



U.S. Department of Justice

Bureau of Alcohol, Tobacco,
Firearms and Explosives

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OPEN LETTER TO ALL FEDERAL EXPLOSIVES LICENSEES AND PERMITTEES

The purpose of this letter is to clarify the definition of “display fireworks” in the Federal explosives regulations. Members of the explosives industry have inquired whether the 40-gram threshold for aerial shells to be deemed “display fireworks” includes the weight of the “lift charges” that propel them. Aerial shells typically contain pyrotechnic stars and inserts that create visual and sound effects, bursting or break charges that ignite the stars, and lift powder that propel the shells into the air. Lift charges are typically made of black powder.

The Federal explosives regulations at 27 CFR 555.11 define “display fireworks,” in part, as “large fireworks designed primarily to produce visible or audible effects by combustion, deflagration, or detonation. This term includes, but is not limited to, salutes containing more than 2 grains (130 mg) of explosive materials, aerial shells containing more than 40 grams of pyrotechnic compositions, and other display pieces which exceed the limits of explosive materials for classification as “consumer fireworks.” The term “pyrotechnic compositions” is defined by 27 CFR 555.11 as “[a] chemical mixture which, upon burning and without explosion, produces visible, brilliant displays, bright lights, or sounds.”

Lift charges are designed to propel an aerial shell into the air, rather than to produce visual or audible effects. Unless a particular lift charge contains explosive materials designed to produce visual or audible effects, the lift charge would not be a “pyrotechnic composition” for purposes of the 40-gram threshold for display fireworks. Thus, aerial shells that contain more than 40 grams of pyrotechnic compositions (excluding the lift charge) are classified as display fireworks, if they otherwise meet the definition of “display fireworks” at 27 CFR 555.11. Likewise, aerial shells holding 40 grams of pyrotechnic compositions or less are not display fireworks, and would be consumer fireworks if they otherwise meet the definition of “consumer fireworks” at 27 CFR 555.11. The term “consumer fireworks” is defined by 27 CFR 555.11, in part as “any small firework device designed to produce visible effects by combustion and which must comply with the construction, chemical composition, and labeling regulations of the U.S. Consumer Product Safety Commission...Some small devices designed to produce audible effects are included, such as whistling devices, ground devices containing 50 mg or less of explosive materials, and aerial devices containing 130 mg or less of explosive materials.”

This conclusion is consistent with American Pyrotechnics Association (APA) Standard 87-1 and Department of Transportation regulations (49 CFR 173.56(j)), which defines “display fireworks,” in relevant part, to include aerial shells containing more than 40 grams of chemical composition *exclusive of lift charge*. Note that ATF regulations define display fireworks in relation to individual aerial shells, and do not specify pyrotechnic composition thresholds for multiple aerial shells packaged together in kits.

You may send display fireworks questions by e-mail to EIPB@atf.gov, or in writing to:

Chief, Explosives Industry Programs Branch
Bureau of Alcohol, Tobacco, Firearms and Explosives
99 New York Avenue, NE
Mail Stop 6N-672
Washington, DC 20226



Arthur Herbert
Assistant Director
Enforcement Programs and Services