



### Explosives Regulations 2014 (ER2014)

If you intend supplying fireworks outside of the following periods, you must apply for an ‘all-year-round’ licence to supply granted by West Yorkshire Fire and Rescue Authority.

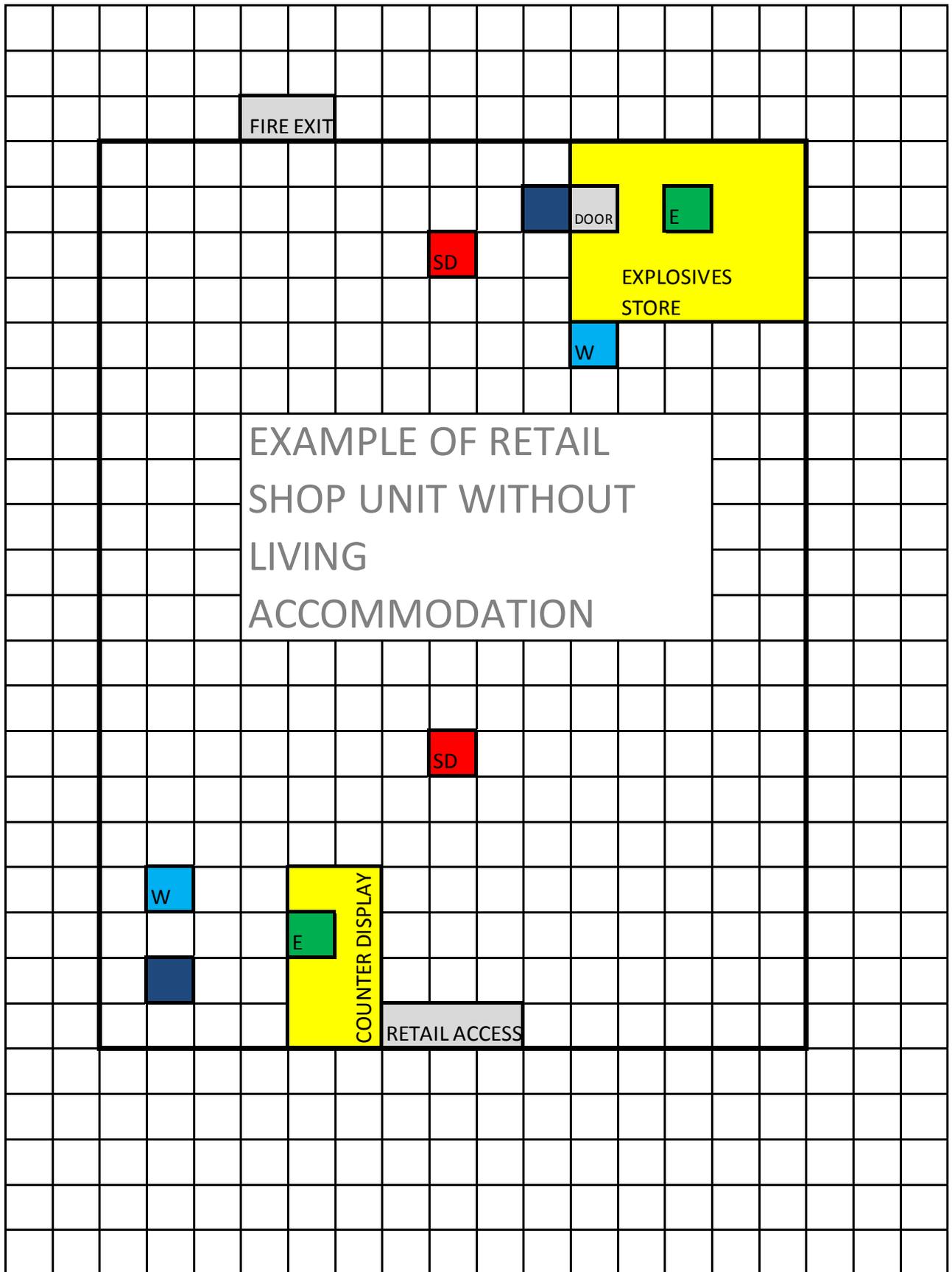
The periods where selling fireworks without a ‘all-year-round’ licence are:-

- Guy Fawkes, from 15th October and ending on 10th November;
- New Year, from 26th December and ending on the 31st December;
- Chinese New Year, the first day and the three days immediately preceding it; and
- on the day of Diwali and the three days immediately preceding it.

The Table Below sets out the maximum quantities that may be kept in the sales area of premises

Floor sales area (sq. metres)	<b>NOT EXCEEDING 20</b>	<b>12.5</b>	Qty NEC/NEQ
		(kg)	
<b>NOT EXCEEDING 40</b>		<b>15</b>	
<b>NOT EXCEEDING 60</b>		<b>20</b>	
<b>NOT EXCEEDING 80</b>		<b>25</b>	
<b>NOT EXCEEDING 100</b>		<b>30</b>	
<b>NOT EXCEEDING 150</b>		<b>35</b>	
<b>NOT EXCEEDING 200</b>		<b>40</b>	
<b>NOT EXCEEDING 250</b>		<b>45</b>	
<b>NOT EXCEEDING 300</b>		<b>50</b>	
<b>NOT EXCEEDING 350</b>		<b>55</b>	
<b>NOT EXCEEDING 400</b>		<b>60</b>	
<b>NOT EXCEEDING 450</b>		<b>65</b>	
<b>NOT EXCEEDING 499</b>		<b>70</b>	
<b>EQUAL TO OR EXCEEDING 500</b>		<b>75</b>	

The following is an example of a plan of your store and display



<b>W</b>	WATER EXTINGUISHER	<b>SE</b>	INTRINSICALLY OR MADE SAFE ELECTRICS
<b>SD</b>	SMOKE DETECTION	<b>POS</b>	POINT OF SALE & PROHIBITED ACCESS SIGNAGE
<b>EXP</b>	LOCKED SECURE STORE & DISPLAY		STORE F/R CONSTRUCTION <b>Y</b> <b>N</b>



# Firework Safety Checklist

- In a backroom STORAGE AREA with no public access fireworks may be kept in suitable containers such as wooden/metal cupboards, in their closed transport packaging or in an enclosed area such as a separate room kept exclusively for that purpose (note that metal dustbins are no longer acceptable); transport packaging must be resealed by taping or interweaving the box flaps after fireworks have been removed.
- The firework storage place should be kept 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 cartons unless in a purpose built store.
- 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; contact a fire safety inspector for further advice.
- ISO containers or similar should 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 unless a suitable risk assessment and other control measures are adopted. It is not always a good idea to advertise the fact that fireworks are in the ISO but it is vital that the authorities are aware and that they have agreed that signage is not necessary.
- Smoking should not be permitted in the vicinity of the container; .
- ISO containers in car parks should be cordoned/hatched 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 vehicles; a suitable and sufficient risk assessment would need to be carried out.
- Fireworks should 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 straight away (although some transport packaging should be retained in the event that articles need to be returned to the supplier); flat pack the UN cartons and store them neatly in the firework store these can be also used to segregate your storage, UN cartons have limited fire-resistant properties.
- The storage area should be situated where it does not endanger emergency escape routes;
- Fire detection systems should be installed – at the very least there should be a smoke detector in good working order;
- Sources of ignition should be excluded, 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. Preferable if light switches are on the outside of the store or motion sensor used, the use of battery lighting should be considered.
- Electric sockets in the store room should ideally be isolated, if not they should be blanked off and a note saying “DO NOT USE” attached, Do not store fireworks against a blanked off socket.
- Direct sunlight should not fall onto explosives (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 should not become wet or damp, for example through leaking roofs or placing transport packages directly onto the ground;
- Stock rotation to ensure that the oldest stock is used first;

- Return any damaged articles or packages to the supplier; using the appropriate UN cartons (already saved) have a policy in place on how to label, store/isolate damaged goods.
- Ensure stacks of packages are stable. Additionally, over stacking can cause pressure deformation of the lowest packaging and fireworks leading to spillage of their pyrotechnic contents; again the flat pack UN cartons can provide a load bearing platform across lower stacked UN cartons of fireworks.
- ISO containers – place the fireworks in the centre to allow air to circulate freely, in the event of attempted theft by use of a stihl saw it will not penetrate the stock controlling the risk of fire & explosion;
- Fireworks should be stored as low as possible to reduce the impact if dropped. Goods should not be stored above fireworks for the same reason;
- 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 (times of occupancy);
- 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
- Staff should also 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; (a permit to work is essential, supervise the contractor if necessary or wait for the stock to be depleted before allowing any works to be undertaken)
- Bare metal components in explosive storage containers should be covered or coated by a non-metallic material such as paint or thick tape to reduce the risk of spark initiation;
- 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.
- Ensure stacks of packages are stable. Additionally, over stacking can cause pressure deformation of the lowest packaging and fireworks leading to spillage of their pyrotechnic contents; again the flat pack UN cartons can provide a load bearing platform across lower stacked UN cartons of fireworks.
- ISO containers – place the fireworks in the centre to allow air to circulate freely, in the event of attempted theft by use of a stihl saw it will not penetrate the stock controlling the risk of fire & explosion;
- Fireworks should be stored as low as possible to reduce the impact if dropped. Goods should not be stored above fireworks for the same reason;
- 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 (times of occupancy);
- 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

- Staff should also 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; (a permit to work is essential, supervise the contractor if necessary or wait for the stock to be depleted before allowing any works to be undertaken)
- Bare metal components in explosive storage containers should be covered or coated by a non-metallic material such as paint or thick tape to reduce the risk of spark initiation;
- 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.

## **Firework Safety Checklist:**

- In the RETAIL AREA fireworks should be kept in suitable containers or display cabinets – glass and Perspex are both acceptable, plus wood, metal or another substantial material which does not readily catch fire;
- They should be positioned well away from fire exits and emergency escape routes;
- There should be no other flammable items stored with the explosives in a cabinet, except instruction leaflets, safety literature to be supplied with the fireworks, or dummy fireworks appropriately CLEARLY AND VISIBLY MARKED AS DUMMY FIREWORKS;
- Fireworks outside of both the storage area and the display cabinets (e.g. during transfer in roller cages) must never be left unattended;
- Storage cabinets should be positioned so that fireworks are the final item a consumer will purchase – fireworks should not be pushed around a supermarket in a trolley with the rest of the shopping;
- Cabinets should be clean/dry before use and secure to stop unauthorised entry (by way of a suitable locking mechanism; (i.e. lock or combination lock)
- Any electrical fitting in the cabinet (e.g. lamps, refrigeration motors) must be disconnected from the supply and measures taken to prevent inadvertent reconnection; (plug removed by a competent person)
- Smoking should not be permitted – notices should be displayed to that effect;
- “Dummy” fireworks may also be displayed outside of cabinets, When live fireworks are taken from a display case, they must be kept under the supervision of a member of staff until sold;
- Escape routes and fire exits must be kept clear;
- No individual container/cabinet in the retail area may contain more than 12.5kg net of explosives, and each one must be secured against public access for example by the use of a suitable lock or by retaining in a “staff only” area, or having the counter staffed at all times.
- Retail packs of fireworks must not be split into individual fireworks;
- Sparklers must carry the warning “Not to be given to children under 5 years of age”;
- Any fireworks deemed unacceptable for public use by the regulations (normally Category 4) must carry the warning “this device must not be sold to or used by a member of the general public.”

- Only fireworks which conform to British Standard 7114 Categories 1, 2 and 3 or to the EN15947 The Firework/Pyrotechnics (Safety) Regulations 2015 standard may be sold to the public.
- A store (i.e. a shop) which adjoins or is part of a DOMESTIC/SLEEPING ACCOMMODATION may not contain more than 75kg NEC (net explosive content) of fireworks UNLESS there is a functional linked fire detection system in the shop, the domestic parts of the building have fire-separated access/exit routes (access is not through the shop), the separation doors/floors/ceilings between the store and domestic accommodation offer at least 30 minutes' fire resistance, and the store is fully closed off and secured from the domestic part to prevent unauthorised access. This will be most relevant to smaller shops which may have, for example, a flat above or a terraced house.
- Articles such as Christmas crackers, party poppers, toy caps and throw-downs are likely to present minimal risk in the quantities usually found in shops – they may therefore be kept on open display in their retail packaging.

Further information can be found on the HSE website - storing and selling fireworks safety <http://www.hse.gov.uk/pubns/indg407.pdf>

#### Example of a Fireworks Stock sheet

Date	Opening balance weight *NEC	Deliveries weight *NEC	Total weight *NEC	Sales weight *NEC	Closing balance weight *NEC	NEC weight available to order
06/09/2014	0.00	250.00	<b>250.00</b>	15.00	235.00	-15.00
07/09/2014	235.00	0.00	<b>235.00</b>	42.00	193.00	-57.00

## **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 (for example, for no more than a few weeks on a seasonal basis) and holding HT4 Pyrotechnics 250kg NEC - until the 1<sup>st</sup> of December when the amount must not exceed 75kg NEC
- 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;<sup>2</sup>
- 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.