

Review of Fireworks Policy

Consultation Document

Department of Justice, Equality and Law Reform

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Introduction

The purpose of this Consultation Document is to review existing law and policy on the control of the importation, manufacture, storage, sale and use of fireworks. This consultation document outlines existing fireworks law and policy, current problems in relation to the safe use of fireworks and proposes a range of options for change.

Fireworks have been in existence since around 800 A.D. and have been used throughout the world in the celebration of significant cultural and religious events. In recent years in Ireland there has been a significant growth in their use for controlled and organised fireworks displays in the celebration of special events, such as the Millennium celebrations. Unfortunately, in recent years there has also been an increase in their unauthorised use by the general public. The unauthorised use of fireworks has given cause for concern about accidents and injuries which can result from their misuse and there is also growing concern over the social nuisance and distress caused to vulnerable sectors of the public and animals, by the firing of loud fireworks “out of season”.

Fireworks are defined as explosives under Section 3 of Explosives Act, 1875 and any person wishing to import, manufacture or store fireworks is required, under the Act, to obtain a licence to do so from the Minister for Justice, Equality and Law Reform.

Fireworks are classified into four categories based on their intended use, purpose and/or level of hazard, e.g. under British Standards.

Category 1 are fireworks suitable for use inside domestic buildings;

Category 2 are fireworks which are intended for outdoor-use in confined areas;

Category 3 are fireworks which are intended for outdoor use in large open areas and

Category 4 are fireworks which are not intended for sale to the public but intended for use by professionals.

In Ireland the importation of fireworks, of any category, for sale to the general public is not permitted on safety and security grounds. Consequently, it is Government policy not to issue importation licenses to the general public for Categories 1, 2 and 3 fireworks. However, where major events are concerned, such as the Dublin Skyfest celebrations, importation licenses are issued to professionally competent operators.

In most EU Countries, the UK and Northern Ireland, fireworks in Categories 1, 2 and 3 may, with varying regulatory controls, be sold to the general public. However, it is generally the case that Category 4 fireworks are only licensed for use by “fireworks professionals”.

Chapter 1

Irish Law and Policy on Fireworks

Fireworks are defined as explosives under Section 3 of the primary explosive legislation, the Explosives Act, 1875. As explosives they come under the general explosive regulations regarding importation, manufacture, sale, storage and transport. However, the use of fireworks (or other explosives) is not regulated by the Explosives Act. The specific provisions in the Act govern the following:

The casting, firing or throwing of a firework in a highway.

The importation, manufacture, storage, packaging and sale of fireworks.

In addition to the primary legislation, the following Statutory Instruments, specifically relate to fireworks,

S.I. No 129/1984 **restricts** the amount of fireworks that may be kept in Registered Premises and in rooms where fireworks are sold to the public, and

S.I. No 600/2001 (made under the Planning and Development Act 2000), **requires** the organisers of certain types of large scale outdoor events, including fireworks displays, to obtain a licence, (known as an “Event Licence”) from the local authority .

S.I. No 29/2004 (made under the Carriage of Dangerous Goods by Road Act 1998) **regulates** the carriage of fireworks by road transport.

While current Irish Law on Fireworks does not specifically ban the importation, manufacture, sale or use of fireworks, it is Government policy, in the interests of safety and security, to restrict, to the greatest extent possible, the availability of any category of firework to the general public. Effect is given to this policy through the use of the licensing powers, conferred on the Minister for Justice, Equality and Law Reform by the 1875 Act. The Act provides that fireworks may only be imported into Ireland on foot of an importation licence granted by the Minister. It is current policy to only issue licenses for the importation of fireworks used in organised displays, conducted by “professional/ competent operators”. In effect, this policy means that

Consultation Document on Fireworks

the only fireworks imported into the State and “legally held” here are those used in professional displays. All other fireworks imported, held, sold or used in this country are illegal and any person in possession of fireworks without a valid importation licence is liable to prosecution. The following table indicates the extent of illegally imported fireworks which have been seized by the Garda Síochána in the past 5 years:

Year	Estimated Value (Euro)	Quantity of fireworks
2000*	1,294,575	5,759 items
2001	105,304	15,000 items
2002	67,375	16,690 items
2003	57,430	25,771 items
2004	408,890	36,223 items

Table 1 Fireworks seized by An Garda Síochána

* Note: All values are estimated. A number of seizures were made where the specific quantity is not recorded. This included a major seizure of three lorry loads of fireworks in Dublin Metropolitan Region (West) with an estimated value of €1,250,000.

Chapter 2

EU Law and Policy on Fireworks

Individual Member States of the EU have their own laws and policies on the importation, manufacture, storage, sale and use of fireworks. In most EU Member States fireworks in Categories 1, 2 and 3 may, with varying regulatory controls, be sold to the general public but, it is generally the case that, Category 4 fireworks are only licensed for use by "fireworks professionals". While there is no overarching EU law on fireworks the EU Commission, because of concerns over accidents and injuries caused by the misuse of fireworks and lack of standardised quality control, has undertaken a review of the controls on the sale and use of fireworks generally within Member States. A Draft Directive ("Draft Directive of the European Parliament and of the Council on the Placing on the Market of Pyrotechnic Articles") on the sale and use of fireworks has been prepared and issued to the Member States for consultation. It is anticipated that, once all the Member States have been fully consulted, the final Directive will be published in 2006 and come into operation in 2008. The draft Directive proposes to:

- Define the types of fireworks that may be sold to consumers and those which will be restricted for use by "professionals".
- Define gross weight of fireworks sold to consumers
- Develop essential safety requirements leading to harmonised EU standards on fireworks (see Chapter 4).
- Prohibit the use of certain substances in fireworks.
- Develop a harmonised EU approach to the provision of information on the safe handling and use of fireworks.

The effect of this Directive is that fireworks placed on the market in the EU will have to meet certain standards in order to carry the CE (quality assurance) mark. Such fireworks will then be freely available across the EU. The current draft includes a provision, which Ireland sought, which will allow Member States to take measures, which are justified on the grounds of public safety or security, to restrict the use and/or sale to the general public of Category 2 and

3 fireworks. Category 4 fireworks will still be restricted to “persons with specialist knowledge” (i.e. professional/competent operators).

Chapter 3

UK Law and Policy on Fireworks

United Kingdom other than Northern Ireland

While the Explosives Act, 1875 is still in effect in the UK, new legislation was introduced in 2003, the Fireworks Act, 2003, which deals specifically with fireworks. Essentially this legislation provides for the making of regulations for the control of fireworks. Under the 2003 Act the UK Government made the “Fireworks Regulations, 2004” which apply to England and Wales and which came into effect in July, 2004. These Regulations make provision for the following:

- Prohibition on the possession of fireworks by a person under eighteen.
- Prohibition on the possession of high-powered fireworks by any person.
- The following persons are exempt from the above prohibitions:
 - Professional display organisers
 - Traders in fireworks
 - Manufacturers of fireworks
 - Local authority personnel involved in displays
 - Special effects professionals
 - Enforcement personnel in local authorities
 - Employees of Government Departments in the course of their employment
 - Safety professionals
 - Military personnel in the course of their employment
- Prohibition on use of fireworks during night hours except
 - during ‘permitted fireworks nights’ i.e. Chinese New Year, Bonfire Night, Diwali and New Year’s Night
 - by a person employed by a local authority to put on a display in celebration of a national commemorative event
- Prohibition of supply of excessively loud (>120Db) fireworks
- Licensing of fireworks suppliers.
- Requirement on suppliers to prominently display information about fireworks
- Requirement on importers to supply information to Customs.
- Technical provisions relating to enforcement

Northern Ireland

To date, no regulations have been made for Northern Ireland under the 2003 Act. The regulations covering Northern Ireland are the Explosives (Fireworks) Regulations (Northern Ireland) 2002, made under the Explosives Act, 1875. The situation in Northern Ireland can be summarised as follows:

- Fireworks retailers must be registered with the Northern Ireland Office (NIO).
- The purchase, possession and use of fireworks (apart from category 1 fireworks e.g. cracker snaps) require a licence issued by the NIO. Retailers are supplied with copies of application forms for licenses which potential customers complete and return to the NIO for approval. On approval and the payment of the appropriate statutory fee the licence is issued. The sale of fireworks to any person not holding a licence is prohibited.
- Retailers must keep a record of all sales including name and address of purchasers and amount and type of fireworks sold.
- The sale of Category 4 fireworks to the public is prohibited.
- It is an offence to sell a firework to a person less than 16 years of age.
- There are a number of other regulations regarding labelling and standards.

Again, these provisions seek to regulate a situation where the sale, possession and use of fireworks is permitted in certain circumstances, but do not go as far as the UK regulations in relation to their use.

Chapter 4

Classification of Fireworks

European Standard

As mentioned in Chapter 2 the EU has prepared a Draft Directive, on the sale and use of fireworks, which it hopes to finalise next year. For the purpose of this EU Directive fireworks are classified into four categories based on their intended use, purpose and level of hazard. (See Appendix 1).

Category 1 are very low hazard fireworks suitable for use inside domestic buildings;

Category 2 are low hazard fireworks which are intended for outdoor-use in confined areas;

Category 3 are medium hazard fireworks which are intended for outdoor use in large open areas and

Category 4 are high hazard fireworks which are intended for use by persons with specialist knowledge.

The European Committee for Standardisation (CEN) is developing harmonised standards for fireworks. So far, 23 standards have been published and 12 additional standards are in final preparation. The proposed EU Directive will give legal effect to these CEN standards and only fireworks which meet the CEN standard, or essential safety requirements, may be placed on the market within the EU. The published European Norm (EN) standards have been re-published as national standards by the National Standards Association of Ireland, (NSAI) (see Appendix I). These standards classify fireworks into categories of use and also specify construction, performance, packaging, labelling and test methods for fireworks. These standards have not as yet been given legal effect in Ireland.

British Standard

Fireworks are categorised in the UK by the Health & Safety Laboratory, (HSL) following tests and assessment. Under the “British Standard of Fireworks Classification” (BS 7114) (see Appendix II) fireworks are also classified into four categories based on their intended use, purpose and level of hazard.

Category 1: Fireworks which are intended for indoor use in confined areas.

Category 2: Fireworks which are intended for outdoor use in confined areas.

Category 3: Fireworks which are intended for outdoor use in large open areas.

Category 4: Fireworks which are not intended for sale to the public but are intended for use by professional operators.

The explanatory notes to the British Standards state that:

“When used according to instructions

Category 1 fireworks should not cause injury to people standing 1 meter or more away and should not cause damage to property. In the case of hand-held fireworks the person holding them should not be injured.

Category 2 fireworks should not cause injury to people standing 5 meters or more away. In the case of hand held sparklers, the person holding them should not be injured by the dropping of hot slag or the ejection of sparks. The fuse fitted to the fireworks should enable the person lighting the firework to retire to a safe distance of at least 5 meters.

Category 3 fireworks should not cause injury to people standing 25 meters or more away. People firing these fireworks would be expected to wear suitable personal protection.”

What is important to note in relation to the classification of fireworks is that they are classified by reference to their use and hazard and not according to their general type and description. Certain firework types can appear in more than one category, depending on their calibre/size, explosive content or hazard. Thus, for example, a small roman candle or banger could be Category 2, but a larger or more powerful one might be classified as Category 3 or even 4.

It must also be emphasised that these safety distances only apply if the fireworks are used properly in accordance with the manufacturer's instructions.

Chapter 5

Assessment of Current Fireworks Policy

When considering current policy on the control of fireworks a number of questions need to be addressed. Firstly, what is the potential level of hazard or public nuisance to society caused by the use of fireworks? How effective is the legislation governing the control of fireworks? How effective are the penalties which may be imposed for breach of the law? Is our current policy of restricting the sale of all categories of fireworks to the general public appropriate, too liberal or too stringent in relation to the level of hazard or public nuisance posed?

Hazard of Fireworks

According to a leading fireworks expert (Kosanke –1995),

fireworks present a level of hazard greater than many realise. For example “firework stars” burn at temperatures greater than 2000 deg C. Large “aerial shells” leave the mortar travelling about 350km/hr. When the “aerial shell” explodes it does so with a force greater than that produced by a grenade. Dud or misfired shells can fall to earth travelling about 200km/hr.

Obviously some fireworks are extremely hazardous. The hazards associated with fireworks include explosion, fire and projection hazards. In addition, hazards occur from fallout from spent shell debris, fallout from hot sparks causing burns and fire, fallout from ash causing eye injury, excessive noise and smoke pollution. Fireworks commonly cause burns and have been known to cause extensive damage to children’s hands, resulting in fingers being amputated. According to Department of Trade and Industry statistics in Great Britain, the type of firework most commonly involved in accidents are rockets, (17%), followed by bangers (16%), and sparklers (13%). These statistics also reveal that most of the injuries caused by fireworks are either to the hand, eye or head, with most injuries occurring to the hand (29%), followed by eye (26%) and head (23%).

In Ireland, injuries are caused every year by fireworks, although detailed statistics are not available from the Department of Health and Children. While there are no definitive statistics available for Ireland, a number of consultant plastic surgeons in Dublin have indicated that most of the fireworks related injuries, which they see, are hand injuries. These hand injuries tend to be caused by children lighting bangers and holding on to them for too long.

The only official figures available are those supplied to an EC survey in 2003 (see Appendix III). These figures show an average injury rate of 10 per annum, which is low by comparison with other EU Member States. However, the survey figure would appear to understate the position as it only reflects hospital admissions and does not include injuries treated by general practitioners or in hospital outpatient departments.

Legislative Controls

As has been outlined in Chapter 2, the import, manufacture, storage and sale of fireworks are governed by the Explosives Act, 1875 and Statutory Instruments made under that Act. At the present time the main provisions of the Act, which enables the control of fireworks, are those governing the licensing of the importation of fireworks. However, the penalties provided for, under the Act, for the illegal importation of fireworks are no longer adequate to act as an effective deterrent with the result that large quantities of fireworks are being illegally imported into the country. The main source from which fireworks are being imported is Northern Ireland and the UK where the policy on the public access to fireworks is less stringent than here. In addition the penalties governing the throwing of fireworks in streets and public places are also inadequate with the result that there are no effective measures which can be taken against persons involved in public nuisance or anti-social behaviour with fireworks.

Issues of Concern

The main concerns regarding the effectiveness of current policy on the use of fireworks relate to both what are termed “Consumer Fireworks” (i.e. Category 1, 2 and 3 fireworks which are designed for sale to, and use by, non-professional operators such as the general public) and “Professional Fireworks Displays” (i.e. Fireworks displays carried out by professional operators who are licensed by the Department of Justice, Equality and Law Reform to import fireworks for specific displays. Category 4 fireworks are included in such displays)

Consumer Fireworks

○ Accidents and injuries

In the absence of detailed statistics in Ireland one cannot be definitive about the causes and full extent of accidents and injuries caused by fireworks. However, if one is to go by international evidence most injuries result from the misuse of fireworks, especially by children, and burns, hand

and eye injuries are the most frequent types of injury. It should be noted that in the EU survey, referred to above, Ireland and Greece had the lowest rate of firework injury of the countries surveyed. In this context it should be noted that both countries essentially have a ban on the sale of fireworks to the public.

- Quality assurance and consumer safety.

In addition to injuries caused by the misuse of fireworks serious injury can also occur from the malfunctioning of fireworks. In the report on EU survey on fireworks it states: “General concern over the quality and standard of some fireworks which might find their way onto the EU market was also expressed by some replying to the questionnaire. A harmonised EU approach on harmonised standards for fireworks should ensure that sub-standard fireworks are not placed on the EU market and should result in a significant reduction in the number of accidents caused through the malfunction of a firework.” The vast bulk of “Consumer Fireworks” illegally imported into Ireland are imported from the UK via Northern Ireland. As fireworks of Categories 1, 2 and 3 sold and distributed in the UK must be classified and authorised by the Health and Safety Executive, (HSE), in the UK, comply with the relevant British Standard (BS 7114) and comply with the relevant conditions for the Authorisation of Explosives in Great Britain (HSG 114) they are generally of an acceptable standard. However, fireworks coming from other locations, or fireworks which do not meet the British standard, may not be of a sufficiently high standard, with the result that accidents may occur because of the sub-standard nature of some of the fireworks being illegally imported and sold in this country.

- Illegal smuggling and sale of fireworks

Substantial quantities of illegally imported fireworks are seized in border areas and throughout the State each year by the Gardai and destroyed (see Table 1). It is evident that these seizures account for only a portion of the fireworks which are illegally sold to the public. Fireworks are sold openly in Northern Ireland close to the border thus facilitating their easy transportation across the border. Fireworks are also illegally sold in markets and city streets throughout the country.

- Public nuisance

Misuse of fireworks has increasingly become a public nuisance problem, especially when combined with anti-social behaviour. The growth in the use of fireworks and the tendency to use excessively loud fireworks during normal sleeping hours and the throwing of fireworks at property has caused considerable distress especially to some of the more vulnerable members of society. In addition severe distress and even injury has been inflicted on animals by the misuse of fireworks.

- Criminal and subversive use

There is an emerging and disturbing trend of use of fireworks as direct weapons against the Gardai and emergency services. There is also evidence of explosive material from fireworks having been used in the manufacture of certain improvised explosive devices.

Professional Firework Displays

- Licensing of events

A common misconception is that the Department of Justice, Equality and Law reform issues licenses for the holding of public fireworks display events. This is not the case. The Department only issues a ***licence to import*** fireworks for use at organised displays.

In Ireland, under the Planning and Development Act 2000, there are very limited circumstances in which a licence is issued for a firework display. Event licensing is a matter for the local authorities. When licensing an event a local authority can impose safety conditions on the organisers or participants in any public event to ensure public safety. They are often issued for transient entertainment such as large outdoor pop concerts and include automatic involvement of the fire services and Gardai and appointment of designated competent safety officers for the event. The event must be designated with an audience of 5000 or more outdoors or 1000 or more indoors. If the event is a “sporting event” a licence is not required, even if fireworks are used as part of the event. Thus if 60,000 people attend a football match, or other sporting event, and a fireworks display is used as part of the ceremony, no event licence is required.

Similarly, if an indoor event, such as a pop concert, is held with less than 1000 people and pyrotechnics are used, no event licence is required. This weakness in the safety licensing regulations centres round the definition of “a qualifying event” with the result that certain events involving large numbers where fireworks displays may be used do not require to be licensed by the local authority.

- Regulation and enforcement

In many countries there are regulations or codes of practice governing use of fireworks. In the UK the primary legislation governing public safety at organised displays is the 1974 Health and Safety at Work Act. This requires that fireworks operators and the public must be safeguarded. The Health and Safety Executive (HSE) have also issued display guidelines, as have the fireworks industry. In the UK and Canada local authority inspectors attend displays; in Australia workplace safety inspectors attend displays while occupational/environment inspectors attend displays in the Netherlands. In many other countries police or fire or local authorities attend and supervise public displays.

In Ireland, in addition to the licensing of events by local authorities, referred to above, the Safety Health & Welfare at Work Act, 1989, places duties on all employers to protect their employees and also to conduct their business in a manner which does not expose any member of the public to risk to their safety or health. That legislation combined with the General Applications Regulations 1993, also includes the requirements for risk assessments, safety statements, emergency procedures training etc. The Health and Safety Authority (H&SA) inspectors have power to inspect all work activities including “powers of enforcement including prohibition of specific activities, which, in the opinion of the Inspector, constitute a serious risk of imminent danger”. However, there is no statutory code of practice in force for the safe use of fireworks in public displays. In the absence of such a code the Department of Justice, Equality and Law Reform has issued a “Guidance Document on Organised Firework Displays”. However, this is non-statutory. Because of the absence of a statutory code there is a certain lack of clarity as regards the areas of

responsibility of the different agencies and regulatory authorities regarding the supervision, regulation or monitoring of safety at firework displays. Indeed apart from the limited number of licensed events involving fireworks, there appears to be limited supervision by regulatory authorities of other public fireworks displays in Ireland. It should be noted that the reported injury rate at organised firework displays in Ireland has been extremely low to date, however the frequency of these displays has increased dramatically in the past ten years, from 40 in 1992 to almost 400 in 2004.

Chapter 6

Options for Change

Given the range of concerns which we have outlined in chapter 5 we are satisfied that there is a need for change in both the law and policy governing fireworks. Our current policy for the control of fireworks is to impose very stringent restrictions on their importation. However, these controls can be easily circumvented due to the ease with which fireworks can be illegally imported from Northern Ireland and the weakness in our current powers of enforcement. While the 1875 Act provides specific penalties for the illegal importation of fireworks the penalties are seriously outdated and, in the context of trying to enforce the law, are meaningless. In addition to the foregoing further issues which need to be addressed are our obligations under the proposed new EU Directive on fireworks and the new standards which that Directive will impose. (See Appendix 1V). We have set out below a series of options for change which include the strengthening of our powers of enforcement, the introduction of a more liberal policy on importation, the introduction of restrictions on retail outlets and the introduction of timing and age restrictions.

Consumer Fireworks

Strengthen Enforcement

1. Maintain current policy of prohibiting the importation of fireworks for sale to the public but increase penalties for illegal importation, sale and firing of fireworks in public areas.

As has been outlined the main impediments to the enforcement of current policy are the difficulties experienced in the control of imports and the limitations of our current powers of enforcement. The first option which must therefore be considered is the strengthening of the existing powers of enforcement while maintaining our current strict policy of prohibiting the importation of fireworks for sale to and use by the general public. The first element of this option would be to increase existing penalties and provide for heavy fines, and in some cases imprisonment, for the illegal importation of fireworks. The second element would be to create a new offence of “possession with intent to supply” with appropriate

penalties in order to deal with issues such as the illegal possession and use of fireworks. This approach would ensure that realistic penalties would provide a basis on which the law could be effectively enforced. On the question of meeting our obligations under the proposed EU Directive on fireworks we could seek a derogation from the provisions of the new Directive. However, it is by no means certain that such derogation would be agreed to and, in the medium to longer term, it may be necessary for us to adopt a more liberal importation policy if we are to meet our likely EU obligations.

Liberalisation

There are two options to be considered here which relate to the extent to which the current restrictions on the importation of fireworks might be relaxed. However, before any liberalisation in policy is contemplated it would be necessary to ensure that the enforcement regime is strengthened along the lines set out at 1 above.

2. Strengthen enforcement as set out above and relax importation controls on Category 1 fireworks

As outlined in Chapter 4, some British fireworks, particularly those in Category 1, are suitable for use inside domestic buildings and, **when used according to instructions**, should not cause injury to people standing one meter or more away and should not cause damage to property. Accordingly, given the low risk which these type of fireworks present a case could be made for allowing the importation of Category 1 fireworks. However, if restrictions were lifted on this category of fireworks, it would be necessary to put in place mechanisms for approving, monitoring and inspecting sales outlets. It would also be necessary to have a mechanism in place to show compliance with the approved Standard (e.g. a quality kite mark for B.S. 7114 for British Standards or a CE mark for European Standards). It would also be necessary to clearly define the responsibilities of the various Government Departments and agencies for consumer safety and enforcement.

The main advantage with this approach is that while ensuring adequate powers of enforcement it also goes a significant way to satisfying our likely obligations under

the EU Directive. We would of course have to seek a derogation from the EU Directive in respect of Category 2 and 3 fireworks.

While the authorisation of the importation of such fireworks may not present a serious hazard, in many European countries, this category includes bangers, which are a source of public nuisance. Consequently, if this approach were to be adopted, bangers would have to be eliminated if the public nuisance issue were to be addressed.

Unfortunately, the licensing of Category 1 fireworks will not address the issue of the illegal importation of Category 2 and 3 fireworks. This would have to be addressed by the vigorous enforcement of new strengthened legislative provisions.

It is stressed that the relaxation of controls on any category of fireworks automatically brings with it the likelihood of increased public use and consequently increased rates of injuries, unless effective public safety campaigns are conducted in tandem with the relaxation of controls.

3. Strengthen enforcement as set out above and relax importation controls on Category 1, 2 and 3 fireworks with certain exceptions

While Category 1 fireworks are described as low hazard, Categories 2 and 3 present a higher hazard and in some cases an extremely high hazard. Category 2 fireworks are intended for outdoor-use in confined areas and when used according to instructions should not cause injury to people standing 5 meters or more away. In the case of hand held sparklers, the person holding them should not be injured by the dropping of hot slag or the ejection of sparks. Category 3 fireworks are intended for outdoor use in large open areas and when used according to instructions should not cause injury to people standing 25 meters or more away. People firing these fireworks would be expected to wear suitable personal protection.

This level of liberalisation would result in our being fully compliant with our likely obligations under the EU Directive. With this option, while all fireworks would currently be imported under strict licence and in a controlled way, it is not yet clear

how this control mechanism will operate under the Draft Directive. In addition, the question of public nuisance would need to be addressed and certain Category 2 and 3 fireworks (e.g. loud fireworks [say above 120db], bangers, air bombs and rockets with erratic flight) would have to be excluded from the list of those to be licensed for importation.

As we have said, the relaxation of controls on any category of fireworks automatically brings with it the likelihood of increased public use and consequently increased rates of injuries. To liberalise our controls to the extent proposed in this option would undoubtedly lead to an increase in the level of accidents and injuries due to the increased availability and use of more hazardous fireworks. The potential for anti-social and criminal use would also increase.

Allowing the importation of more hazardous fireworks would result in an increase in the explosive hazard presented by their storage. Consequently, it would be necessary to ensure that there were strict controls on the storage and sales locations of importers and retailers.

Control Retail Outlets

4. Introduce restrictions on approved retail outlets.

If a more liberal approach to the importation of fireworks were to be introduced the option of introducing controls on persons permitted to sell fireworks would need to be considered. In particular, retailers' storage and sales locations would have to conform to specific explosive storage regulations. In this context it would be necessary to have regard to the category of fireworks which would be permitted for sale. If it were decided to licence the importation for sale of Category 1 fireworks, then it may be necessary to only consider restrictions on the sale of bangers, as set out at 2 above, in order to deal with the public nuisance issue. However, if Categories 2 and 3 were to be allowed it would be necessary, not only to impose restrictions on the sale of loud fireworks (say above 120db), bangers, air bombs and rockets with erratic flight, to address the public nuisance issue but also to address the broader issue of public safety. In this regard it would be necessary to impose very stringent restrictions on sales outlets in relation to the amount of fireworks to be stored in their premises and the manner of their storage.

It would also be necessary to have a balanced approach to approving retail outlets in order to ensure that the conditions are not so strict as to increase the likelihood of the illegal importation of fireworks.

Introduce Timing Restrictions

5. Introduce restrictions on sale and use to certain periods (e.g. two week period up to Halloween) and times (e.g. up to 11pm with certain exemptions).

Similar to option 4 above, this option would need to be considered if an easing of the current restrictions on the importation of fireworks were contemplated. Again, as with option 4, similar considerations, in relation to the level of hazard, public nuisance and public safety, associated with the different categories of fireworks to be permitted for sale, would need to be fully addressed. However, to limit the sale of fireworks to specific times of the year would have the additional benefit of reducing further the incidence of anti-social behaviour and reduce distress to vulnerable members of society and animals.

A difficulty which would need to be addressed, if this option were to be adopted, is the question of the illegal importation of fireworks from Northern Ireland where they are currently available for sale throughout the year. In addition, the hazard which the hoarding fireworks by retailers would present would also need to be addressed. In order to address these concerns it would be necessary to introduce specific statutory provisions and penalties, including for example the revocation of any licenses granted, in order to ensure effective enforcement.

Introduce Age Restrictions

6. Introduce age restrictions on purchase and/or sale of fireworks.

As with options 4 and 5 the adoption of this option only arises in circumstances where the importation of fireworks for sale is permitted and where considerations, in relation to the level of hazard, public nuisance and public safety, associated with the different categories of fireworks have been fully addressed. A question which would need to be considered in this context is whether such age restriction should apply to all categories of fireworks or only the more hazardous types. While this approach might help to reduce the sale of fireworks to young persons

and also reduce the incidence of anti-social behaviour it would be extremely difficult to enforce.

Of course a combination of a number of the above options may also be feasible.

Professional Public Firework Displays

Issue a code of practice on public displays, (Agreed between Departments of Environment, Justice and Health & Safety Authority).

We have mentioned in Chapter 4 the lack of a statutory code of practice relating to Public Fireworks Displays for operators local authorities and enforcement agencies. This has led to a certain degree of uncertainty among the various organisations with responsibility for public safety as to their respective roles and responsibilities with regard to Public Fireworks Displays. The introduction of an agreed statutory code would clarify inter agency responsibilities and also introduce a “best practice” reference for operators, local authorities and enforcement agencies.

Issue event licenses for all events involving public firework displays, (Local authorities) and increase supervision of public firework displays, (local authorities, fire and H&SA).

In addition to the introduction of statutory code of practice the level of public safety at Public Fireworks Displays would be improved by involving the various regulatory agencies on a statutory basis in the supervision of Public Fireworks Displays. Broadening the definition of a qualifying event, to cover all public events involving fireworks, both indoor and outdoor events, would automatically involve local authority and regulatory agencies in public firework displays. Local authorities would have control over what events could take place and could impose safety conditions on the licence. Participation of Health and Safety inspectors in enforcement of Health and Safety regulations at public displays would also enhance public safety.

Chapter 7

Consultation Process

For the purpose of this consultation process it is proposed to place this Consultation Document of the Departments Website www.justice.ie

It is also proposed to send copies to the following Departments, agencies, organisations:

- Department of Enterprise, Trade and Employment
- Department of Environment, Heritage and Local Government
- Department of Health and Children
- Department of Defence
- Department of Arts, Sport and Tourism
- Department of Finance
- An Garda Síochána
- Health & Safety Authority
- Fire Services Council
- Customs authorities
- Fireworks operators
- Retail trade industry representatives
- General public (via website)
- National Council for the Blind of Ireland
- Age Action Ireland Ltd.
- Irish Farmers Association
- Irish Creamery Milk Suppliers Association
- ISPCA.

Consultation Period

The Consultation period will end on 31 May, 2005 and all submissions should be submitted before that date either by e-mail to:- **fireworks2005@justice.ie**

Or to :

**Department of Justice, Equality and Law Reform
Firearms and Explosives Division,
94 St Stephen's Green
Dublin 2.**

Consultation Questions

While fully comprehensive responses would be very welcomed it would be appreciated if respondents would in any submission which they wish to make address the following questions:

1. Are present controls adequate?
2. Which option, or combination of options is recommended, giving reasons for choice?
3. Are there any other options, (not listed), which would be preferable or more effective?
4. Which body/agency or Department should be involved in enforcing any new regulations?
5. Will the recommended options give sufficient powers to the enforcement agencies?
6. What advantages and disadvantages are envisaged for the recommended option/s?
7. Which regulatory body should co-ordinate consumer safety matters relating to fireworks?
8. Will the recommended option/s
 - a. Improve safety?
 - b. Reduce anti-social use of fireworks?
 - c. Have a negative/positive effect on industry or competition?

Appendix I

European Standards

European Standards

Background

The European Committee for Standardisation (CEN) are in the process of developing standards for fireworks. As of January 2005, 23 standards have been published and the remaining 12 are in final preparation. These standards are given the status of national standards by publication or endorsement. They are given legal status if referenced in legislation.

Scope

The standards define terms relating to the design, construction, primary packaging and testing of fireworks. The standards cover the following subjects and types of firework:

1. Terminology
2. Categorisation
3. Aerial Wheels – Specification and test methods
4. Bangers and banger batteries– Specification and test methods
5. Batteries or combinations– Specification and test methods
6. Bengal flames– Specification and test methods
7. Bengal matches– Specification and test methods
8. Bengal Sticks– Specification and test methods
9. Crackling granules– Specification and test methods
10. Double bangers– Specification and test methods
11. (Withdrawn)
12. Flash bangers and flash banger batteries– Specification and test methods
13. Flash pellets– Specification and test methods
14. Flying squibs– Specification and test methods
15. Fountains– Specification and test methods
16. Friction ignited flash bangers– Specification and test methods
17. Ground spinners– Specification and test methods
18. Hand-held fountains– Specification and test methods
19. Hand-held sparklers– Specification and test methods
20. Jumping crackers– Specification and test methods
21. Jumping ground spinners– Specification and test methods
22. Mines– Specification and test methods
23. Non-hand-held sparklers– Specification and test methods
24. Novelty matches– Specification and test methods
25. Party poppers– Specification and test methods
26. Percussion caps– Specification and test methods
27. Rockets– Specification and test methods
28. Roman candles– Specification and test methods
29. Serpents– Specification and test methods
30. (Withdrawn)
31. Shells in mortars– Specification and test methods
32. Snaps– Specification and test methods
33. Spinners– Specification and test methods
34. Table bombs– Specification and test methods
35. Throwdowns– Specification and test methods
36. Wheels– Specification and test methods
37. Whistlers– Specification and test methods

Categorisation

Fireworks are classified into four categories as follows:

Category 1 are very low hazard fireworks suitable for use inside domestic buildings;

Category 2 are low hazard fireworks which are intended for outdoor-use in confined areas;

Category 3 are medium hazard fireworks which are intended for outdoor use in large open areas and

Category 4 are high hazard fireworks which are intended for use by persons with specialist knowledge

It should be noted that this classification is similar to, but not identical with, the British Standard BS 7114 (See Appendix 11). The standards to date have only been written for Category 1, 2 and 3 fireworks.

Relationship between the European Standards and the proposed European Directive

The proposed Directive, when transposed into Irish Law, will reference the harmonised European Standards and thus give a legal status to the standards. Any firework then placed on the European market will have to conform to the standard and the Essential Safety Requirements contained in the Directive. A testing regime will be an integral requirement, where fireworks will have to be tested in accredited test laboratories in accordance with the Directive and standards. They will then be categorised and if they pass the tests they will be permitted to be marked with the European quality assurance “CE” mark and placed on the market.

It is likely that all the standards published to date will have to be revised in order to comply with the essential safety requirements of the Directive, before being declared as harmonised standards.

Irish Standards

The European Standards are re-published as Irish Standards by The National Standards Authority of Ireland and further information regarding the standards and their purchase can be got at :

www.standards.ie

Appendix II

British Standards

British Standards

Background

The British Standard (BS 7114) was published in 1988. Its purpose is to specify certain basic requirements for the construction and performance of fireworks as well as describing an associated classification system and methods of test in order to minimise risks to users, the public and property.

Scope

The standard defines terms and is applicable to fireworks for consumer use and public display, both indoors and outdoors.

BS 7114 is issued in three parts:

1. Classification of fireworks
2. Specification for fireworks
3. Methods of test for fireworks

Classification

Fireworks for sale to the general public are classified into three categories based on their intended use. Category 4 fireworks are confined to professional users.

Category	Intended Use	Notes
Category 1	Fireworks suitable for use inside domestic buildings	Includes caps, smoke devices, party poppers, table bombs, throwdowns, Novelty matches, sparklers Cracker snaps and serpents
Category 2	Fireworks suitable for outdoor use in relatively confined areas	Includes bangers, fountains, roman candles, mines, wheels, rockets, non-hand-held sparklers, hand-held sparklers and combinations
Category 3	Fireworks suitable for outdoor use in large open areas	Includes, bangers, fountains, roman candles, mines, wheels, rockets, non-hand-held sparklers, shells, shell-in-mortars and combinations
Category 4	Not intended for sale to the general public	Includes bangers, fountains, roman candles, mines, wheels, rockets, spinners, shells and combinations

Note that certain types of fireworks can appear in all 4 categories, depending on their explosive content or hazard, as determined by specification and test methods.

Specification

The specification defines compliance requirements for construction, performance (including limits for burning matter, projected debris, principal effects and angle of rocket flight), labelling and test criteria.

Methods of Test

The purpose of this part is to provide methods for assessment of compliance with the requirements of the specification. It includes examination, determination of explosive content, performance testing and test reporting.

Further information

The standards are published by the British Standards Institution. Further information at:

www.bsi-global.com.

Appendix III

Background to EU Directive and EU Fireworks Survey



EUROPEAN COMMISSION
ENTERPRISE DIRECTORATE-GENERAL

Environmental aspects of enterprise policy, resource-based & specific industries
Chemicals

ENTR/E3/AP/09.09.2003
Version 01

Possible EU Legislation on the Marketing and Use of Pyrotechnical Articles

Background information on Legislation in the Member States on Fireworks

Introduction

Pyrotechnical articles (e.g. distress flares, fireworks) are designed to produce effects such as the generation of heat, gas, light, or noise with fireworks representing the major use of such articles within the EU. Legislation on the marketing and use of pyrotechnical articles is currently determined nationally throughout the EU. The European Commission is evaluating this legislation and to assist in this exercise, recently circulated a questionnaire to Member States, Future Member States, Candidate Countries, and to EFTA Countries. This paper provides some background information and discusses some issues related to the marketing and use of fireworks articles with a view to possible EU legislation on pyrotechnical articles. It is based on the findings of the questionnaire and is supplemented by information from other sources.

Responses to the Questionnaire

Responses were received from 13 Member States, 6 Future Member States, all 3 Candidate Countries and 2 EFTA Members. 7 replies were also received from industry including one from a Member State which did not respond.

As fireworks represent the major use of pyrotechnical articles within the EU, many of the questions in the questionnaire related to fireworks. As a result, much of the information received related to fireworks and in many cases the replies focused exclusively on fireworks. However, in looking at pyrotechnical articles, it is important to note that although fireworks fall within the scope of pyrotechnical articles, the two serve entirely different markets and purposes. Indeed, most Member States, Future Member States, Candidate Countries and EFTA Members have legislation specific only to fireworks with other pyrotechnical articles being covered separately.

Accidents

Unfortunately, only 5 Member States, 3 Future Member States, 1 Candidate Country and 1 EFTA Member provided numerical information on accidents involving fireworks. In some cases, this might be the result of national systems for the recording of accidents not containing specific information on fireworks as a cause of accident. 2 Member States also provided general information on accidents involving fireworks. It should also be noted that the data from 1 Member State and 1 Future Member State appears to significantly under report accidents involving the use of fireworks and the Commission is reviewing this information further.

For those Countries which were able to provide numerical information on accidents, the table below lists some of the information recorded and compares the number of accidents to the population of the Country.

Comparison of recorded accidents and population
(Accident rate listed as number of accidents per million inhabitants)
-Only listing those replying to the questionnaire

Year	Pop (m)	2002	2001	2000	1999	1998	1997
Denmark	5.4						
Accidents		539	440	557	468	656	831
Rate		100.4	82.0	103.8	87.2	122.2	154.8
UK	60.1						
Accidents		1017	1362	972	1056	831	908
Rate		16.9	22.7	16.2	17.6	13.8	15.1
Greece	10.6						
Accidents		4	16	18	9	6	11
Rate		0.4	1.5	1.7	0.8	0.6	1.0
Ireland	3.9						
Accidents		8	22	11	3	10	6
Rate		2.1	5.7	2.8	0.8	2.6	1.5
Estonia	13.6						
Accidents		10	20	25	13	18	30
Rate		7.3	14.7	18.4	9.6	13.2	22.2
Norway	4.5						
Accidents		137	153	124	138	167	
Rate		30.3	33.8	27.4	30.5	36.9	

In addition to the above, a survey based on accidents recorded in a small number of Swedish hospitals in 1997 estimated that following an extrapolation, between 400 -500 persons were injured by fireworks in Sweden each year. This estimate results in accident rate of between 45 and 56 accidents per million inhabitants.

More detailed information on recorded accidents can be found in Annex II.

It should be noted that the above only lists reported accidents and is based on cases requiring hospital treatment. It does not include information accidents which may have been treated by a General Practitioner or that may have occurred in the home and not been reported. It is therefore possible that the number of accidents recorded by Countries under reports the true number.

Beyond stating the above factual information, it is not possible to read much into the data provided any and attempts to do so must be treated with caution.

It appears that accident rates vary between Member States, Future Member States, Candidate Countries and EFTA Members. This may be in part, due to local customs for the public usage of fireworks. These differences in public attitude to fireworks relate to the times of year

when fireworks are most in demand, the type of firework used, and the way in which consumers approach these products.

It can be seen that the recorded accident rate in Greece and Ireland is significant lower than that in Denmark, the UK, and Norway. The reasons for this are not clear, however, it is interesting to note that the two Member States with the lower rate essentially have a ban on the sale of fireworks to consumers.

Given that it is not possible to read much into the information beyond stating factual data, any attempt to estimate a figure for the total number of accidents across the EU must be treated very cautiously. However, a lower accident rate might be in the region of 15 per million and an upper rate might be in the region of 100 per million. Using these rates for an enlarged EU population of 455 million would give a total number of accidents involving fireworks of between 7,000 and 45,000 for this area.

It is also interesting to note that the Finnish supervisory authority has concentrated on preventing eye injuries as this has emerged as the most significant type of consumer accident resulting in serious injury. Over the last five years 30-40 serious eye injuries have resulted from consumers using fireworks during the New-Year period. In one or two cases this has resulted in the permanent loss of sight in one eye and a permanent reduction in sight in several cases. The main cause of these accidents is the misuse of fireworks e.g. throwing fireworks into a crowd.

Information on whether accidents are a result of a malfunction or a misuse of a firework is also limited. The information presented suggests that the majority are a result of misuse although it is interesting to note that in Denmark in 2002; almost half of the recorded accidents were as a result of a malfunction of the firework. General concern over the quality and standard of some fireworks which might find their way onto the EU market was also expressed by some replying to the questionnaire.

A harmonised EU approach on harmonised standards for fireworks should ensure that sub-standard fireworks are not placed on the EU market and should result in a significant reduction in the number of accidents caused through the malfunction of a firework. This could extend to the CE marking of fireworks with the result that only CE marked fireworks are placed on the market.

A harmonised EU approach to the provision on information on the safe handling and use of fireworks might also be helpful in reducing the number of accidents resulting from misuse.

Placing on the Market

Classification and approval

Current legislation in all Member States, Future Member States, Candidate Countries and EFTA Members divides fireworks into a number of Classes. These classes are essentially separated by the quantity of pyrotechnical substance contained within the firework, and in some cases, also by the location of use (indoors or outdoors) of the firework. Although these national classification systems display a similarity in being based on the quantity of pyrotechnical substance used, they are not the same.

Many Member States and Future Member States have approval systems for the placing of fireworks on their markets linked to classification. These approval systems currently use

national standards for the examination of fireworks. These standards can vary considerably between Member States for example, in respect of substances prohibited in fireworks. In recognition of these differences, CEN is seeking to develop harmonised EU standards on fireworks. Most Member States and a few Future Member States replying to the questionnaire reported that they are aware of CEN's work with some of those replying being personally in the work. Some Member States and a few Future Member States report that they have plans to adopt the CEN standards into their national legislation. However, CEN's work has encountered many problems spanning 12 years with the participants having great difficulty in reaching agreement on harmonised standards. As a result, a large number of A-deviations (continued use of national standards) have been requested from these standards by Member States.

A harmonised approach to the classification, use of standards, and approval system in relation to fireworks should lead to significant benefits in terms of product safety coupled with a single market for manufacturers and importers. However, given the problems encountered in the development of CEN standards it is clear this area needs to be reviewed.

Consumer Restrictions

Restrictions on consumers are where differences in national legislation throughout Member States and Future Member States are most apparent. These differences include the minimum age for the sale of fireworks and in the type of fireworks that may be sold to consumers.

Minimum Age Restrictions

One Member State and 2 Future Member States have national legislation which allows the sale of small fireworks (Class I) to children of any age. 2 Member States allow the sale of small fireworks (Class I) to children from the age of 8, and 2 Member States allow the sale of such fireworks from the age of 12. Another Member State allows the sale of such fireworks from the age of 15.

For fireworks of a greater size (Class II), 1 Member State allows the sale of these articles to children from the age of 14.

By contrast, the legislation in 4 Member States makes no distinction by class for the sale of fireworks by age. In this case, 2 Member States restrict the sale of all fireworks to consumers aged over 16 whilst 3 Member States restrict the sale to those aged over 18. Similarly, 1 Future Member State and 2 Candidate Countries also restrict sales to consumers aged over 18. In the case of those Member States and Future Member States which make a distinction to allow the sale of small fireworks to children, the sale of larger fireworks is largely only permitted to persons aged over 18.

Also, by way further contrast, 2 Member States and 1 Future Member State ban the sale of all fireworks generally to all consumers. In addition, 1 Future Member State only allows the sale of small fireworks to consumers and bans the rest.

All Member States, Future Member States, Candidate Countries and 2 EFTA Members essentially prohibit the sale of large fireworks to consumers.

These restrictions on the sale of fireworks to consumers in relation to minimum age are summarised in Annex I.

Restrictions in relation to time of year when fireworks may be sold or used

With the exception of those Member States and Future Member States which have a general ban on the sale of fireworks to consumers, 1 Member State prohibits the sale of fireworks from 1-26 December, 1 only allows their sale from 28-31 December, whilst 1 restricts their use to 31 December and 1 January only. These restrictions are also summarised in Annex I.

Types of firework sold

There are significant differences in the types of fireworks that may be sold according to national restrictions. Some Member States ban the sale of fireworks with bang effects (e.g. bangers) whilst other Member States place no restrictions on this type of firework. The sale of certain other types of fireworks is also banned in some Member States. The reasons behind these measures vary from safety concerns to avoiding concerns over nuisance.

Restrictions in terms of gross weight

Most Member States, Future Member States and Candidate Countries place no restrictions in their national legislation in relation to the gross weight of firework sold to consumers. In those cases where restrictions are in place, the gross weight of fireworks sold to consumers varies considerably from 0.2 kg to 24 kg. In some cases, the legislation on gross weight is quite detailed and provides a lower weight limit for certain types of fireworks e.g. rockets. Some Member States also restrict the gross weight of packages that may be sold to a consumer.

Labelling and Provision of information

Labelling requirements vary to some extent throughout Member States and Future Member States. These requirements can include information on classification and certification and some information on safe use or age restrictions. All national legislation requires the provision of information on safe handling and use.

What might EU legislation on the marketing and use of Fireworks cover?

EU legislation on the marketing and use of fireworks might cover the following areas:

- Define the types of fireworks that may be sold to consumers and those which are restricted to professionals.
- Define gross weight of fireworks sold to consumers (packaged weight?).
- Develop essential safety requirements leading to harmonised EU standards on fireworks.
- Prohibit the use of certain substances in fireworks
- Develop a harmonised EU approach to the provision on information on the safe handling and use of fireworks.

Restrictions on the sale of fireworks to Consumers by Age and Time of year they may be sold or used

NB – National Classifications systems are similar but are not the same.

Member State	Minimum Age Restrictions	Time of year Restrictions
Austria	Category I - (Novelty fireworks and firework toys) No Restrictions Category II - sale 18 years Category III - (larger fireworks) Special authorisation Category IV – Professional use	No restrictions
Belgium	16 years except for certain specific articles	No restrictions
Denmark	Category I - 15 years Category II - 18 years	No restrictions
Finland	12 years least dangerous fireworks 18 majority of fireworks	Sales prohibited from 1-26 December
France	Class I – 8 years Class II and III - 18 years Class IV - Professional, 18 years	No restrictions
Germany	Class I – recommended 12 years Classes II - 18 years Class III - 18 years authorisation required Class IV – Professional	Class II may only be used on 31.12 and 01.01.
Greece	Essentially a general ban on sales to consumers. Special permit required to purchase transport and use	May not be used at Easter
Ireland	Essentially a general ban on sales to consumers. Importation limited to professionals.	N/A
Italy		
Luxembourg	Class I - No restrictions Classes II and III - 18 years	No restrictions
NL		
Portugal	18 years	No restrictions
Spain	Class I - 8 years Class II - 14 years Class III - 18 years Class IV Professionals only	No restrictions
Sweden	18 Years (for a small number of articles No restrictions).	
UK	Categories I, II, and III - 18 years Category IV – Professionals only	No restrictions
Future	Minimum Age Restrictions	Time of Year

Consultation Document on Fireworks

Member States		Restrictions
Cyprus	Essentially a general ban on sales to consumers. Up to discretion of Inspector of explosives. Only small sparklers, Christmas crackers and percussion caps sold to consumers.	N/A
Czech Republic	Class I - No restriction Class II - 18 years Classes III and IV - 18 years	No restrictions
Estonia	Generally 18 although Division I can sold younger.	Sale and use of bangers prohibited from 01.11-30.12.
Hungary	Complete ban on consumer sales	N/A
Latvia	Classes I and II - 16 years. Class III	No restrictions
Lithuania	18 years	Prohibited to sell from 20.01-01.12 unless specialist.
Malta		
Poland		
Slovakia		
Slovenia		
Accession Country	Minimum Age Restrictions	Time of Year Restrictions
Bulgaria	Category I - No restrictions Category II - 18 years Categories III and IV – Professional use only	No restrictions
Romania	18 years	May only be sold between 27.12-31.12 and used between 31.12 and 01.01.
Turkey	18 years	No restrictions
EFTA Member	Minimum Age Restrictions	Time of Year Restrictions
Iceland	12 years for the purchase of fireworks 16 years for the sale of certain fireworks	May only be sold between 27.12 and 06.01. Special licence required outside these times.
Norway	Class IA No restrictions Class IB 16 years Class II and III 18 years	May only be sold from 27-31.12.

Appendix IV

DRAFT DIRECTIVE

OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL ON THE

PLACING ON THE MARKET OF PYROTECHNIC ARTICLES

E3 PE 599 pyrotechnics

**THIS WORKING DOCUMENT DOES
NOT NECESSARILY REPRESENT THE
VIEWS OF THE COMMISSION
SERVICES**

DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

on the placing on the market of pyrotechnic articles

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty establishing the European Community, and in particular Article 95 thereof,

Having regard to the proposal from the Commission¹,

Having regard to the opinion of the European Economic and Social Committee²,

Acting in accordance with the procedure laid down in Article 251 of the Treaty³,

Whereas:

- (1) The laws, regulations and administrative provisions in force in the Member States with regard to the placing on the market and use, in particular concerning aspects such as the safety and performance characteristics of pyrotechnic articles are different and such divergent national legislation are liable to cause barriers to trade within the Community.
- (2) The provisions for the safety and performance characteristics of pyrotechnic articles with regard to the placing on the market and use of such articles should be harmonised in order to guarantee the free movement of pyrotechnical articles within the internal market whilst ensuring a high level of protection of human health and safety of consumers.
- (3) Council Directive 93/15/EEC of 5 April 1993 on the harmonisation of the provisions relating to the placing on the market and supervision of explosives for civil uses⁴ states that pyrotechnic articles require appropriate measures to ensure the protection of consumers and the safety of the public and that additional legislation is planned in this field.
- (4) In order to ensure appropriate high levels of protection, pyrotechnic articles should be categorised according to their type of use, or their purpose and level of hazard.
- (5) The use of pyrotechnics is subject to markedly different cultural customs and traditions in different Member States. This makes it necessary to allow Member States to take national measures to limit the use or sale of certain categories of fireworks to the general public for public security or safety reasons.
- (6) The present Directive establishes the essential safety requirements which pyrotechnic articles must meet through conformity tests. In order to facilitate the process of

¹ OJ C , , p. .

² OJ C , , p. .

³ OJ C , , p. .

⁴ OJ L 121, 15.5.1993, p. 20.

demonstrating compliance with the essential safety requirements, harmonised standards are being developed related to the design, manufacture and testing of such articles.

- (7) Harmonised standards have a voluntary status and are drawn up and adopted by the Committee for European Standardisation (CEN), the Committee for Electro-technical Standardisation (CENELEC) and the European Telecommunication Standards Institute (ETSI). These organisations are recognised as competent for the adoption of harmonised standards, which they draw up in accordance with the general guidelines for co-operation between themselves and the Commission⁵, and with the procedure laid down in Directive 98/34/EC of the European Parliament and of the Council of 22 June 1998 laying down a procedure for the provision of information in the field of technical standards and regulations⁶.
- (8) The Council, in its Decision 93/465/EEC of 22 July 1993 concerning the modules for the various phases of the conformity assessment procedures which are intended to be used in the technical harmonisation directives, introduced harmonised means of applying procedures for conformity assessment. The application of these modules to pyrotechnic articles will make it possible to determine the responsibility of manufacturers and of bodies involved in the conformity assessment procedure by taking account of the nature of the pyrotechnic articles concerned.
- (9) As regards safety in transportation, the rules concerning the transport of pyrotechnic articles are covered by international conventions and agreements. At international level, there are United Nations recommendations on the transport of dangerous goods (including pyrotechnic articles), the scope of which extends beyond the Community framework and as a consequence, this Directive does not concern transport rules.

HAVE ADOPTED THIS DIRECTIVE:

Article 1

Objectives and scope

1. This Directive establishes rules designed to achieve the free movement of pyrotechnic articles in the internal market while, at the same time ensuring a high degree of protection of human health and safety of consumers.
2. This Directive establishes the essential safety requirements which pyrotechnic articles must fulfil with a view to their placing on the market.
3. This Directive shall apply to pyrotechnic articles as defined in article 2.
4. This Directive shall not apply to:
 - Pyrotechnic articles intended for use, in accordance with national law, by the armed forces or the police;

⁵ OJ C 91, 16.4.2003, p. 7

⁶ OJ L 204, 21.7.1998. p. 37, as last amended by Directive 98/48/EC (OJ L 217, 5.8.1998, P.18).

- Pyrotechnic articles falling within the scope of Council Directive 96/98/EC of 20 December 1996 on marine equipment⁷.
- Explosives falling within the scope of Council Directive 93/15/EEC⁸ of 5 April 1993 on the harmonisation of the provisions relating to the placing on the market and supervision of explosives for civil uses.
- Airbags and other car safety equipment.

Article 2

Definitions

For the purposes of this Directive:

1. 'Pyrotechnic article' means any article intended to produce effects such as the generation of heat, gas, light, noise or smoke or any combination of these effects by chemical reaction for both entertainment and technical purposes and including pyrotechnic articles listed in Commission Directive 2004/57/EC of 23 April 2004 on the identification of pyrotechnic articles and certain ammunition for the purposes of Council Directive 93/15/EEC on the harmonisation of the provisions relating to the placing on the market and supervision of explosives for civil uses⁹.
2. 'Placing on the market' means the first making available on the Community market of an individual product intended for end use, with a view to distribution and/or use, whether in return of payment or free of charge.
3. 'Firework' means pyrotechnic article for entertainment.
4. 'Manufacturer' means the natural or legal person who designs and/or manufactures a product covered by this Directive or who has such a product designed and manufactured, with a view to its placing on the market or for his own professional or private use, under his own name or trademark; or places a product covered by this Directive on the market under his own name or trademark.
5. 'Authorised representative' means any natural or legal person established within the Community who has received a written mandate from the manufacturer to act on his behalf with regard to the latter's responsibilities under this Directive.
6. 'Harmonised standard' means a technical specification adopted by a European standardisation body under a mandate from the Commission in conformity with the procedures laid down in Directive 98/34/EC compliance with which is not compulsory.
7. 'Person with specialist knowledge' means a person authorised by Member States to possess and/or use on their territory category 4 fireworks and/or category 2 other pyrotechnic articles as defined in Article 3.

⁷ OJ L 46, 17.2.1997 p. 25.

⁸ OJ L 121, 15.5.1993 p. 20.

⁹ OJ L 127, 29.4.2004, p. 73.

Article 3

Categorisation

1. Pyrotechnic articles falling within the scope of this Directive shall be categorised by the manufacturer according to their type of use, or their purpose and level of hazard. Notified bodies shall confirm the categorisation as part of the conformity assessment procedures according to Article 8.

Categorisation shall be as follows:

a. Fireworks

Category 1: fireworks which present a very low hazard and which are intended for use in confined areas, including fireworks which are intended for use inside domestic buildings;

Category 2: fireworks which present a low hazard and which are intended for outdoor use in confined areas;

Category 3: fireworks which present a medium hazard and which are intended for outdoor use in large open areas;

Category 4: fireworks which present a high hazard and which are intended for use by persons with specialist knowledge, commonly known as “fireworks for professional use”.

b. Other pyrotechnic articles

Category 1: pyrotechnic articles which present a low hazard and are intended for consumer use;

Category 2: pyrotechnic articles for technical purposes which present a medium or higher hazard and are intended for use by persons with specialist knowledge only.

2. Member States shall inform the Commission of the procedures whereby they identify and authorise persons with specialist knowledge.

Article 4

Obligations of the manufacturer

1. Manufacturers shall ensure that pyrotechnic articles falling within the scope of this Directive comply with the essential safety requirements set out in Annex I which apply to them as well as all the relevant provisions of this Directive.
2. Manufacturers of pyrotechnic articles shall be established in the Community or appoint an authorised representative.

The authorised representative may be addressed by authorities and bodies in the Community instead of the manufacturer with regard to those obligations that the representative has been mandated to carry out.

3. Manufacturers of pyrotechnic articles shall:
 - a) Submit the product to a notified body which will perform a conformity assessment procedure in accordance with Article 8;
 - b) Affix the CE-marking and label of the pyrotechnic article in accordance with Articles 10 and 11.

Article 5

Free Movement

1. Member States shall not prohibit, restrict or hinder the placing on the market of pyrotechnic articles which fall within the scope of this Directive and which satisfy the requirements of this Directive.
2. The provisions of this Directive shall also not preclude measures by a Member State which are justified on grounds of public security or safety to restrict the use and/or the sale to the general public of category 2 and 3 fireworks.
3. At trade fairs, exhibitions, demonstrations for marketing purposes, etc., Member States shall not prevent the showing of pyrotechnic articles not in conformity with the provisions of this Directive, provided that a visible sign clearly indicates their non-conformity and their non-availability for sale until brought into conformity by the manufacturer or by his authorized representative established within the Community. During such events, appropriate safety measures shall be taken in accordance with any requirements laid down by the competent authority of the Member State concerned in order to ensure the safety of persons.

Article 6

Age limits

1. Pyrotechnic articles shall not be sold or made otherwise available to consumers below the following age limits:
 - a. Fireworks**

Category 1: 12 years.

Category 2: 16 years.

Category 3: 18 years.
 - b. Other pyrotechnic articles**

Category 1: 18 years.
2. Member States may increase the age limits under paragraph 1 where justified on grounds of public security or safety. Member States may also lower the age limits for persons vocationally trained or undergoing such training.

3. Manufacturers and distributors shall not sell or otherwise make available the following pyrotechnic articles except to persons with specialist knowledge only:

a. Fireworks

Category 4.

b. Other pyrotechnic articles

Category 2.

Article 7

Harmonised standards

1. The Commission may, in accordance with the procedures laid down by Directive 98/34/EC, request the European standardisation bodies to draw up European standards in support of this Directive.
2. The Commission shall publish in the Official Journal of the European Union the references of such harmonised standards.
3. Member States shall consider pyrotechnic articles falling within the scope of this Directive which comply with the relevant harmonised standards, the references of which have been published in the Official Journal of the European Union, to be in conformity with the essential safety requirements referred to in Article 4(1).

When Member States adopt national transposition of the harmonised standards they shall publish the reference numbers of these transpositions.

4. Where a Member State or the Commission considers that the harmonised standards referred to in this Article do not fully satisfy the essential safety requirements referred to in Article 4(1), the Commission or the Member State concerned shall bring the matter before the Standing Committee set up by Directive 98/34/EC, giving its reasons. The Committee shall deliver its opinion without delay. In the light of the Committee's opinion the Commission shall inform the Member States of the measures to be taken regarding the harmonised standards and the publication referred to in paragraph 2.

Article 8

Conformity assessment procedures

1. For the attestation of conformity of pyrotechnic articles the Manufacturer shall follow one of the following procedures:
 - (a) EC type-examination (Module B) procedure referred to in Annex II (1), and, at the choice of the manufacturer, either:
 - the conformity to type (Module C) procedure referred to in Annex II (2), or
 - the production quality assurance (Module D) procedure referred to in Annex II (3), or

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- the product quality assurance (Module E) procedure referred to in Annex II (4), or
 - the product verification (Module F) procedure referred to in Annex II (5); or
- (b) the unit verification (Module G) procedure referred to in Annex II (6).

Article 9

Notified bodies

1. Member States shall inform the Commission and the other Member States of the bodies which they have appointed to carry out the procedures for assessing the conformity referred to in Article 8 together with the specific tasks which these bodies have been appointed to carry out and the identification numbers assigned to them beforehand by the Commission.
2. The Commission shall publish on the Commission's Internet web site a list of the notified bodies and their identification numbers and the tasks for which they have been notified. The Commission shall ensure that this list is kept up to date.
3. Member States shall apply the minimum criteria set out in Annex III for the assessment of bodies of which the Commission is to be notified. Bodies which meet the assessment criteria laid down by the harmonised standards relevant for notified bodies shall be presumed to satisfy the relevant minimum criteria.
4. A Member State which has notified the Commission of a given body shall withdraw the notification if it discovers that that body no longer meets the criteria referred to in the second subparagraph. It shall immediately inform the other Member States and the Commission accordingly.

Article 10

Obligation to affix CE marking

1. After having completed the conformity assessment according to article 8, manufacturers shall affix the CE marking, in such a way as to be visible, legible and indelible on the pyrotechnic articles themselves or, if this is not possible, on an identification plate attached thereto or, in the last resort, if the first two methods cannot be used, on the packaging. The identification plate must be so designed as to make its reuse impossible.

The model to be used for the CE marking shall be in accordance with Council Decision 93/465/EEC.
2. Manufacturers shall not affix on pyrotechnic articles any marking or inscription which may confuse third persons as to the meaning and form of the CE marking. Any other marking may be affixed on pyrotechnic articles provided the visibility and legibility of the CE marking is not impaired.
3. Where pyrotechnic articles falling within the scope of this Directive are subject to other European Union legislation which cover other aspects and prescribe the fixing of the CE marking, this marking shall indicate that the above mentioned products are

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also presumed to conform to the provisions of the other legislation which apply to them.

Article 11

Labelling

1. Manufacturers shall ensure that pyrotechnic articles are properly labelled.
2. The labelling of pyrotechnic articles shall state as a minimum, the name of manufacturer or its authorised representative, the name and type of the article, net explosive content, minimum age limits as indicated in article 6 sections 1 to 3, the relevant category and instructions for use and safe distance.
3. Fireworks shall additionally contain the following minimum information:

Category 1: where appropriate: “for outdoor use only” and minimum safety distance

Category 2: “for outdoor use only” and minimum safety distance(s)

Category 3: “for outdoor use only” and minimum safety distance(s)

Category 4: “for professional use only” and minimum safety distance(s)
4. If the pyrotechnic article does not provide sufficient space for the labelling requirements referred to in paragraphs 2 and 3, the information shall be provided on the packaging.
5. The provisions of paragraphs 1 to 4 shall not apply to category 4 fireworks and category 2 other pyrotechnic articles which are being publicly displayed by the manufacturer.

Article 12

Market surveillance

1. Member States shall take all appropriate measures to ensure that pyrotechnic articles falling in the scope of this Directive may be placed on the market only if, when properly stored and used for their intended purpose, they do not endanger the health and safety of persons and, where appropriate, domestic animals or property.
2. Member States shall organise and perform appropriate surveillance of products placed on the market taking due account of the presumption of the conformity of products bearing the CE marking.

Article 13

Rapid information on products presenting serious risks

Where a Member State has sufficient reasons to believe that a product covered by this Directive presents a serious risk that could compromise the health and/or safety of persons in the European Union, it shall inform the Commission and the other Member States thereof and

shall perform an appropriate evaluation. It shall inform the Commission and the other Member States of the results of the evaluation.

Article 14

Safeguard clause

1. Where a Member State ascertains that a pyrotechnic article covered by this Directive, when correctly stored, maintained and used for its intended purpose or in a reasonably foreseeable way, may compromise the protection of human health and environment, it shall take all appropriate provisional measures to prohibit or restrict its placing on the market and/or to withdraw it from its market. The Member State concerned shall immediately notify the Commission and inform the other Member States of the measure, indicating the reasons for it in the form of a summary report and specifying in particular, whether the non-compliance with the Directive is due to:
 - (a) failure of the product to meet the essential safety requirements set out in this Directive;
 - (b) incorrect application of the harmonised standards referred to in Article 7, in so far as it is claimed that these standards have been applied;
 - (c) shortcomings in the harmonised standards, referred to in point (b), themselves.

In its notification to the Commission, the Member State concerned shall also enclose the supporting evidence for the measure. The supporting documentation shall be made available to the other Member States upon request.

2. The Commission shall, as soon as possible, enter into consultation with the parties concerned, in particular the Member States, the manufacturer and, as the case may be, the notified body involved and shall proceed to the evaluation of the measure, taking into account the supporting documentation and any further data received.
3. The Commission shall, on the basis of the results of this evaluation, adopt its opinion, indicating whether the measure is considered to be justified or not.

Where the manufacturer does not object to the finding that the product is non-compliant, the notified measure is considered to be justified.

4. The Commission shall immediately notify all Member States of its opinion. It shall communicate its opinion to all other parties concerned.

Member States shall inform the Commission about the actions taken pursuant to its opinion.

5. Where the notified measure is considered to be justified and is attributed to shortcomings in the harmonised standards referred to in point 1(c), the Commission shall initiate the procedure referred to in Article 18.

Article 15

Absence or non-conformity of the CE marking and/or the EC declaration of conformity

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1. Without prejudice to Article 14, where a Member State ascertains that for a pyrotechnic product covered by this Directive, the CE marking has been unduly affixed and/or that the EC declaration of conformity has been unduly established, because the product does not comply with the administrative provisions of this Directive, it shall require the manufacturer to make the product conform and to end the infringement.

Where the manufacturer brings the product into conformity, the Member State concerned shall inform the other Member States and the Commission thereof.

Where non-compliance continues, the Member State shall take all appropriate measures to restrict or prohibit the placing on its market of the product in question or to ensure that it is withdrawn from the market. It shall inform the other Member States and the Commission of the outcome of the procedure.

Member States shall inform the Commission of their actions taken pursuant to this information.

2. The procedure referred to in paragraph 1 shall also apply with regard to the following non-conformities:
 - (a) the absence of the CE marking and/or the EC declaration of conformity in infringement of the provisions of this Directive;
 - (b) the affixing of the CE marking and/or the establishment of the EC declaration of conformity pursuant to this Directive inappropriately, for products not covered by this Directive or not subject to its provisions on the CE marking and the EC declaration of conformity.

Article 16

Measures entailing refusal or restriction

1. Any measure taken, pursuant to this Directive,
 - (a) to prohibit or restrict the placing on the market of a product; or
 - (b) to withdraw a product from the market, shall state the exact grounds on which it is based. Such measures shall be notified without delay to the party concerned, who shall at the same time be informed of the remedies available to him under the national law in force in the Member State concerned and of the time limits to which such remedies are subject.
2. In the event of a measure referred to in Article 14(1), the manufacturer should have an opportunity to put forward his viewpoint in advance, unless such consultation is not possible because of the urgency of the measure to be taken, as justified in particular by public health or safety requirements.

Article 17

Implementing measures

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Where necessary, the following measures for the implementation of this Directive shall be adopted in accordance with the procedure referred to in Article 18(2);

- Amendments necessary to take account of any future amendments to United Nations recommendations.
- The setting up of a register of European Union registration numbers for pyrotechnic articles that will make it easier to identify pyrotechnic articles and their manufacturer or the authorised representative in case of accidents through malfunctioning.
- Other measures needed for the efficient implementation of this Directive.

Article 18

Committee

1. The Commission shall be assisted by a committee.
2. Where reference is made to this paragraph, Articles 4 and 7 of Decision 1999/468/EC shall apply, having regard to the provisions of Article 8 thereof. The period laid down in Article 5(6) of Decision 99/468/EC shall be set at three months.
3. The committee shall adopt its rules of procedure.

Article 19

Sanctions

1. No later than []¹⁰ of this Directive, Member States shall establish appropriate legal or administrative measures in order to deal with any infringement of this Directive and dissuasive, effective and proportionate sanctions for any such infringement.

Member States shall include measures allowing them to detain consignments of pyrotechnic articles that fail to comply with this Directive.

2. They shall immediately inform the Commission thereof.

Article 20

Transposition

Member States shall adopt and publish, by [...] ¹¹ at the latest, the laws, regulations and administrative provisions necessary to comply with this Directive. They shall forthwith communicate to the Commission the text of those provisions and a correlation table between those provisions and this Directive.

They shall apply those provisions by [...] ¹² for fireworks and by [...] ¹³ for other pyrotechnic articles.

¹⁰ 18 months after the entry into force

¹¹ 18 months after publication of the Directive

¹² 24 months after publication of the Directive

¹³ 5 years after the publication of the Directive

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When Member States adopt those provisions, they shall contain a reference to this Directive or be accompanied by such a reference on the occasion of their official publication. Member States shall determine how such reference is to be made.

Member States shall communicate to the Commission the text of the main provisions of national law which they adopt in the field covered by this Directive.

National authorisations granted before national implementing measures come into force shall continue to be valid on the territory of the Member State having granted the authorisation until their expiry date or up to 10 years from the entry into force of the Directive, whichever is the shorter.

This Directive shall enter into force on the twentieth day following that of its publication in the *Official Journal of the European Union*.

Article 21

Entry into force

This Directive shall enter into force on the twentieth day following that of its publication in the Official Journal of the European Union.

Article 22

Addressees

This Directive is addressed to the Member States.

Done at Brussels,

For the European Parliament
The President

For the Council
The President

ANNEX I

ESSENTIAL SAFETY REQUIREMENTS

- (1) Each pyrotechnic article must attain the performance characteristics specified by the manufacturer to the notified body in order to ensure maximum safety and reliability.
- (2) Each pyrotechnic article must be designed and manufactured in such a way that it can be disposed of safely by a suitable process with minimum effect on the environment.
- (3) Each pyrotechnic article must function correctly when used for its intended purpose.

The following information and properties - where applicable - must be considered or tested. Each pyrotechnic article should be tested under realistic conditions. If this is not possible in a laboratory, the tests should be carried out in the conditions in which the pyrotechnic article is to be used.

- (a) Design, construction and characteristic properties, including detailed chemical composition (mass and percentage of substances used) and dimensions.
- (b) The physical and chemical stability of the pyrotechnic article in all normal, foreseeable environmental conditions.
- (c) Sensitiveness to normal, foreseeable handling and transportation.
- (d) Compatibility of all components as regards their chemical stability.
- (e) Resistance of the pyrotechnic article against influence of water where it is intended to be used in humid or wet conditions and where its safety or reliability may be adversely affected by water.
- (f) Resistance to low and high temperatures, where the pyrotechnic article is intended to be kept or used at such temperatures and its safety or reliability may be adversely affected by cooling or heating of a component or of the pyrotechnic article as a whole.
- (g) Safety features intended to prevent untimely or inadvertent initiation or ignition.
- (h) Suitable instructions and, where necessary, markings in respect of safe handling, storage, use (including safety distances) and disposal in the official language or languages of the recipient Member State.
- (i) The ability of the pyrotechnic article, its wrapping or other components to withstand deterioration under normal, foreseeable storage conditions.
- (j) Specification of all devices and accessories needed and operating instructions for safe functioning of the pyrotechnic article.
- (k) During transportation and normal handling, unless specified by the manufacturer's instructions, the pyrotechnic articles should contain the pyrotechnic composition.

- (4) The various groups of pyrotechnic articles must at least also comply with the following requirements:

A. Fireworks

- a) The manufacturer shall assign fireworks to different categories according to Article 3 characterised by net explosive content, safety distances, sound level, or similar. The category shall be clearly indicated on the label.
- b) Fireworks may only contain construction materials which minimise risk to health, property and environment from debris.
- c) The method of ignition must be clearly visible or must be indicated by labelling or instructions.
- d) Fireworks of category 1, 2 and 3 must be protected against inadvertent ignition either by a protective cover, by the packaging, or by the construction of the article. Fireworks of category 4 must be protected against inadvertent ignition by methods specified by the manufacturer.

B. Other pyrotechnic articles

- a) Pyrotechnic articles must be designed in such a way as to minimise risk to health, property and environment during normal use.
- b) The method of ignition must be clearly visible or must be indicated by labelling or instructions.
- c) The pyrotechnic article must be designed in such a way as to minimise risk to health, property and environment from debris when initiated inadvertently.
- d) Where appropriate, the pyrotechnic article shall function properly until the ‘use by’ date specified by the manufacturer

C. Ignition devices

- a) Ignition devices must be capable of being reliably initiated and be of sufficient initiation capability under all normal, foreseeable conditions of use.
- b) Ignition devices must be protected against electrostatic discharge under normal, foreseeable conditions of storage and use.
- c) Electric igniters must be protected against electromagnetic fields under normal, foreseeable conditions of storage and use.
- d) The covering of fuses must be of adequate mechanical strength and adequately protect the explosive filling when exposed to normal, foreseeable mechanical stress.
- e) The parameters for the burning times of fuses must be provided with the article.
- f) The electrical characteristics (e.g. no-fire current, resistance, etc.) of electric igniters must be provided with the article.
- g) The wires of electric igniters must be of sufficient insulation and mechanical strength including the solidity of the link to the igniter, taking account of their intended use.

ANNEX II

CONFORMITY ASSESSMENT PROCEDURES

1. MODULE B: EC type-examination

1. This module describes that part of the procedure by which a notified body ascertains and attests that an example, representative of the production envisaged, meets the relevant provisions of the Directive.

2. The application for EC type-examination is lodged by the manufacturer with a notified body of his choice.

The application must include:

- the name and address of the manufacturer,
- a written declaration that the same application has not been lodged with any other notified body,
- the technical documents, as described in Section 3.

The applicant must place at the disposal of the notified body an example representative of the production envisaged, hereinafter called 'type'. The notified body may request further examples if needed for carrying out the test programme.

3. The technical documents must enable the conformity of the appliance with the requirements of the Directive to be assessed. They must, as far as is relevant for such assessment, cover the design, manufacture and operation of the appliance and contain as far as is relevant for assessment:

- a general type-description,
- conceptual design and manufacturing drawings and diagrams of components, sub-assemblies, circuits, etc.,
- descriptions and explanations necessary for the understanding of the drawings and diagrams and the operation of the product,
- a list of the harmonised standards referred to in Article 7, applied in full or in part, and descriptions of the solutions adopted to meet the essential safety requirements of the Directive where the harmonised standards referred to in Article 7 have not been applied,
- results of design calculations made, examinations carried out, etc.,
- test reports.

4. The notified body must:

4.1. examine the technical documents, verify that the type has been manufactured in conformity with those documents and identify the elements which have been designed in accordance with the relevant provisions of the harmonised standards referred to in Article 7 as well as the components which have been designed without applying the relevant provisions of those harmonised standards;

4.2. perform or have performed the appropriate examinations and necessary tests to check whether, where the harmonised standards referred to in Article 7 have not been applied, the solutions adopted by the manufacturer meet the essential safety requirements of the Directive;

4.3. perform or have performed the appropriate examinations and necessary tests to check whether, where the manufacturer has chosen to apply the relevant harmonised standards, these have actually been applied;

4.4. agree with the applicant the location where the examinations and necessary tests are to be carried out.

5. Where the type meets the relevant provisions of this Directive, the notified body issues an EC type-examination certificate to the applicant. The certificate contains the

name and address of the manufacturer, the conclusion of the examination and necessary data for identification of the approved type.

A list of the relevant parts of the technical documents is annexed to the certificate and a copy kept by the notified body.

If the manufacturer is refused a type certificate, the notified body must provide detailed reasons for such refusal.

Provision must be made for an appeals procedure.

6. The applicant informs the notified body that holds the technical documents concerning the EC type-examination certificate of all modifications to the approved appliance which must receive additional approval where such changes may affect the conformity with the essential requirements or the prescribed conditions for use of the product. This additional approval is given in the form of an addition to the original EC type-examination certificate.

7. Each notified body must communicate to the other notified bodies the relevant information concerning the EC type-examination certificates and additions issued and withdrawn.

8. The other notified bodies may receive copies of the EC type-examination certificates and/or their additions. The Annexes to the certificates must be kept at the disposal of the other notified bodies.

9. The manufacturer must keep with the technical documents copies of EC type-examination certificates and their additions for a period of at least 10 years after the last date of manufacture of the product concerned.

Where the manufacturer is not established within the Community, the obligation to keep the technical documents available is the responsibility of the person who places the product on the Community market.

2. MODULE C: Conformity to type

1. This module describes that part of the procedure whereby the manufacturer ensures and declares that the pyrotechnic articles concerned are in conformity with the type as described in the EC type-examination certificate and satisfy the requirements of this Directive that apply to them. The manufacturer must affix the CE marking to each pyrotechnic article and draw up a written declaration of conformity.

2. The manufacturer must take all measures necessary to ensure that the manufacturing process assures the conformity of the manufactured product with the type as described in the EC type-examination certificate with the essential safety requirements of the Directive.

3. The manufacturer must keep a copy of the declaration of conformity for a period of at least 10 years after the last date of manufacture of the product concerned.

Where the manufacturer is not established within the Community, the obligation to keep the technical documents available is the responsibility of the person who places the product on the Community market.

4. A notified body chosen by the manufacturer must perform or have performed examinations of the product at random intervals. A suitable sample of the finished products, taken on the spot by the notified body, is examined and appropriate tests, defined in the applicable harmonised standard referred to in Article 7 or equivalent tests are carried out to check the conformity of the product with the requirements of the corresponding Directive. In the event of one or more samples of the products examined not conforming, the notified body must take the appropriate measures.

Under the responsibility of the notified body the manufacturer shall affix the identification number of that body during the manufacturing process.

3. MODULE D: Production quality assurance

1. This module describes the procedure whereby the manufacturer who satisfies the obligations of Section 2 ensures and declares that the pyrotechnic articles concerned are in conformity with the type as described in the EC type-examination certificate and satisfy the requirements of this Directive. The manufacturer affixes the CE marking to each article and draws up a written declaration of conformity. The CE marking is accompanied by the identification number of the notified body responsible for the checks referred to in Section 4.

2. The manufacturer must operate an approved quality system for production, final product inspection and testing as specified in Section 3. He is subject to the checks referred to in Section 4.

3. Quality system

3.1. The manufacturer lodges an application for assessment of his quality system with a notified body of his choice, for the pyrotechnic articles concerned.

The application must include:

- all relevant information for the pyrotechnic article category envisaged,
- the documents concerning the quality system,
- the technical documents pertaining to the approved type and a copy of the EC type-examination certificate.

3.2. The quality system must ensure conformity of pyrotechnic articles with the type as described in the EC type-examination certificate and with the requirements of this Directive that apply to them.

All the elements, requirements and provisions adopted by the manufacturer must be documented in a systematic and orderly manner in the form of written policies, procedures and instructions. The quality system documents must permit a consistent interpretation of the quality programmes, plans, manuals and quality records.

It must contain in particular an adequate description of:

- the quality objectives and the organisational structure, responsibilities and powers of the management with regard to the quality of the pyrotechnic articles,
- the manufacturing, quality control and quality assurance techniques, processes and systematic actions that will be used,
- the examinations and tests that will be carried out before, during and after manufacture, and the frequency with which they will be carried out,
- the quality records, such as inspection reports and test data, calibration data, qualification reports of the personnel concerned, etc.,
- the means of monitoring the achievement of the required quality of pyrotechnic articles and the effective operation of the quality system.

3.3. The notified body must assess the quality system to determine whether it satisfies the requirements referred to in section 3.2. It must presume conformity with those requirements in respect of quality systems that implement the relevant harmonised standard. The auditing team must have at least one member with experience of assessing the relevant product technology. The assessment procedure includes an inspection visit to the manufacturer's premises.

The decision is notified to the manufacturer. The notification must contain the conclusions of the examination and the duly substantiated assessment decision.

3.4. The manufacturer must undertake to fulfil the obligations arising out of the quality system as approved and maintain it at an adequate and efficient level.

The manufacturer must keep the notified body that has approved the quality system informed of any proposed change in the quality system.

The notified body must assess the changes proposed and decide whether the altered quality system will still satisfy the requirements referred to in section 3.2 or whether reassessment is required.

It must notify the manufacturer of its decision. The notification must contain the conclusions of the examination and the substantiated assessment decision.

4. Monitoring under the responsibility of the notified body

4.1 The purpose of monitoring is to make sure that the manufacturer duly fulfils the obligations arising out of the approved quality system.

4.2 The manufacturer must allow the notified body access for inspection purposes to the manufacturing, inspection, testing and storage premises and provide it with all necessary information, in particular:

- the quality system documents,
- the quality records, such as inspection reports and test data, calibration data, qualification reports of the personnel concerned, etc.

4.3. The notified body must periodically carry out audits to make sure that the manufacturer maintains and applies the quality system and provides an audit report to the manufacturer.

4.4. Additionally the notified body may pay unannounced visits to the manufacturer. During such visits the notified body may carry out tests or have them carried out to verify that the quality system is functioning correctly; if necessary, the notified body must provide the manufacturer with a visit report and, if a test has taken place, with a test report.

5. The manufacturer must, for a period of at least 10 years after the last date of manufacture of the product, keep at the disposal of the national authorities:

- the document referred to in the second indent of section 3.1,
- the updating referred to in second paragraph of section 3.4,
- the decisions and reports from the notified body which are referred to in the final paragraph of section 3.4, and in sections 4.3 and 4.4.

6. Each notified body must give the other notified bodies the relevant information concerning the quality system approvals issued and withdrawn.

4. MODULE E: Product quality assurance

1. This module describes the procedure whereby the manufacturer who satisfies the obligations of Section 2 ensures and declares that the pyrotechnic articles are in conformity with the type as described in the EC type-examination certificate. The manufacturer must affix the CE marking to each article and draw up a written declaration of conformity. The CE marking must be accompanied by the identification number of the notified body responsible for the checks referred to in Section 4.

2. The manufacturer must operate an approved quality system for final pyrotechnic article inspection and testing as specified in Section 3. He must be subject to the checks referred to in Section 4.

3. Quality system

3.1. The manufacturer lodges an application with a notified body of his choice for the assessment of the quality system for his pyrotechnic articles.

The application must include:

- all relevant information for the pyrotechnic category envisaged,
- the quality system's documentation,
- the technical documents pertaining to the approved type and a copy of the EC type-examination certificate.

3.2. Under the quality system, each pyrotechnic article is examined and appropriate tests as defined in the relevant harmonised standard(s) referred to in Article 7 or

equivalent tests are carried out in order to verify its conformity with the relevant requirements of the Directive. All the elements, requirements and provisions adopted by the manufacturer must be documented in a systematic and orderly manner in the form of written policies, procedures and instructions. This quality system documentation must enable the quality programmes, plans, manuals and records to be interpreted in a uniform manner.

It must in particular contain an adequate description of:

- the quality objectives and the organisational structure, responsibilities and powers of the management with regard to product quality,
- the examination and tests that will be carried out after manufacture,
- the means of monitoring the effective operation of the quality system,
- quality records, such as inspection reports and test data, calibration data, qualification reports of the personnel concerned, etc.

3.3. The notified body must assess the quality system to determine whether it satisfies the requirements referred to in section 3.2. It must presume conformity with these requirements in respect of quality systems that implement the relevant harmonised standard.

The auditing team must have at least one member with experience of assessing the relevant product technology. The assessment procedure must include an inspection visit to the manufacturer's premises.

The manufacturer must be notified of the decision. The notification must contain the conclusions of the examination and the substantiated assessment decision.

3.4. The manufacturer must undertake to fulfil the obligations arising out of the quality system as approved and maintain it at an adequate and efficient level.

The manufacturer must keep the notified body which has approved the quality system informed of any proposed change in the quality system. The notified body must assess the changes proposed and decide whether the altered quality system will still satisfy the requirements referred to in section 3.2 or whether a reassessment is required. It must notify the manufacturer of its decision. The notification must contain the conclusions of the examination and the substantiated assessment decision.

4.1. The purpose of monitoring is to make sure that the manufacturer duly fulfils the obligations arising out of the approved quality system.

4.2. The manufacturer must allow the notified body access for inspection purposes to the inspection, testing and storage premises and provide it with all necessary information, in particular:

- the quality system documentation,
- the technical documents,
- the quality records, such as inspection reports and test data, calibration data, qualification reports of the personnel concerned, etc.

4.3. The notified body must periodically carry out audits to ensure that the manufacturer maintains and applies the quality system and must provide an audit report to the manufacturer.

4.4. Additionally, the notified body may pay unannounced visits to the manufacturer. During such visits the notified body may carry out tests or have them carried out to verify that the quality system is functioning correctly; if necessary, the notified body must provide the manufacturer with a visit report and, if a test has been carried out, with a test report.

5. The manufacturer must for a period of at least 10 years after the last date of manufacture of the product keep at the disposal of the national authorities:

- the documents referred to in the second indent of section 3.1,

- the changes referred to in the second paragraph of section 3.4,
- the decisions and reports from the notified body which are referred to in the final paragraph of section 3.4, and in sections 4.3 and 4.4.

6. Each notified body must forward to the other notified bodies the relevant information concerning the quality system approvals issued and withdrawn.

5. MODULE F: Product verification

1. This module describes the procedure whereby a manufacturer checks and attests that the pyrotechnic articles subject to the provisions of section 3 are in conformity with the type as described in the EC type-examination certificate and satisfy the relevant requirements of the Directive.
2. The manufacturer shall take all measures necessary in order that the manufacturing process ensures conformity of the pyrotechnic articles with the type as described in the EC type-examination certificate and with the requirements of the Directive that apply to them. He shall affix the CE marking to each pyrotechnic article and shall draw up a declaration of conformity.
3. The notified body shall carry out the appropriate examinations and tests in order to check the conformity of the pyrotechnic article with the relevant requirements of the Directive by examination and testing of every article as specified in section 4. The manufacturer shall keep a copy of the declaration of conformity for a period ending at least 10 years after the last pyrotechnic article has been manufactured.
4. Verification by examination and testing of every pyrotechnic article
 - 4.1. All pyrotechnic articles shall be individually examined and appropriate tests as set out in the relevant harmonised standard(s) referred to in Article 7 or equivalent tests shall be carried out in order to verify their conformity with the relevant type and requirements of the Directive.
 - 4.2. The notified body shall affix, or cause to be affixed, its identification number to each approved pyrotechnic article and draw up a written certificate of conformity relating to the tests carried out.
 - 4.3. The manufacturer shall ensure that he is able to supply the notified body's certificates of conformity on request.

6. MODULE G: Unit verification

1. This module describes the procedure whereby the manufacturer ensures and declares that the pyrotechnic article which has been issued with the certificate referred to in Section 2 conforms to the relevant requirements of the Directive. The manufacturer must affix the CE marking to the article and draw up a declaration of conformity.
2. The notified body must examine the pyrotechnic article and carry out the appropriate tests as set out in the relevant harmonised standard(s) referred to in Article 7, or equivalent tests, to ensure its conformity with the relevant requirements of the Directive.

The notified body must affix, or cause to be affixed, its identification number on the approved pyrotechnic article and draw up a certificate of conformity concerning the tests carried out.
3. The aim of the technical documents is to enable conformity with the requirements of the Directive to be assessed and the design, manufacture and operation of the pyrotechnic article to be understood.

The documents must contain, in so far as is necessary for the assessment:

 - a general description of the type,
 - conceptual design and manufacturing drawings and schemes of components, sub-assemblies, circuits, etc.,

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- descriptions and explanations necessary for the understanding of the said drawings and schemes and the operation of the pyrotechnic article,
- a list of the harmonised standards referred to in Article 8, applied in full or in part, and descriptions of the solutions adopted to meet the essential safety requirements of the Directive where the harmonised standards referred to in Article 8 have not been applied,
- results of design calculations made, examinations carried out, etc.,
- test reports.

ANNEX III

MINIMUM CRITERIA TO BE TAKEN INTO ACCOUNT BY MEMBER STATES FOR THE BODIES RESPONSIBLE OF CONFORMITY ASSESSMENTS

1. The body, its director and the staff responsible for carrying out the verification tests shall not be the designer, manufacturer, supplier or installer of pyrotechnic articles which they inspect, nor the authorised representative of any of these parties. They shall not become either involved directly or as authorised representatives in the design, construction, marketing or maintenance of such articles. This does not preclude the possibility of exchanges of technical information between the manufacturer and the body.
2. The body and its staff shall carry out the verification tests with the highest degree of professional integrity and technical competence and shall be free from all pressures and inducements, particularly financial, which might influence their judgement or the results of the inspection, especially from persons or groups of persons with an interest in the result of verifications.
3. The body shall have at its disposal the necessary staff and possess the necessary facilities to enable it to perform properly the administrative and technical tasks connected with verification; it shall also have access to the equipment required for special verification.
4. The staff responsible for inspection shall have:
 - sound technical and professional training,
 - satisfactory knowledge of the requirements of the tests they carry out and adequate experience of such tests,
 - the ability to draw up the certificates, records and reports required to authenticate the performance of the tests.
5. The impartiality of inspection staff shall be guaranteed. Their remuneration shall not depend on the number of tests carried out or on the results of such tests.
6. The body shall take out civil liability insurance unless its liability is assumed by the State in accordance with national law, or the Member State itself is directly responsible for the tests.
7. The staff of the body shall be bound to observe professional secrecy with regard to all information gained in carrying out its tasks (except vis-à-vis the competent administrative authorities of the State in which its activities are carried out) under this Directive or any provision of national law giving effect to it.

ANNEX IV

CONFORMITY MARKING

The CE conformity marking shall consist of the initials 'CE' taking the following form:

If the marking is reduced or enlarged the proportions given in the above graduated drawing must be respected.