

CDM Fire Safety Arrangements: Plan, Do, Check, Act flowcharts and duty holder tables.



Construction Industry Advisory Committee (CONIAC)
Managing Risk Well Working Group

Introduction

Construction fire safety needs to be managed from the earliest stages of design, procurement, and the construction phase. Duty holders need to address the fire risks to both to site workers and to those persons living or working in neighbouring buildings. To support duty holders the CONIAC Managing Risk Well Construction Fire Safety sub-group have developed flowcharts and tables based on the Plan, Do, Check, Act approach set out in the HSE publication [Managing for health and safety \(HSG65\)](#).

Delivering effective arrangements: the Plan, Do, Check, Act approach

Preventing fires on construction sites can rarely be achieved by one-off interventions, a sustained and systematic approach is necessary. Adopting a Plan, Do, Check, Act approach can help achieve a balance between the systems and behavioural aspects of management. Using the flowcharts and tables within this guide can support the user embedding fire safety management as an integral part of good construction project management generally, rather than as a stand-alone system. The descriptions with the flowcharts vary, depending on the duty holder, but the guidance provides a summary of the actions involved in delivering effective arrangements, including which duty holder will be responsible for what.

For continuity between industry guidance, this guide adopts the duty holder colour coding used by the CITB for their CDM duty holder guidance. The CITB published six guides; one for each of the five duty holders under CDM and an additional one for workers, in this guide we concentrate on the five main duty holders. By clicking on the relevant duty holder graphic, it will link you to that specific CITB CDM guide.



This guidance aims to give you a structured framework for decision making and to clarify roles and responsibilities for fire safety. You can use the flowcharts and tables and adapt them to your own procedures. However, remember that it is not possible to define every situation in a generic flowchart. Fire risk management must be project and site specific.

Construction projects that fall under the remit of the Building Safety Regulator and The Building Safety Act 2022 (BSA) are not covered within this guide. The processes needed to comply with the BSA and CDM 2015 fire prevention during construction are similar, such as information sharing and risk management. If you are developing fire safety management systems CONIAC recommends that you start applying the principles of fire prevention at the design stage, as set out in the flowcharts and tables. This should put you in a good position to adapt your procedures for future BSA compliance.

Links to construction fire safety guidance

[The Construction \(Design and Management\)](#)

[Regulations 2015.](#)

[HSG168 Fire Safety in Construction.](#)

[JCoP \(10.1 Edition\) Fire Prevention on Construction Sites.](#)

[HSE Fire References](#)

[HSE Process Fire Safety](#)

[HSE Construction Fire - Frequently Asked Questions](#)

[BSR e-bulletin and Resources](#)



Client CDM Fire Safety Arrangements

B: Agree relevant fire safety standards to meet legal compliance and the fire brief. Clarify procurement process. Agree CDM information collection process. Provide information on existing FRA and on the existing fire protection systems as pre-contract information.

C: Collate surveys and relevant data; clarify building fire design risk and safety profiles. Input fire engineering, if required; review design to eliminate fire risk SFAIRP; initiate fire drawings and residual risk PCI report to be set up.

A: Clarify building in-use & construction fire strategy briefs. Check PD & Design team fire competence. Appoint construction fire specialist if required.

D: Establish tender timescales and expectations to match the fire Brief and Fire Strategy during the construction phase.

E: Check tenders meet project fire risk management expectations to match the fire Brief and Fire Strategy. Assess PC fire and safety team competence.

F: Participate in design review process. Review PC fire and safety policy & procedures in CPP. Clarify PC subcontractor appointments and implementation of fire safety plan.

G: Request fire safety reports at progress meetings. Ascertain if the fire design is being built as proposed and approved. Check if CP fire protection process is being implemented, by site inspections & reports.



I: Assess reasons for non-compliance at Design & Construction stages; take action and feedback into Policy.

H: Request PD or PC to demonstrate how PCI Fire Strategy and CP fire plan is compliant.

Definitions:

CDM = The Construction (Design and Management) Regulations 2015

PD = Principal designer

PC = Principal contractor

PCI = Pre-construction Information

FRA = Fire Risk Assessment

CPP = Construction Phase Plan

SFAIRP = So far as is reasonably practicable



Principal Designer CDM Fire Safety Arrangements

B: Clarify if Approved documents to be used or further fire engineering & safety standards are to be applied and to what extent. Agree fire and safety principles with Fire and Rescue Service and other relevant fire enforcing authorities.

A: Clarify client fire strategy expectations, appoint a competent project PD lead, and agree the client's fire risk management process for the project with their Responsible Person. Confirm competence, organisational capability, and insurance.

I: Identify pros & cons of design & construction process. Remedy defects & feed into future fire safety design policy.

H: Review any non-compliances in design & construction. Sign off the Design and Construction compliance with specialists & PC.

Definitions:
PD = Principal designer
PC = Principal contractor
PCI = Pre-construction Information

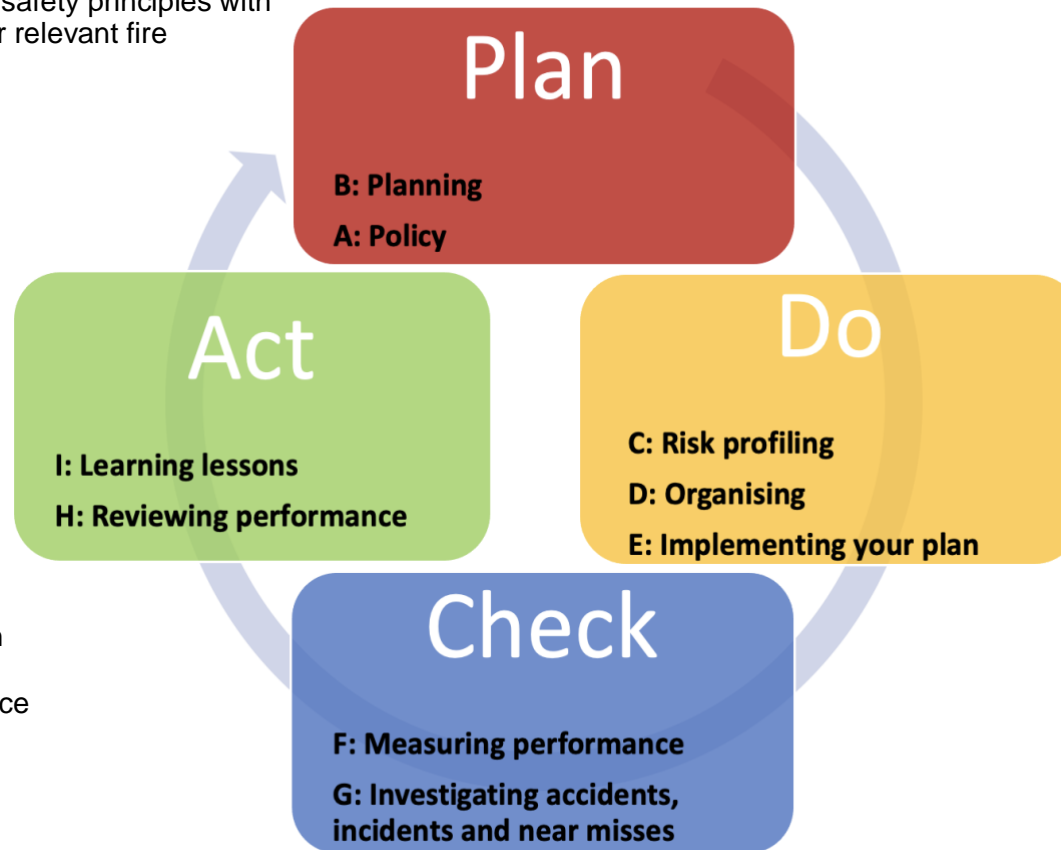
C: Using surveys & fire risk information commence Fire Strategy drawings and documentation for planning application.

D: Provide approved Fire & Safety Strategy information & drawings, full plans, and fire mitigation in the PCI with tenders. Draw up a health and safety file to collate fire safety information for the Client during the occupation phase.

E: Review that tenders & draft construction phase plan makes allowance for construction stage fire strategy.

F: Assess how "Plan, Manage and Monitoring" has been carried out with the team during design and construction process. Create a change control system for design reviews.

G: Balance benefits and risks of proportionate design approach to project, using the Principles of Prevention. Assessing PC delivery of design, including the build sequencing for passive fire controls, such as compartmentation.





Designer CDM Fire Safety Arrangements

B: Confirm fire safety standards to meet the fire brief and achieve legal compliance. Assist the PD with fire and safety design development and demonstration of compliance.

C: Assist PD with development of Fire & Safety design information with drawings demonstrating rationale. Designers must consider the combustibility of materials, both singularly and in combination, and assess fire risks. Design out fire risks SFAIRP by selecting suitable alternative materials.

A: Appoint lead designer for fire safety design compliance in all relevant disciplines. Confirm adequate competence and organisational capability and Professional Indemnity insurance.

D: Assist PD in providing PCI & fire strategy information, including giving the PD the info about residual risk mitigation to go into the PCI. Reducing the risks is particularly important when there are constraints that cannot be removed, such as location of site and space available.

I: Confirm to Client and PD of any arising defects or lessons learnt for future remediation or use.

E: Assist PD in reviewing that tenders & draft construction phase plan makes allowance for construction stage and in-use fire and safety strategies.

H: Providing PD with evidence that the design provides evidence of elimination, and or, mitigation of fire risks that are legally compliant and meet project requirements.

F: Assisting PD by demonstrating fire safety compliance within own discipline. Assisting with monitoring suitable performance on-site where they have a design and install work package.

G: Demonstrating to PD that the fire safety design is proportionate and achievable with appropriate fire safety controls and project benefits. Assisting the PD with on-site reviews of contractor's installation and progress.



Definitions:

PD = Principal designer

PCI = Pre-construction Information

SFAIRP = So far as is reasonably practicable



Principal Contractor CDM Fire Safety Arrangements

B: The PC must demonstrate that they understand the fire safety legislation and standards to be achieved, and how to apply the fire strategy (strategies) during the construction phase. Appoint competent contractors.

A: Organisation PC to appoint a lead on construction fire safety issues and liaise with the PD & Responsible Person on all fire safety issues. PC to confirm competence and organisational capability.

I: Remediate defects in compliance and record for future project teams to understand and avoid repetition.

H: PC to commission and provide clear evidence of the implementation of fire and safety compliance.

Definitions:

PD = Principal designer

PC = Principal contractor

PCI = Pre-construction Information

SFAIRP = So far as is reasonably practicable

CPP = Construction Phase Plan

RIDDOR = Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 2013

C: PC to identify key/significant construction and in-use stage fire safety controls for implementation by site management and specialist teams. Clear roles and responsibilities for fire safety management must be drawn up.

D: Provide a CPP to reflect the design intentions. It must include a Fire Plan detailing: emergency arrangements for general fire precautions (GFPs); passive and active fire controls to prevent fires starting and spreading. Collate relevant fire safety information for the health and safety file.

E: Have a system for resourcing and monitoring the implementation of the fire CPP to meet fire safety design standards. Report proposed changes to PD and gain approval. Construction Change Control Plan to be established.

F: Monitor the performance of all site contractors and construction activities, to confirm compliance with design recommendations & fire and safety regulations have been met. Provide relevant health and safety file information to the PD.

G: Inform workers and project team members about reporting incidents, near misses and [RIDDOR](#) events. Review and prioritise issues raised for immediate action.





Contractor CDM Fire Safety Arrangements

B: Be familiar with site rules and comply with them. Inform the PC of any non-compliances and fires risk that are not addressed in the CPP.

A: Provide the PC with significant fire risk information and controls relating to their work activities. Reference health and safety information and standards set out in tender documents to develop work methods.

I: Identify poor performance and provide information, and or training, to work teams about fire risks and associated controls.

H: Check that products are installed in accordance with the fire design and certification for said system specification.

Definitions:

PC = Principal contractor

RP = Responsible Person

CPP = Construction Phase Plan

Note: When there is only one contractor on a project, they must ensure that a site-specific fire risk assessment is carried out and reviewed.

C: Plan, manage and monitor construction activities under their control. Co-ordinate and co-operate with the PC and others working on site to ensure fire mitigation measures are maintained and additional risks are not created.

D: Co-operate with the PC, such as by attending induction training and participating in fire drills where required to do so.

E: Manage, monitor work, and check the competence of all their workers. Contractors must train their workers and provide information about fire risks and associated safety controls.

F: Provide adequate supervision to ensure the construction plan and fire safety precautions are followed by their workers, and report findings to PC.

G: Require workers to report any incidents and near misses to their immediate line managers and PC, who should take immediate action if required and report to the RP, as soon as possible. Co-operate with any investigations.



Project Team Fire Safety Arrangements: Plan, Do, Check, Act Table

	Client	Principal Designer	Designer	Principal Contractor	Contractor
PLAN	A. Policy	A Policy	A. Policy	A. Policy	A. Policy
	<p>Clarify building in-use & construction fire strategy briefs.</p> <p>Check PD & Design team fire competence.</p> <p>Appoint construction fire specialist if required</p>	<p>Clarify client fire strategy expectations, appoint a competent project PD lead, and agree the client's fire risk management process for the project with their Responsible Person. Confirm competence, organisational capability, and insurance.</p>	<p>Appoint lead designer for fire safety design compliance in all relevant disciplines. Confirm adequate competence and organisational capability and Professional Indemnity insurance.</p>	<p>Organisation PC to appoint a lead on construction fire safety issues and liaise with the PD & Responsible Person on all fire safety issues. PC to confirm competence and organisational capability.</p>	<p>Provide the PC with significant fire risk information and controls relating to their work activities.</p> <p>Reference health and safety information and standards set out in tender documents to develop work methods.</p>
	B. Planning	B. Planning	B. Planning	B. Planning	B. Planning
	<p>Agree relevant fire safety standards to meet legal compliance and the fire brief. Agree CDM information collection process. Clarify procurement process. Provide information on existing Fire Risk Assessment and on the existing fire protection systems as pre-contract information.</p>	<p>Clarify if Approved documents to be used or further fire engineering & safety standards are to be applied and to what extent. Agree fire and safety principles with Fire and Rescue Service and other relevant fire enforcing authorities.</p>	<p>Confirm fire safety standards to meet the fire brief and achieve legal compliance. Assist the PD with fire and safety design development and demonstration of compliance.</p>	<p>The PC must demonstrate that they understand the fire safety legislation and standards to be achieved, and how to apply the fire strategy (strategies) during the construction phase.</p> <p>Appoint competent contractors.</p>	<p>Be familiar with site rules and comply with them. Inform the PC of any non-compliances and fires risk that are not addressed in the CPP.</p>

	Client	Principal Designer	Designer	Principal Contractor	Contractor
DO	C. Risk profiling	C. Risk profiling	C. Risk profiling	C. Risk profiling	C. Risk profiling
	Collate surveys and relevant data; clarify building fire design risk and safety profiles; Input fire engineering, if required; review design to eliminate fire risk SFAIRP; initiate fire drawings and residual risk pre-construction information report to be set up	Using surveys & fire risk information commence Fire Strategy drawings and documentation for planning application.	Assist PD with development of Fire Safety design information with drawings demonstrating rationale. Designers must consider the combustibility of materials, both singularly and in combination, and assess fire risks. Design out fire risks SFAIRP by selecting suitable alternative materials.	PC to identify key/significant construction and In-use stage fire safety controls for implementation by site management and specialist teams. Clear roles and responsibilities for fire safety management must be drawn up.	Plan, manage and monitor construction activities under their control. Co-ordinate and co-operate with the principal contractor and others working on site to ensure fire mitigation measures are maintained and additional risks are not created.
	D. Organising	D. Organising	D. Organising	D. Organising	D. Organising
	Establish tender timescales and expectations to match the fire Brief and Fire Strategy during the construction phase. (CP)	Provide approved Fire & Safety Strategy information & drawings, full plans, and fire mitigation in the pre-construction information with tenders. Draw up a health and safety file to collate fire safety information for the Client during the occupation phase.	Assist PD in providing PCI & fire strategy information, including giving the PD the info about residual risk mitigation to go into the PCI. Reducing the risks is particularly important when there are constraints that cannot be removed, such as location of site and space available.	Provide a CPP to reflect the design intentions. It must include a Fire Plan detailing: emergency arrangements for general fire precautions (GFPs); passive and active fire controls to prevent fires starting and spreading. Collate relevant fire safety information for the health and safety file.	Co-operate with the PC, such as by attending induction training and participating in fire drills where required to do so.

	Client	Principal Designer	Designer	Principal Contractor	Contractor
	E. Implementing your plan	E. Implementing your plan	E. Implementing your plan	E. Implementing your plan	E. Implementing your plan
	<p>Check tenders meet project fire risk management expectations to match the fire Brief and Fire Strategy.</p> <p>Assess PC fire and safety team competence</p>	<p>Review that tenders & draft construction phase plan makes allowance for construction stage and fire strategy.</p>	<p>Assist PD in reviewing that tenders & draft construction phase plan makes allowance for construction stage and in-use fire and safety strategies.</p>	<p>Have a system for resourcing and monitoring the implementation of the fire CPP to meet fire safety design standards. Report proposed changes to PD and gain approval. Construction Change Control Plan to be established.</p>	<p>Manage, monitor work, and check the competence of all their workers.</p> <p>Contractors must train their own employees and provide information to their workers about fire risks and associated safety controls.</p>
CHECK	F. Measuring Performance	F. Measuring Performance	F. Measuring Performance	F. Measuring Performance	F. Measuring Performance
	<p>Participate in design review process. Review PC fire and safety policy & procedures in CP Plan. Clarify PC subcontractor appointments and implementation of fire safety plan.</p>	<p>Assess how “Plan, Manage and Monitoring” has been carried out with the team during design and construction process. Create a change control system for design reviews.</p>	<p>Assisting PD by demonstrating fire safety compliance within own discipline. Assisting with monitoring suitable performance on-site where they have a design and install work package.</p>	<p>Monitor the performance of all site contractors and construction activities, to confirm compliance with design recommendations & fire and safety regulations have been met. Provide relevant health and safety file information to the PD.</p>	<p>Provide adequate supervision to ensure the construction plan and fire safety precautions are followed by their workers, and report findings to PC.</p>

	Client	Principal Designer	Designer	Principal Contractor	Contractor
	G. Investigating incidents and near misses	G. Investigating incidents and near misses	G. Investigating incidents and near misses	G. Investigating incidents and near misses	G. Investigating incidents and near misses
	Request fire safety reports at progress meetings. Ascertain if the Fire design is being built as proposed and approved. Check if CP fire protection process is being implemented, by site inspections & reports.	Balance benefits and risks of proportionate design approach to project, using the Principles of Prevention. Assessing PC delivery of design, including the build sequencing for passive fire controls, such as compartmentation.	Demonstrating to PD that the fire safety design is proportionate and achievable with appropriate fire safety controls and project benefits. Assisting the PD with on-site reviews of contractor's installation and progress.	Inform workers and project team members about reporting incidents, near misses and RIDDOR events. Review and prioritise issues raised for immediate action.	Require workers to report any incidents or near misses to their immediate line-managers and PC, who should take immediate action if required and report to the RP, as soon as possible. Co-operate with any investigations.
ACT	H. Reviewing Performance	H. Reviewing Performance	H. Reviewing Performance	H. Reviewing Performance	H. Reviewing Performance
	Request PD or PC to demonstrate how PCI Fire Strategy and CP Fire Plan is compliant.	Review any non-compliances in design & construction. Sign off the design and construction compliance with specialists & PC.	Providing PD with evidence that the design provides evidence of elimination, and or, mitigation of fire risks that are legally compliant and meet project requirements.	PC to commission and provide clear evidence of the implementation of fire and safety compliance.	Check that products are installed in accordance with the fire design and certification for said system specification.
	I. Learning Lessons	I. Learning Lessons	I. Learning Lessons	I. Learning Lessons	I. Learning Lessons
	Assess reasons for non-compliance at design & construction stages and take action and feedback into Policy.	Identify pros & cons of design & construction process. Remedy defects & feed into future fire safety design policy.	Confirm to Client and PD of any arising defects or lessons learnt for future remediation or use.	Remediate defects in compliance and record for future project teams to understand and avoid repetition.	Identify poor performance and provide information, and or training, to work teams about fire risks and associated controls.