

ATF Explosives Rulings and Procedures

The following are digests of ATF determinations regarding explosive matters which are of special significance to Federal explosives licensees and permittees and to ATF personnel. The full text of each of these determinations can be found in the ATF Cumulative Bulletin (1973-1978), and is cited by year, "CB", and page number at the end of each item.

On August 7, 1981, Part 181 of Title 27, CFR was redesignated as Part 55. The ATF rulings and procedures issued prior to August 1981 and still in effect are presented here with current Part 55 regulation citations and the current titles of ATF personnel.

Table of Contents

1. ATF Procedure 75-4: Descriptions of Explosives Storage Facilities
2. ATF Ruling 75-20: Meaning of Terms, "Inhabited Building"
3. ATF Ruling 75-21: Construction of Storage Facilities by the Department of Defense—Concrete Floors
4. ATF Ruling 75-31: Meaning of Terms, "Engaged in the Business"
5. ATF Ruling 75-35: Identification of Explosive Materials
6. ATF Ruling 76-4: Meaning of Terms, "State of Residence"
7. ATF Ruling 76-10: One Sale with Multiple Deliveries
8. ATF Ruling 76-18: Alternate Magazine Construction Standards
9. ATF Ruling 77-24: Storage of Electric Blasting Caps with Other Explosive Materials

1. 27 CFR 55.41: LICENSES AND PERMITS—GENERAL

Requirements for descriptions of explosives storage facilities.

ATF Proc. 75-4

This procedure (which was incorporated in Industry Circular 75-10; effective November 1, 1975) revised requirements for descriptions of explosives storage facilities that must be filed by applicants intending to store explosive materials.

The Director, ATF, determined that this additional descriptive information was and is required in order to ensure compliance with the law and regulations. Accordingly, Forms 4705 and 4707 (now ATF F 5400.13/5400.16, "Application for License or Permit") were revised.

Following is the text of the Procedure, as amended:

Secs. 3 & 4. Licenses and Permits. A person intending to engage in business as an importer, manufacturer or dealer in explosive materials, or who is intending to acquire, transport, ship, import or receive explosive materials in interstate or foreign commerce for his own use and not for resale, shall complete ATF F 5400.13/5400.16, "Application For License or Permit," in accordance with the instructions on the form, and forward the form with the license or permit fee to the office specified on the form. If approved, the Chief, National Licensing Center will issue a license or permit to the applicant. At the time of renewal of a license or permit, the Chief, National Licensing Center may require the filing of a new or amended application, or additional descriptive pages, to be attached to the application upon a determination that the currently approved application is inaccurate or does not fully describe the storage facilities. If the application is denied, the applicant will be advised in writing of the reasons for the denial.

Sec. 5. Storage.

.01 If explosive materials are to be stored, the requirements of 27 CFR Part 55, Subpart K—Storage, must be complied with before the application will be approved. An applicant for a license or permit who intends to store explosive materials shall fully describe the intended storage facilities to support the applicant's affirmation that the storage facilities meet the requirements set forth in 27 CFR Part 55, Subpart K—Storage.

.02 The description should, as a minimum, include the following information:

- (a) The type of magazine (building, igloo, tunnel, portable box, portable trailer, etc.).
- (b) The location and distance from applicant's place of business.
- (c) The distance to the next nearest storage magazine.
- (d) A description of significant terrain features and physical structures, such as buildings,

roads, utilities and other facilities which could be damaged if the magazine exploded. Indicate the distance between the magazine and the feature.

- (e) The materials (including dimensions and thicknesses) used for the structure (e.g., concrete, corrugated iron over wood, plywood, tin and earth, etc.).
- (f) The security, physical safeguards, locks, safety equipment, and anti-theft measures.
- (g) The dimensions and capacity of each magazine.
- (h) The class of explosive materials to be stored in each magazine.
- (i) The owner(s) of the magazine, if other than the applicant.
- (j) The names and telephone numbers of individuals who could open the magazines for inspection by ATF officers.
- (k) Any special conditions, such as inaccessibility in winter, etc.
- (l) [ADDENDUM] A diagram of the premises, providing much of the required descriptive information set out above (preparation by an engineer is not required). [75 CB 79]

2. 27 CFR 55.11: MEANING OF TERMS (Also § 55.206)

An office or repair shop used in connection with the manufacture, etc. of explosive materials is not an “inhabited building.”

ATF Rul. 75-20

ATF has held that a building, such as an office or repair shop, which is a part of the premises of an explosives manufacturer and is used in connection with the manufacture, transportation, storage, or use of explosive materials, is not an “inhabited building.”

Section 55.11 of 27 CFR defines inhabited building as “any building regularly occupied in whole or in part as a habitation for human beings, or any church, schoolhouse, railroad station, store, or other structure where people are accustomed to assemble, except any building occupied in connection with the manufacture, transportation, storage, or use of explosive materials.”

Regulations in 27 CFR §§ 55.206 and 55.218 set forth provisions concerning the location of storage facilities and the minimum distances

such storage facilities may be located from, among other things, “inhabited buildings.”

These provisions are intended to provide protection to persons who inhabit buildings located near premises where explosives are manufactured, stored, etc. However, it is the intent of § 55.11 to exempt buildings used by the explosives industry in connection with the manufacture, transportation, storage, or use of explosive materials from the table of distance requirements on “inhabited buildings.” [75 CB 64]

3. 27 CFR 55.207: CONSTRUCTION OF TYPE 1 MAGAZINES (Also § 55.210)

Certain explosives storage facilities meeting standards of construction prescribed by the Department of Defense Explosives Safety Board for such storage are approved by the Bureau.

ATF Rul. 75-21

ATF has held that explosives storage facilities with smooth-finished concrete floors that were constructed under contract for the use of the Department of Defense (DOD) and that are presently being leased to licensees and permittees for the storage of commercial explosives are considered to be in compliance with the requirements for nonsparking floors, as set forth in 27 CFR §§ 55.207(a)(4), 55.207(b), and 55.210, for the storage of all types of fully packaged explosives, pyrotechnics and propellants, with the exception of black powder.

Any other such magazines which have smooth finished concrete floors and which meet or exceed DOD construction specifications will also be considered to be in compliance with the requirements of Part 55 with respect to nonsparking floors.

It is the responsibility of the licensee or permittee to provide verification that such facilities were manufactured under DOD specifications or that the facilities meet or exceed such specification standards.

If the Division Director determines that the concrete floors of type 1 or type 4 magazines do not meet the preceding requirements, he will require such floors to be covered with a nonsparking material, such as epoxy paint or mastic. [75 CB 67]

4. 27 CFR 55.41: LICENSES AND PERMITS—GENERAL

Certain companies that manufacture explosive materials for use in their own operations are required to obtain licenses as manufacturers of explosive materials.

ATF Rul. 75-31

ATF has held that companies, such as public utility companies engaged in line and facility construction, which manufacture explosives on a regular or continual basis are considered to be engaged in the business of manufacturing explosive materials and must be appropriately licensed as required by 18 U.S.C. 842.

The term “manufacturer” is defined in 18 U.S.C. 841(h) as “any person engaged in the business of manufacturing explosive materials for purposes of sale or distribution or for his own use.”

Although the term “engaged in the business” is not susceptible to a rigid definition within 18 U.S.C. §§ 841-848, it is interpreted to imply an element of continuity or habitual practice; an element clearly present in the operations of companies described herein.

Therefore, these companies are considered to be “engaged in the business” and must be licensed as explosives manufacturers. [75 CB 65]

5. 27 CFR 55.109: IDENTIFICATION OF EXPLOSIVE MATERIALS

Methods of marking containers of explosive materials are prescribed.

ATF Rul. 75-35

ATF has held that any method or combination of methods for affixing the required marks to the immediate container of explosive materials, or outside container used in the packaging thereof, is authorized provided the identifying marks:

- (1) Are legible
- (2) Show all required information; and,
- (3) Are not rendered indecipherable by extended periods of storage.

Where it is desired to utilize a coding system and to omit printed markings on the container, a letterhead application displaying the coding to be used and the manner of its application shall

be filed with and approved by the Director, ATF, prior to the use of the proposed coding. Further, where a manufacturer operates his plant for only one shift during the day, the shift of manufacture need not be shown.

It was found that liquid components of explosive materials stored for a period of time in polyethylene or other soft containers would seep through the container walls, tending to render illegible the inked, identifying marks on the container.

A manufacturer’s proposal [subsequently approved] of using a system of perforated numbers and code symbols (similar to that used on cancelled checks) to mark containers in addition to other identifying marks stamped in ink, was determined to continue to provide the identification required by 27 CFR 55.109, even if the ink later became illegible. [75 CB 65]

6. 27 CFR 55.11: MEANING OF TERMS—STATE OF RESIDENCE

“State of residence” of business entities who use explosive materials; distribution of explosive materials by licensees to out-of-State business entities other than licensees and permittees; and distribution to nonresident employees of such entities are discussed.

ATF Rul. 76-4

ATF was asked to interpret the term “State of residence” (in § 55.11) as it:

- (1) Pertains to the distribution of explosive materials to out-of-State corporations and other business entities other than licensees and permittees; and
- (2) Relates to the distribution of explosive materials to nonresident employees of such business entities.

The Business Entity

If a person is a corporation or other business entity, “State of residence” means the State in which such corporation or other business entity maintains a “place of business.” A business entity establishing another “place of business” or “job site” in another State would acquire a “State of residence” in that State as well. This means that a company engaged in construction work would acquire a residence in each State wherein its work is performed. Its place of business in

those States would be the job sites at which business is carried on. It would not be essential to a determination of its State of residence that a branch office be maintained in, or administrative work be performed in, the States where job sites are located.

Such a company would not need a permit to acquire explosive materials from a licensee in a State for use at job sites located therein. Form 5400.4, "Explosives Transaction Record," would show the out-of-State addresses of the business entity as the principal place of business, and the location of the job site as the local place of business.

Nonresident Employees

The purpose of the data requested on Form 5400.4 is to identify the person authorized by the business entity to make the purchase of explosive materials on the entity's behalf and to assure the distributor that such person appears on the required certified list of names of representatives or agents authorized by the business entity to acquire the materials. Regulations (27 CFR § 55.105(e)), implementing Title 18 U.S.C. 842(f), in part, provide that each business entity acquiring explosive materials shall furnish the distributing licensed dealer with a current, certified list of the names of representatives or agents authorized to acquire explosive materials on behalf of such business entity. The purpose of the data requested on Form 5400.8, "Explosives Delivery Record," is to identify the employee of the business entity or the employee of a carrier accepting delivery of explosive materials on behalf of the distributee at the distributor's business premises.

Therefore:

In the case of business entities, the information required on ATF Forms 5400.4 and 5400.8 with respect to employees or agents arranging for the distribution is not for the purpose of establishing the residence of such persons but only for identification purposes. [76 CB 104]

7. 27 CFR 55.126: EXPLOSIVES TRANSACTION RECORD

Under certain conditions, a single Form 5400.4 may be used to cover a series of deliveries.

ATF Rul. 76-10

Under the provisions of 27 CFR § 55.126, a sale or other distribution by a licensee or permittee shall not be made to a nonlicensee or nonpermittee unless the transaction is recorded on a Form 5400.4. Under certain conditions, a single Form 5400.4 may be used to cover a series of deliveries.

When an initial sale has been consummated, with partial deliveries to be made in the immediate future, the requirements of § 55.126 will have been satisfied if the following steps are taken:

- (1) Form 5400.4 shall be executed at the time the sale is initially made, although delivery of the explosive material is extended over a period of time not to exceed 30 days.
- (2) The executed Form 5400.4 shall subsequently be noted to accurately reflect the date of each separate delivery and describe each separate lot of explosive materials delivered.
- (3) In lieu of showing the separate deliveries on the Form 5400.4, the proprietor may attach to the executed form a copy of the delivery record or a copy of the bill of lading or commercial invoice covering each delivery; provided that, as to each such delivery, the attachment contains the date of the delivery and all the information required by Item 21 of Form 5400.4.
- (4) All other regulatory requirements and instructions relating to the completion of the form must be complied with. [76 CB 105]

8. 27 CFR 55.207: CONSTRUCTION OF TYPE 1 STORAGE FACILITIES (Also § 55.208)

Alternate construction standards for storage facilities for explosive materials are prescribed.

ATF Rul. 76-18

Section 842(j) of 18 U.S.C. states: "It shall be unlawful for any person to store any explosive material in a manner not in conformity with regulations promulgated by the Secretary. In promulgating such regulations, the Secretary shall take into consideration the class, type, and quantity of explosive materials to be stored, as

well as the standards of safety and security recognized in the explosives industry.”

The regulations in 27 CFR §§ 55.207 and 55.208 prescribe types of storage facilities for explosive materials and provide (among other things) that such storage facilities shall be bullet-resistant. Section 55.201(b) provides that alternate storage facilities may be authorized for the storage of explosive materials when it is shown that such alternate facilities are or will be constructed in a manner substantially equivalent to the standards of construction contained in the applicable regulations.

The term “bullet-resistant” means resistant to penetration of a bullet of 150 grain M2 ball ammunition having a nominal muzzle velocity of 2700 feet per second fired from a .30 caliber rifle from a distance of 100 feet perpendicular to the wall or door.

It has been determined that a wide range of construction criteria meet the bullet-resistant requirements of regulations for construction of storage facilities for explosive materials.

In order to promote standards of safety and security in the storage of explosive materials while allowing the industry a wide latitude in the selection of construction materials, it is held that storage facilities (magazines) that are constructed according to the following minimum specifications are bullet-resistant and meet the requirements of the regulations as set forth in 27 CFR Part 55 (All steel and wood dimensions are actual thicknesses. To meet the concrete block and brick dimensions indicated, the manufacturers’ represented thicknesses may be used).

- (a) Exterior of 5/8 inch steel, lined with an interior of any type of nonsparking material.
- (b) Exterior of 1/2 inch steel, lined with an interior of not less than 3/8 inch plywood.
- (c) Exterior of 3/8 inch steel, lined with an interior of two inches of hardwood.
- (d) Exterior of 3/8 inch steel, lined with an interior of three inches of softwood or 2 1/4 inches of plywood.
- (e) Exterior of 1/4 inch steel, lined with an interior of three inches of hardwood.
- (f) Exterior of 1/4 inch steel, lined with an interior of five inches of softwood or 5 1/4 inches of plywood.
- (g) Exterior of 1/4 inch steel, lined with an intermediate layer of two inches of hardwood and an interior lining of 1 1/2 inches of plywood.

- (h) Exterior of 3/16 inch steel, lined with an interior of four inches of hardwood.
- (i) Exterior of 3/16 inch steel, lined with an interior of seven inches of softwood or 6 3/4 inches of plywood.
- (j) Exterior of 3/16 inch steel, lined with an intermediate layer of three inches of hardwood and an interior lining of 3/4 inch of plywood.
- (k) Exterior of 1/8 inch steel, lined with an interior of five inches of hardwood.
- (l) Exterior of 1/8 inch steel, lined with an interior of nine inches of softwood.
- (m) Exterior of 1/8 inch steel, lined with an intermediate layer of four inches of hardwood and an interior lining of 3/4 inch plywood.
- (n) Exterior of any type of fire-resistant material which is structurally sound, lined with an intermediate layer of four inches of solid concrete block, OR four inches of solid brick OR four inches of solid concrete; AND, an interior lining of 1/2 inch plywood placed securely against the masonry lining.
- (o) Standard eight inch concrete block with voids filled with well-tamped sand/cement mixture.
- (p) Standard eight inch solid brick.
- (q) Exterior of any type of fire-resistant material which is structurally sound, lined with an intermediate six inch space filled with well-tamped dry sand or well-tamped sand/cement mixture.
- (r) Exterior of 1/8 inch steel, lined with a first intermediate layer of 3/4 inch plywood, a second intermediate layer of 3 5/8 inches of well-tamped dry sand or sand/cement mixture and an interior lining of 3/4 inch plywood.
- (s) Exterior of any type of fire-resistant material, lined with a first intermediate layer of 3/4 inch plywood, a second intermediate layer of 3 5/8 inches well-tamped dry sand or sand/cement mixture, a third intermediate layer of 3/4 inch plywood, and a fourth intermediate layer of two inches of hardwood OR 14 gauge steel AND an interior lining of 3/4 inch plywood.
- (t) Eight inch thick solid concrete. [76 CB 106]

9. 27 CFR 55.213: QUANTITY AND STORAGE RESTRICTIONS

(Also § 55.208)**Alternate magazine construction standards for storage of electric blasting caps with other explosive materials are prescribed.****ATF Rul. 77-24**

Section 842(j) of 18 U.S.C. states: "It shall be unlawful for any person to store any explosive material in a manner not in conformity with regulations promulgated by the Secretary. In promulgating such regulations, the Secretary shall take into consideration the class, type, and quantity of explosive materials to be stored, as well as the standards of safety and security recognized in the explosives industry."

The regulations in 27 CFR § 55.213 restrict the storage of blasting caps with other explosive materials. Section 55.201(b) provides that alternate storage magazines may be authorized for the storage of explosive materials when it is shown that such alternate magazines are or will be constructed in a manner substantially equivalent to the standards of construction contained in the applicable regulations.

ATF recognizes that the transportation and storage of explosive materials in the same vehicle along with electric blasting caps is often desired. The Institute of Makers of Explosives established a recommended standard for such transport in their Safety Library Publication No. 22, dated November 5, 1971 [revised January 1985]. This standard prescribes the minimum construction criteria for:

(a) A container securely attached—

(1) Above the cab of the vehicle (see Figure 1, Appendix A), and

(2) To the vehicle frame under the cargo space (see Figure 2, Appendix A), or

(b) A built-in compartment in the cargo space of the vehicle (see Appendix B).

In addition to motorized vehicles, consideration was also given for the use of similar criteria on portable wheeled trailers being used as magazines under § 55.208(a) of the regulations (see Appendix E).

In order to insure standards of safety and security in the storage of explosive materials while allowing the industry a proper latitude in the construction of magazines, it is held that vehicles used for transporting and for storing explosive materials that are constructed in conformity with the standards listed below, and in compliance with all other safety and security provisions contained in Part 55 (e.g., effectively

immobilized when unattended) will meet the requirements of ATF regulations.

Even though constructed on the same vehicle, each compartment will be considered as a separate magazine. The two magazines on the vehicle will, however, be considered as one magazine when applying the American Table of Distances [see Table at § 55.218].

Construction Standards For Storage of Electric Blasting Caps (Non Mass-Detonating)

- a. The container or compartment must provide for total enclosure of the electric blasting caps.
- b. The partition between the explosives storage compartment and the electric blasting cap compartment must be of laminate construction consisting of A/C grade or better exterior plywood, gypsum board [sheetrock] and low carbon steel plates. In order of arrangement, the laminate must conform to the following, with minimum thickness of each lamination as indicated:
 - 1/2 inch plywood
 - 1/2 inch gypsum board [sheetrock],
 - 1/8 inch low carbon steel, and,
 - 1/4 inch plywood,
 with the 1/4 inch plywood facing the explosives storage compartment. See Appendix C for details of laminate construction. The door to the electric blasting cap compartment must be of metal construction or solid wood covered with metal; the outside walls and top must be of the same construction as the rest of the vehicle or trailer. If high explosives or bullet sensitive explosive materials are stored in the vehicle, then the storage compartment of the vehicle must be constructed so as to be bullet-resistant.
- c. As an alternative to the construction requirements shown in paragraph b, a container for use only as illustrated in Appendix A may be used when constructed as follows:
 1. The top, lid or door, and the sides and bottom of each container must be of laminate construction consisting of A/C grade or better exterior plywood, solid hardwood, gypsum board [sheetrock], and sheet metal. In order of arrangement, the laminate must conform to the following,

with minimum thickness of each lamination as indicated:

1/4 inch plywood,
 1 inch solid hardwood,
 1/2 inch plywood,
 1/2 inch gypsum board [sheetrock]
 (OR 1/4 inch particle board), and
 22 gauge sheet metal,

constructed inside to outside in that order. See Appendix D for details of laminate construction.

2. The hardwood must be fastened together with wood screws, the 1/2 inch plywood must be fastened to the hardwood with wood screws, the inner 1/4 inch plywood must be fastened to the hardwood with adhesive, and the 22 gauge sheet metal must be attached to the exterior of the container with screws.
- d. The laminate composite material must be securely bound together by waterproof adhesive or other equally effective means.
 - e. The steel plates at the joints of laminations must be secured by continuous fillet welds.
 - f. All interior surfaces of the container or compartment must be constructed so as to prevent contact of contents with any sparking metal.
 - g. There must be direct access to the container or into a compartment from outside the vehicle.
 - h. Each container or compartment must have a snug fitting continuous piano-type hinged lid or door equipped with a locking device (or devices).
 - i. Without permitting direct access to contents under normal conditions, the locking or hinging mechanisms must permit at least one edge of the lid or door to rise or move outward at least 1/2 inch when subjected to internal pressure.
 - j. The exterior of the container or compartment must be weather-resistant. [77 CB 191]

APPENDIX B

COMPARTMENTS

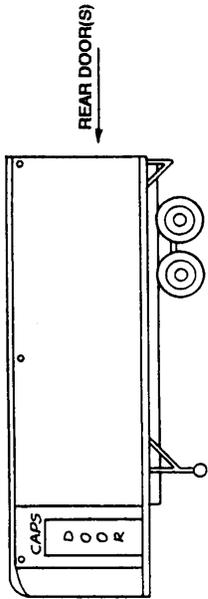


Figure 1

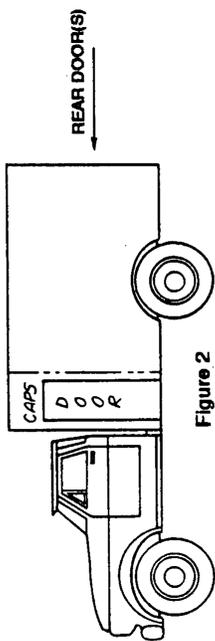


Figure 2

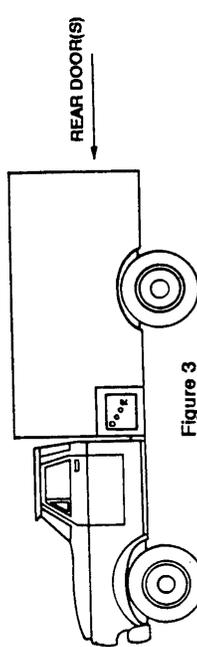


Figure 3

NOTE: The configurations shown in Figures 1 and 2 are equally applicable to multi-axle and "cab-over" vehicles.

[Diagrams: Courtesy of IME]

APPENDIX A

PERMANENTLY MOUNTED CONTAINERS

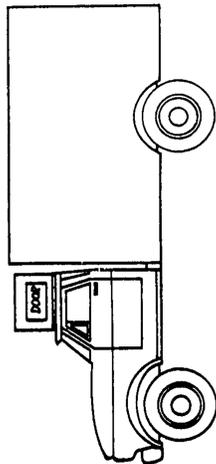


Figure 1

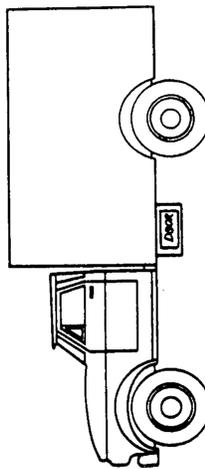


Figure 2

NOTE: The configurations shown in Figures 1 and 2 are equally applicable to multi-axle and "cab-over" vehicles.

[Diagrams: Courtesy of IME]

APPENDIX E

PORTABLE WHEELED TRAILERS

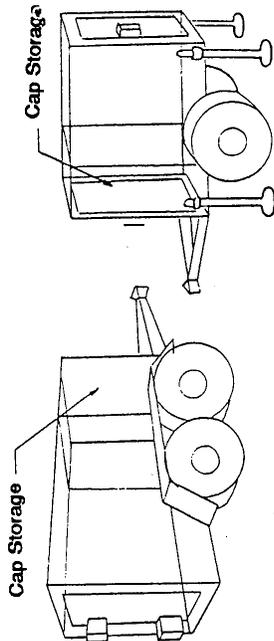


Figure 1

Figure 3

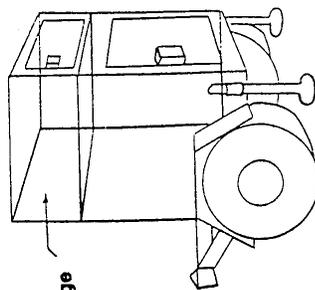


Figure 4

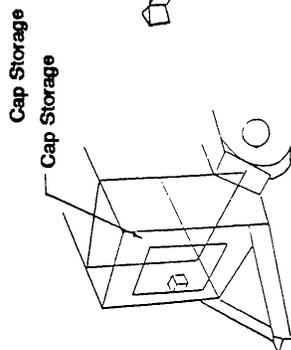
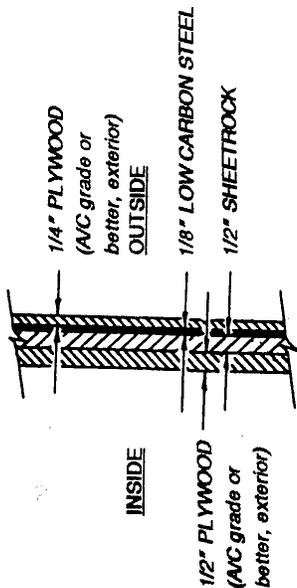


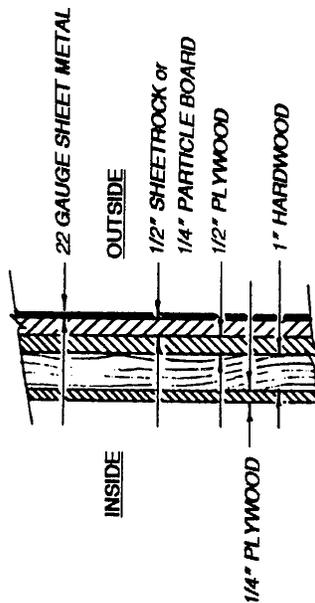
Figure 2

APPENDIX C



Sketch of laminate construction for container or compartment for electric blasting caps use, as illustrated in Appendix A, B, and E.

APPENDIX D



Sketch of laminate construction for container or compartment for electric blasting caps; restricted to use as illustrated in Appendix A.

(Diagrams: Courtesy of IME)

ATF Rul. 77-24, Appendix C - E