

Indoor Pyrotechnics Regulation Information - March 2003

This information is believed to be correct as of March 1, 2003; however, we do not guarantee that it is correct. It is your responsibility to double-check and confirm this information with your local authorities. Furthermore, this information is for the U.S.A. only. If you are in another country, you must learn the information from your local authorities.

There are several legal aspects to consider when dealing with theatrical pyrotechnics:

- 1. Transportation** - this is regulated by the D.O.T. (Department of Transportation)
- 2. Possession and Storage** - this is regulated by the A.T.F. (Bureau of Alcohol, Tobacco and Firearms)
- 3. Usage: Licensing** - this is regulated by your State, or sometimes by your City, generally by the S.F.M. (State Fire Marshal)
- 4. Usage: Permits** - this is regulated by your A.H.J. (Authority Having Jurisdiction), which is generally your L.F.D. (Local Fire Department)

1. Transportation

Pyrotechnic products basically fall into two categories for shipping purposes:

- a) Ready-to-use
- b) Not Ready-to-use

Examples of Ready-to-use products are pyro cartridges with two wires or two pins attached, such as gerbs. Examples of Not Ready-to-use products are wet flash paper and binary (A&B 2-part) flash powders.

Most of the Ready-to-use products that Theatre Effects sells are Class 1.4S. Class 1.4S products must be shipped in a special box, with special labels and forms attached. They can be shipped air or ground. You must be a certified hazmat shipper in order to ship these products via UPS Ground, UPS Air, or Fedex Ground. Fedex Air will accept these packages from non-certified shippers; however, their hazmat surcharge is very expensive, and they will only accept these packages in their Priority Overnight service which is also very expensive.

Ready-to-use products cannot be brought on airline flights in your checked or carry-on luggage, and they cannot be mailed.

Most of the Not Ready-to-use products that Theatre Effects sells are Class 4.1. Due to special small-quantity exemptions, special boxes and forms are generally not needed for our 4.1 products; however, hazmat labeling and certification is still required.

Although airlines are allowed to accept small-quantity 4.1 items in luggage, it's at their discretion, and most choose not to. If you'd like to find out if you can carry it on your flight, call the airline well in advance and tell them you'd like to bring a product that conforms to CFR Title 49, Section 173.4. You'll be lucky to find somebody who understands what this means, let alone be granted permission to bring it aboard. But you can certainly ask.

It is also permissible to mail certain 4.1 items, and there is no hazmat surcharge for doing so. That's the advantage. The disadvantage is that it's not easy to learn what items are mailable. Most postal employees don't know that some Class 4.1 hazmat products are mailable, and/or under which conditions they may be mailed. If you'd like to research this for yourself, go to www.usps.com and download the free "Publication 52". Then wade through the 350 pages to see what you can find out. (Incidentally, this is only an option for domestic mail. No 4.1 items are allowable in international mail.)

2. Possession and Storage

Most Ready-to-use products sold by Theatre Effects are classified as "common explosives" and this class is not regulated by A.T.F., thus no license is required. Similarly, A.T.F. does not require special storage for these products (storage known as an explosives magazine); however, some states supersede this with their own rules and do require a magazine, in which case a Type IV will do (the cheapest and lightest magazine - can be installed indoors, but not in a residence).

Similarly, most Not Ready-to-use products don't require an A.T.F. license or special storage. The exception is binary (A&B 2-part) flash powder. If you are going to mix flash powder on a continual or regular basis, you meet A.T.F.'s definition of "manufacturer", and a license called Type 19 Manufacturer of Binary Explosives is required. If you're mixing flash powder on a casual or incidental basis, then the definition of manufacturer is not met and no license is required.

Mixed flash powder can only be stored in an explosives magazine, therefore most people choose to dispose of unused flash powder as this is generally cheaper than buying and maintaining a magazine.

Some people choose to get an A.T.F. license even if they don't need one, since possessing one often makes it easier to secure state licenses and/or local permits. In this case either a Type 19 or Type 33 (User of High Explosives) will suffice.

The A.T.F. publication entitled "Federal Explosives Law and Regulations" is full of useful information and is easy to read and understand. You can download it for free at www.atf.treas.gov. It's also referred to as "ATF P 5400.7", and simply as "The Orange Book" - due to its traditional orange cover.

3. Usage: Licensing

In the United States of America, most commerce that doesn't cross state lines is regulated by the individual states, thus there is no "national" license for the use of theatrical pyrotechnics. These licenses are generally governed by the state you will perform the effects in (sometimes by the city). Regulations vary greatly; some states require no license at all, while others require a license for which testing, formal training, and an apprenticeship are all required.

You will need to contact your state authorities in order to learn the requirements in your particular state. Generally your S.F.M. (State Fire Marshal) office has this information.

4. Usage: Permits

In addition to (or sometimes instead of) a license, a permit is often required. Whereas licenses are valid for extended periods of time, and are used as evidence of a person's capability and competence, a Permit gives specific permission to perform particular effects at a particular place on a particular date(s). Permits are issued by the A.H.J. (Authority Having Jurisdiction) over the particular geographical location where the effects will be performed. The A.H.J. is usually the local fire department. Like licensing, permitting regulations vary greatly, from none required, to stringent requirements that includes licensing, insurance, pre-performance testing, and the hiring of a fire watch (generally a fireman who stands by during the performance to insure that all necessary safety precautions are adhered to).

You will need to contact the A.H.J. to learn the specific permitting requirements for the location where your effects are to be performed.

Additional Tips:

a) Purchase and read N.F.P.A. Publication 1126: Standard For The Use Of Pyrotechnics Before A Proximate Audience. This is available from Theatre Effects, and from the N.F.P.A. (National Fire Protection Association). Note that this is a Standard not a law. A Standard only becomes a law when a legislative body specifically votes to declare it as such, for the geographical territory over which they have jurisdiction. This Standard may or may not be law in the location where you intend to perform your effects. In any case, it's good practice to adhere to the guidelines it contains.

b) When contacting your state or local authorities to seek permission, it's important to be specific about the effects you want to produce. Don't use the word "fireworks". Pyrotechnic products designed to be used on a stage in close proximity to actors or audience are not fireworks. If you ask about fireworks, you'll get the wrong answer (the answer for fireworks). The terms "proximate pyrotechnics" or "proximate effects" are more accurate.

c) Flash Powder effects are very different from Flash Paper effects. Flash Powder effects are Flash Pots (flash of light and puff of smoke), and Ready-to-use products (such as gerbs/sparkle fountains). When you ask a S.F.M. or A.H.J. about theatrical pyrotechnics, they will assume you are talking about Flash Powder effects and that's the answer you'll get. If your effects are products that are safe to ignite in the hand, such as Flash Paper and Colored Smoke Powder, you need to make sure this fact is understood. The laws regarding these products are often quite different than the laws regarding "typical" stage pyrotechnics (i.e. flash powder). In order to find out the regulations for flash paper, you might first ask if a license or permit is required for burning a piece of ordinary paper on-stage. For example, if a mentalist would want to have an audience member write down something on a piece of paper, and then burn that piece of paper before predicting what it said, would that mentalist require a license or permit? Once you know the answer to this, you can ask "what if" it's magicians flash paper instead, i.e. paper that has been treated with an acid in order to make it burn quicker than regular paper, and with no ash.

d) Be sure to let the venue know ahead of time that you plan to use licensed/permitted pyrotechnics, and make sure they don't have a problem with that. They may want to double-check the flame-resistant treatment on nearby curtains, or they may want to have an extra stagehand standing by with a fire extinguisher. Or they may have a policy against allowing pyrotechnics at all, for any of a variety of unusual reasons.

e) Obey the cardinal rule - if in doubt, leave it out.

This information has been written by Nathan Kahn of Theatre Effects, Inc. This information is believed to be correct as of March 1, 2003; however, we do not guarantee that it is correct. It is your responsibility to double-check and confirm this information with your local authorities. Furthermore, this information is for the U.S.A. only. If you are in another country, you must learn the information from your local authorities.

Additional information is available at www.theatrefx.com, and via our mailing list (join at the website). A free print catalog full of all types of theatrical special effects - both pyro and non-pyro - can also be ordered at the website.

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