

Restarting Construction Projects after Shutdown or Mothballing

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Unexpected closure of construction sites requires effective change management procedures. This document provides guidance for contractors recommencing projects after a period of shutdown or mothballing.



Restarting construction projects after shutdown or mothballing



Introduction

This Loss Prevention Standard contains general guidance for restarting construction works after shutdowns or mothballing.

Unplanned or unexpected closure of a construction site, mid-contract, represents a major change to the scope of works and must therefore be treated accordingly, with the implementation of appropriate change management procedures.

The following sections of this document and attached checklist, are intended to complement existing project health & safety and quality & environmental management procedures.



Whilst we can't provide best practice advice or cover every risk, exposure, or hazard, for all the areas that may need to be reviewed when re-starting a site or operation, some of the main areas of focus are noted below.

Notification to Insurers

The project insurers should be notified when works recommence on site after a prolonged, unplanned, or unexpected shutdown period.

This notification should also include changes to the scope of works and project duration.

Notification should also include other project stakeholders such as regulatory bodies, supply chains, sub-contractors and emergency services as required.

Project Recommencement Plan

Before recommencing site operations, an overall project risk assessment should be carried out, to determine what stage the project is at and what needs to be done to safely recommence works.

From this, a formal project recommencement plan should be produced.

The project recommencement plan should be documented, including all actions taken as result of any changes to legislation, site conditions or working practices.

As well as the overall project risk assessment, task-specific risk assessments, method statements and work instructions, including those produced by package contractors and sub-contractors, should also be reviewed, and updated.

Construction Works and Supply Chain Review

It will be helpful to carry out a review of the project after a shutdown or mothballing period. It may be necessary to update the project schedule to reflect the current project status as well as review if project resources will be available including those for specialist activities. Supply chains could have been affected and it will be necessary to identify where materials and equipment can be sourced including delivery timescales. Where there are long lead times on items, it may be prudent to source and hold such items in anticipation of any future similar events. It is recommended that consideration be given to the following actions:

- Review the impact on the construction programme and re-sequencing of construction activities
- Ensure that appropriate resources, supervision, safety controls and management measures are in place before works recommence
- Carry out a supply chain review to ensure timely availability of resources and materials for all works, including sub-contract packages

Site Security

It will be important to review your security arrangements after shutdowns or mothballing as it will be helpful in reducing risks of intrusion and malicious damage. Measures to be considered include:

- Physically check existing security controls and measures, including fencing, hoardings and CCTV and review their adequacy
- Carry out a security risk assessment to determine if existing security measures are adequate
- Heightened risk of theft and malicious damage should also be considered as part of the revised security and management strategy
- Internal site security measures should also be reviewed and updated to reflect changes brought about as a result of the project being closed and restarted

Fire Detection and Protection Systems

Before any restarting of operations, it is imperative that all fire and life safety, detection and protection systems are fully operational. As a result, the following should be inspected, tested, maintained and in good working order:

- All manual means of raising the fire alarm
- All workplace fire stations, including manual fire extinguishers and manual means of raising a fire alarm, e.g. klaxon/bell
- All automatic fire detection systems and any automatic fire suppression systems
- Any dry or wet risers or internal hose reel stations
- Fire water supplies including any fire water pumps

Note: Please ensure this philosophy is extended to any other plant, equipment or life safety detection/protection systems, including any safety interlocks.

General Housekeeping and Storage

Good housekeeping can assist in reducing workplace hazards, and housekeeping and storage reviews should be carried out when restarting a project after a shutdown or mothballing period. The following activities should be considered:

- Carry out a detailed site inspection to ensure that existing housekeeping and storage arrangements remain adequate
- Review storage arrangements for materials and equipment that has been delivered to site during the shutdown period, to ensure that they are adequately stored and protected
- Consider the use of temporary off-site storage for materials and equipment that cannot be adequately stored on site
- Store flammable, hazardous or explosive materials apart from other materials and keep them in dedicated containers clearly marked
- Further considerations for storage should take account of the Joint Code of Practice for Fire Prevention on Construction Sites

Electro-Mechanical Equipment and Installation

If electro-mechanical equipment and installations were under preservation due to a shutdown or mothballing period, special care should be taken when restarting a project including **following manufacturer's** recommendations. Inspection and maintenance plans should be kept updated to maintain equipment integrity. The following steps should be considered:

- All equipment that was in preservation should be restarted and commissioned as per manufacturer's recommendations
- Fire detection and fire protection systems should be fully operational
- Maintenance should be provided to any operational electro-mechanical equipment as per manufacturer's recommendations, including condition checks for equipment that has been in prolonged storage
- Review and update maintenance schedules for all electro-mechanical equipment and installations
- Ensure that any maintenance undertaken within the building is appropriately controlled. Any hot works should always be controlled using an appropriate hot work permit system. Guidance on the management of hot works can be found within the Aviva Loss Prevention Standard [Hot Work Operations](#).

Prevention of Water Damage

Where systems have been drained or turned off, care must be taken when turning on water systems, including HVAC systems, temporary and permanent water supplies, in order to avoid the risk of sudden pressure fluctuations which can cause damage to water-based systems. The following actions should be considered:

- Review and update commissioning and start-up procedures for water systems
- Specific attention should be given to manufacturer's instructions
- Water systems should be refilled and switched-on in accordance with commissioning procedures
- Consider installation of flow monitoring and auto shut-off devices prior to commissioning
- Compliance with Construction Insurers Risk Engineering Group (CIREG) guidance: '[Managing Escape of Water Risk on Construction Sites](#)' (5th Edition, November 2019)

Construction Safety and Liability

Health and safety plans should be updated following a shutdown or mothballing period. It should consider training and safety inductions, updating risk assessments and method statements, ensuring plant and equipment inspections are up to date and that PPE is available which covers both **standard construction** and the **company's** pandemic risks. Issues to consider include:

- Review and update relevant risk assessments and method assessments
- Health and safety re-inductions for all site personnel before recommencing site work
- Review and update project emergency plans including evacuation plans & contingency plans
- An appropriate competent person should inspect all permanent and temporary structures before works recommence
- Review temporary works register and carry out inspections for all existing works
- Inspect and re-calibrate all monitoring points and equipment, and restart any agreed monitoring regime before works commence
- Inspect all permanent and temporary electrics before systems are re-energised
- Review and update the project logistics plan
- Ensure appropriate working practices and supervision, especially for high-risk activities
- Ensure that any increase in lone working as a result of social distancing measures is appropriately managed
- Carry out thorough examinations and statutory inspections of construction plant and equipment, including cranes, etc. as per manufacturer's and Health & Safety Executive (HSE) requirements.
- Continued compliance with statutory inspection and maintenance requirements for critical plant and equipment
- Ensure that temporary and permanent drainage, including exits and outfalls, etc. are in good working order
- Ensure any emergency lighting systems (or related) are tested, inspected, maintained and in appropriate working order

Pandemics

As a result of the pandemic, the following additional measures should be considered for work on a construction site.

Government, NHS and HSE advice should be followed, and they can be found at:

- [Coronavirus \(COVID-19\): what you need to do](#) – GOV.UK
- [Coronavirus \(COVID-19\): latest NHS information and advice](#) – NHS
- [HSE: Information about health and safety at work](#) - HSE

The following should also be considered when assessing changes to working conditions:

- Phased return to work and changed working patterns
- Illness and staff absence
- Social distancing
- Additional hygiene and welfare requirements
- Additional PPE requirements
- Reduced staffing levels and supervision

Specific construction sector guidance regarding how to protect your workforce during a pandemic is available from the [Construction Leadership Council](#).

Checklist

A generic Restarting Construction Projects after Shutdown or Mothballing Checklist is presented in Appendix 1 which can be tailored to your own organisation

Specialist Partner Solutions

Aviva Risk Management Solutions can offer access to a wide range of risk management products and services via our network of Specialist Partners who are reputable companies offering agreed discounted rates for Aviva customers.

For more information please visit:

[Aviva Risk Management Solutions – Specialist Partners](#)

Sources and Useful Links

- [Fire Prevention on Construction Sites: The Joint Code of Practice on the Protection from Fire of Construction Sites and Buildings Undergoing Renovation \(9th Edition – October 2015\)](#) – RISCAuthority and Fire Protection Association

Additional Information

To find out more, please visit [Aviva Risk Management Solutions](#) or speak to one of our advisors.

Email us at riskadvice@aviva.com or call 0345 366 6666.*

*Calls may be recorded and/or monitored for our joint protection.

Appendix 1 – Restarting construction projects after shutdown or mothballing



Location	
Date	
Completed by (name and signature)	

	General	Y/N	Comments
1.	Have insurers been notified about the project restarting, including changes to the scope of works and project duration?		

	Project recommencement plan	Y/N	Comments
2.	Has an overall project risk assessment been carried out before restarting construction works?		
3.	Has a project recommencement plan been produced and does it cover the following elements: <ul style="list-style-type: none"> • Review of construction works and supply chain? • Site security? • Construction safety and liability? • Housekeeping and storage? • Electro-mechanical equipment and installations? • Prevention of water damage? 		
4.	Have task-specific risk assessments, method statements and work instructions, including those produced by package contractors and sub-contractors, been reviewed and updated?		

LOSS PREVENTION STANDARDS

	Construction works and supply chain review	Y/N	Comments
5.	Have you reviewed the impact on the construction programme?		
6.	Have you reviewed the impact of re-sequencing of construction activities?		
7.	Have you reviewed the supply chain to ensure timely availability of resources and materials for all works, including sub-contract packages?		

	Site security	Y/N	Comments
8.	Have site boundaries, fencing and hoarding lines been checked for adequacy?		
9.	Have you reviewed security controls and measures, including security alarms and CCTV, for adequacy?		
10.	Have you carried out a security risk assessment to determine if existing security measures are sufficient?		
11.	Have you considered any heightened risk of theft and malicious damage as part of the revised security and management strategy?		
12.	Have internal site security measures been reviewed and updated to reflect changes brought about as a result of the site being closed and restarted?		

LOSS PREVENTION STANDARDS

	Fire detection and protection systems	Y/N	Comments
13.	<p>Are the following inspected, tested, maintained and in good working order:</p> <ul style="list-style-type: none"> • All manual means of raising the fire alarm? • All workplace fire stations, including manual fire extinguishers and manual means of raising a fire alarm, e.g. klaxon/bell? • All automatic fire detection systems and any automatic fire suppression systems? • Any dry or wet risers or internal hose reel stations? • Fire water supplies including any fire water pumps? • Any other plant, equipment or life safety detection/protection systems, including any safety interlocks? 		

	Construction safety and liability	Y/N	Comments
14.	Have health and safety inductions been carried out for all site personnel before they recommence site work?		
15.	Have you reviewed and updated project emergency plans including evacuation plans & contingency plans?		
16.	Has an appropriate competent person inspected all permanent and temporary structures prior to works recommencing?		
17.	Have you reviewed and updated the temporary works register and inspected all existing works?		
18.	Have you inspected and re-calibrated all monitoring points and equipment?		
19.	Did you restart the agreed monitoring regime prior to works recommencing?		
20.	Have you inspected all permanent and temporary electrics prior to systems being re-energised?		
21.	Have you reviewed and updated the project logistics plan?		
22.	Have you ensured that appropriate working practices and supervision are in place, especially for high-risk activities?		
23.	Have you ensured that any additional lone working as a result of social distancing measures is appropriately managed?		

LOSS PREVENTION STANDARDS

	Construction safety and liability contd.	Y/N	Comments
24.	Have you carried out thorough examinations and statutory inspections of construction plant and equipment, including cranes, etc., as per manufacturer's and HSE requirements?		
25.	Is a programme (or schedule) in place for continued compliance with statutory inspection and maintenance requirements for critical plant and equipment?		
26.	Have you confirmed that temporary and permanent drainage, including exits and outfalls, etc. are in good working order before recommencing site activities?		
27.	Are all and any emergency lighting systems (or related) tested, inspected, maintained and in appropriate working order?		

	General housekeeping and storage	Y/N	Comments
28.	Have you carried out a detailed site inspection to ensure that housekeeping and storage arrangements remain adequate?		
29.	Have you reviewed storage arrangements for materials and equipment that was delivered to site during the shutdown period, to ensure that they are adequately stored and protected?		
30.	Where materials and equipment cannot be adequately stored on site, have you considered temporary off-site storage?		
31.	Do storage arrangements comply with the Joint Code of Practice for Fire Prevention on Construction Sites?		

LOSS PREVENTION STANDARDS

	Electro-mechanical equipment and installations	Y/N	Comments
32.	Are measures and instructions in place to ensure that electro-mechanical equipment and installations are restarted and commissioned as per manufacturer's recommendations?		
33.	Has adequate maintenance been provided to any operational electro-mechanical equipment as per manufacturer's recommendations?		
34.	Have condition checks been carried out for electro-mechanical equipment that has been in prolonged storage?		
35.	Have you reviewed and updated maintenance schedules for all electro-mechanical equipment and installations?		

	Prevention of water damage	Y/N	Comments
36.	Are procedures in place to ensure that care is taken when turning on water-based systems, including HVAC, temporary and permanent water supplies, to avoid the risk of sudden pressure fluctuations which can cause damage to such systems?		
37.	Have you reviewed and updated commissioning and start-up procedures for water systems?		
38.	Are specific procedures in place to ensure that manufacturer's instructions are followed?		
39.	Are procedures in place to ensure that water systems should be refilled and switched-on in accordance with commissioning procedures?		
40.	Have you considered installation of flow monitoring and auto shut-off devices prior to commissioning?		
41.	Are you complying with CIREG Guidance: 'Managing Escape of Water Risk on Construction Sites' (5th Edition, November 2019)?		

LOSS PREVENTION STANDARDS

	Pandemics	Y/N	Comments
42.	Have you considered additional measures as a result of the pandemic?		
43.	In relation to the pandemic, have you assessed changes to working conditions?		
44.	Have you referred to Government, NHS and HSE guidance regarding the pandemic prior to commencing work?		
45.	Have you referred to the Construction Leadership Council?		

46.	Additional comments:
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LOSS PREVENTION STANDARDS