

# Unit FC1 - Fire Safety and Risk Management

*Reference information provided, in particular web links, was correct as of 12/06/17.*

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## Element 1 - Managing fire safety

British Standards for fire safety (for example, fire alarm systems, emergency lighting, fire signs, portable firefighting equipment, fire safety management and the code of practice for non-automatic fire fighting systems in buildings, PAS 79 Fire Safety Risk Assessment)

Communities and local government practical fire safety guidance <http://www.gov.uk/workplace-fire-safety-your-responsibilities/fire-safety-advice-documents>

Dangerous Substances and Explosive Atmospheres Regulations 2002, (ACOP) L138, HSE Books, ISBN: 978-0-717622-03-0 <http://www.hse.gov.uk/pubns/priced/l138.pdf>

HSE, 'Managing for health and safety' <http://www.hse.gov.uk/managing/>

HSE, The Health and Safety Toolbox: how to control risks at work <http://www.hse.gov.uk/toolbox/>

Managing for health and safety, HSG65 third edition 2013, HSE Books, ISBN: 978-0-7176-6456-6 <http://www.hse.gov.uk/pubns/priced/hsg65.pdf>

Northern Ireland Fire and Rescue Service Guidance Documents  
<http://www.nifrs.org/firesafe/guidance.php>

Health and safety made simple, INDG449, HSE Books <http://www.hse.gov.uk/pubns/indg449.htm>

Plan, Do, Check, Act – An introduction to managing for health and safety, INDG275 (rev 1), HSE books  
<http://www.hse.gov.uk/pubns/indg275.htm>

Reporting accidents and incidents at work, A brief guide to the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 2013 (RIDDOR), INDG453 (rev 1), October 2013  
<http://www.hse.gov.uk/pubns/indg453.pdf>

### EU/International references

Fire Code, 2012 Edition - NFPA 1

Fire protection documentation - CFPA-E Guideline No 13:2006 [http://www.cfpa-e.eu/wp-content/uploads/files/guidelines/Guideline\\_No\\_13\\_2006.pdf](http://www.cfpa-e.eu/wp-content/uploads/files/guidelines/Guideline_No_13_2006.pdf)

Guidance signs, emergency lighting and general lighting - CFPA-E Guideline No 5:2003  
[http://www.cfpa-e.eu/wp-content/uploads/files/guidelines/Guideline\\_No\\_5\\_2003.pdf](http://www.cfpa-e.eu/wp-content/uploads/files/guidelines/Guideline_No_5_2003.pdf)

International Fire Code, International Code Council (ICC), ISBN: 978-1609-8304-65

Securing the operational readiness of fire control systems - CFPA-E Guideline No 23:2010 F  
[http://www.cfpa-e.eu/wp-content/uploads/files/guidelines/CFPA\\_E\\_Guideline\\_No\\_23\\_2010\\_F.pdf](http://www.cfpa-e.eu/wp-content/uploads/files/guidelines/CFPA_E_Guideline_No_23_2010_F.pdf)

### Appropriate UK national references

The Scottish Government's Sector Specific Guidance

<http://www.scotland.gov.uk/Topics/Justice/public-safety/Fire-Rescue/FireLaw/FireLaw/SectorSpecificGuidance>

UK Department for Communities and Local Government practical fire safety guidance, which can be found at <http://www.gov.uk/workplace-fire-safety-your-responsibilities/fire-safetyadvice-documents>

## Element 2 - Principles of fire and explosion

Dangerous Substances and Explosives Atmospheres Regulations 2002 (ACOP) (L138), HSE Books 978-0-7176-6616-4 <http://www.hse.gov.uk/pubns/priced/l138.pdf>

2011 Technical Handbooks - Non Domestic Section 2 Fire, The Building (Scotland) Regulations 2004 <http://www.scotland.gov.uk/Resource/Doc/217736/0121754.pdf>

Guidelines for vapour cloud explosion, pressure vessel burst, BLEVE and flash fire hazards, Centre for Chemical Process Safety, second edition 2010, ISBN: 978-0-4702-5147-8

Safe Handling of Combustible Dusts – precautions against explosions, HSG103, HSE Books ISBN: 978-0-7176-2726-4 <http://www.hse.gov.uk/pubns/priced/hsg103.pdf>

Safe use and handling of flammable liquids, HSG140, HSE Books, ISBN: 978-0-7176-0967-3 <http://www.hse.gov.uk/pubns/priced/hsg140.pdf>

The Building Regulations 2010 Approved Document B - Fire Safety, Volume 2, Buildings other than dwelling houses [http://www.planningportal.gov.uk/uploads/br/AD\\_B\\_v2\\_wm.pdf](http://www.planningportal.gov.uk/uploads/br/AD_B_v2_wm.pdf)

The storage of flammable liquids in containers, HSG51, HSE Books, ISBN: 978-0-7176-1471-4 <http://www.hse.gov.uk/pubns/priced/hsg51.pdf>

The storage of flammable liquids in tanks, HSG176, first edition 1998, HSE Books, ISBN: 978-0-7176-1470-7 <http://www.hse.gov.uk/pubns/priced/hsg176.pdf>

### EU/International references

Fire protection on chemical manufacturing sites - CFPA Europe Guideline No 18:2008 [http://www.cfpa-e.eu/wp-content/uploads/files/guidelines/CFPA\\_E\\_Guideline\\_No\\_18\\_2013\\_F.pdf](http://www.cfpa-e.eu/wp-content/uploads/files/guidelines/CFPA_E_Guideline_No_18_2013_F.pdf)

Flammable and Combustible Liquids Code, 2012 Edition - NFPA 30

Guidelines for vapour cloud explosion, pressure vessel burst, BLEVE and flash fire hazards, Centre for Chemical Process Safety, Centre for Chemical Process Safety, second edition 2010, ISBN: 978-0-4702-5147-8

International Fire Code, ICC, ISBN: 978-1609-8304-65

Safety in the Use of Chemicals at Work, International Labour Office (ILO) Code of Practice (CoP), ILO, 1993. ISBN: 92-2-108006-4

Section 6: Operational control measures and Section 7: Design and installation [http://www.ilo.org/wcmsp5/groups/public/---ed\\_protect/---protrav/---safework/documents/normativeinstrument/wcms\\_107823.pdf](http://www.ilo.org/wcmsp5/groups/public/---ed_protect/---protrav/---safework/documents/normativeinstrument/wcms_107823.pdf)

Utility LP Gas Plant Code - NFPA 59

### Appropriate UK national references

Generic risk assessment 5.8: Flashover, backdraught and fire gas ignitions, Communities and local government, ISBN: 978-0-1175-4011-8

Safe Handling of Combustible Dusts – precautions against explosions, HSG103, second edition 2003, HSE Books, ISBN: 978-0-7176-2726-4 <http://www.hse.gov.uk/pubns/priced/hsg103.pdf>

Safe use and handling of flammable liquids, HSG140, HSE Books, ISBN: 978-0-7176-0967-3  
<http://www.hse.gov.uk/pubns/priced/hsg140.pdf>

Storage of Full and Empty LPG Cylinders and Cartridges (March 2004) - UKLPG - Code of Practice 7

The Building Regulations 2010 Approved Document B - Fire Safety, Volume 2, Buildings other than dwelling houses [https://www.planningportal.co.uk/info/200135/approved\\_documents/63/part\\_b\\_-\\_fire\\_safety/2](https://www.planningportal.co.uk/info/200135/approved_documents/63/part_b_-_fire_safety/2)

## Element 3 - Causes and prevention of fires and explosions

Atex Directive 99/92/EC <http://www.hse.gov.uk/fireandexplosion/atex.htm>

A guide to the Control of Major Accident Hazards Regulations 1999 (as amended), guidance on regulations, L111, second edition 2006, HSE Books, ISBN: 978-0-7176-3175-X –  
<http://www.hse.gov.uk/pubns/books/l111.htm>

Dangerous substances and explosive atmospheres, Dangerous Substances and Explosive Atmospheres Regulations 2002, ACoP and guidance, L138, first edition 2003, HSE Books, ISBN: 978-0-7176-2203-0 <http://www.hse.gov.uk/pubns/books/l138.htm>

Fire safety in construction work, HSG168, HSE Books, ISBN: 978-0-7176-6345-3  
<http://www.hse.gov.uk/pubns/books/hsg168.htm>

Memorandum of guidance on the Electricity at Work Regulations 1989, HSR25, second edition 2007, HSE Books, ISBN: 978-0-7176-6228-9 <http://www.hse.gov.uk/pubns/books/hsr25.htm>

Safe use and handling of flammable liquids, HSG140, HSE Books, ISBN: 978-0-7176-0967-3  
<http://www.hse.gov.uk/pubns/books/hsg140.htm>

The storage of flammable liquids in containers, HSG51, second edition 1998, HSE Books, ISBN: 978-0-7176-1471-4 <http://www.hse.gov.uk/pubns/books/hsg51.htm>

The storage of flammable liquids in tanks, HSG176, first edition 1998, HSE Books, ISBN: 978-0-7176-1470-7 <http://www.hse.gov.uk/pubns/books/hsg176.htm>

### EU/International references

Fire protection on chemical manufacturing sites, CFPA-E Guideline No 18:2008 [http://www.cfpa-e.eu/wp-content/uploads/files/guidelines/CFPA E Guideline No 18 2013 F.pdf](http://www.cfpa-e.eu/wp-content/uploads/files/guidelines/CFPA_E_Guideline_No_18_2013_F.pdf)

National Electrical Code, NFPA 70:2014

Safety in the Use of Chemicals at Work, International Labour Office (ILO) Code of Practice (CoP), ILO, 1993. ISBN: 92-2-108006-4

Section 6: Operational control measures and

Section 7: Design and installation

[http://www.ilo.org/wcmsp5/groups/public/---ed\\_protect/---protrav/---safework/documents/normativeinstrument/wcms\\_107823.pdf](http://www.ilo.org/wcmsp5/groups/public/---ed_protect/---protrav/---safework/documents/normativeinstrument/wcms_107823.pdf)

Seveso III Directive 2012/18/EU <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2012:197:0001:0037:EN:PDF>

Utility LP Gas Plant Code, NFPA 59:2012

## Appropriate UK national references

Risk Control, Arson Prevention, The protection of premises from deliberate fire raising

[http://www.stoparsonuk.org/documents/resources/RC48ArsonPreventiontheProtectionofPremises\[1\].pdf](http://www.stoparsonuk.org/documents/resources/RC48ArsonPreventiontheProtectionofPremises[1].pdf)

Fire safety in construction, HSG168, HSE Guidance, ISBN: 978-0-7176-6345-3

<http://www.hse.gov.uk/pubns/priced/hsg168.pdf>

Requirements for Electrical Installations, IET Wiring Regulations (17th Edition incorporating amendment No. 1), BS 7671:2008 Incorporating Amendment No 1: 2011

Safe use and handling of flammable liquids, HSG140, HSE Books, ISBN: 978-0-7176-0967-3

<http://www.hse.gov.uk/pubns/priced/hsg140.pdf>

Storage of Full and Empty LPG Cylinders and Cartridges (March 2004) - UK LPG, Code of Practice 7

The storage of flammable liquids in containers, HSG51, second edition 1998, HSE Books, ISBN: 978-0-7176-1471-4 <http://www.hse.gov.uk/pubns/priced/hsg51.pdf>

The storage of flammable liquids in tanks, HSG176, first edition 1998, HSE Books, ISBN: 978-0-7176-1470-7 <http://www.hse.gov.uk/pubns/priced/hsg176.pdf>

## Element 4 - Fire protection in buildings

2011 Technical Handbooks - Non Domestic Section 2 Fire, The Building (Scotland) Regulations 2004  
<http://www.scotland.gov.uk/Resource/Doc/217736/0121754.pdf>

Safety signs and signals, The Health and Safety (Safety Signs and Signals) Guidance on Regulations, L64, HSE Books, ISBN: 978-0-7176-6359-0 <http://www.hse.gov.uk/pubns/priced/l64.pdf>

The Building Regulations 2010 Approved Document B - Fire Safety, Volume 2, Buildings other than dwelling houses [http://www.planningportal.gov.uk/uploads/br/AD\\_B\\_v2\\_wm.pdf](http://www.planningportal.gov.uk/uploads/br/AD_B_v2_wm.pdf)

The Building Regulations 2010, Approved Document M 2004 - Access to and use of buildings  
[http://www.planningportal.gov.uk/uploads/br/BR\\_PDF\\_ADM\\_2004.pdf](http://www.planningportal.gov.uk/uploads/br/BR_PDF_ADM_2004.pdf)

Fire detection and fire alarm systems for buildings - BS 5839, Parts 1 and 6

Guide to Building Fire Protection - Fire Protection Association (FPA)

### EU/International references

Directive 89/391/EEC - OSH Framework Directive <https://osha.europa.eu/en/legislation/directives/the-osh-framework-directive/1>

Directive 89/654/EEC - Workplace requirements  
<https://osha.europa.eu/en/legislation/directives/workplaces-equipment-signs-personalprotective-equipment/osh-directives/2>

Emergency Plan (section 3.3) - CFPA-Europe Guideline No 25:2010 F [http://www.cfpa-e.eu/wp-content/uploads/files/guidelines/CFPA\\_E\\_Guideline\\_No\\_25\\_2010\\_F.pdf](http://www.cfpa-e.eu/wp-content/uploads/files/guidelines/CFPA_E_Guideline_No_25_2010_F.pdf)

Fire detection and alarm systems - ISO 7240 series

Fire protection, portable and wheeled fire extinguishers

Part 1: Selection and installation - ISO/TS 11602-1:2010

Part 2: Inspection and maintenance - ISO/TS 11602-2:2010

Fire protection documentation - CFPA-Europe Guideline No 13:2006 [http://www.cfpa-e.eu/wp-content/uploads/files/guidelines/Guideline\\_No\\_13\\_2006.pdf](http://www.cfpa-e.eu/wp-content/uploads/files/guidelines/Guideline_No_13_2006.pdf)

Graphical symbols - safety colours and safety signs. Safety signs used in workplaces and public areas - ISO 7010:2011 (last amendment 5:2014)

International Building Code, ICC 2012, ISBN: 978-1-6098-3044-1

International Existing Building Code, ICC 2012, ISBN: 978-1-6098-3044-1

International Fire Code, ICC, ISBN: 978-1-6098-3046-5

National Fire Alarm and Signalling Code (NFPA 72), 2013 Edition

### Appropriate UK national references

2011 Technical Handbooks - Non Domestic Section 2 Fire, The Building (Scotland) Regulations 2004  
<http://www.scotland.gov.uk/Resource/Doc/217736/0121754.pdf>

BS5839-1:2013 - Fire detection and fire alarm systems for buildings, code of practice for design, installation, commissioning and maintenance of systems in don-domestic premises

BS9999:2008 - Code of practice for fire safety in the design, management and use of buildings

The Building Regulations 2010 Approved Document B - Fire Safety, Volume 2, Buildings other than dwelling houses [https://www.planningportal.co.uk/info/200135/approved\\_documents/63/part\\_b\\_-\\_fire\\_safety/2](https://www.planningportal.co.uk/info/200135/approved_documents/63/part_b_-_fire_safety/2)

The Building Regulations 2010, Approved Document M 2004 - Access to and use of buildings  
[https://www.planningportal.co.uk/info/200135/approved\\_documents/63/part\\_b\\_-\\_fire\\_safety/2](https://www.planningportal.co.uk/info/200135/approved_documents/63/part_b_-_fire_safety/2)

Securing the operational readiness of fire control systems - CFPA-Europe Guideline No 23:2010 F  
[http://www.cfpa-e.eu/wp-content/uploads/files/guidelines/CFPA\\_E\\_Guideline\\_No\\_23\\_2010\\_F.pdf](http://www.cfpa-e.eu/wp-content/uploads/files/guidelines/CFPA_E_Guideline_No_23_2010_F.pdf)

Standard for Portable Fire Extinguishers (NFPA 10), 2013 Edition

## Element 5 - Safety of people in the event of fire

Health and safety made simple, INDG449, HSE Books <http://www.hse.gov.uk/pubns/indg449.htm>

HSE, 'Managing for health and safety' <http://www.hse.gov.uk/managing/>

HSE, The Health and Safety Toolbox: how to control risks at work <http://www.hse.gov.uk/toolbox/>

Managing for health and safety, HSG65 third edition 2013, HSE Books, ISBN: 978-0-7176-6456-6  
<http://www.hse.gov.uk/pubns/priced/hsg65.pdf>

### EU/International references

Guidelines for assessing the fire threat to people - BS ISO 19706:2011

Emergency plan, CFPA-Europe Guideline No 25:2010 F [http://www.cfpa-e.eu/wp-content/uploads/files/guidelines/CFPA\\_E\\_Guideline\\_No\\_25\\_2010\\_F.pdf](http://www.cfpa-e.eu/wp-content/uploads/files/guidelines/CFPA_E_Guideline_No_25_2010_F.pdf)

Fire protection documentation, CFPA-Europe Guideline No 13:2006 [http://www.cfpa-e.eu/wp-content/uploads/files/guidelines/Guideline\\_No\\_13\\_2006.pdf](http://www.cfpa-e.eu/wp-content/uploads/files/guidelines/Guideline_No_13_2006.pdf)

Fire protection in offices, CFPA-Europe Guideline No 16:2008 [http://www.cfpa-e.eu/wp-content/uploads/files/guidelines/CFPA\\_E\\_Guideline\\_No\\_16\\_2008.pdf](http://www.cfpa-e.eu/wp-content/uploads/files/guidelines/CFPA_E_Guideline_No_16_2008.pdf)

International Fire Code, ICC, ISBN: 978-1-6098-3046-5

## Element 6 - Fire safety risk assessment

Dangerous Substances and Explosive Atmospheres Regulations 2002, (ACOP) L138, HSE Books, ISBN: 978-0-717622-03-0 <http://www.hse.gov.uk/pubns/priced/l138.pdf>

Fire Risk Assessment, guidance and a recommended methodology, PAS79:2007, ISBN: 978-0-580506-83-3

Guidelines for assessing the fire threat to people, BS ISO 19706:2007

Managing for health and safety, HSG65 third edition 2013, HSE Books, ISBN: 978-0-7176-6456-6  
<http://www.hse.gov.uk/pubns/priced/hsg65.pdf>

HSE, 'Managing for health and safety' <http://www.hse.gov.uk/managing/>

HSE, The Health and Safety Toolbox: how to control risks at work <http://www.hse.gov.uk/toolbox/>

Health and safety made simple, INDG449, HSE Books <http://www.hse.gov.uk/pubns/indg449.htm>

Plan, Do, Check, Act – An introduction to managing for health and safety, INDG275 (rev 1), HSE books  
<http://www.hse.gov.uk/pubns/indg275.htm>

### EU/International references

Guidelines for assessing the fire threat to people - BS ISO 19706:2011

Emergency plan, CFPA-Europe Guideline No 25:2010 F [http://www.cfpa-e.eu/wp-content/uploads/files/guidelines/CFPA\\_E\\_Guideline\\_No\\_25\\_2010\\_F.pdf](http://www.cfpa-e.eu/wp-content/uploads/files/guidelines/CFPA_E_Guideline_No_25_2010_F.pdf)

Fire protection documentation, CFPA-Europe Guideline No 13:2006 [http://www.cfpa-e.eu/wp-content/uploads/files/guidelines/Guideline\\_No\\_13\\_2006.pdf](http://www.cfpa-e.eu/wp-content/uploads/files/guidelines/Guideline_No_13_2006.pdf)

Fire protection in offices, CFPA-Europe Guideline No 16:2008 [http://www.cfpa-e.eu/wp-content/uploads/files/guidelines/CFPA\\_E\\_Guideline\\_No\\_16\\_2008.pdf](http://www.cfpa-e.eu/wp-content/uploads/files/guidelines/CFPA_E_Guideline_No_16_2008.pdf)

International Fire Code, ICC, ISBN: 978-1-6098-3046-5