

Effective shutdown management

Shutdown readiness checklist

There is simply no substitute for planning the details of a shutdown. The smallest item can cause the same delays as the largest item. The most common control we have over a project or shutdown is during the planning phase.

Once the shutdown starts, we are at the whim of the people executing the work. After the planning has done, then there is opportunity to optimise the plan and utilise Single Minute Maintenance to improve the efficiency and effectiveness of the critical path jobs.

1. PEOPLE READINESS

KEY PEOPLE

There must be continuity of the key people from the start of planning through to the end of execution and review.

All contractors have been inducted and are clear to commence work

All ancillary and sub-contractors have been inducted and are clear to commence work

All working at heights, confined space and hot works authorisations are completed and signed off

The other essential element is protecting the plan. This is a simple process as follows:

Review each task and ask what can go wrong (not unlikely things but the things that we can always see that cause delays). Identify these and then either change the plan so that these cannot go wrong or develop a contingency. A good example of this is offsite component repair. If these items do not come back on time what is our contingency? Having a spare ready is an easy contingency.

Inductions and authorisations often present a problem which can be easily avoided prior preparation or even anticipating the peak load. There is no reason this should cause a delay.

All hire equipment and contractor supplied equipment inspected and passed out

If authorisation cannot occur before commencement additional resources are available to handle the peak load at the start of the shutdown

2. PROJECT PLANNING

PROJECT SCOPE

There must be a point where the project is frozen.

Scope Frozen – 2 months from project commencement (It is still possible to deliver a good shutdown with less time but it just puts more pressure on the team and increases the risk)

2.1 PROJECT PLANNING

BUDGET APPROVAL

If the final budget is not approved it puts the planning phase in jeopardy

Total Cost Estimate finalise

PO Raised with Main Project Contractor with sufficient time to commit detailed planning and lock in key resources

PO's raised for all ancillary contractors

2.2 PROJECT PLANNING

DETAILED PLANNING

There is simply no substitute for planning the details of a shutdown.

The plan is developed at a detailed level with a detailed gantt chart

All tasks have work packs, spares and required tooling and resources developed

Pre-Project Risk Assessment (protecting the plan) has been undertaken with actions or contingency plans implemented

Scope Variations – approval system in place between client and contractor for potential variations

Budgetary Contingency in place to cover unforeseen scope variations

3. PARTS & MATERIALS READINESS

SPARES READINESS

Two major contributions to the execution of a shutdown are people and spares. We addressed the people readiness above so we must also address the spares readiness.

Risk Assessment undertaken with respect to spares availability especially for offsite repairs

Off-Site spares readiness (OEM or parts suppliers)

All parts per scope item on site and identified

Standby 'Special' transportation organised

On-Site spares readiness, spares are staged and physically checked to confirm that they are complete, correct and being stored appropriately.

4. SITE PREPARATION

PAD SERVICES

There is no excuse for delays due to pad condition or access. This is something that often causes delays, and we should be able to plan out these types of delays.

Pad layout diagram is available with required dimensions and pad preparation specifications if required

Waste Removal – PO out to contractor/plan finalised

Communications available on shutdown pad

Diesel Delivery – service truck scheduled into mine plan

Potable Water – PO out to contractor/plan finalised

Any risk of blast delays or impact on the pad when machines are on stands has been considered in pad location or planning

4.1 SITE PREPARATION

BUDGET REVIEW

Contractor to supply daily updates of current and planned spend (overall project cost)

Contractor to supply daily predictions of the forecasted total spend based on current trends (overall project).

Contractor to supply daily detailed explanation of current spend (per project scope item)

Contractor to supply daily predictions of the forecasted total spend based on current trends (per project scope item)

4.2 SITE PREPARATION

PAD DESIGN/ACCESS ROADWAYS

Pad preparation and ground compaction is adequate for project tasks

Movement of escorted mobilisation trucks through back accessways and active haul circuits have been scheduled if required

Pad and access roadways suitable for the occurrence of inclement weather and to minimise road traffic interaction within the mine

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