
- Detailed costing subdivided into the project phases, with each line coded with WBS, commodity, phase and discipline, etc.
- All necessary backup documentation including vendor / supplier documentation, design, procurement, fabrication, logistics, construction and commissioning.
- Statement detailing the impact on schedule along with full analysis, and a recovery schedule to be considered by the project team.

POTENTIAL VARIATION NOTICE/ CHANGE NOTICE APPROVAL PROCESS

All Potential Variation Notice/ Change Notice will be reviewed by the project manager and Change Management Meetings are to be organised by the Project Manager / Project Lead on a weekly or monthly basis, or at an agreed frequency based on the project intensity and need and are to be attended by appropriate Project Management team representatives with the suggested as a minimum attendee:

- Project Manager (Chair)
- Project Lead (Secretary)
- Project Controls Manager with support
- Risk Manager (If required)
- Project Team.

The Project Lead will be responsible for organising and notifying relevant attendees of the meeting. Meetings will form the basis for reporting the status of Potential Variation Notices and Change Notices in the system, resolve issues on changes, as well as provide an opportunity to discuss / approve change events and approve urgent changes.

The acceptance status for each Potential Variation Notice/ Change Notice will be indicated on the Potential Variation Notice/ Change Notice form.

POTENTIAL VARIATION NOTICE STATUS:

- **Rejected** – Means that the request for Potential Variation Notice as submitted was not approved, as the effort may form part of original scope, may be contracted elsewhere, or is not required and therefore no entitlements or further action is to be taken, and as such, will be notified to the originator.
- **Revise** – Means that the submission may be deficient or incorrect, and therefore needs to be reviewed and or altered in order to be reconsidered for approval. The originator is responsible for revision and re-issue and is to be undertaken in a timely manner to ensure Project objectives are not compromised.
- **Accepted** – Means that the Potential Variation Notice as submitted is recognised as a potential variation, but final decision will be governed by the formal approval of the Change Notice which will incorporate the detail and basis to enable a formal decision. Acceptance of a Potential Variation Notice does not imply approval.

CHANGE NOTICE STATUS:

- **Rejected** – Means that the request for change as submitted was not approved, as the effort may form part of original scope or is not required and therefore no entitlements or further action is to be taken.
- **Revise** – Means that the submission may be deficient or incorrect, and therefore needs to be reviewed and or altered in order to be reconsidered for approval. The originator is

responsible for revision and re-issue and is to be undertaken in a timely manner to ensure Project objectives are not compromised.

- **Limited Approval** – This is only applied where the documentation as submitted is deficient and needs to be revised, but the basis of the change is accepted. This is normally applied to changes of an urgent nature, and limited approval for specific defined scope and associated value will be granted in order to protect project objectives. This will enable the originator to address areas of deficiency in the change documentation while work proceeds and resubmit a compliant change notice for approval (An approval period should be set and agreed. It is recommended that it should not exceed within 5 days).
- **Approved** – This certifies that the application for change as submitted has been accepted, duly signed off and approved according to the Delegations of Authority and as such, work must proceed to conclusion in order to complete the contracted scope of work.

Additionally, the processing of Potential Variation Notice and or Change Notice the following notes will apply:

- In the event of scope changes, approval will impact the Current Budget and/or Forecast Final Cost (FFC), and may result in a variation to contract etc.
- In the event of approved Trends, this will initially impact the FFC, and may impact the Current Budget.
- In the event of budget shifts, these will impact the Current Budget of the transferring entities, with a net zero effect to overall Current Budget, FFC and schedule
- The project controls team shall update the current budgets, forecasts and make adjustments to the contingency that may result from Change Notice action, as may be appropriate.

RECOMMENDED PRACTICE

POTENTIAL VARIATION NOTICE AND CHANGE NOTICE REGISTER

The project lead along with project controls will be responsible for establishing and maintaining Potential Variation Notice logs and change registers. These will record all Potential Variation Notice and changes raised on the project, and provide monitoring of the status, stage and location of the change. Changes will be classified and coded, and the register will be used to monitor and report the status of all changes on the project.

NUMBERING

The numbering of changes will be based on a structured system that will enable categorisation of change events, and functionality for grouping and reporting.

All change numbers will be issued by the project control only and within one day of the request from the Originator.

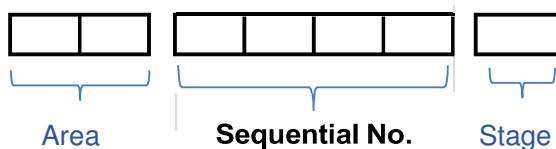
The originator must request the change number through an official request by email or letter. The request must bear the following information to enable registration on the system:

- Description of Change.
- Title of change
- MGP management Stage Code
- Change Type
- Area (predominant or multiple areas in the case of split responsibility)
- Primary Classification
- Cause Code (Originator's view)
- Discipline of work (or multiple disciplines in the case of split responsibility)
- Inside the scope or outside the scope of work
- WBS codes impacted by the change
- Package Number/ Contract Number

All changes can be entered into the change registers as a Trend, Potential Variation Notice or Change Notice during any period of the change process. The number will comprise two sections; a Potential Variation Notice number (which remains common to both Potential Variation Notice and Change Notice), and additional (numeric / alpha) number, which precedes the Potential Variation Notice number once the Potential Variation Number is converted to a Change Notice.

SUGGESTED POTENTIAL VARIATION NOTICE NUMBERING SYSTEM FORMATS

The numbering will comprise a seven-digit alpha / numeric field in which the first two digits represent the project area, the following four digits represent the unique sequential number, and the final digit the stage identifier, as illustrated below:



SUGGESTED CHANGE NOTICE NUMBERING SYSTEM FORMATS

Change Notice Numbering		
Title	Digits	Field Type
Management Stage Code	1	Numeric
Change Type	1	Alpha
Discipline Code	1	Alpha
Classification Code	1	Numeric

Reason / Cause Code	2	Numeric
Project Area	2	Alpha
Change Notice Sequential Number	4	Numeric
Stage Identifier	1	Alpha

SUGGESTED NUMBERING SYSTEM SAMPLES

Management Stage Code

Code	Description
0	Permitting/ Approval
1	Definition Feasibility Study (DFS)
2	Contract Management/ Procurement
3	Project Execution
4	Commissioning Support

Change Type

Code	Description
S	Scope Change
B	Budget Shift
T	Trend

Discipline Code

Code	Description
P	Process
C	Civil
S	Structural
M	Mechanical
E	Electrical
I	Control & Instrumentation
W	Commissioning
X	Multiple Discipline

Classification Code | Reason /Cause Code

Classification Code	Typical Reason / Cause Code
1 Scope Change	11 Revised Plot Plan
	12 Requested additional Studies
	13 Process - (Increase / decrease in plant capacity)
	14 Field Deviation
2 Legislative Change	20 Change in Legislation (e.g., working hours)
	21 Corporate mandates (e.g., standardization on equipment)
3 Implementation Change	30 Change in construction Philosophy
4 Budget Transfer	40 Re-allocation work between operating concerns
	41 Move work from one vendor to PMC
5 Trend	50 Market Forces
	51 Vendor pricing (for same scope higher than budget (including escalation))
	52 Escalation
	53 Productivity
	54 Estimate Commission
	55 Errors

		56	Price Fluctuation
		57	Supplier Changes

Project Area

Code	Description
G0	General Area
10	Crushing
20	Milling and Classification
25	Gravity & Fine Grinding
30	Leaching and Adsorption/ CIL Tank
40	Detox & Tailing Discharge
50	Metal Recovery & Refining
60	Reagents
70	Services
TS	Tails Storage Facility
WS	Water Supply
PS	High Voltage Power Supply
PI	Plant Infrastructure
XX	Multiple Area

Change Notice Sequential Number

Series	Reserved for:
1000 to 2999	Home Office
4000 to 5999	Construction / Site Office
7000 to 7999	Operations

Stage

Code	Description
P	Potential Variation Notice
C	Change Notice

CLASSIFICATION OF CHANGES

SCOPE CHANGE

Scope changes are associated with a change to the defined/agreed scope of work or intent, representing an addition, omission or extension, which was not included in the intent of the project specification or scope, but must be implemented in order to execute the project. The final decision to proceed or otherwise with the change is at the discretion of the Project Manager.

Scope changes directly affect the current budget and the project Schedule. Scope changes may result in additional funding and do not draw down from contingency.

LEGISLATIVE CHANGE

Legislative change is a change in scope requested by the Project Management and is imposed on the project from sources outside of the project.

Legislative changes may directly affect the current budget and the project schedule and do not draw down from contingency.

IMPLEMENTATION CHANGE

This change would include items identified by the Project Manager that must be implemented in order to execute the project as laid out in the intent of the project specification, but where the full details were not previously known. These items may result in a drawdown of contingency and / or may impact the project schedule. Such a change would be classified as a Trend.

BUDGET TRANSFER

A budget transfer shall be raised for the re-allocation of funds from one budget to another, to align with the movement of work scope and expenditure based on a change to the execution strategy.

Budget transfers normally have a net zero change to the total current budget or project schedule.

TREND

A cost and/or schedule change to the forecast to complete for the contracted work, which is outside the immediate control of MGP Project Manager, shall be classified as a Trend. This specifically excludes cases attributable to a scope change, or a legislative change.

EXECUTION FLOW AND TIMING

In order to ensure that change events are managed in a timely manner, the time scale for each stage must be set/ agreed and shall not be exceeded more than 5 working days in total. Critical changes need immediate attention, and the project team must undertake all steps to protect the project objectives, and ensure that changes are managed, and approvals granted timely to enable the work to proceed.

REPORTING

CHANGE REGISTER

The Potential Variation Notice and Change Notice register will be the primary source for tracking changes through the various stages from inception to approval, and for reporting the status to the project team.

Change Management registered on the system will be tracked and reported through the stages:

- Progress - Logged
- Progress - Raised
- Progress - Cancelled
- Approval – Project Manager Approved
- Approval - Implemented (Through Budget Approval Request and P6)

- Approved - Advised Originator.

The Project Lead will produce reports for distribution at the weekly or monthly change control meeting, and include the following reports:

- Updated change registers (Potential Variation Notice and Change Notice)
- Exception reports on all overdue approvals by area
- Summary status report by area of all Potential Variation Notices and Change Notices.

MONTHLY REPORTS

The project lead will be responsible for reporting the status of changes in accordance with the monthly reporting routines and formats. This will be reported by area as well as for the overall Project.

Reports will be available in various formats, and will include the following:

- Updated Potential Variation Notice Register
- Updated Change Notice Register
- Status and location report on all changes in the system
- Exception reports on overdue approvals
- Summary reports showing the overall impact of approved and potential changes in the system.
- Summary narrative on change status, accomplishments and outstanding issues.