



South Yorkshire FIRE & RESCUE

South Yorkshire Fire and Rescue Explosives Licensing Authority

Outline of the Licensing Requirements for the Explosives Regulations 2014 (ER14) and the Conditions for issuing a Licence

1. Explosives Regulations 2014 (ER14)

No person should normally store more than 5 Kilograms of Net Explosive Mass (NEM) of fireworks, until they have been granted a licence and comply with the conditions of that Licence as issued by South Yorkshire Fire and Rescue (SYFR) as the Explosive Licensing Authority (ELA). There are further licence exemptions within Regulation 7 of the ER14.

No person may acquire more than 50kg of fireworks unless they hold a valid licence to store them, Regulation 9. No person must sell or transfer more than 50kg of fireworks to any person unless they have been shown a valid licence to store them by that person.

Licences may be refused if the site is unsuitable or the applicant is not a fit person to store explosives.

The issue of a licence will be a minimum period of 10 days and may take up to 28 days.

Where any premises is to be issued a new licence the premises will first have to have a full audit under the Regulatory Reform (Fire Safety) Order 2005 to ensure it is broadly compliant with the fire safety legislation before being inspected for the storage of fireworks under the ER14.

The permitted sales periods as a licensee/duty holder with a fireworks storage licence issued by SYFR are as follows:

- During the period beginning on the **15th October** and ending on the **10th November annually**.
- During the period beginning on the **26th December** and ending on the **31st December annually**.
- On the first day of the Chinese New Year and the three days immediately preceding.
- On the day of Diwali and the three days immediately preceding.

Licence Applications can be obtained from the following link:

[Application and Renewal Form](#)

All licensees/duty holders must have completed a full site risk assessment based on the Dangerous Substances and Explosive Article Regulations (DSEAR). See Appendix 1 for a storage guide.

2. All year Licence to Supply

If you intend supplying/selling fireworks, outside of the periods outlined above, you must apply for an “All-year” license to supply/sell fireworks granted by South Yorkshire Fire and Rescue Authority under the Fireworks Regulations 2004, at a cost of £500 per annum. To obtain an application form please email tfs.cs@syfire.gov.uk or call 0114 253 2923.

3. ER 2014 Conditions of Licence:

This guidance and the conditions of issued licences are based on the requirements of licensees/duty holders who store Hazard Type 3 and 4 fireworks in retail premises and similar environments. The Hazard Types are explained at paragraph 7.

The ER14 is supported by subsector guidance in the form of the following documents, available from this website <http://www.hse.gov.uk/explosives/index.htm>

- ER14 Guidance on Regulations – Safety Provisions L150
- ER14 Guidance on Regulations – Security Provisions L151
- ER14 Guidance on Regulations – Fireworks in Retail Premises

You, as the licensee/duty holder must take appropriate measures to:

- Prevent fire or explosion and protect persons from the effects of fire or explosion
- Limit the extent of fire or explosion including measures to prevent the spreading of fires and the communication of explosions from one location to another
- Prevent unauthorised persons having access to explosives or the place where they are stored

The appropriate measures to meet these requirements will depend on the size and nature of your premises and the type of fireworks you are storing, but in all cases the licensee is responsible for carrying out a risk assessment. Further information on the safety requirements for storage is contained in paragraphs 4 to 9.

The conditions of issuing a licence by SYFRA are based on the requirements of ER14, Regulation 13 (7):

“Where a licensing authority grants a license which relates to the storage of pyrotechnic articles at any site where those articles are to be offered for sale the licensing authority may attach conditions to the licence as it considers appropriate which relate to the storage and display of fireworks in areas where they can be purchased, the prevention of risk of fire arising in respect of those articles and the safe use of fire escapes in that area”

4. Conditions of Application for a Licence

Areas to be completed and considered by the Licensee/Duty holder when applying for a licence

- **A plan to scale** (For a new site or where the storage has been moved in the premises) sufficient to show the location of the site in relation to the surroundings and where the site has no postal address the scale should be a minimum of 1:25000.

- If the store is subject to **separation distances** you will also need to provide an Ordnance Survey Siteplan (or similar) map showing the location of the store and distances to any neighbouring buildings. The plan should also show any areas where you intend to process or manufacture explosives where a licence for those activities is not required under Regulation 6 of ER14. The scale will depend on the separation distance. For a distance of up to 200 metres, a 1:1250 would normally be required while greater distance would require a 1:2500 or even a SuperPlan. Where this plan clearly identifies the location of the site in relation to its surroundings it can be substituted for the plan referred to above.
- If you intend to store or display more than 12.5kg of live fireworks on a shop floor, the licensing authority will require you submit a **floor plan of the sales area**. See **Appendix 2**.
- If you intend to store, process or manufacture explosives within a building that is also used for other purposes you should include a floor plan showing the places within the building where you intend storing, processing or manufacturing the explosives.
- Applicants must complete the **Storage/Sales Area Plan** at **Appendix 1** and return it with the licence application. A completed example is at **Appendix 2**.
- Applicants must retain on site, complete and maintain the **Fireworks Storage Sheet** at **Appendix 3**, or a suitable alternative, that will prove at any given time the amount of fireworks stored on the premises.
- **During the licensing/renewal inspection** you may be asked for the following documents or evidence of the following, dependant on the circumstances relating to that specific site where storage is to take place:
 - A copy of public/employers liability insurance
 - If the premises are rented or leased proof that the landlord/letting agent agrees that explosive articles may be stored within and sold from the premises.
 - Confirmatory agreement of which fireworks supplier/s are being used
 - A suitable and sufficient Risk Assessment under DSEAR/The Regulatory Reform (Fire Safety) Order
 - A maintained stock sheet as at **Appendix 3** of this document.

5. Conditions in relation to the sales/display area

The safest method of displaying fireworks in every case is to only display “Dummy” fireworks which represent the real item. By keeping live fireworks out of the public sales area retailers are greatly reducing and mitigating the risk of fire or explosion.

This is not always possible therefore the conditions of licence outlines the amount of live fireworks that can be stored or displayed in the public sales area. This amount must be part of the total fireworks stored on the premises therefore must be accounted for within the licence total figure. **Live fireworks must never be displayed loose in window displays, on counters, shelves etc.**

The amount of live fireworks that can be displayed in the sales area is based on the available floor space and the fact that the retailer is only permitted to display a maximum of **12.5 KgNEC** of live fireworks in any one display case.

Live fireworks and dummy fireworks should not be mixed or displayed in the same cabinet

6. Permitted sales areas display weights

The table below sets out the sales area (in m²) of premises and the maximum quantities of live explosives (in Kg NEC) that may be displayed and kept in them, the amount of live fireworks and display cabinets must comply this guidance:

	Metres ²	Weight	Cabinets	All Year	Cabinets Weight
• not exceeding	20	12.5kg	1	20kg	2
• not exceeding	40	15kg	2	25kg	2
• not exceeding	60	20kg	2	35kg	3
• not exceeding	80	25kg	2	50kg	4
• not exceeding	100	30kg	3	60kg	5
• not exceeding	150	35kg	3	70kg	6
• not exceeding	200	40kg	4	80kg	7
• not exceeding	250	45kg	4	90kg	8
• not exceeding	300	50kg	4	100kg	8
• not exceeding	350	55kg	5	110kg	9
• not exceeding	400	60kg	5	120kg	10
• not exceeding	450	65kg	6	130kg	11
• not exceeding	499	70kg	6	140kg	12
• equal to or exceeding	500	75kg	6	150kg	12

The above quantities are subject to a maximum of 12.5kg NEC **per cabinet**.



An example of 12.5 Kg NEC of loose fireworks for display in a cabinet

7. Explosives classification and Net Explosive Mass (NEM)

All types of explosives are classified under a United Nations designation system. Most retailers will stock fireworks that are classified as Hazard Type 4 (HT4). Some larger fireworks may be more dangerous and will be classified Hazard Type 3 (HT3).



It is important to know which type you wish to store because you won't be permitted to store as much stock if you have any HT3 explosives. As a guide you can usually tell the class from the orange transport warning markings on the outer boxes. In most cases 1.3G will relate to HT3 and 1.4G will relate to HT4. Always ask your supplier to be sure.

The maximum quantities mentioned in relation to explosives in the regulations refer to Net Explosive Content (NEC) or Mass (NEM) of explosive substance, at times also referred to as net explosive quantity (NEQ). This is the quantity of explosive contained within the fireworks and not the gross weight of the complete firework. The explosive quantities should be indicated on the packaging and labelling of fireworks and your suppliers should also provide the information. If the explosive mass is unavailable it is presumed to be one quarter (25%) of the gross weight of the fireworks.

8. What quantities can I store under a licence?

Your licence conditions will specify the total amount permitted (NEM) to be stored at the premises.

Remember the larger the amount stored the greater the risk and so as quantities go up storage conditions will be stricter.

In addition you may have to meet requirements relating to **separation distances**. These are the distances between the firework store and surrounding roads, railways, paths and occupied buildings.

These specified separation distances can be found in Schedule 5 of the ER14 on the HSE or SYFR websites.

As a general rule, provided you store less than 250kg NEM of HT4 explosive you will not have to consider separation distances. The other factor that may reduce your storage amount is if there are people sleeping above or adjacent to the storage unit, see paragraph 10.

However, if your stock includes any HT3 then all your stock will be treated as HT3 and, if the NEM is greater than 25kg, the separation distances will apply.

For further details on separation distances contact us or refer to the guidance published by the Health & Safety Executive. This is available free online at www.hse.gov.uk/pubns/books/l150.htm or via the SYFR website

9. Display Cabinets for Fireworks in the Sales Area

The display cabinets **must conform** to specific requirements in order to be suitable for the display of live fireworks:

They must:-

- only contain fireworks and no other goods or materials
- be made of metal, glass, perspex or wood
- be lockable and not permit public access
- be completely enclosed and have no gaps
- be designed to protect the fireworks from ignition sources
- not be located near flammable materials such as matches, lighter displays etc
- remain locked at all times unless to remove specific fireworks
- not contain electrical lighting or switches that are connected to the mains



Wall or floor mounted lockable display cabinet

10. Fireworks storage adjoining or in the same building as domestic or sleeping accommodation

If any HT3 or more than 75 kg net of Hazard Type 4 fireworks are kept in a store within, or adjoining, a building containing domestic/sleeping accommodation, suitable steps must be taken to protect residents of those premises in the event of a fire.

The following specific precautions must be taken:

- a fire detection system should be installed in the shop with either a linked alarm installed in the domestic accommodation or an effective sprinkler fitted in the fireworks store; the domestic parts of the building must have access/exit routes that are fire-separated from those used for the pyrotechnic store;
- there must be suitable fire separation between the pyrotechnic store and the domestic accommodation (for example, doors, floors and ceilings offering 30 minutes' fire resistance); and Guidance on Regulations - Fireworks in retail premises Page 24 of 47
- the store must be closed off and secured from the domestic part of the property in order to both prevent unauthorised access (including by children connected with the domestic accommodation) and also to help prevent the accidental introduction of sources of ignition.

Where these precautions cannot be taken, the licensing authority may decide that the premises are not a suitable place for the storage of explosives, and either refuse a licence or place conditions on the licence, limiting the maximum quantity of fireworks that can be stored.

11. The listed points below are best practice requirements for the storage of fireworks in retail premises taken from the ER14 Guidance on Regulations – Safety Provisions L150

General principles of safety in explosives operations

High standards of safety need to be in place before fireworks storage will be permitted and they should remain in place and be effective for as long as the storage of fireworks continues. Not only will the storage premises have to meet the requirements of ER14 but of other fire related legislation.

It is generally difficult or impossible to regain control of a fire event involving fireworks once control has been lost.

There are general principles underpinning the safety provisions of ER14. These principles should form part of the arrangements and working practices of anyone undertaking fireworks storage.

- People storing fireworks should be **competent** to carry out their particular roles.
- The particular hazards associated with the fireworks should be understood.
- The sources of energy that could cause the fireworks to initiate should be identified.
- Appropriate safety measures should be part of a planned and proportionate system of work to control all sources of energy that could cause an initiation.
- So far as reasonably practicable, the quantity of fireworks, extent and duration of exposure to the hazard should be minimised.
- The number of people exposed to the hazard should be limited to the minimum necessary for the activity in hand.

Applying these principles should result in arrangements and safe systems of work which ensure that:

- Suitably qualified and experienced people are engaged in all elements of the fireworks operations;
- The properties of any fireworks being stored are known and/ or understood;
- The hazards presented by the fireworks under the conditions of their storage will have been identified and assessed;
- Reasonably practicable steps are taken to segregate activities involving fireworks from activities that do not involve explosives;
- People are not exposed to fireworks hazards unnecessarily;
- People in close proximity to fireworks storage areas are provided with an appropriate level of protection from harm;

Risk assessment for persons wishing to store fireworks

Employers and the self-employed who comply with the risk assessment requirements of:

- The Management of Health and Safety at Work Regulations 1999 (SI 1999/3242) (the Management Regulations);
- The Dangerous Substances and Explosive Atmosphere Regulations 2002 (SI 2002/2776) (DSEAR);
- The Regulatory Reform (Fire Safety) Order 2005
- (where appropriate) the Control of Major Accident Hazards Regulations 1999 (SI 1999/743) (COMAH);

Licensees/Duty holders must have taken the steps necessary to identify the appropriate measures they are required to take under regulation 26(1) of ER2014.

Cross-cutting safety measures

Cross-cutting safety measures (i.e. measures that address more than one duty) must be implemented to ensure the safe storage of explosives.

Some safety measures are particularly important because they reduce the risk of a fire or an explosion being initiated and limit the consequences in the event of an initiation.

These safety measures are:

- Appropriate training for all staff and competence in the storage of fireworks;
- Safe systems of work and working practices;
- High standards of housekeeping;
- Providing and maintaining appropriate mounds and traverses;
- Effective stock management;
- Segregating explosives operations from other activities;
- Safely transporting explosives on site
-

Training and Competency

Licensees/Duty holders should have systems in place to assess and identify training and competency needs. They should also follow up where training needs are identified or competency needs to be developed.

Competence should be reviewed at periodic intervals and when there have been significant changes such as:

- Changes in operation, including the storage of different types of fireworks;
- The introduction of new facilities or equipment;
- Changes in staff or other people involved in the storage operation;

Risks

Licensees/Dutyholders should ensure that everyone involved in or providing support to explosives operations:

- understands the nature of the risks and hazards that may arise out of the storage of fireworks;
- know what hazardous conditions may arise;
- action to take in the event of a hazardous condition or a non-compliance being detected, know what housekeeping procedures need to be followed and know what action to take in the event of an emergency.

Stock management

Licensees/Dutyholders must know the type and quantity of all fireworks present on site at any time and maintain stock sheets on site to show this. There must be a suitable stock management system to ensure that any licence limits (or relevant exceptions) are not breached, they comply with any duty to maintain a record of fireworks and also they can identify and report the losses of any fireworks.

Preventing fires and explosions (Regulation 26(1)(a))

Safety measures must be in place to prevent the accidental initiation of fireworks they include keeping sources of ignition away from the fireworks or other flammable materials on site. The most common sources of ignition are:

- naked lights and flames;
- heat and temperature;
- electricity (including static electricity and electromagnetic energy);
- sparks from mechanical or frictional contact between metal surfaces;
- impact and friction;
- pressure; and
- chemical incompatibility between certain substances.

In ISO or similar storage containers

Explosives Regulations 20014 L150 Safety Provision (temporary storage)

Suitable lightning protection should be installed in explosives stores except where the store:

- Is temporary, risk assessed and holding HT4 Pyrotechnics
- Is used to keep less than 75kg of HT4 explosives
- Is used to keep less than 25kg of HT3 explosives
- Is used to keep no more than 100g of HT1 or HT2 explosives

Explosives Regulations 20014 L150 Safety Provision (Permanent storage)

Steel ISO or similar containers used for the storage of explosives can be regarded as self protecting provided that:

- the walls are lined with wood (or other appropriate lining) or the explosives are kept at least 150 mm away from the container's walls;
- the panels and doors are electrically bonded with straps of a cross section of at least 50 mm;²
- two earthing points connected to earth rods are provided at opposite corners; and □ resistance from the top of the container to earth is less than 10 ohms.

Protecting people from the effects of fire or explosion (Regulation 26(1)(c))

Measures are to be in place to protect people in the event of a fire or explosion.

Steps to protect people in the event of a fire or explosion will generally require:

- the number of people in storage areas to be controlled and limited to those necessary to undertake, manage and monitor the explosives operation;
- reasonably practicable engineering controls to be implemented where they will protect people from the effects of a fire or explosion;
- establishing emergency procedures and implementing process and general fire precautions.

Limiting the numbers of people in explosives areas

The number of people in explosives areas must be kept to the minimum needed to safely carry out and to safely support the storage and sale of fireworks.

Depending on the nature of the storage activity, degree of hazard and the potential risks to people, controls might include:

- physical controls that only allow access to storage areas to authorised people;
- providing instructions to people engaged in the storage and sale of fireworks
- supervising people engaged in sale of fireworks;
- placing signs and notices on doors or at other appropriate places indicating who is authorised to be present and the maximum number of people permitted in the area at any one time;

Emergency procedures

Effective emergency procedures must be in place.

Emergency procedures must clearly set out what licensees/dutyholders, employees and others should do and should not do in an emergency.

The procedures should normally be written down to allow them to be communicated to others to ensure consistency.

Information on the procedures must be provided to all employees and to others involved in the site's storage and sales activities. This does not necessarily require extensive documentation.

For example, where a site has a single small store the emergency procedures might consist of a plan to evacuate the area around the store and call the fire and rescue service.

In this case the documentation might simply involve a written notice displayed prominently where all staff will see it.

Emergency procedures at a fireworks storage site should cover:

- what constitutes an emergency;
- what to do in the event of an emergency;
- fire precautions relevant to the emergency procedures;
- fire detection and warning systems;
- means of escape and evacuation;
- providing information to the emergency services;

What happens if I don't comply with these Health & Safety requirements?

Failure to comply could result in stock being seized and prosecution. On conviction in the Magistrates Court a fine of up to £20,000 and or imprisonment up to 12 months may be imposed. In the Crown Court an unlimited fine and or up to two years imprisonment may be imposed.

Appendix 1 of the Explosives Regulations 2014 and Conditions of Licence

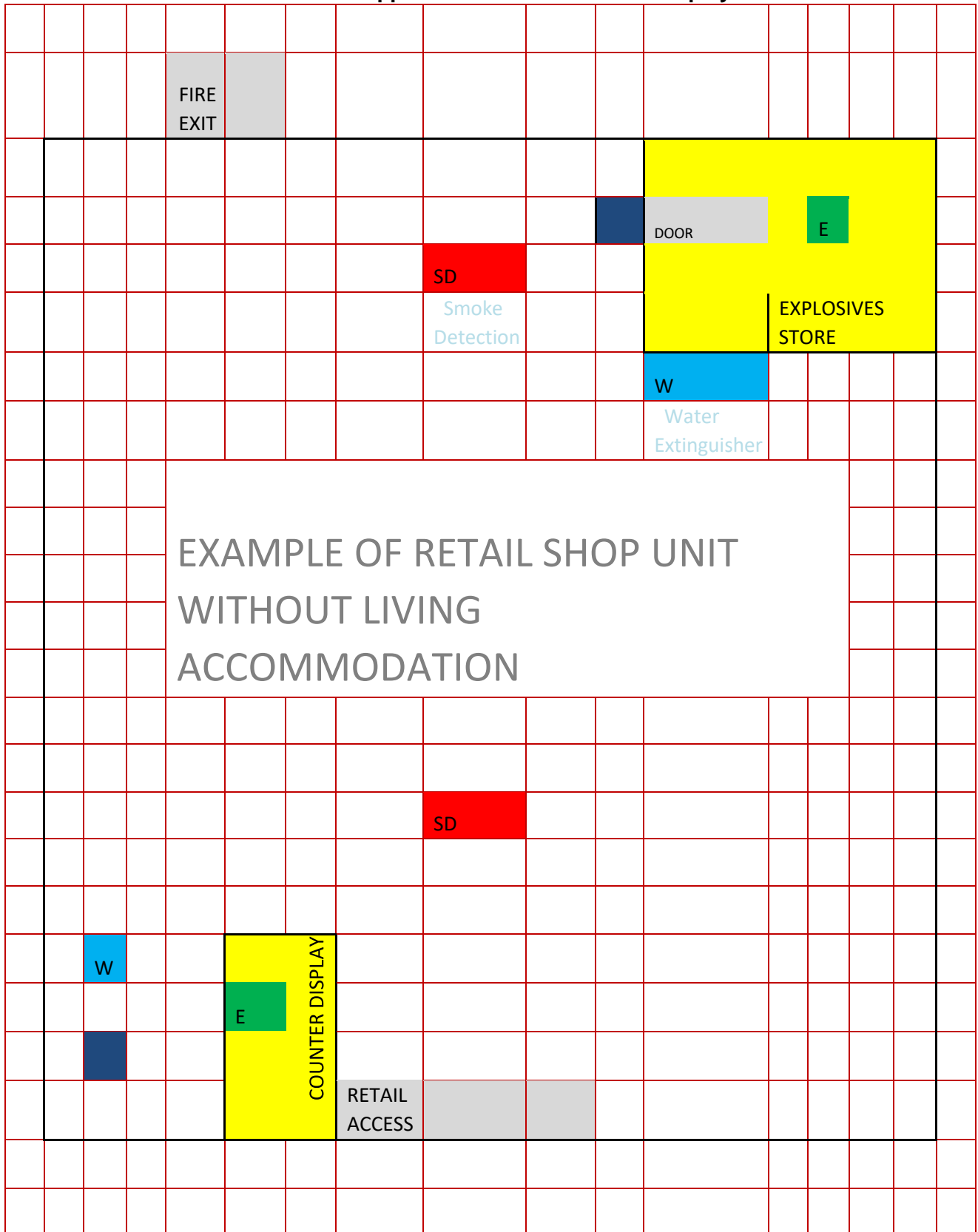
Firework Storage Safety Requirements Checklist to mitigate the effects of an explosion or fire and protect means of escape from the premises (Extracts from HSE guidance documents) This is not a Risk Assessment but designed as guidance:

- ☐ In a rear STORAGE AREA fireworks may be kept in secure containers such as wooden/metal cupboards, they can be stored in these removed from the transport packages.
- ☐ If in their closed cardboard transport packaging in an enclosed area such as a separate room, exclusively used for that purpose, the transport packaging must be resealed by taping or interweaving the box flaps after fireworks have been removed.
- ☐ The firework storage area should be maintained exclusively for this purpose; this may be by way of storage inside ISO shipping containers, separate rooms, cupboards or cabinets, or by the use of structural partitions, wire mesh screens or cages.
- ☐ Retail packs should always be kept in their transport boxes – however in smaller outlets where cupboards, cabinets, trunks etc. are used as storage containers, the fireworks will have been removed from their transport boxes. The 12.5kg NEC rule applies.
- ☐ There must be a fire-resisting separation (e.g. a block or stud partition or other suitably constructed wall) with at least 30 minutes" fire resistance between the store and the retail sales area.
- ☐ ISO containers or similar must be kept away from public areas. They should be marked with a Fire Division 4 symbol (red diamond accompanied by the number 4) while fireworks are inside. Smoking should not be permitted in the vicinity of the container.
- ☐ ISO containers in car parks must be cordoned off to prevent malicious/arson attacks and to ensure vehicles are kept at least 3 metres away. If the container is in a secure yard it should be positioned to avoid collision by delivery vehicles.
- ☐ Fireworks must be kept away from flammable/combustible goods such as drain cleaners, paint strippers, adhesives, acids, wood treatments, fertilisers, peroxides, white spirit, nylon tights/stockings, cardboard boxes, paper, toilet rolls, and other combustible materials, LPG and other gas cylinders, any hot surface and parked vehicles.
- ☐ Unwanted empty packaging waste should be removed from the storage area immediately apart from transport packaging which is to be used in the event that articles being returned to the supplier.
- ☐ The storage area must not compromise emergency escape routes.
- ☐ Sources of ignition must be excluded from storage areas, such as matches, lighters, space heaters and other portable heaters.

- In a walk-in store interior lighting is acceptable but preferably should be intrinsic such as a “bulkhead” type to retain shattered bulbs. Bulbs therein should use cool glass such as low energy types, and should not be directly above stored fireworks. Light switches should be on the outside of the store if not the electrics require isolating. the use of battery lighting should be considered.
- Direct sunlight should not fall onto explosives (live fireworks should not be on display in or near a window. This is especially relevant where it may be magnified, for example through stored glass bottles which could act as lenses.)
- Fireworks must not become wet or damp, for example through leaking roofs or placing transport packages directly onto the ground. If they do they must be disposed of in the correct manner.
- The store-room should be restricted to trained staff who are aware of the dangers. It should be in an area where personnel do not need to pass through or remain within for long periods.
- Fire exits and escape routes must be kept clear and unlocked at all material times.
- Staff must be made aware of the existence of the explosives storage area (this includes cleaning personnel), and trained in the procedures for selling to consumers and restocking displays (including weight limits).
- A daily stock sheet or epos system should be used to calculate end of day stock levels to ensure that overstocking does not take place. This is also a licensing condition.
- Staff should be trained in fire prevention and how to deal with abnormal and emergency situations. Emergency procedures should be in writing and clearly displayed, and fire drills carried out.
- Visitors to the store, especially contractors working around the explosive storage area, must also be made aware of the existence of the hazard, fire prevention procedures and action to be taken in the event of an emergency. Contractors’ portable electrical appliances should not be used around the explosives storage area, this should be reflected in a DSEAR risk assessment.
- Persons under 18 years of age should not be left in charge of a store, General advice should be that storage and supply of explosives is only to be carried out by an appropriately trained adult.

Appendix 2 of the Explosives Regulations 2014 and Conditions of Licence
Example of a Storage/Display Floor Plan to be completed by the applicant for attachment to the licence
application to show the outline of the premises and the storage site within the premises.

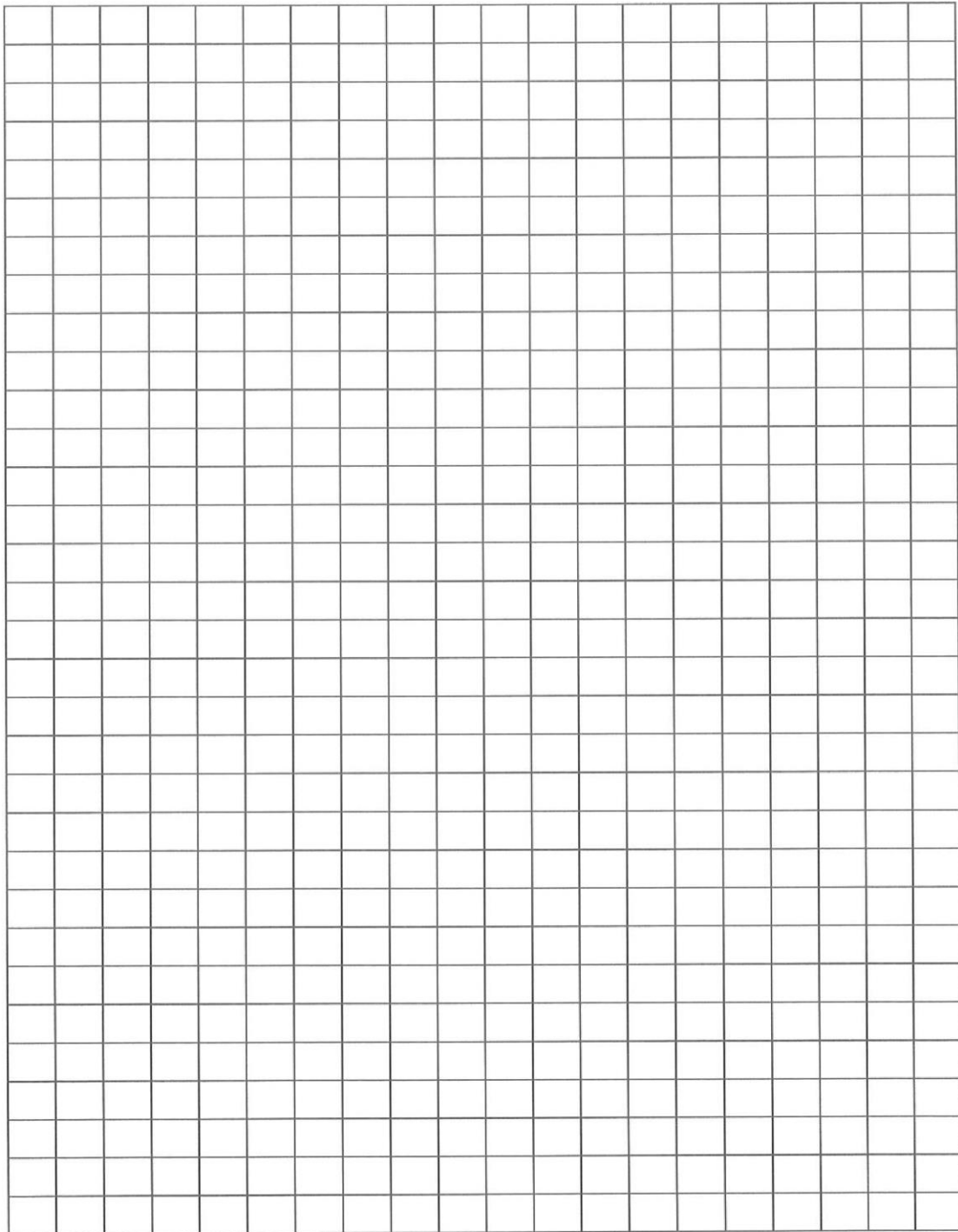
Location of approved internal store and display



Appendix 2 of the Explosives Regulations 2014 and Conditions of Licence

To be completed by the dutyholder and attached to the licence application

LOCATION OF APPROVED INTERNAL STORE AND DISPLAY



ONE SQUARE = ONE MTR

[illegible]

Example of a fireworks stock sheet:

Duty Holders Fireworks Daily Stock Balance Sheet for related storage area

All weights in Kilogrammes of Net Explosive Content

Receipt Date	Opening Balance	Deliveries in net weight	Total Weight	Sales Weight	Closing Balance	Available weight to order from supplier
Page No						
01/09/14	0	250	250	15	235	-15
07/09/14	235	0	235	42	193	-57
09/09/14	193	50	243	60	183	-67

