



U.S. Department of Justice

Bureau of Alcohol, Tobacco,  
Firearms and Explosives

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Mr. William H. Cook  
PIEXON USA  
12020 Sunrise Valley Drive  
Suite 100  
Reston, Virginia 20191

Dear Mr. Cook:

This refers to your letter of December 8, 2005, to the Firearms Technology Branch (FTB), Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF) regarding the classification of the **PIEXON JET PROTECTOR JPX** prototype liquid irritant dispensing device. The Piexon device, accompanied by two loaded practice cartridge heads, was enclosed.

As you are aware, the **Gun Control Act of 1968 (GCA), 18 U.S.C. § 921(a)(3)**, defines the term “**firearm**” to include the following:

*...(A) any weapon (including a starter gun) which will or is designed to or may be readily converted to expel a projectile by the action of an explosive; (B) the frame or receiver of any such weapon; (C) any firearm muffler or silencer; or (D) any destructive device. Such term does not include an antique firearm.*

Further, 18 U.S.C. § 921(a)(17)(A) defines the term “ammunition” as “*ammunition or cartridge cases, primers, bullets, or propellant powder designed for use in any firearm.*”

In addition, the **National Firearms Act (NFA), 26 U.S.C. § 5845(a)**, defines “**firearm**” as—

*...(1) a shotgun having a barrel or barrels of less than 18 inches in length; (2) a weapon made from a shotgun if such weapon as modified has an overall length of less than 26 inches or a barrel or barrels of less than 18 inches in length; (3) a rifle having a barrel or barrels of less than 16 inches in length; (4) a weapon made from a rifle if such weapon as modified has an overall length of less than 26 inches or a barrel or barrels of less than 16 inches in length; (5) any other weapon, as defined in subsection (e); (6) a machinegun; (7) any silencer (as defined in 18 U.S.C. § 921); and (8) a destructive device. The term "firearm" shall not include an antique*

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*firearm or any device (other than a machinegun or destructive device) which, although designed as a weapon, the Secretary finds by reason of the date of its manufacture, value, design, and other characteristics is primarily a collector's item and is not likely to be used as a weapon.*

Finally, the NFA, § 5845(e), defines “**any other weapon**” as—

*...any weapon or device capable of being concealed on the person from which a shot can be discharged through the energy of an explosive, a pistol or revolver having a smooth bore designed or redesigned to fire a fixed shotgun shell, weapons with combination shotgun and rifle barrels 12 inches or more, less than 18 inches in length, from which only a single discharge can be made from either barrel without manual reloading, and shall include any such weapon which may be readily restored to fire. Such term shall not include a pistol or revolver having a rifled bore, or rifled bores, or weapons designed, made, or intended to be fired from the shoulder and not capable of firing fixed ammunition.*

Piexon, AG, in Arawangen, Switzerland, manufactured the submitted polymer two-shot liquid dispensing device. It is designed to discharge a liquid irritant, containing 10-percent Oleoresin Capsicum, through a detachable polymer cartridge head incorporating two separate chambers, both of which expel the liquid through a constricted muzzle opening. The cartridge head, containing two fixed 14x109mm PIEXON caliber cartridges, cannot be reloaded and is disposable once used.

Below are the stated specifications of this device, as confirmed by FTB:

Dimensions	- 7.28 inches (185mm) x 3.46 inches (88mm) x 1.38 inches (35mm).
Weight	- 10.6 ounces (300 grams).
Maximum Range	- 23 feet (7 meters).
Safety Distance	- 5 feet (1.5 meters).
Operation	- double action only, automatic switchover, pyrotechnic drive.
Capacity	- two shots, each having a volume of 0.39 fluid ounce (11ml).
Cartridge Head	- (Yellow) live OC cartridge head (10-percent Oleoresin Capsicum). - (Blue) practice cartridge head (blue-colored food grade dye).

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(Specifications, con.)

Velocity of Jet	- 270 mph (120 m/s).
Operating Temperature	- minus 5 degrees F to +176 degrees F (-20 degrees C to +80 degrees C).
Sights	- laser, manual.
Feature	- Picatinny accessory mounting rail.
Holster	- special holster system available.

The FTB evaluation included test firing the submitted device using both of the accompanying two cartridge heads. This procedure allowed further examination of the spent cartridge heads in order to determine the feasibility of converting them to fire conventional rimfire or centerfire firearm ammunition.

Catastrophic failure of the right side of the polymer cartridge head occurred during both test firings.

In each occurrence, the cartridge head shattered, dislodging a sizable fragment and spewing the colored food dye in an omni directional pattern. This event exposed the inner nonferrous metal canister that previously held the colored liquid food dye.

Prior to test firing, the assembled canister contained a firmly seated RWS 14mm PIEXON cartridge case, as well as the primer, piston, and liquid dye. The forward end of the canister was crimped, exposing what appeared to be a soft foiled covering. The canister was permanently affixed to the inner wall of the cartridge head by an epoxy-like substance.

The FTB examination found that neither the canister, nor its primed case, could be easily removed from the polymer cartridge head outer casing without causing damage or destruction to the casing.

In closing, the **PIEXON JET PROTECTOR JPX**, as examined herein, does not constitute a "firearm" as defined in the GCA or a "firearm" or "any other weapon" as defined in the NFA.

Also, the cartridge heads designed for this device do not constitute "ammunition" as defined in the GCA. This determination is relevant to the item as submitted and examined.

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Any alterations or modifications to the design would subject the device to further review.

We thank you for inquiry and trust the foregoing has been responsive to your request for an evaluation.

Sincerely yours,

A handwritten signature in blue ink, appearing to read "S. Nixon", with a long horizontal flourish extending to the right.

Sterling Nixon  
Chief, Firearms Technology Branch