

Project Closure: Large / Complex Construction Projects

Increasing insight, reducing risk



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The spread of Coronavirus (Covid-19) is unprecedented and we understand this is an incredibly difficult time for families and businesses. We are here to help customers and businesses who are affected by the impact of Covid-19 in these challenging times and have created guidance on how to deal with protecting projects that are temporarily closed.

Temporary Closure

If your project is temporarily closed due to the Coronavirus and Government restrictions, it is important to consider the actions required to safeguard your project during the period of closure in such a way as to ensure it can resume as soon as possible.

We are here to support you, and there are separate guides available that cover the broader risk management considerations for the suspension of works of other project types.

Please click here to download these documents.

The following timeline and guidance may assist in mitigating exposures for projects to be suspended, at any stage of construction, for a designated or unknown period. Dependant on the type and status of project some activities will be deemed more time-critical than others by the project team:

Shutdown Timeline & Actions

The project should follow a process similar to that suggested below. This is not a comprehensive list and additional project-specific actions should be considered in line with project phasing:

Prior to Shutdown	In preparation for Shutdown		Following Shutdown
ASSESSMENT	ACTION		MAINTENANCE
Stakeholder notification	Site security Housekeeping	Water management	Ongoing monitoring
Contractual impact	Weather protection	Traffic & Signalisation	Regular site inspection
Technical risks	Structural safety	Emergency response planning	Planned preventative maintenance
Mitigation measures	Crane safety Fire safety	Specialist equipment	
Risk register review	Earthworks & excavations	Utilities	

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Additional Guidance

The following information is guidance on key areas for consideration when closing a site down for significant periods.

The project should ensure it fully complies with government guidance and laws whilst undertaking the following.

ASSESSMENT

Notify All Stakeholders: Project stakeholders should be notified promptly to allow all parties sufficient notice to close down their respective operations. This should include local authorities and emergency services.

Review Contractual Impacts: The contractual & insurance impacts of the temporary shutdown of the project should be considered.

Review Technical Risks: Permanent, partially-complete & temporary project elements should be reviewed, to include scaffolding, working platforms and project plant and equipment. Consideration should be given to temporary works exposed to natural hazards for longer than originally intended. Potential disruption to the project supply chain and consequences for the project schedule and completion date as a result of project suspension should also be considered.

Identify Mitigation Measures: Mitigation measures should look to reduce risks during shutdown and minimise the requirement for regular maintenance or attendance on site.

Update Risk Register: The project risk register should be reviewed and updated in line with the risk exposures present.

ACTIONS

Site Security: Site security measures should be maintained in line with operational standards where possible. Any reduction in security measures should be notified to Insurers, and suitable replacement measures be considered. Plant and equipment should be off-hired and removed from site where possible.

Housekeeping: A review of site housekeeping should be performed to ensure that all waste materials are removed, flammable gases and liquids are securely stored, and construction materials are appropriately stored.

Weather Protection: Completed works & stored materials should be appropriately protected to prevent damage during inclement weather.

Structural Safety: All permanent and temporary works should be assessed by the permanent works and / or temporary works designer to ensure structural safety is not compromised, and where required additional fixation / reinforcement measures should be introduced. Consideration should be given to any potential unforeseen load effects during this period.

Crane Safety: All craneage and lifting equipment should be taken out of service in accordance with the manufacturer's recommendations, secured from unauthorised access and, if deemed necessary, dismantled.

Fire Safety: Fire Protection Measures should be reviewed in line with best practice, and the Project Fire Management Plan updated. Any fire protection impairments should be notified to Insurers.

Earthworks & Excavations: All temporary and permanent earthworks should be made safe from potential collapse and provided with suitable slope gradient / edge protection, and exposed earthworks should be protected against adverse weather. Protection of Excavations should be maintained.

Water Management: Temporary water supplies should be isolated and drained down. All permanent water supplies should be isolated and drained down, only where this would not cause potential damage. All temporary and permanent drainage should be checked, and any obstructions removed. Discharge locations should avoid the potential for environmental contamination. All materials and works that are in potential flood areas should be relocated, to include any temporary laydown areas.

Traffic & Signalisation: A review of the traffic management plan should be undertaken, and any temporary traffic diversion measures must be suitable and maintained for the duration of the closure. This should be carried out in coordination with local authority requirements.

Emergency Response Planning: Project Emergency Response Plans should be revised in line with project closure arrangements; this should consider the impact of natural hazards. This plan should be reviewed regularly during the period of suspension. This should include clear responsibilities for named primary and backup keyholders.

Specialist Equipment: Consultation with the equipment suppliers should be undertaken to ensure the performance of any specialist equipment is not compromised during this period.

Utilities: Utilities providers should be consulted with to ensure that any permanent or temporary utilities are not compromised during this period.

MAINTENANCE

Regular Site Inspection: Where possible, the site should be inspected regularly in line with project QHSE requirements and this should include an assessment of the key risks to ensure the project is not exposed to potential damage, with all observations and findings documented and any mitigation measures suitable to be implemented within a reasonable timeframe.

Ongoing Monitoring: Where applicable, the ground movement and structural monitoring plan should be reviewed and updated accordingly. This should include key monitoring requirements and thresholds, mitigation measures for adverse conditions, communication arrangements and decision trees defined. Results should be recorded and regularly assessed by scheme designers.

Planned Preventative Maintenance: Review Maintenance & Response Plans in line with project closure arrangements. These should be reviewed regularly during the period of suspension. Undertake an assessment to understand what equipment needs to remain operational during project suspension, ensuring power and redundancy are provided – e.g. groundwater pumps, ground freezing, temporary process plant.

Guidance may change as the situation changes. <u>Please refer here</u> for our position on policy cover. For further support and advice please contact your local Zurich Risk Engineer.

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