



U.S. Department of Justice

Bureau of Alcohol, Tobacco,
Firearms and Explosives

Office of the Director

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18 U.S.C. 842(j): STORAGE OF EXPLOSIVES
27 CFR 555.22: ALTERNATE METHODS OR PROCEDURES
27 CFR 555.205: MOVEMENT OF EXPLOSIVE MATERIALS

ATF authorizes an alternate method or procedure from the provisions of 27 CFR 555.205 requiring the storage of explosive devices inside a locked magazine. Specifically, ATF authorizes explosives licensees and permittees to store loaded perforating guns outside of a locked magazine provided all of the requirements stated in this ruling are met.

ATF Rul. 2010-7

The Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF) has received requests from members of the explosives industry for permission to store loaded perforating guns, which contain explosive materials, outside of a locked magazine.

Perforating guns are used primarily to pierce oil and gas wells in preparation for production operations. Industry members who use perforating guns assemble each perforating gun to meet a specific purpose and function depending on oil or gas well conditions. Each perforating gun assembly can measure up to 70 feet in length and weigh in excess of 150 pounds when loaded with explosives. Perforating gun assemblies are commonly housed within hollow thick-walled steel tubes and contain shaped charges that explode to pierce the well. Each individual shaped charge typically contains between 25 and 45 grams of high explosives and is initiated by detonating cord and a detonator. Although detonators are commonly attached to the assembly immediately prior to down-hole loading at the job site, perforating guns are sometimes armed with detonators upon assembly. During transportation of perforating guns, Department of Transportation regulations require a detonator interrupter device to be placed between the detonators and detonating cord, which prevents the possibility of an unintended initiation.

An oil or gas well operation may urgently need perforating guns due to the varying conditions within the well operations. Assembling the guns at the worksite, often under unsafe or adverse conditions, can significantly delay operations and place workers at risk. In addition, waiting until perforating guns are needed before beginning the assembly operation would result in costly delays for the well operator. To facilitate perforating operations and meet job demands, many perforating gun operators maintain a fixed amount of preloaded perforating gun assemblies that can be used on short notice.

Preloaded perforating guns are generally assembled by affixing open-faced shaped charges and detonating cord within a steel tube carrier and then sealing the ends of the tube.

Sealing the tube protects the explosives from accidental damage, discharge, or unauthorized removal. The shaped charges sealed in the carrier assembly perforate the steel tube during initiation within the well. Some perforating gun assemblies, however, have pressure-sealed shaped charges on metallic strips or wires that do not require steel tube housings.

Under Federal law, Title 18, United States Code, Section 842(j), all persons must store explosive materials, to include explosive devices, in compliance with regulations issued by the Attorney General. The Attorney General has delegated the authority to administer and enforce the Federal explosives laws to the Director, ATF. The regulations promulgated by ATF to implement the provisions of the Federal explosives laws are codified at Title 27, Code of Federal Regulations (CFR), Part 555. The regulation at 27 CFR 555.205 requires that “[a]ll explosive materials must be kept in locked magazines meeting the standards in this subpart unless they are: (a) In the process of manufacture; (b) Being physically handled in the operating process of a licensee or user; (c) Being used; or (d) Being transported to a place of storage or use by a licensee or permittee or by a person who has lawfully acquired explosive materials under § 555.106.”

Under 27 CFR 555.22, ATF may approve the use of an alternate method or procedure in lieu of a method or procedure specifically prescribed in Part 555. ATF may approve an alternate method or procedure when: (1) Good cause is shown for the use of the alternate method or procedure; (2) The alternate method or procedure is within the purpose of, and consistent with the effect intended by, the specifically prescribed method or procedure and that the alternate method or procedure is substantially equivalent to that specifically prescribed method or procedure; and (3) The alternate method or procedure will not be contrary to any provision of law and will not result in an increase in cost to the Government or hinder the effective administration of Part 555.

Perforating guns are generally assembled within a building or shop that contains the tools and materials necessary to safely prepare each perforating gun. Once assembled, the length and weight of preloaded perforating guns often make it difficult or impossible to store them within an explosives magazine as prescribed under the regulations. Moreover, because many perforating gun assemblies are housed within metal tubes, these assemblies create an unnecessary sparking hazard to other explosives contained within an explosives magazine.

Further, on occasion, operators must return unused loaded perforating gun assemblies from a jobsite to their business premises due to inclement weather conditions or jobsite changes. Without approved alternate storage areas, operators would be forced to disassemble the loaded perforating guns and remove the individual explosive products to a magazine, which can significantly increase the safety risk to operators. Allowing the storage of loaded perforating guns in alternate secure areas greatly decreases the chance of an accident occurring due to unsafe or adverse conditions at the jobsite and the need for operators to handle and move loaded perforating guns repeatedly between the assembly area and the magazine. Additionally, the length and weight of loaded perforating guns can make them difficult to steal when stored outside a magazine. For these reasons, ATF has

issued numerous variances to operators allowing the storage of preloaded perforating guns inside a secure building or at an outdoor location subject to certain conditions.

Allowing the storage of preloaded perforating guns in secure buildings or areas outside a magazine will increase worker safety, provided certain conditions are met, and will likely not result in increased risk of theft. For these reasons, ATF finds that there is good cause for authorizing a variance from the provisions of 27 CFR 555.205 requiring the storage of these explosive devices inside a locked magazine. ATF further finds that the additional security measures provided in this ruling as a condition of the alternate storage methods and procedures provided below, are consistent with the effect intended by, and are substantially equivalent to, the methods and procedures prescribed in Part 555, Subpart K. Further, the alternate method or procedure authorized by this ruling is not contrary to any provision of law, will not increase costs to ATF, and will not hinder the effective administration of the regulations.

Federal explosives licensees (FELs) or Federal explosives permittees (FEPs) may store perforating guns in areas outside of locked magazines, whether located indoors or outdoors, provided all of the following conditions are met at all times:

1. Loaded perforating gun assemblies armed with detonators or initiating devices must contain a detonator interrupter device.
2. A handling cap, plug, or other closure device must be installed on both ends of loaded hollow type carrier guns. Perforating guns with exposed explosive components (*e.g.*, those that consist of sealed charges mounted on strips or wires, and that are not mounted in a carrier assembly, must be secured so as to prevent the unauthorized removal of explosives (*e.g.*, storage within a locked room inside a building, storage within a transportation carrier or other protective housing assembly).
3. Impact wrenches or other tools that could be used to disassemble the loaded perforating guns must be kept separate and secured from the loaded perforating guns to prevent unauthorized removal of the explosive materials.
4. The government authority having jurisdiction over fire safety in the locality in which the loaded perforating guns are being stored must be notified of the location of the loaded perforating guns.
5. All buildings, areas, or vehicles containing pre-loaded perforating guns must be visually inspected at least once every three calendar days. This inspection must be sufficient to determine whether there has been unauthorized entry or attempted entry into the building, area, or vehicle, or unauthorized removal of the perforating gun assemblies from a building, area, or vehicle.
6. A daily summary of magazine transactions (27 CFR 555.127) must be maintained for each area, building, or vehicle that contains loaded perforating guns. Quantity entries may be expressed as the number of individual perforating guns stored within each separate area, building, or vehicle. Information as to the quantity and description of

explosive products contained within each individual perforating gun shall be provided to any ATF officer on request.

7. The local ATF office must be notified in writing no less than three (3) Federal business days prior to utilizing an alternate storage building, area, or vehicle pursuant to this ruling. The written notification submitted to ATF must contain, at a minimum, the following information:
 - a. The FEL or FEP's name;
 - b. The FEL or FEP number;
 - c. The location of alternate storage;
 - d. The FEL or FEP's contact information, including, at a minimum, the name of a person designated as the FEL or FEP's point of contact for the notification, as well as the address, telephone and facsimile number, and, if available, email address; and
 - e. Any other information concerning the alternate storage or items stored that ATF may require.
8. The licensee or permittee desiring to store perforating guns in areas outside of magazines subject to the conditions of this ruling should maintain a copy of its submission to ATF of the information required (Item #7, above) with its permanent records. The licensee or permittee should also retain proof of its submission (*e.g.*, certified return receipt mail, tracking receipt, or other printed verification).
9. All other provisions of 27 CFR Part 555 must be complied with as prescribed.

If the loaded perforating guns are stored in an indoor location, the following additional conditions must be met at all times:

1. No more than 50 pounds of explosives may be stored inside any facility used for indoor explosives storage. This means that the combined net explosives weight contained in magazines and outside of magazines in any one building must not exceed 50 pounds.
2. All loaded perforating guns must either lie flat on the floor or be placed in stable racks to prevent accidental movement or discharge.
3. The building in which the loaded perforating guns are stored must be securely locked or attended by FEL/FEP responsible persons or employee possessors.

If the loaded perforating guns are stored in an outdoor location, the following additional conditions must be met at all times:

1. The perimeter of the area containing loaded perforating guns must be secured by a security fence with a locked gate or the entire facility must be completely enclosed by a security fence with each entrance point secured at all times by a locked gate. For the purpose of this ruling, the security fence must be a minimum of 6-feet high and have

firmly anchored posts to ensure its structural stability. The gate must be secured with a padlock that has at least five tumblers and a case-hardened or boron alloy shackle of at least 3/8-inch diameter.

2. Loaded perforating guns may be stored on a vehicle or trailer provided all doors are locked. The vehicle or trailer must be immobilized by a standard kingpin locking device, steering wheel locking device, or lockable battery disconnect. The ignition key must be removed from the vehicle and secured away from the vehicle.
3. All vehicles loaded with perforating guns must be parked in an area not susceptible to fire propagation such as bare dirt, gravel, rock, paving, or closely mowed grass.
4. No more than 200 loaded perforating guns or 2,500 pounds of net explosive weight may be kept outside a magazine. Each outdoor area or vehicle containing loaded perforating guns must comply with the table of distances requirements set forth in 27 CFR 555.218.
5. The loaded perforating guns may be stored in a covered or uncovered area as long as the guns are placed flat on a concrete or paved floor, offshore well tool pallets, or placed on permanently mounted racks to prevent accidental movement or discharge.
6. Loaded perforating guns that have exposed explosives that are not contained within a secure tube (*e.g.*, tube-less strips or wire guns) may not be stored in an outdoor location.

Once the licensee or permittee has submitted the necessary documentation to ATF pursuant to this ruling, and complied with all other conditions set forth in this ruling, no separate, individual variance approval from ATF is required, and the licensee or permittee may store perforating guns in areas outside of magazines. Licensees and permittees must still abide by all other provisions relating to the storage of explosives.

Held, pursuant to 27 CFR 555.22, ATF authorizes an alternate method or procedure from the provisions of 27 CFR 555.205 requiring the storage of explosive devices inside a locked magazine. Specifically, ATF authorizes explosives licensees and permittees to store loaded perforating guns outside of a locked magazine provided all of the requirements stated in this ruling have been met.

Held further, if ATF finds that a licensee or permittee has failed to abide by the conditions of this ruling, or uses any procedure that hinders the effective administration of the explosives laws or regulations, ATF may notify the licensee or permittee that the

licensee or permittee is no longer authorized to store perforating guns outside of a locked magazine under this ruling.

Date approved: November 24, 2010

Kenneth E. Melson
Deputy Director