# Leicestershire County Council

Fire Risk and Sprinkler Priority Assessment Tool

March 2018

## Part 1: Incidence of fire in these type or premises

| | LOW RISK | 0 | 1 | 2 | 3 | 4 | 5 | HIGH RISK |
|---|---|---|---|---|---|---|---|---|
| 1.1 Fires in other similar premises in the locality (in the last 5 years) | Few cases of fire in other similar premises in the locality | | x | | | | | Frequent cases of fire in locality |

**1.1 - Notes to help assess:**

0 – none in last 5 years
1 – 1 in last 5 years
2 – One or two small fires in last 3 years
3 – One or two small fires in last year
4 – Major fire in last 5 years
5 – Major fire in last 3 years

"Locality" will typically be a radius of 2 to 5 miles around your premises, depending upon local circumstances.
Information should be obtainable from your local Community Fire safety Office.

**TOTAL SCORE PART 1: 1**

## Part 2: Premises' environment and buildings

| | LOW RISK | 0 | 1 | 2 | 3 | 4 | 5 | HIGH RISK |
|---|---|---|---|---|---|---|---|---|
| 2.1 Security measures - buildings | Good security measures provided for the buildings | | x | | | | | Few security measures |

**2.1 - Notes to help assess:**

0 - All
1 - Most
2 - Many
4 - A few
5 - None

Security measures should be assessed with regard to their appropriateness for the security risks you perceive for your building.

Measures include:

- Good window locks,
- Intruder detection (with adequate maintenance contract)
- CCTV (with adequate maintenance contract)
- Security staff
- Doors secure against all but the most determined intruders
- Windows and roof-lights protected against intruders, etc.

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 2.2 Security measures – grounds | Good security measures provided for the grounds | | x | | | | | No security measures |

**2.2 - Notes to help assess:**

0 - All
1 - Many
3 - Some
5 - None

Measures include:

- Good perimeter fencing
- Perimeter intruder detection (with adequate maintenance contract)
- CCTV (with adequate maintenance contract),
- Security guards (SIA approved)
- Car parks well-lit and overlooked, etc.

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 2.3 Opportunities for arson | Few opportunities for arson | | x | | | | | Many opportunities for arson |

**2.3 - Notes to help assess:**

0 - None
1 - Very few
5 - Many

**Limited opportunities include:**

- No hidden corners
- Secured (locked gates to prevent access to the recessed part) recess accesses (or none)
- Locked and immobilized rubbish bins
- No attached sheds, etc.

## Part 2: Premises' environment and buildings

| | LOW RISK | 0 | 1 | 2 | 3 | 4 | 5 | HIGH RISK |
|---|---|---|---|---|---|---|---|---|
| 2.4 Buildings state | Buildings well maintained with no damaged safety systems (e.g. fire doors) | | | | x | | | Buildings in disrepair and vandalised |

**2.4 - Notes to help assess:**

0 – Buildings well maintained with no damaged safety systems (e.g. fire doors)
1 – Buildings in good condition
2 – Buildings in generally good condition
3 – Buildings in generally adequate condition
4 – Buildings in generally poor condition
5 – Buildings in disrepair and vandalised

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 2.5 Building height | Height of building reduces risk | | x | | | | | No security measures |

**2.5 - Notes to help assess:**

0 – Single-storey
1 – Partly two-storey
2 – Mostly two-storey
3 – 2-storey
4 – 3-6 storeys
5 – Above 6 storeys

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 2.6 Building construction | Traditional | | x | | | | | Lightweight |

**2.6 - Notes to help assess:**

0 – Concrete
1 – Steel frame with concrete
2 – Traditional, brick with timber frame
3 – Timber frame (including glue laminated beams)
4 – MMC (incl. sandwich panels, external cladding)
5 – Modular, lightweight (consortium)

## Part 2: Premises' environment and buildings

| | LOW RISK | 0 | 1 | 2 | 3 | 4 | 5 | HIGH RISK |
|---|---|---|---|---|---|---|---|---|
| 2.7 Building design and routes for fire spread | Few | | x | | | | | Many |

**2.7 - Notes to help assess:**

0 – No known routes for fire spread
1 – Very few routes for fire spread
2 – Few
3 – Limited e.g. a false ceiling; voids; cavities
4 – Some (e.g. combustible construction)
5 – Many

**Routes include:**

- Connections between small rooms/ cellular accommodation
- Hidden areas
- Voids and cavities
- Combustible construction (i.e. rating for question 2.6 is equal or greater than 3)
- Insufficient separation from adjoining buildings (i.e. less than 10 m)
- Insufficient separation from adjoining temporary buildings, marquees, etc. (i.e. less than 10 m)

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 2.8 Building size (total floor area) | Small building | | | x | | | | Very large building |

**2.8 - Notes to help assess:**

0 – Small building - Building less than 500m2
1 – Building between 500m2 and 3000m2
2 – Medium sized building - Building between 3000m2 and 6000m2
3 – Building between 6000m2 and 9,000m2
4 – Large building - Building between 9,000m2 and 12,000m2
5 – Very large building - Building greater than 12,000m2

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 2.9 Building distribution (separation) | Distributed buildings | | x | | | | | Single building |

**2.9 - Notes to help assess:**

0 – Small distributed buildings
1 – Small distributed buildings with a few larger buildings
2 – Large distributed buildings
3 – Large distributed buildings with a few smaller buildings
4 – Single building
5 – Single large building

## Part 2: Premises' environment and buildings

| | LOW RISK | 0 | 1 | 2 | 3 | 4 | 5 | HIGH RISK |
|---|---|---|---|---|---|---|---|---|
| 2.10 Risk of fire from activities within the premises | Low | | | | x | | | High |

**2.10 - Notes to help assess:**

0 – Very low
1 – Small premises, just kitchens. Low risk, low fire load
2 – Large primary school activity, limited vocational courses
3 – Workshops, vocational activity, such as catering
4 – Known fire risks
5 – High fire risks, high fire load

Consider the use and storage of hazardous materials.

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 2.11 Out-of hours use of the premises facilities (by the public) | None or low out-of-hours use | | | x | | | | Frequent out-of-hours use |

**2.11 - Notes to help assess:**

0 – None out-of-hours use
1 – Little use (once per month maximum)
2 – Some out-of-hours use
3 – Occasional out-of-hours use (once per week)
4 - Frequent out-of-hours use (more than once a week, but less than every day)
5 – Very frequent out-of-hours use (every day)

## Part 2: Premises' environment and buildings

| | LOW RISK | 0 | 1 | 2 | 3 | 4 | 5 | HIGH RISK |
|---|---|---|---|---|---|---|---|---|
| 2.12 Building users. | Low | | | | | x | | High |

**2.12 - Notes to help assess:**

0 – No “high risk” users (e.g. building with staff access only)
1 – Adults and young adults
3 – Children requiring assistance to escape
4 – Many (infrequent) users who are not familiar with the building
5 – Many users with disabilities (i.e. requiring assistance to escape)

**Low risk users normally include:**
• Permanent staff

**Medium risk users would normally include:**

• Temporary staff
• Young persons
• Visitors
• Contractors

**High risk users would normally include**:
• Children
• Those with special needs
• Disabled persons
• Those in wheel chairs
• The visually impaired
• The hearing impaired
• Those with learning difficulties
• The elderly
• Those with language difficulties
• Those with a known medical condition
• Out-of-hours users (i.e. unknown users)

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 2.13 Building users sleeping risk | Low | x | | | | | | High |

## Part 2: Premises' environment and buildings

| | LOW RISK | 0 | 1 | 2 | 3 | 4 | 5 | HIGH RISK |
|---|---|---|---|---|---|---|---|---|

**2.13 - Notes to help assess:**

0 – The building has no sleeping/ residential function
5 – The building has a sleeping/ residential function (of any kind) and even on a temporary basis

**Includes:**

All permanent sleeping/ residential provision such as residential care homes. However adhoc sleeping provision is also included such as respite care or summer school camps.

**TOTAL SCORE PART 2: 21**

| Part 3: Premises' existing fire safety and fire protection measures | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | LOW RISK | 0 | 1 | 2 | 3 | 4 | 5 | HIGH RISK |
| 3.1. Passive fire protection measures | Buildings have adequate fire compartmentalisation and fire/smoke barriers and doors | | x | | | | | Overly large fire compartments and lack of fire/smoke barriers and doors |
| **3.1 - Notes to help assess:**<br><br>0 – Building has extensive fire compartmentation and other passive fire protection measures (i.e. little or no opportunity for fire or smoke to spread)<br>3 – Building has some fire compartmentation and other passive fire protection measures<br>5 – Overly large fire compartments and lack of fire/smoke barriers and doors (i.e. excessive opportunity for fire or smoke to spread) | | | | | | | | |
| 3.2. Design relaxations of passive measures | None | | x | | | | | Atrium or open-plan areas |
| **3.2 - Notes to help assess:**<br><br>0 – No relaxations of passive measures<br>3 – Some relaxations of passive measures<br>5 – Atrium or open-plan areas<br><br>Features for which passive measures might be relaxed include:<br>• Large area spaces<br>• High spaces<br>• Extended travel distances | | | | | | | | |
| 3.3. Fire detection and warning system | Automated and linked to central control room | | x | | | | | Human detection and hand bell |
| **3.3 - Notes to help assess:**<br><br>0 – 100% coverage (including concealed spaces and voids), automated and linked to 24/7/365 manned NSI Gold central control room<br>1 - 90% coverage, automated and linked to 24/7/365 manned central control room<br>2 - 80% coverage, automated and linked to 24/7/365 manned central control room<br>3 - less coverage, automated and linked to 24/7/365 manned central control room<br>4 – Minimal system (break-glass call points only) or automated without connection to 24/7/365 manned central control room<br>5 – Human detection and hand bell only<br><br>100% coverage is equivalent to BS 5839 L1 or P1 system, anything else does not qualified for the '0' score | | | | | | | | |

| Part 3: Premises' existing fire safety and fire protection measures | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | LOW RISK | 0 | 1 | 2 | 3 | 4 | 5 | HIGH RISK |
| 3.4. Means of escape (and emergency lighting and signage) | Many exits, short escape routes | | x | | | | | Few exits, long escape routes |
| **3.4 - Notes to help assess:**<br><br>0 – Good and safe means of escape with many exits and short escape routes<br>2 – Adequate means of escape with alternative exits and fairly short escape routes<br>5 – Poor means of escape, poorly protected and with few exits, long escape routes<br><br>A building scoring 4 or 5 at question 2.4 cannot rate less than 3 here. | | | | **Escape routes should have:**<br><br>• Properly rated fire resisting construction (e.g. question 2.6 score of 0; 1 or 2 only)<br>• Penetrations sealed<br>• Fire and smoke resisting doors<br>• Fire and smoke seals intact<br>• Self-closing and/or hold-open devices<br>• Automatic closing devices operate properly<br>• Fire resisting elements properly sealed<br>• Fire resisting windows properly sealed<br>• Appropriate lighting, and emergency lighting<br>• Appropriate signage | | | | |
| 3.5. Occupancy density | Few people, in small groups | | x | | | | | Large numbers in a single compartment |
| **3.5 - Notes to help assess:**<br><br>0 – Few people, in small groups and no large assembly spaces<br>2 – Mostly few people, in small groups, occasional larger groupings<br>3 - Education building such as schools<br>4 – Frequent occupancy of large assembly spaces (e.g. museum)<br>5 – Regular high-density occupancy of large assembly spaces (e.g. theatres, discos); large numbers in a single compartment | | | | | | | | |
| 3.6. Training and drills | Good training of staff, frequent drills | | | | x | | | No training, no drills |

## Part 3: Premises' existing fire safety and fire protection measures

| | LOW RISK | 0 | 1 | 2 | 3 | 4 | 5 | HIGH RISK |
|---|---|---|---|---|---|---|---|---|
| **3.6 - Notes to help assess:**<br><br>0 – Good training of staff, frequent drills (Quarterly or better)<br>2 – Occasional training, occasional drills (Occasional drills: up to every 6 months)<br>3 – Some training, occasional drills (Occasional drills: up to every 6 months)<br>5 – Poor training, infrequent drills (Less than once a year)<br><br>Records of all fire drills should be kept. | | | | | | | | |
| 3.7. Management (of fire safety) | Good | | x | | | | | Poor |

**3.7 - Notes to help assess:**

0 – Good management of staff and premises. All of list below followed.
2 – Adequate management of staff and premises. Most of list below followed.
4 – Poor management of staff and premises. Some of list below followed.
5 - Very poor management of staff and premises. Few of list below followed.

Good management includes:
• A fire safety manager will be appointed who is a suitable person and has adequate information, instruction, and training
• A safety team will be appointed
• Brought-in (combustible) material monitored (and controlled)

• Visitors will be escorted
• Numbers of visitors will be manageable
• Oxygen and oxidising materials controlled
• Dangerous substances/flammable materials will be controlled
• Good housekeeping will be carried out:
• Refuse bins regularly emptied
• Combustible material kept minimal and controlled
• Users of the building will be monitored and controlled
• Animals in the building will be monitored and controlled
• Occupants of building will be monitored and controlled
• Lone working procedures will be provided
• Isolated working procedures will be provided
• High-risk area working procedures will be provided
• Contractors supply method statements and RA's before working on site and receive adequate fire instruction
• Permit to work and/or hot work permit system in place and used (as appropriate)
• Monthly recorded fire prevention self-inspection are in place and there are no outstanding actions
• A written emergency response plan is in place (up-to-date with at least a yearly training completed and with records) to face emergency situations and details responsibilities of each emergency response team members.
• Practical and theoretical firefighting training has been provided and refreshed on a yearly basis
• No-smoking policy in place and no deviance noted
• Yearly familiarisation visit / exercise with the fire & rescue service
• Formal, updated plan to relocate or restart the activity as quickly as possible after a loss in place and tested on a yearly basis

| Part 3: Premises' existing fire safety and fire protection measures | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | LOW RISK | 0 | 1 | 2 | 3 | 4 | 5 | HIGH RISK |
| 3.8. Fire Service notification | Automatic | | x | | | | | None |

**3.8 - Notes to help assess:**

0 – Automatic direct notification of a fire to the local fire and rescue service
1 – Alarm verification and/or notification to 3rd party service (i.e. 24/7/365 manned NSI Gold approved alarm receiving centre)
2 - Alarm verification and/or notification to 3rd party (e.g. non approved central control room)
3 – Alarm verification and/or notification to personnel (e.g. caretakers, senior management, etc.)
4 - Manual notification of a fire to the local fire and rescue service
5 – Very limited means of notification of a fire to the local fire and rescue service (e.g. phone in a locked office)

| Part 3: Premises' existing fire safety and fire protection measures | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | LOW RISK | 0 | 1 | 2 | 3 | 4 | 5 | HIGH RISK |
| 3.9. Fire Service location | Very close | x | | | | | | Very distant |

**3.9 - Notes to help assess:**

0 – Very close (within 1 mile)
1 – Close
2 – Quite close (within 5 miles)
4 – Distant
5 – Very distant (over 10 miles)

| TOTAL SCORE PART 3: | 10 |
|---|---|

| Part 4: Consequences / impact of fire at these premises (Weight = 4) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | LOW RISK | 0 | 1 | 2 | 3 | 4 | 5 | HIGH RISK |
| 4.1. Impact of fire on users (injury) | Low | | x | | | | | High (risk of death) |
| **4.1 - Notes to help assess:**<br><br>0 – Few building users at risk (Essentially no injury risk)<br>1 – Some building users at risk (Some injury risk)<br>2 – Large numbers but low density of building users at risk (Risk of injuries)<br>3 – High density of building users at risk (Risk of multiple injuries) - question 2.12 score of 4 or 5 means you cannot rate less than 2 in this section.<br>4 – Large numbers and high density of building users at risk (Risk of fatality)<br>5 – Very large numbers and high density of building users at risk (Risk of multiple fatalities) | | | | | | | | |
| 4.2. Impact of fire on operation | Low | | x | | | | | High |
| **4.2 - Notes to help assess:**<br><br>0 – Essentially no impact on operation<br>1 – Some impact on operation<br>3 – Significant impact due to loss of availability of key rooms or spaces etc.<br>5 – High risk of impact on operations (e.g. for schools - significant loss of course work and/or disruption to examination opportunities – long term effects on career opportunities). Consider the availability of temporary alternative accommodation. | | | | | | | | |
| 4.3. Impact on community | Low | x | | | | | | High |
| **4.3 - Notes to help assess:**<br><br>0 – Essentially no impact on the community<br>1 – Some impact on the community<br>3 – Loss of some amenities (e.g. sports hall). Alternative amenities nearby<br>4 - Loss of some amenities (i.e. schools), but no nearby possibility for relocation (score can improve to 3 if there is a formal contingency plan in place)<br>5 – High risk of impact on the community (i.e. significant loss of amenity and/or need for extensive movements (public or private transport))<br><br>Consider the availability of temporary alternative accommodation and nearby alternative facilities and amenities. | | | | | | | | |
| 4.4. Potential cost | Low | | | x | | | | High |

## Part 4: Consequences / impact of fire at these premises (Weight = 4)

| | LOW RISK | 0 | 1 | 2 | 3 | 4 | 5 | HIGH RISK |
|---|---|---|---|---|---|---|---|---|
| **4.4 - Notes to help assess:**<br><br>0 – Essentially no significant cost likely as a result of a fire<br>1 – Some cost likely as a result of a fire (for example, <£10,000)<br>2 – Limited cost (for example, £10,000 - £100,000)<br>3 – Loss of part of building(or individual building). Need for temporary accommodation (for example, £100,000 - £500,000)<br>4 – Significant cost (for example, £500,000 - £1m)<br>5 – High cost likely as a result of a fire. Need to rebuild whole premises; provide transportation for staff/users and/or temporary accommodation (for example, >£1m) | | | | | | | | |
| 4.5. Environmental impact | Low | | x | | | | | High |
| **4.5 - Notes to help assess:**<br><br>0 – Essentially no risk of damage to the environment due to a fire (natural material, no asbestos, no risk to local ground water etc.)<br>1 – Some risk of damage to the environment<br>3 – Impact on neighbouring properties<br>4 – Risk of damage to the environment<br>5 – High risk of damage to the environment in the event of a fire (polymeric materials, paints, asbestos, risk to local ground water etc.) and significant impact on neighbouring properties | | | | | | | | |

**TOTAL SCORE PART 4: 5**

**Total score for part 4 multiplied by 4 to weight it: 20**

# Calculation of risk

The risk scores taken from each part are included in the table below

| Calculation of risk | | | |
|---|---|---|---|
| **Fire safety risk calculator scoring** | | **Score** | **Total scores** |
| Part 1 | Incidence of arson (fire) | 1 | 1 |
| Part 2 | Environment and buildings | 21 | 21 |
| | **Total score for parts 1 & 2:** | **22** | **22** |
| Part 3 | Fire safety or fire protection measures | 10 | 10 |
| Part 4 | Consequences of a fire (weighted score) | 5 | 20 |
| | **Total score for parts 3 & 4:** | **15** | **30** |
| | **Total score for parts 1, 2, 3 & 4:** | **37** | **52** |

# Risk calculation score

52

| Overall score from parts 1, 2, 3 & 4 | | |
|---|---|---|
| **Total score 0 - 50** | **Total score 51 - 100** | **Total score 101 +** |
| **LOW RISK** | **MEDIUM RISK** | **HIGH RISK** |
| **Summary:**<br><br>The fire safety risk calculator indicates that these premises are a low level of risk. Whilst sprinklers may be beneficial, they are not considered to be a priority | **Summary:**<br><br>The fire safety risk calculator indicates that these premises are at an average level of risk. The installation of sprinklers at these premises should be considered after other High risk buildings have been addressed, or if an opportunity arises (i.e. major refurbishment) | **Summary:**<br><br>The fire safety risk calculator indicates that these premises should be considered a priority for the installation of sprinkers |