

Questions and Answers Hobby Rocket Motors

8/09/04

ATF has received a number of questions about the applicability of Federal explosives law and regulations to hobby rocketry.

The following frequently-asked questions and answers are set forth to provide rocketry hobbyists with guidance to enable them to enjoy their hobby in compliance with the safety-and-security related requirements of the law and regulations.

ATF looks forward to continuing to work with the rocketry community to help ensure that hobbyists understand and are able to comply with all applicable requirements. Hobbyists who have additional questions should feel free to contact ATF's Explosives Industry Programs Branch at 202-927-2310.

1. Which rocket motors and reload kits are exempt from ATF regulation?

Fully-Assembled Motors

Any fully-assembled rocket motor containing more than 62.5 grams of propellant is subject to the permitting, storage and other requirements of Federal explosives law and regulations as set forth at 18 U.S.C. Chapter 40 and 27 C.F.R. Part 555. Any other fully-assembled rocket motor (*i.e.*, any fully-assembled motor containing up to 62.5 grams of propellant) is exempt from regulation pursuant to longstanding ATF policy. Pending rulemaking, certain fully-assembled motors containing 62.5 grams of propellant or less are also considered to be exempt as propellant actuated devices.

Reload Kits and Propellant Modules

Any reload kit or propellant modules that can be used in the assembly of a rocket motor containing a total of more than 62.5 grams of propellant (even if the individual propellant modules each contain 62.5 grams of propellant or less) are subject to the permitting, storage and other requirements of Federal explosives law and regulations. All other reload kits and propellant modules (*i.e.* reload kits and propellant modules that can be used only in the assembly of rocket motors that contain a total of no more than 62.5 grams of propellant per assembled motor) are exempt from regulation pursuant to longstanding ATF policy. Pending rulemaking, certain reload kits and propellant modules that can be used only in the assembly of rocket motors that contain no more than 62.5 grams of propellant per assembled motor are also considered to be exempt as propellant actuated devices.

2. Is a person who manufactures propellant or electric igniters for his own use required to obtain an ATF permit or license?

Questions and Answers Hobby Rocket Motors

No, a license or permit is not required to manufacture explosive materials (including propellant, igniters, etc.) for one's own use. A person manufacturing for his/her own use is, however, required to store non-exempt explosive materials in an approved storage magazine. Additionally, a permit is required if a person wishes to transport non-exempt explosive materials, and a license is required if a person wishes to engage in the business of selling explosive materials that he/she manufactures.

3. I would like to manufacture and distribute single use rocket motors and/or propellant reload kits. What ATF license is required?

Only a manufacturer's license is required. Licensed manufacturers may engage in the business of manufacturing explosive materials for purposes of sale or distribution or for their own use. It is not necessary for a licensed manufacturer to also obtain a dealer's license to engage in business on his or her licensed premises as a dealer in explosive materials. *See 27 CFR § 555.41(b)(3).*

4. How are rocket motor igniters classified?

Igniters are classified as explosives. Federal explosives law defines the term "explosives" as follows: "any chemical compound mixture, or device, the primary or common purpose of which is to function by explosion; the term includes, but is not limited to, dynamite and other high explosives, black powder, pellet powder, initiating explosives, detonators, safety fuses, squibs detonating cord, igniter cord, and igniters." *See 18 U.S.C. § 841(d).*

5. Must ammonium perchlorate composite propellant (APCP) be stored in a magazine?

Yes; however, single use rocket motors containing no more than 62.5-grams of APCP and/or rocket motor reload kits and propellant modules that cannot be used in the assembly of a rocket motor containing more than 62.5-grams of APCP 62.5 grams, do not require storage.

Accordingly, the following items must be stored in accordance with the requirements of the Federal explosives regulations:

Single use rocket motors containing more than 62.5 grams of APCP or other explosive material (not including pyrotechnic delay or ejection charges)

Reload kits and propellant modules that can be used to assemble a rocket motor containing more than 62.5 grams of APCP or other explosive material.

6. When attending a rocket launch overnight, how should one store one's non-exempt rocket motors, reload kits, and propellant modules?

Questions and Answers Hobby Rocket Motors

In accordance with the requirements of Subpart K of the Federal explosives regulations found at 27 C.F.R. Part 555.

7. *May a rocket motor dealer engage in the business of selling non-exempt rocket motors or non-exempt reload kits/propellant modules away from his/her licensed premises (e.g. at a launch site).*

No; however, delivery may be made at launch sites if the transaction/sale has occurred previously at the licensed premises.

8. *Are motors containing ammonium-nitrate explosive mixtures and/or potassium-nitrate explosive mixtures considered explosives?*

Yes.

9. *What type of magazine would I use to store my non-exempt rocket motors or other explosive materials?*

All persons who store explosives must store them in conformity with the provisions of Subpart K of the regulations. APCP rocket motors are, by way of example, considered to be low explosives. At a minimum, therefore, they must be stored in type 4 storage magazines.

10. *My rocket motors are being stored in a type-4 magazine with two flush mount locks on the lid with a lever mechanism that rests under a small piece of metal on the edge of the magazine wall (typically 18-gauge sheet metal), to secure the lid. Is this acceptable?*

No, the flush mount locks fail to meet the locking requirements set forth in 27 CFR § 555.210.

ATF has examined the flush-mounted bolt style locks, which secure the magazine by means of a bolt-type mechanism. The cylinder portion of the lock mounts in the lid of the magazine in such a manner that, when the key is turned, the bolt slides toward the outer wall of the magazine. This bolt engages in a slotted locking block attached securely to the inside of the magazine wall. Because this locking mechanism relies upon interlocking solid metal parts, operating in a fashion similar to a deadbolt lock, it provides a level of theft resistance that is substantially equivalent to that required by the regulations.