



Analysis of impact of proposed changes to separation distances for Mode A registered premises holding HT4 fireworks

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Analysis of impact of proposed changes to separation distances for Mode A registered premises holding HT4 fireworks

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Under proposed new legislation it is intended that Mode A registered premises holding between 200-250kg net of shop good (HT4) fireworks will have to maintain a 5 metre separation distance to third party buildings and 2.5 metres to footpaths and roads. In order to investigate the extent of any problems for existing premises in complying with this requirement, a sample of Mode A premises storing HT4 fireworks was selected from across 39 local authorities. This sample was deliberately focused towards the type of premises expected to hold between 200-250kg of fireworks and to potentially have problems with complying with the separation distance requirement (wholesalers and distributors rather than shops or supermarkets). The owners of each of these premises were contacted by telephone to obtain information on fireworks storage and separation distances. For the 102 premises for which information could be obtained, 23 were found to hold below 200kg of fireworks and do therefore not need a separation distance. Of the remaining 79 premises, 76% had existing separation greater than that required; 10% could comply with the separation distance after moving their existing store or reducing inventories; and 14% (11 sites) had a problem with compliance that the owners felt could not be satisfactorily resolved. This data indicates that some registered premises will have a problem with the proposed separation distances that the owners consider will adversely affect their operations. This is only a relatively small proportion of a sample deliberately biased towards the type of premises expected to have separation distance problems. The significance of this regulatory impact in the context of the proposed legislation therefore needs to be carefully evaluated.

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1 Aims and Purpose

The aim of the project, as specified by the HSE, is to assess the impact of proposed changes to separation distances on a particular category of firework stores. New regulations on the manufacture and storage of explosives, currently under consultation (HSE 2002), have proposed a range of changes to separation distances applying to stores of explosives and fireworks. The fireworks industry has identified a potentially significant impact on what are currently Mode A registered premises holding between 200-250kg net of fireworks. It is proposed in the new regulations to introduce a separation distance of 5 metres to third party buildings and 2.5 metres to pavements and roads for this specific category of premises. As no separation distance has previously been required for Mode A premises (of any form), there is a concern that compliance with this new requirement could be difficult and costly for existing registered premises.

In this context, the objectives of the research are to:

- identify a sample of firework stores storing between 200-250kg net of fireworks
- evaluate the proportion of these stores that will have a problem complying with the proposed separation distance requirements

It is important to note that the research specifically targets a sub-category of Mode A premises holding HT4 fireworks. Previous research has estimated that there are 2466 Mode A registered premises in Great Britain, of which 1874 (76%) hold fireworks (Walker and Fairburn 2001). Of these a further proportion will hold below the 200kg level and therefore fall outside of the separation distance requirement.

2 Methods

2.1 Sampling

During the planning of the research the fireworks industry had indicated that it would be possible to supply lists of Mode A registered premises holding HT4 fireworks. In the event this proved not to be feasible. Information was instead obtained from local authorities known to have a substantial number of Mode A premises from a survey of local authorities undertaken in an earlier project (Walker and Fairburn 2001). A total of 42 local authorities were contacted and requested to supply information on Mode A registered premises in their area – specifically registered owner’s name, address and other contact details, type of explosives and quantities held (if known). Of the local authorities contacted 39 have sent the information requested and 1 refused to release the information.

A sample of 163 registered premises was selected from the data provided by the 39 local authorities. As directed by the HSE this sample specifically targeted what appeared to be small-scale wholesalers/distributors and excluded supermarkets and hypermarkets. This bias to the sample was deliberately introduced to target the type of Mode A premises considered most likely to have a problem with complying with the proposed separation distances.

2.2 Data Collection

The 163 registered owners were sent a letter to explain the purpose of the research and to alert them to the phone call that would follow. They were also asked in the letter to take measurements as indicated below. Some of the sample selected proved not to exist or to be uncontactable (see Table 1 below). Those that could be contacted were phoned and asked the following questions:

- Have you/or do you intend to store between 200-250kg net (800-1000kg gross) of fireworks? If they answered yes, two follow up questions were then asked
 - is the distance from the outer edge of the storage container to third party buildings (not those occupied by yourself) less than 5metres?
 - is the distance from the outer edge of the container to any pavements and roads to less than 2.5 metres?
- If the separation distance is below 5 metres from third party buildings and below 2.5 m from any pavements and roads would you consider:
 - Storing fewer fireworks (i.e. below 200kg net)?
 - Moving the store?

For those sites which were found to have a problem with complying with the separation distance requirements, maps were obtained at 1:1250 scale in order to establish the spatial context and layout of the property involved. Where necessary the registered owners were contacted again to clarify the nature of their compliance problem and the difficulties involved in making adjustments to store inventory or location.

3 Analysis of Site Survey

Information on the status and situation regarding separation has been obtained for 102 of the 163 sites in the full sample. As shown in Table 1, a number of the sites in the full sample proved to not come within the category of interest (Mode A HT4 firework storage), or to no longer exist or to be problematic in other ways.

Table 1
Results of the telephone survey carried out to determine the impact of the HSE proposed separation distances on Mode A registered premises holding HT4 fireworks.

Information Received	Number of Registered Premises
Confirmed Mode A registered premises storing HT4 fireworks	102
Registered premises does not exist or does not store HT4 fireworks.	32
Registered owner refused to give information.	5
Registered owner is already facing prosecution.	3
Registered owner did not know the answers to the questions.	3
Registered premises stores more than 250kg Net Fireworks.	1
Letter to registered premises was returned to sender.	9
Registered premises was uncontactable.	8
Total Number of Registered Premises	163

Table 2 and Figure 2 focus on the 102 premises for which information could be obtained. Of these 23 were storing less the 200kg so did not come within the separation distance requirement. This leaves 79 that needed a separation distance.

Table 2 and Figure 2.
Proportion of Mode A registered premises holding HT4 fireworks in the sample that hold more than and less than 200kg net

Information Received	Actual number of Registered Premises	% of Registered Premises
Registered premises storing less than 200kg Net fireworks. No separation distance required	23	23%
Registered premises storing more than 200kg Net fireworks. Separation distance is required	79	77%
Totals	102	100%

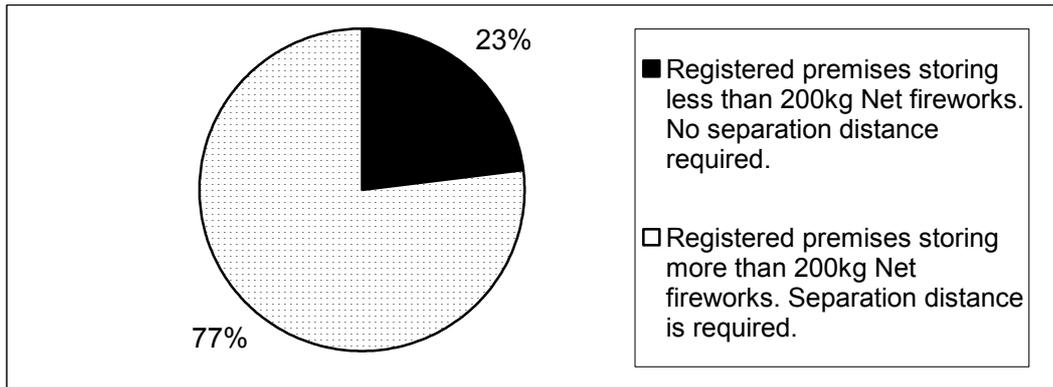
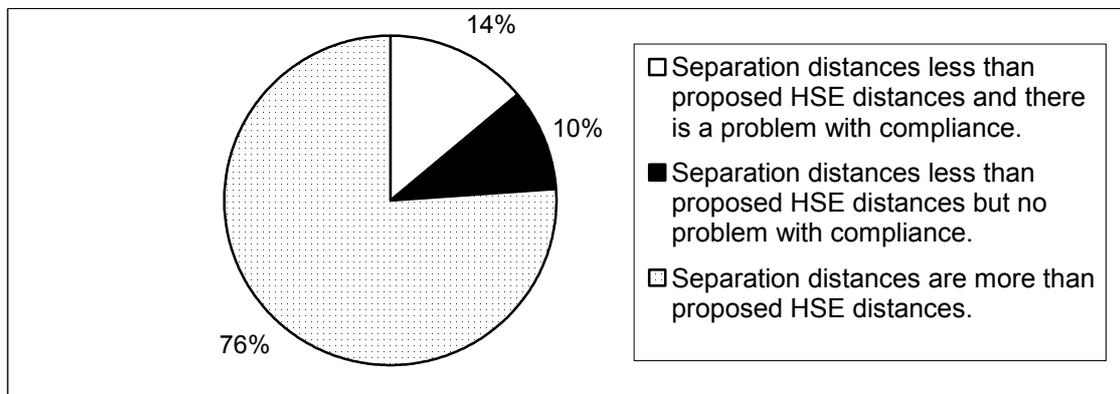


Table and Figure 3 break down the situation for the 79 premises that required a separation distance. Of these the majority had adequate existing separation. Of those that didn't, less than half could achieve compliance through reducing quantities or moving the store. This leaves 11 (14%) that have a problem with compliance.

Table 3 and Figure 3.
Proportion of Mode A registered premises holding HT4 fireworks in the sample and requiring a separation distance, that have /do not have a problem complying with proposed HSE separation distances.

Situation regarding separation	Number of Registered Premises	% of Registered Premises
Separation distances less than proposed HSE distances and there is a problem with compliance.	11	14%
Separation distances less than proposed HSE distances but no problem with compliance.	8	10%
Separation distances are more than proposed HSE distances.	60	76%
Total	79	100



4 Details of registered premises where proposed separation distances are potentially infringed

For the 11 premises that have potential problems with compliance with the proposed separation distance requirement, the nature of the compliance problems are as follows:

- 9 sites - the proposed separation distance of 5 m to the nearest third party building is infringed
- 1 site - the proposed separation distance of 2.5 m to a pavement or road is infringed
- 1 site - both proposed separation distances are infringed

Of the 11 premises with compliance problems 7 are situated in residential areas of which 3 are within a row of terraced properties and 1 is a warehouse. The remaining 4 sites are in largely industrial areas.

Further anonymised details of each of the situation at each of the 11 sites is provided below.

Site 1

The registered property is on an industrial estate. The property is located at the end of a row of 5 buildings and adjoins a main road. The storage container is within the premises. The proposed separation distance of 5 m to the nearest third party building is contravened by an adjoining building. The registered owner would not willingly reduce the scale of the storage as there is no other suitable location for the container.

Site 2

The registered property is in a suburban residential area but located next to marshland and a brook on the western side and roads linked by a roundabout on the other sides. According to the owner the proposed separation distance of 5 m to the nearest third party building is infringed by a third party property. However, this is not apparent on the map. The registered owner would not willingly reduce the scale of the storage or move the storage container.

Site 3

The registered property is in a residential area within a row of terraced buildings. The fireworks are stored in a concrete bunker at the bottom of the garden. The proposed separation distance of 5 m to a third party building is infringed by a terraced property to which the concrete bunker is adjoined. The registered owner would not willingly reduce the scale of the storage and cannot move the storage container. Reducing the scale of storage would, in the owner's opinion, ruin his business.

Site 4

The registered property is in a residential area with two adjoining properties. The storage container is at the rear of the premises. The proposed separation distance of 5 m to the nearest third party building is contravened by one of the adjoining buildings. The registered owner would not willingly reduce the scale of the storage or move the storage container. To store less fireworks the owner would need 1-2 more deliveries per day which would damage his business.

Site 5

The registered property is in a warehouse in a largely residential area. The storage container is located on the forecourt. The proposed separation distances of 5 m to a third party building and 2.5 m to the nearest pavement or road are contravened by a pavement and a third party building which adjoins the warehouse. The registered owner would not willingly reduce the

scale of the storage and there is no other suitable location for the container.

Site 6

The registered property is on an industrial estate. The storage container is in a car park next to a wall that adjoins a depot. The adjoining depot contravenes the proposed separation distance of 5 m to the nearest third party building. The registered owner would not willingly reduce the scale of the storage. There is no other suitable location for the container.

Site 7

The registered property is in a residential area within a row of terraced buildings. The fireworks are stored in a fireproof room. The proposed separation distance of 5 m to the nearest third party building is infringed by an adjoining building. The registered owner would not willingly reduce the scale of the storage and cannot move the container.

Site 8

The registered property is two units within a warehouse that contains 4 units in total. The area consists of mixed industrial land uses. The fireworks are stored in purpose-built storage units. According to the owner the proposed separation distance of 5 m to the nearest third party building is contravened by an adjoining property. The registered owner would not willingly reduce the scale of the storage and cannot move the storage units. We have some reservations regarding the accuracy of the measurement taken by the owner as examination of the map shows there is unlikely to be a problem.

Site 9

The registered property is in a residential area with an adjoining property. The storage container is in a car park in front of the premises. The proposed separation distance of 5 m to the nearest third party building is contravened by the adjoining property. The registered owner would not willingly reduce the scale of the storage and there is no other suitable location for the container. The registered owner's parents own the adjoining property.

Site 10

The registered property is in a mixed industrial zone. The fireworks are stored within a purpose built unit. The proposed separation distance of 5 m to the nearest third party building is infringed by adjoining retail premises. The registered owner would not willingly reduce the scale of the storage and the storage unit cannot be moved.

Site 11

The registered property is in a residential area within a row of terraced buildings. The fireworks are in a garage at the rear of the premises. The proposed separation distance of 2.5m to the nearest pavement or road is contravened by an access road behind the premises. The registered owner would not willingly reduce the scale of the storage and there is no other location to store the fireworks.

5 Conclusion

The analysis of data for the premises sampled in this research, suggests that a relatively small proportion of registered premises (14%) will have a problem with the introduction of the proposed separation distances. In each of these cases the owners have stated that it will be difficult or impossible to make changes to either move the location of their store or reduce storage inventories to below 200kg. In most cases they have argued that to take these actions would be to adversely affect their commercial operations.

In assessing the significance of this finding it is important to take into account that the sample was deliberately biased towards the type of Mode A premises expected to hold 200-250kg of fireworks and to potentially have problems with the new separation distance proposal. The sample, for example, excluded the substantial number of Mode A registrations held by super and hyper markets which previous research suggested were unlikely to have separation distance problems. The significance of this regulatory impact in the context of the proposed legislation therefore needs to be carefully evaluated.

6 References

HSE (2002) *Proposals for new regulations on the manufacture and storage of explosives*, Consultative Document, HSE Books, Sudbury.

Walker G P and Fairburn J (2002) *Survey of explosives stores and impact of proposed changes to separation distances*, HSE Research Report 354/2001, HSE Books, Sudbury.



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