



COVID 19 - Building Maintenance

SFG20
SFG30
Mothballing & Reactivation

2nd April 2020 - This document will be updated with more information and evidence when it becomes available

The UK Government has advised that essential maintenance and repair remains important work and government guidelines must be followed.

Due to COVID 19 many buildings will become low use or empty, as businesses close and working from home increases. Estate and building owners, landlords and tenants will therefore seek to adjust maintenance appropriately.

The extent to which maintenance can be varied will differ based on the utilisation, building/ estate configuration (e.g. centralised systems or separate standalone systems by areas) and operational requirements.

In many cases buildings will not require to be fully mothballed. Instead they may become low use with skeleton staff and low-key maintenance implemented. Elements of the building may be needed to support the working from home staff, such as server rooms to support the online working.



SFG20 (Planned Preventive Maintenance Standard) and SFG30 (Mothballing & Reactivation) can be applied to varying degrees depending on the building and situation. Users will need to assess their clients' needs and apply principles of risk assessment to producing a method of working to satisfy the government requirements for COVID 19 in relation to, statutory and insurance requirements (legal, lease stipulations etc.) and the amended contractual needs of clients.

Key minimum levels of maintenance activity should ensure :-

- Statutory Compliance
- Property Security
- Building Fabric Protection
- Business Critical Systems Operation
- Adherence to any Insurance cover requirements

There has been no Government relaxation on carrying out 'Statutory' Planned Maintenance tasks, as Statutory Tasks by their very nature are designed to ensure Health and Safety, if the current regime is operating to SFG20 and continues to do so the property will be safe and compliant.



If low use low key maintenance is employed, then a maintenance strategy will need to be implemented and followed. This will primarily look at maintaining statutory/insurance requirements and maintaining the security of the building. Examples of requirements to be maintained in under-utilised buildings is as follows:

- Water system hygiene requirements under L8
- Cooling tower L8 compliance and local authority compliance
- Fire detection system testing and maintenance
- Passive fire protection testing and maintenance including fire doors, fire stopping, fire dampers etc.
- Inspection and maintenance of active fire protection such as sprinkler and fire suppression systems, fire extinguishers etc.
- Electrical safety checks under EWR 1989 & BS7671 (18th edition electrical regulations)
- Gas safety inspections and maintenance
- F-GAS compliance as a legal requirement for air conditioning and refrigeration systems
- Pressure System Safety Regulations for e.g. compressed air and pressurised steam systems
- Security systems monitoring and maintenance
- Compliance under LOLER for passenger lifts and lifting equipment if they are still to be in service.

The above are examples of common compliance items, but there are many more that could apply, therefore individual site assessment are required to establish the key compliance areas for the site in question, BESA can provide guidance if required.



Maintenance work can continue providing the current government safety advice is adhered to.

Follow this link for access to the guidance.

<https://www.gov.uk/government/publications/full-guidance-on-staying-at-home-and-away-from-others/full-guidance-on-staying-at-home-and-away-from-others>

Please see Section 4. Going to work in the above link. Which states “With the exception of the organisations covered above in the section on closing non-essential shops and public spaces, the Government has not required any other businesses to close – indeed it is important for business to carry on.

The CLC(Construction Leadership Council) site operating procedure and the BESA guidance sheet on Working on site and COVID-19 for your information <https://www.thebesa.com/media/837481/1-coronavirus-working-on-site.pdf>

It is important to note that if the government guidelines cannot be followed in the first instance you should raise this with the site manager.

A risk assessment should be completed detailing what the risks are and why these will/may/could affect your ability to do the work.

These concerns should be raised with the site/responsible manager to see if a solution can be found before the job is cancelled.

Any works that cannot be completed must be communicated to the client with the reasons why and a copy of any evidence and risk assessment.



SFG20

SFG20 Core Plus through its clear Colour-Coded Criticality Ratings allows the user to identify the tasks required to maintain statutory compliance as a must do. SFG20 Service Model in addition also identifies tasks that may not be statutory but are critical to the building or to protect the asset being maintained, and lastly the routine work that can be treated as optional, as this will not have statutory or insurance implications. Using the internal SFG20 functionality maintenance priorities can be easily reprioritised to satisfy the needs of the client and the current COVID-19 situation. A re-aligned SFG20 plus appropriate information from SFG30 can act as the Maintenance platform.

SFG30

Mothballing & Reactivation

If a building or an area/ system within a building is not required for a significant period full or partial isolations are possible applying SFG30. SFG30 takes users through a step-by-step process for maintaining critical services during this low occupancy period ready for rapid and full reactivation when business returns to normal. This includes key elements such as keeping water systems safe and healthy (in line with the Health & Safety Executive's L8 rules for legionella control); both active and passive fire protection systems; safe handling of refrigerant gases; electrical and gas service safety checks and ventilation hygiene. It also explains how to maintain security systems and lifts if they are still in service etc.



SFG30
Mothballing & Reactivation

SFG20 believe that, during this unprecedented situation, we have a moral duty to support the sector and our members and for this reason, have decided to make SFG30 Mothballing & Reactivation FREE until further notice for BESA members and reduce the price for SFG20 subscribers and non-members.



Low use & Low Key Maintenance

Reduced use and Nominal Shutdowns, ongoing SFG20 PPM Maintenance & normal Legal Compliance tasks that must be adhered too

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103-01 **Lightning Protection**

103-02 **Weekend and Seasonal Holiday Shutdowns**



- *Water system hygiene requirements under L8*
- *Cooling tower L8 compliance and local authority compliance*
- *Fire detection system testing and maintenance*
- *Passive fire protection testing and maintenance including fire doors, fire stopping, fire dampers etc.*
- *Inspection and maintenance of active fire protection such as sprinkler and fire suppression systems, fire extinguishers etc.*
- *Electrical safety checks under EWR 1989 & BS7671 (18th edition electrical regulations)*
- *Gas safety inspections and maintenance*
- *F-GAS compliance as a legal requirement for air conditioning and refrigeration systems*
- *Pressure System Safety Regulations for e.g. compressed air and pressurised steam systems*
- *Security systems monitoring and maintenance*
- *Compliance under LOLER for passenger lifts and lifting equipment if they are still to be in service.**

Shutdown & Reactivation

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104-01 Management of Mothballing/Shutdowns

- 104-02 Building Fabric Elements
- 104-03 Building Management System (BMS)/Controls
- 104-04 Catering Services
- 104-05 Chilled Water Systems
- 104-06 Compressed Air Systems
- 104-07 DX Cooling Plant
- 104-08 Electrical Systems
- 104-09 Emergency Lighting
- 104-10 Fire Alarm Systems
- 104-11 **Gas Supply**
- 104-12 Heating Systems
- 104-13 Lighting and Lighting Systems
- 104-14 Motors, Generators, UPS's and Battery Systems
- 104-15 Oil Supply
- 104-16 Pipework (All Systems)
- 104-17 **Refrigerant Gases**
- 104-18 Security Monitoring and Access Systems
- 104-19 Swimming Pools
- 104-20 **Transformers and Substations**
- 104-21 Ventilation Plant
- 104-22 Water Hygiene Services
- 104-23 Water Services - Fire Protection and Environmental Supply Systems

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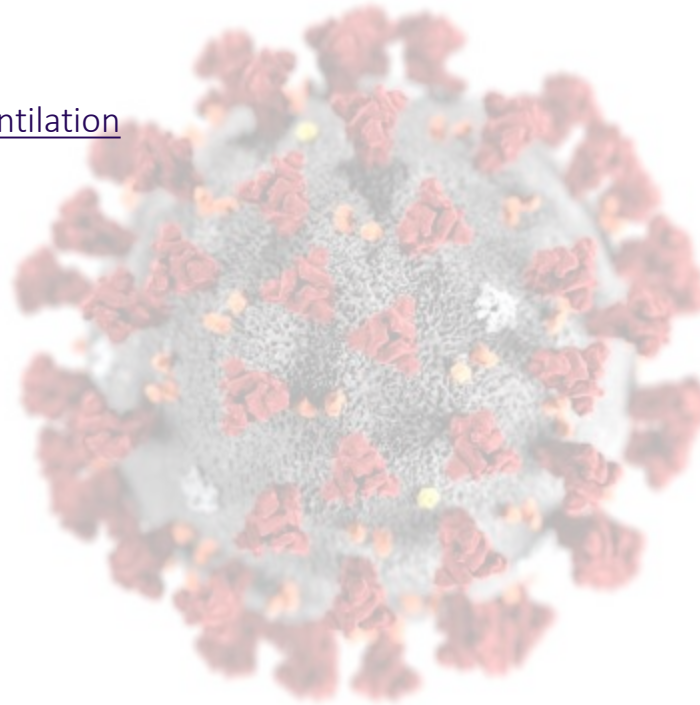
105-01 Management of Reactivation

- 105-02 Building Fabric Elements
- 105-03 Building Management System (BMS)/Controls
- 105-04 Catering Services
- 105-05 Chilled Water Systems
- 105-06 Compressed Air Systems
- 105-07 DX Cooling Plant
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- 105-09 Emergency Lighting
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* Note: -The examples of common compliance items, but there are many more that could apply, therefore individual site assessment are required to establish the key compliance areas for the site in question, BESA can provide guidance if required.

The following key considerations relating HVAC systems and COVID 19 are detailed in links provide on the next slide 'Covid-19 Resources' and providing insightful and supporting information.

- [Building occupancy Strategy](#)
- [COVID 19 Air Transmission](#)
- [Increasing \(Outside\) Air Supply and Exhaust Ventilation](#)
- [Natural Ventilation \(Opening Windows\)](#)
- [Safe use of Heat-Recovery devices](#)
- [\(No use of\) Air Recirculation](#)
- [Duct Cleaning Impact](#)
- [Maintenance & Air filter changes](#)
- [Room Air Cleaner \(HEPA and UV\)](#)



- BESA-Refcom [COVID-19 AND AIR CONDITIONING SYSTEMS- Technical Bulletin TB/048/2:](#)
- CIBSE Journal [Preventing Covid-19 spreading in buildings](#)
- AIRAH [Common questions about COVID-19 and air conditioning and refrigeration systems](#)
- Federation of European Heating, Ventilation and Air Conditioning Associates [COVID-19 Guidance](#)
- Construction Leadership Council [Site Operating Procedures](#)

- Government [Coronavirus \(COVID-19\): what you need to do](#)
- NHS [Advice for everyone - Coronavirus \(COVID-19\)](#)
- The World Health Organization:- [Modes of transmission of virus causing COVID-19: implications for IPC precaution recommendations](#)
- Public Health England [Covid-19 Guidance for infection prevention and control in healthcare settings](#)
- Center for Disease Control and Prevention [Interim Guidance for Businesses and Employers to Plan and Respond to Coronavirus Disease 2019 \(COVID-19\)](#)
- National Centre for Biotechnology Information [Modeling the airborne survival of influenza virus in a residential setting: the impacts of home humidification.](#)
- The New England Journal of Medicine [Aerosol and Surface Stability of SARS-CoV-2 as Compared with SARS-CoV-1](#)



The key consideration when evaluating a revised maintenance strategy is the duration of action and hence cost of ongoing reduced maintained versus the cost of mothballing and reactivation of assets and services.

Strategy considerations could include but are not limited to:-

- Water systems- Would likely need to be kept operating or else you will have unknown conditions in the systems and it could be a significant cost (and all sample labs are possibly going to have an alternate focus), note though with reduced occupancy flushing requirements will likely increase.
- For longer durations Insurance companies will require notifying as they will want fire alarms, sprinklers maintained especially if the building is left empty for periods.
- Life Safety, if building are occupied by security or skeleton workforces working it will need emergency lighting, fire alarm systems etc. Emergency generators will need to be tested if they are still being relied upon to provide power in an emergency. Fire suppression systems still need to be checked if they are being left active whilst the building is shut down. Asset such as hydrants and other firefighting facilities need discussion with the local fire brigade to see what they would like to see and are willing to allow.
- Lifts where buildings are occupied need to be continued, but if it can be shown that lift journeys are reduced you may be able to reduce the lift maintenance, but where lifts are still operating they will require “Thorough Examinations” to be carried out as normal. It may be the case that there a multiple lifts in a building and one or more could be removed from operation (This will need to be checked in line with overall building risk and fire strategies).
- Heating systems could potentially be winterised as we move into summer months, not necessarily drained down, but suggest a shot inject of chemicals/ inhibitors and to leave system fully charged to stop oxygen and ‘bugs’ causing issues.
- Chilled water systems and Cooling towers if no one on is on site towers can be drained and notifications made to the local authority that the tower has been decommissioned.



If you wish to discuss these points or chat through your site issues please email covid19@thebesa.com or the SFG20 Helpdesk and we will call you back

Helpdesk

sfg20.info@theBESA.com

Telephone +44 (0)1768 860459

Open 9am-5pm, Monday-Friday



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