

GENERAL STORAGE INFORMATION

Storage shall conform to part 55, Subpart K of Title 27 CFR (BATF). Exceptions to Title 27 CFR, other than more stringent regulations of local, state, or federal agencies, shall be approved by the Director of BATF (see ATF P 5400.9) dated 6/90.

PERMANENT MAGAZINES

Post magazines with signs reading “EXPLOSIVES-KEEP OFF.” Locate signs to minimize the possibility of a bullet traveling in the direction of the magazine if anyone shoots at the sign.

Day boxes shall not be used for permanent storage.

27 CFR, SUBPART K - STORAGE

55.201 GENERAL

(a) Section 842(j) of the Act and 55.29 of this part requires that the storage of explosive materials must be in accordance with regulations in this part. Further, section 846 of this Act authorizes regulations to prevent the recurrence of accidental explosions in which explosive materials were involved. The storage standards prescribed by this subpart confer no right or privileges to store explosive materials in a manner contrary to state or local law.

- (b) The director may authorize alternate construction for explosives storage magazine construction that is substantially equivalent to the standards of safety and security contained in this subpart. Any alternate explosive magazine construction approved by the director prior to August 9, 1982, will continue as approved unless notified in writing by the director. Any person intending to use alternate magazine construction shall submit a letter of application to the regional director (compliance) for transmittal to the director, specifically describing the proposed magazine. Explosive materials may not be stored in alternate magazines before the applicant has been notified that the application has been approved.
- (c) A licensee or permittee who intends to make changes in his magazines, or who intends to construct or acquire additional magazines, shall comply with 55.63.
- (d) The regulations set forth in 55.221 through 55.224 pertain to the storage of special fireworks, pyrotechnic compositions, and explosive materials used in assembling fireworks.
- (e) The provisions of 55.202(a) classifying flash powder and bulk solutes as high explosives are mandatory after March 7, 1990: Provided, that those persons who hold licenses or permits under this part on that date shall, with respect to the premises covered by such licenses or permits, comply with the high explosives storage requirements for flash powder and bulk solutes by March 7, 1991 (Amended by TD. ATF-293, 55 FR 3722, Feb. 5, 1990).

CLASSES OF EXPLOSIVE MATERIALS

For purposes of this part, there are three classes of explosive materials. These classes, together with the description of explosive materials comprising each class, are as follows:

High Explosives - Explosive materials which can be caused to detonate by means of a blasting cap when unconfined, (for example, dynamite, emulsions, water gels, flash powders, and bulk solutes). See also 55.201.

Low Explosives - Explosive materials which can be caused to deflagrate when confined, (for example, black powder, safety fuses, ignitor cords, fuse lighters, and “special fireworks” defined as Class B explosives by U.S. Department of Transportation regulations in 49 CFR Part 173, except for bulk solutes.)

Blasting Agents - (For example, ammonium nitrate-fuel oil and certain water gels (see also 55.11). (Amended by TD.ATF-293, 55 FR 3722, Feb. 5, 1990).

TYPES OF MAGAZINES

For purposes of this part, there are five types of magazines. These types, together with the classes of explosive materials, as defined in 55.202, which will be stored in them, are as follows:

Type 1 Magazines - Permanent magazines for the storage of high explosives, subject to the limitations prescribed by 55.206 and 55.213. Other classes of explosive materials may also be stored in type 1 magazines.

Type 2 Magazines - Mobile and portable indoor and outdoor magazines for the storage of high explosives, subject to the limitations prescribed by 55.206, 55.208(b), and 55.213. Other classes of explosive materials may also be stored in type 2 magazines.

Type 3 Magazines - Portable outdoor magazines for the temporary storage of high explosives while attended (for example, a “day-box”), subject to the limitations prescribed by 55.206 and 55.213. Other classes of explosive materials may also be stored in type 3 magazines.

Type 4 Magazines - Magazines for the storage of low explosives, subject to the limitations prescribed by 55.206(b), 55.210(b), and 55.213. Blasting agents may be stored in type 4 magazines, subject to the limitations prescribed by 55.206(a), 55.210(b), and 55.213.

Type 5 Magazines - Magazines for the storage of blasting agents, subject to the limitations prescribed by 55.206(c), 55.211(b), and 55.213.

INSPECTION

INSPECTION OF MAGAZINES

Any person storing explosive materials shall inspect their magazines at least every seven days. This inspection need not be an inventory, but must be sufficient to determine whether there has been unauthorized entry or attempted entry into the magazine, or unauthorized removal of the contents of the magazines.

EXPLOSIVE MATERIALS IN STORAGE

Any person storing explosive materials shall inspect the magazine at least every seven days. This inspection need not be an inventory, but must be sufficient to determine whether there has been unauthorized entry or attempted entry into the magazine. Notify the nearest regional office of the Bureau of Alcohol, Tobacco and Firearms (BATF), and appropriate state offices within 24 hours of any loss, theft, or unauthorized entry into a magazine.

MOVEMENT OF EXPLOSIVE MATERIALS

All 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 55.106.

LOCATION OF MAGAZINES

- (a) Outdoor magazines in which high explosives are stored must be located no closer to inhabited buildings, passenger railways, public highways, or other magazines in which high explosives are stored, than the minimum distances specified in the table of distances for storage of explosive materials in 55.218.
- (b) Outdoor magazines in which low explosives are stored must be located no closer to inhabited buildings, passenger railways, public highways, or other magazines in which explosive materials are stored, than the minimum distances specified in the table of distances for storage of low explosives in 55.219, except that the table of distances in 55.224 shall apply to the storage of special fireworks. The distances shown in 55.219 may not be reduced by the presence of barricades.
- (c) (1) Outdoor magazines in which blasting agents in quantities of more than 50 pounds are stored must be located no closer to inhabited buildings, passenger railways, or public highways than the minimum distances

specified in the table of distances for storage of explosive materials in 55.218.

- (c) (2) Ammonium nitrate and magazines in which blasting agents are stored must be located no closer to magazines in which high explosives or other blasting agents are stored than the minimum distances specified in the table of distances for the separation of ammonium nitrate and blasting agents in 55.220. However, the minimum distances for magazines in which explosives and blasting agents are stored from inhabited buildings, etc., may not be less than the distances specified in the table of distances for storage of explosives materials in 55.218 (Amended by T.D. ATF- 293, 55 FR 3722, Feb. 5, 1990).

CONSTRUCTION FOR TYPE 1 MAGAZINES

A type 1 magazine is a permanent structure: a building, an igloo or “army-type structure,” a tunnel, or a dugout. It is to be bullet-resistant, fire-resistant, weather-resistant, theft-resistant, and ventilated. Refer to I.M.E. *Publication No. 1*.

CONSTRUCTION OF TYPE 2 MAGAZINES

A type 2 magazine is a box, trailer, semitrailer, or other mobile facility. Refer to I.M.E. *Publication No. 1*.

Outdoor Magazines - Outdoor magazines are to be bullet-resistant, fire-resistant, weather-resistant, theft-resistant, and ventilated. They are to be supported to prevent direct contact with the ground and, if less than one cubic yard in size, must be securely fastened to a fixed object. The ground around outdoor magazines must slope away for drainage or other adequate drainage provided. When unattended, vehicular magazines must have wheels removed or otherwise effectively immobilized by kingpin locking devices or other methods approved by the director.

Indoor magazines - Indoor magazines are to be fire-resistant and theft-resistant. They need not be bullet-resistant and weather-resistant if the buildings in which they are stored provide protection from the weather and from bullet penetration. No indoor magazine is to be located in a residence or dwelling. The indoor storage of high explosives must not exceed a quantity of 50 pounds. More than one indoor magazine may be located in the same building if the total quantity of explosive materials stored does not exceed 50 pounds. Detonators must be stored in a separate magazine (except as provided in 55.213) and the total quantity of detonators must not exceed 5000.

CONSTRUCTION OF TYPE 3 MAGAZINES

A type 3 magazine is a “day box” or other portable magazine. It must be fire-resistant, weather-resistant, and theft-resistant. A type 3 magazine is to be constructed of not less than number 12-gauge (.1046) steel, lined with at least either 1/2-inch plywood or 1/2-inch Masonite-type hardboard.

CONSTRUCTION OF TYPE 4 MAGAZINES

A type 4 magazine is a building, igloo, or “army-type structure,” tunnel, dugout, box, trailer, or a semi-trailer or other mobile magazine.

CONSTRUCTION OF TYPE 5 MAGAZINES

A type 5 magazine is a building, igloo, or “army-type structure,” tunnel, dugout, box, trailer, or a semi-trailer or other mobile facility.

SMOKING AND OPEN FLAMES

Smoking, matches, open flames and spark producing devices are not permitted:

- (a) In any magazine;
- (b) Within 50 feet of any outdoor magazine; or
- (c) Within any room containing an indoor magazine.

QUANTITY AND STORAGE RESTRICTIONS

- (a) Detonators are not to be stored in the same magazine with other explosive materials, except under the following circumstances:
 - (1) In a type 4 magazine, detonators that will not mass detonate may be stored with electric squibs, safety fuse, igniters, and igniter cord.
 - (2) In a type 1 or type 2 magazine, detonators may be stored with delay devices and any of the items listed in item one of this section.

STORAGE WITHIN TYPES 1, 2, 3, AND 4 MAGAZINES


- (a) Explosive materials within a magazine are not to be placed directly against interior walls and must be stored so as not to interfere with ventilation. To prevent contact of stored explosive materials with walls, a non-sparking lattice work or other non-sparking material may be used.
- (b) Containers of explosive materials are to be stored so that marks are visible. Stocks of explosive materials are to be stored so they can be easily counted and checked upon inspection.
- (c) Except with respect to fiberboard or other nonmetal containers, containers of explosive materials are not to be unpacked or repacked inside a magazine or within 50 feet of a magazine, and must not be unpacked or repacked close to other explosive materials.
- (d) Tools used for opening or closing containers of explosive materials are to be of non-sparking materials, except that metal slitters may be used for opening fiberboard containers. A wood wedge and a fiber, rubber, or wooden mallet are to be used for opening or closing wood containers of explosive materials. Metal tools other than non-sparking transfer conveyors are not to be stored in any magazine containing

high explosives.

LIGHTING

- (a) Battery-activated safety lights or battery-activated safety lanterns may be used in explosive storage magazines.
- (b) Electric lighting used in any explosives storage magazine must meet the standards prescribed by the "National Electrical Code," (National Fire Protection Association, NFPA 70-81), for the conditions present in the magazine at any time. All electrical switches are to be located outside of the magazine and also meet the standards prescribed by the National Electrical Code.

Form Approved: OMB No. 1512-0185 (7/31/84)

DEPARTMENT OF THE TREASURY – BUREAU OF ALCOHOL, TOBACCO AND FIREARMS			DATE
REPORT OF THEFT OR LOSS – EXPLOSIVE MATERIALS			
Note: Section 842(k), 18 U.S.C. Chapter 40 provides that "It shall be unlawful for any person who has knowledge of the theft or loss of any explosive materials from his stock to fail to report such theft or loss within twenty-four hours of discovery thereof to the Secretary and to appropriate local authorities." Theft or loss must be reported immediately by telephone to the nearest ATF office, listed on reverse, and a report must be made on this form within 24 hours to the same office (27 CFR 181.30). It is suggested that a copy of this report be retained by the person making the report. Attach additional sheets or invoices, if necessary, to provide the required information. Each item should be completed as applicable to the best of your ability.			
1. NAME, ADDRESS AND TELEPHONE NUMBER OF PERSON MAKING REPORT (Include corporate or business name, if applicable)		2. LOCATION OF THEFT OR LOSS (If different from Item 1)	
3. THEFT OR LOSS	DATE	TIME	4. ATF OFFICE TO WHICH REPORTED BY TELEPHONE
a. DISCOVERED			
b. OCCURRED (Show approximate if exact not known)			
c. REPORTED TO ATF BY TELEPHONE			
d. REPORTED TO LOCAL AUTHORITIES			5. NAME AND ADDRESS OF LOCAL AUTHORITY TO WHOM REPORTED
6. EXPLOSIVE MATERIALS LOST OR STOLEN (Attach invoices or additional sheets, if necessary)			
a. MANUFACTURER OR BRAND NAME (Include date and shift code)	b. QUANTITY (Pounds of Explosives, Number of Caps)	c. TYPE AND DESCRIPTION (Dynamite, Blasting Agents, Detonators, etc. Include for each type, size, MS delay or length of legwire, as applicable)	
			
7. THEFT OR LOSS OCCURRED FROM (Check applicable box)			
<input type="checkbox"/> PERMANENT MAGAZINE <input type="checkbox"/> PORTABLE MAGAZINE <input type="checkbox"/> TRUCK <input type="checkbox"/> WORK SITE <input type="checkbox"/> OTHER (Explain)			
8. ENTRY TO MAGAZINE MADE THROUGH (Complete if applicable)			9. NUMBER AND TYPE OF LOCKS FORCED (Complete if applicable)
<input type="checkbox"/> DOOR <input type="checkbox"/> ROOF <input type="checkbox"/> FLOOR <input type="checkbox"/> FOUNDATION <input type="checkbox"/> WALL <input type="checkbox"/> CEILING <input type="checkbox"/> VENTS <input type="checkbox"/> OTHER (Explain)			
10. OTHER INFORMATION PERTINENT TO THE THEFT OR LOSS			
11. SIGNATURE AND TITLE OF PERSON MAKING REPORT			12. FEDERAL EXPLOSIVES LICENSE OR PERMIT, IF ANY
FOR ATF USE ONLY			
DATE RECEIVED	TIME RECEIVED	UNIQUE IDENTIFIER	

ATF F 4712 (5400.5) (11-81) PREVIOUS EDITIONS ARE OBSOLETE

(Figure 3-1) Report of theft or loss of explosives material form OMB-1512-0185.

- (c) Copies of invoices, work orders or similar documents which indicate the lighting complies with the National Electrical Code must be available for inspection by ATF officers.

NOTES TO THE

TABLE OF DISTANCES FOR STORAGE OF EXPLOSIVES (next page)

- (1) When two or more storage magazines are located on the same property, each magazine must comply with the minimum distances specified from inhabited buildings, railways, and highways, and, in addition, they should be separated from each other by not less than the distances shown for "Separation of Magazines," except that the quantity of explosives contained in cap magazines shall govern in regard

ADDRESS AND TELEPHONE LISTING OF ATF OFFICES

Forward completed ATF Form 4712 to the nearest ATF Office listed below (alphabetically by State, Guam, Puerto Rico):

Special Agent in Charge (ATF) 2121 8th Avenue, North Birmingham, Alabama 35203 Phone: 205-254-1206	Special Agent in Charge (ATF) Hale Boggs Federal Office Bldg. 500 Camp Street New Orleans, Louisiana 70130 Phone: 504-682-2350	Special Agent in Charge (ATF) 55 Erie View Plaza - Suite 500 Cleveland, Ohio 44114 Phone: 216-522-3374
Resident Agent in Charge (ATF) New Federal Office Bldg. U.S. Courthouse, 701 C Street Anchorage, Alaska 99513 Phone: 907-271-5701	Special Agent in Charge (ATF) John F. Kennedy Bldg. (Mailing Address: P.O. Box 9118) Boston, Massachusetts 02114 Phone: 617-225-3818	Resident Agent in Charge (ATF) 200 N.W. Fifth Street Oklahoma City, Oklahoma 73102 Phone: 405-231-4877
Resident Agent in Charge (ATF) 2721 N. Central Ave. Phoenix, Arizona 85004 Phone: 502-261-2025	Special Agent in Charge (ATF) Federal Building (Mailing Address: P.O. Box 1897) Detroit, Michigan 48226 Phone: 313-226-7300	Special Agent in Charge (ATF) U.S. Custom House 2nd and Chestnut Streets Philadelphia, Pennsylvania 19106 Phone: 215-697-7266
Special Agent in Charge (ATF) 300 N. Los Angeles Street (Mailing Address: P.O. Box 1991) Los Angeles, California 90063 Phone: 213-688-4812	Special Agent in Charge (ATF) U.S. Court House & Fed. Bldg. 316 North Robert Street St. Paul, Minnesota 55101 Phone: 612-725-7093	Resident Agent in Charge (ATF) Federal Building 1835 Assembly Street Columbia, South Carolina 29201 Phone: 803-677-6723
Special Agent in Charge (ATF) 525 Market Street - Room 2540 San Francisco, California 94105 Phone: 415-555-6799	Special Agent in Charge (ATF) 100 West Capital Street Jackson, Mississippi 39201 Phone: 601-490-4206	Special Agent in Charge (ATF) 4004 Hillsboro Road Nashville, Tennessee 37215 Phone: 615-
Resident Agent in Charge (ATF) Room 603 Federal Bldg. Hartford, Connecticut 06103 Phone: 203-244-2770	Special Agent in Charge (ATF) 1150 Grand Avenue Kansas City, Missouri 64106 Phone: 816-756-7188	Special Agent in Charge (ATF) 1114 Commerce Street Dallas, Texas 75242 Phone: 214-767-2750
Special Agent in Charge (ATF) 5208 N.W. 84th Ave. Miami, Florida 33166 Phone: 305-350-4368	Special Agent in Charge (ATF) 1114 Market Street St. Louis, Missouri 63101 Phone: 314-279-5559	Special Agent in Charge (ATF) 1630 Imperial Valley Dr. (Mailing Address: P.O. Box 80927) Houston, Texas 77060 Phone: 713-226-5405
Special Agent in Charge (ATF) C&S Bank Building - Suite 265 1 West Court Square Decatur, Georgia 30030 Phone: 404-221-6526/27	Resident Agent in Charge (ATF) 2401 Morris Avenue (Mailing Address: P.O. Box 327) Union, New Jersey 07083 Phone: 201-341-3184	Special Agent in Charge (ATF) 701 West Broad Street Falls Church, Virginia 22046 Phone: 703-285-2543
Resident Agent in Charge (ATF) 300 Ala Moana Blvd. (Mailing Address: P.O. Box 50103) Honolulu, Hawaii 96801 Phone: 808-546-3196	Special Agent in Charge (ATF) 90 Church Street (Mailing Address: P.O. Box 3842) Church Street Station New York, New York 10007 Phone: 212-264-4658	Resident Agent in Charge (ATF) 400 North 8th Street (Mailing Address: P.O. Box 10066) Richmond, Virginia 23240 Phone: 804-925-2666
Special Agent in Charge (ATF) Suite 300 2115 Butterfield Road Oak Brook, Illinois 60521 Phone: 313-353-8474	Special Agent in Charge (ATF) 222 S. Church Street - Suite 404 Charlotte, North Carolina 28202 Phone: 704-371-6125	Special Agent in Charge (ATF) 508 Federal Bldg. 916 2nd Ave. Seattle, Washington 98174 Phone: 206-442-4485
Special Agent in Charge (ATF) 600 Federal Place Louisville, Kentucky 40202 Phone: 502-582-5211	Resident Agent in Charge (ATF) U.S. Post Office Building Room 316 Cincinnati, Ohio 4520 Phone: 513-684-3354	Special Agent (ATF) U.S. Courthouse Federal Bldg. Avienda Carlos Chardon Hato Rey, Puerto Rico 00919 Phone: 809-753-4084

PRIVACY ACT INFORMATION

The following information is provided pursuant to section 3 of the Privacy Act of 1974 (5 U.S.C. § 552a)(3).

- Authority.** Solicitation of this information is made pursuant to Title XI of the Organized Crime Control Act of 1970 (18 U.S.C. Chapter 40). Disclosure of a theft or loss of explosive materials is mandatory pursuant to 18 U.S.C. § 842(k) for a person who has knowledge of such theft or loss from his stock.
- Purpose.** The purpose for the collection of this information is to give ATF notice of the theft or loss of explosive materials, and to furnish ATF with the pertinent facts surrounding such theft or loss. In addition, the information is used to confirm and verify any prior telephonic or other informal notification of a theft or loss of explosive materials.

- Routine Uses.** The information will be used by ATF to aid in the administration of laws within its jurisdiction concerning the regulation of explosive materials and other related areas. In addition, the information may be disclosed to other Federal, State, foreign, and local law enforcement and regulatory agencies to aid in the enforcement of laws within their jurisdiction.

- Effects of not supplying information requested.** 18 U.S.C. § 842(k) makes it unlawful for any person, who has knowledge of the theft or loss of explosive materials from his stock, to fail to report such theft or loss within twenty-four hours of discovery thereof, to the Secretary and to appropriate local authorities. The penalty for violation of this section is a fine of not more than \$1,000 or imprisonment for not more than one year, or both. 18 U.S.C. § 844(b).

PAPERWORK REDUCTION ACT NOTICE

This request is in accordance with Section 3507, Public Law 96-511, December 11, 1980. The purpose of this information collection is to determine whether the person receiving explosives is eligible to do so under federal law. The information is subject to inspection by ATF officials. This information is mandatory by statute. (18 U.S.C. 842)

ATF F 4712 (5400.5) (11-81)

Explosives Storage Magazine Condition Report

Inspector:		Magazine location:			
		Section	Range	Township	County
National Forest:		Magazine name or number:			Date:
Designated individual responsible for magazine:			Other personnel, if any, designated secondary responsibility:		
Name _____ Title _____					
Do these personnel hold current Blaster's Certificate authorizing handling, transportation, and storage? <input type="checkbox"/> Yes <input type="checkbox"/> No					
Is this a Forest Service magazine? <input type="checkbox"/> Yes <input type="checkbox"/> No					

I. Magazine Site:

A. Conformance with American Table of Distances:

Is maximum storage stenciled or painted on inside wall of magazine? Yes No

Maximum quantity of explosives authorized for storage in magazine _____ lbs.

Quantity stored _____ lbs.

Barricaded? Yes No

Distance to nearest inhabited building, dwelling _____ feet

Distance to nearest public road _____ feet

Distance to nearest ski lift, downhill ski run, or other public facility _____ feet

Site *does* *does not* conform to standards

B. Is there utilization of natural barriers? Describe:

C. Drainage of terrain near magazine, (slope, direction of flow, soil, etc.). Describe:

D. Exposure to Sun (south slope, north slope, shaded by trees, covered by snowbank, etc.). Describe:

E. Accessibility to other than authorized personnel, i.e. exposed to careless discharge of firearms, vandalism, etc. Describe:

(Figure 3-3) Explosives Storage Magazine Condition Report.

Explosives Storage Magazine Condition Report continued. . .

II. Construction of Magazine:

A. Type Structure (check one):

Reinforced concrete Brick or masonry

Frame Exposed wood

Metal-sheathed outside Other(Describe): _____

Is structure bullet proof? Yes No

Rodent proof? Yes No

B. Flooring (check one):

Wood - Are nails exposed? Yes No

Earth

Concrete - Are duckboards, pallets, or rubber mats over concrete? Yes No

Are there any spark producing hazards on floor? Yes No

If yes, describe: _____

C. Ventilation

Is flooring set back 5 inches from wall? Yes No

If concrete floor, are duckboards or pallets provided? Yes No

If yes, how are the vents screened? _____

What is the condition of screening? _____

What type of roof vent is provided? Describe: _____

Are vents installed with an indirect flow of air? Yes No

Is the air venting adequate for this magazine? Yes No

D. Lightning and Static Protection

Is there a lightning rod system? Yes No

If yes, describe: rod, cables, ground, and condition (corroded? broken?). _____

III. Method of Storage and Condition of Explosives in Magazine

A. Storage

Are explosives at least 5 inches from walls? Yes No

Are explosives cases stacked top side up? Yes No

Is there sufficient room between stacks to permit circulation of air? Yes No

Are caps or made up primers stored in explosives magazine? Yes No

Are explosives stacked so oldest stock may be used first? Yes No

Are open or partially used cases, stacked separately from full ones? Yes No

Are stacks separated according to type and grade? Yes No

B. Condition of Explosives

Are cases damp? Yes No

Are explosives damp inside cases? Yes No

Are any cases broken, rodent gnawed, or in any way damaged? Yes No

If explosives show signs of deterioration, check appropriate box below:

Are explosives becoming dark in color? Yes No

Are explosives soft and mushy in texture? Yes No

Are there fumes in magazine? Yes No

Is there any indication of leakage in explosives? Yes No

Are cases stained? Yes No

If the answer to any of the above is Yes, Describe: _____

(Figure 3-4) Explosives Storage Magazine Condition Report, continued.

Explosives Storage Magazine Condition Report continued. . .

Does any explosive in magazine appear to be deteriorated to the point where it is dangerous to handle and would require disposal by military EOD teams?
 Yes No If yes, describe in full: _____

Special Note:
If the above described condition exists, close magazine and immediately notify District Ranger, Forest Engineer, Regional Forester, and Regional Blaster Examiner.

C. Detonating Cord

If detonating cord is stored in magazine, is it in moisture and rodent-proof container? Yes No

Is it damp, rodent gnawed, or is the protective covering damaged in any way? Yes No
If yes, describe: _____

D. Detonator (Cap) Magazine

How far is cap magazine from explosives magazine?
_____ feet

Are caps in rodent proof containers if necessary?
 Yes No

Is magazine rodent proof? Yes No

Are caps damp? Yes No

Are caps stored in such a manner as to be exposed to any hazard from friction, static, or falling objects?
 Yes No If yes, describe: _____

Do caps show corrosion, cracking of insulation on leg wires, or other signs of deterioration? Yes No
If yes, describe: _____

Are any other blasting materials other than caps and fuses stored in cap magazine? Yes No
If yes, describe: _____

IV Cleanliness of Magazine

Is floor of magazine swept clean? Yes No
If no, describe: _____

Is floor of magazine stained from leaky explosives?
 Yes No

If yes, describe: _____

Are there any empty explosives containers in magazine?
 Yes No

If yes, describe: _____

Is general appearance of magazine clean, neat, and orderly?
 Yes No Remarks: _____

V. Fire Prevention

Is brush cleared around outside of magazine for at least 50 feet? Yes No

How far around magazine is ground cleared to mineral soil?
_____ feet

Are there any serious fire hazards in the immediate vicinity of the magazine? Yes No

VI. Signing and Marking of Magazine

Does magazine marking conform to Forest Service safety code? Yes No If no, describe: _____

Explosives Storage Magazine Condition Report continued. . .
(Figure 3-5) Explosives Storage Magazine Condition Report, continued.
VII. Inventory Records

Is an explosives inventory record kept in magazine?
 Yes No

If yes, describe form, or submit copy with inspection report.

Where is second copy kept? _____

Are inventory records (refer to III D) neat, clean, legible, and kept up to date? Yes No

Is any provision made to date mark cases on arrival at magazine so oldest stock may be identified?
 Yes No If yes, describe: _____

VIII. Miscellaneous

Is magazine securely locked with at least two high security locks? Yes No

With special lock meeting BATF regulations?
 Yes No

Are keys strictly controlled? Yes No

Is any explosive material not belonging to Forest Service stored in magazine? Yes No If yes, describe: _____

Is anything, particularly iron or spark producing items, other than explosives or caps stored in either explosives or cap magazines? Yes No If yes, describe: _____

Inspection Rating

Satisfactory

Needs corrections

Inspector's remarks and recommendations: (If more room is needed, use additional sheet of paper.)

(Figure 3-6) Explosives Storage Magazine Condition Report, continued.

Inspection and Inventory Record

(Check Type)

Explosives Magazine Detonator Magazine

Region: _____ Forest & District: _____ Magazine: _____

Inspection		(Check Action)			Inventory					Explosives (type)					Explosives (type)					Explosives (type)													
If stock added or removed, update inventory section.		Inspected	Added Stock	Removed Stock	Explosives (type)		Mfg			Date		Initial			Added or Removed			Running Inventory		Date Code		Date		Initial			Added or Removed			Running Inventory		Date Code	
Date	Signature				Date	Initial	Added or Removed	Running Inventory	Date Code	Date	Initial	Added or Removed	Running Inventory	Date Code	Date	Initial	Added or Removed	Running Inventory	Date Code	Date	Initial	Added or Removed	Running Inventory	Date Code	Date	Initial	Added or Removed	Running Inventory	Date Code				

CH

(Figure 3-7) Blank Inspection and Inventory Record form.

INSPECTION AND INVENTORY RECORD

(Check Type)

Explosives Magazine Detonator Magazine

Region: 7 Forest & District: Mescalero Bentwood Magazine: Bentwood

inspection		(Check Action)			inventory					Explosives (type)					Explosives (type)					Explosives (type)													
If stock added or removed, update inventory section.		Inspected	Added Stock	Removed Stock	Explosives (type)		Mfg			Date		Initial			Added or Removed			Running Inventory		Date Code		Date		Initial			Added or Removed			Running Inventory		Date Code	
DATE	SIGNATURE				DATE	INITIAL	ADDED OR REMOVED	RUNNING INVENTORY	DATE CODE	DATE	INITIAL	ADDED OR REMOVED	RUNNING INVENTORY	DATE CODE	DATE	INITIAL	ADDED OR REMOVED	RUNNING INVENTORY	DATE CODE	DATE	INITIAL	ADDED OR REMOVED	RUNNING INVENTORY	DATE CODE	DATE	INITIAL	ADDED OR REMOVED	RUNNING INVENTORY	DATE CODE				
7/2	B. G. Jason	✓			<u>Water Gel - T500 DuPont</u>					<u>HDR Primers DuPont</u>					<u>DETONATING CAP EB</u>																		
7/6	B. C. Jason	✓			7/7A	BCJ	100#	1000#	7/7A	7/7A	BCJ	120#	120#	7/7A	7/7A	BCJ	1000'	1000'	7/7A	7/7A	BCJ	1000'	1000'	7/7A	7/7A	BCJ	1000'	1000'	7/7A	7/7A	BCJ	1000'	1000'
7/9	B. C. Jason	✓			7/7B	BCJ	30#	97#	7/7B	7/7B	BCJ	4#	116#	7/7B	7/7B	BCJ	100'	900'	7/7B	7/7B	BCJ	100'	900'	7/7B	7/7B	BCJ	120'	730'	7/7B	7/7B	BCJ	120'	730'
7/13	B. C. Jason	✓			7/7C	BCJ	130	840#	7/7C	7/7C	BCJ	23#	93#	7/7C	7/7C	BCJ			7/7C	7/7C	BCJ			7/7C	7/7C	BCJ			7/7C	7/7C	BCJ		
7/16	B. C. Jason	✓																															
7/17	B. C. Jason	✓																															
7/20	B. C. Jason	✓																															
7/23	B. C. Jason	✓																															
7/27	B. C. Jason	✓																															
7/30	B. C. Jason	✓																															
8/3	B. C. Jason	✓																															

(Figure 3-8) Example of a properly filled out Inspection and Inventory Record form.

to the spacing of said cap magazines from magazines containing other explosives. If any two or more magazines are separated from each other by less than the specified "Separation of Magazines" distances, then such two or more magazines, as a group must be considered as one magazine and the total quantity of explosives stored in such group must be treated as if stored in a single magazine located on the site of any magazine of the group and must comply with the minimum of distances specified from other magazines, inhabited buildings, railways, and highways.

- (2) All types of blasting caps in strengths through No. 8 cap should be rated at 1 to 2 lbs. of explosives per 1000 caps. For strengths higher than No. 8 cap, consult the manufacturer.
- (3) For quantity and distance purposes, detonating cord of 50 or 60 grains per foot should be calculated as equivalent to 9 lbs. of high explosives per 1000 feet. Heavier or lighter core loads should be rated proportionately.

NOTES TO THE TABLE OF SEPARATION DISTANCES OF AMMONIUM NITRATE AND BLASTING AGENTS FROM EXPLOSIVES OR BLASTING AGENTS (next page)

- (1) This table specifies separation distances to prevent explosion of ammonium nitrate and ammonium nitrate based blasting agents by propagation from nearby stores of high explosives or blasting agents referred to in the tables the "donor." Ammonium nitrate, by itself, is not considered to be a donor when applying this table.

Ammonium nitrate, ammonium nitrate-fuel oil or combinations thereof are acceptors. If stores of ammonium nitrate are located within the sympathetic detonation distance of explosives or blasting agents, one-half the mass of the ammonium nitrate is to be included in the mass of the donor.

- (2) When the ammonium nitrate and/or blasting agent is not barricaded, the distances shown in the table must be multiplied by six. These distances allow for the possibility of high-velocity metal fragments from mixers, hoppers, truck bodies, sheet metal structures, metal containers, and the like which may enclose the "donor." Where explosives storage is in bullet resistant magazines or where the storage is protected by a bullet-resistant wall, distances and barricade thicknesses in excess of those prescribed are not required.
- (3) These distances apply to ammonium nitrate that passes the insensitivity test prescribed in the definition of ammonium nitrate fertilizer issued by the Fertilizer Institute. Ammonium nitrate failing to pass the test must be stored at proper separation distances.
- (4) These distances apply to blasting agents which pass the insensitivity test prescribed in regulations of the U.S. Department of Transportation (49CFR Part 173).
- (5) Earth or sand dikes, or enclosures filled with the prescribed minimum thickness of earth or sand are acceptable artificial barricades. Natural barricades, such as hills or timber of sufficient density that the surrounding exposures which require protection cannot be seen from the "donor" when the trees are bare of leaves, are also acceptable.
- (6) For determining distances to be maintained from inhabited buildings, passenger railways, and public highways, use the table in 55.218.

REPAIR OF MAGAZINES

Before repairing the interior of magazines, all explosive materials are to be removed and the interior cleaned. Before repairing the exterior of magazines, all explosive materials must be removed if there exists any possibility that repairs may produce sparks or flame. Explosive materials removed from magazines under repair must be:

- (a) Placed in other magazines appropriate for the storage of those explosive materials under this subpart; or
- (b) Placed a safe distance from the magazines under repair where they are to be properly guarded and protected until the repairs have been completed.

QUANTITY OF EXPLOSIVES (IN POUNDS)		DISTANCES (IN FEET)							
		INHABITED BUILDINGS		PUBLIC HIGHWAYS, CLASS A to D**		PASSENGER RAILWAYS & PUBLIC HIGHWAYS: With traffic volume of more than 3,000 vehicles per day		SEPARATION OF MAGAZINES	
OVER	NOT OVER	BARRI- CADED	UNBARRI- CADED	BARRI- CADED	UNBARRI- CADED	BARRI- CADED	UNBARRI- CADED	BARRI- CADED	UNBARRI- CADED
2	5	70	140	30	60	51	102	6	12
5	10	90	180	35	70	64	128	8	16
10	20	110	220	45	90	81	162	10	20
20	30	125	250	50	100	93	186	11	22
30	40	140	280	55	110	103	206	12	24
40	50	150	300	60	120	110	220	14	28
50	75	170	340	70	140	127	254	15	30
75	100	190	380	75	150	139	278	18	32
100	125	200	400	80	160	150	300	18	36
125	150	215	430	85	170	159	318	19	38
150	200	235	470	95	190	175	350	21	42
200	250	255	510	105	210	189	378	23	46
250	300	270	540	110	220	201	402	24	48
300	400	295	590	120	240	221	442	27	54
400	500	320	640	130	260	238	476	29	58
500	600	340	680	135	270	253	506	31	62
600	700	355	710	145	290	266	532	32	64
700	800	375	750	150	300	278	556	33	66
800	900	390	780	155	310	289	578	35	70
900	1,000	400	800	160	320	300	600	36	72
1,000	1,200	425	850	165	330	318	636	39	78
1,200	1,400	450	900	170	340	335	672	41	82
1,400	1,600	470	940	175	350	351	702	43	86
1,600	1,800	490	980	180	360	366	732	44	88
1,800	2,000	505	1,010	185	370	378	756	45	90
2,000	2,500	545	1,090	190	380	408	816	49	98
2,500	3,000	580	1,150	195	390	432	864	52	104
3,000	4,000	635	1,270	210	420	474	948	58	118
4,000	5,000	685	1,370	225	450	513	1,026	61	122
5,000	6,000	730	1,480	235	470	546	1,092	65	130
6,000	7,000	770	1,540	245	490	573	1,146	68	136
7,000	8,000	800	1,600	250	500	600	1,200	72	144
8,000	9,000	835	1,670	255	510	624	1,248	75	150
9,000	10,000	865	1,730	260	520	645	1,290	78	156
10,000	12,000	875	1,750	270	540	687	1,374	82	164
12,000	14,000	885	1,770	275	550	723	1,446	87	174
14,000	16,000	900	1,800	280	560	756	1,512	90	180
16,000	18,000	940	1,880	285	570	785	1,572	94	188
18,000	20,000	975	1,950	290	580	813	1,626	96	196
20,000	25,000	1,055	2,000	315	630	875	1,752	105	210
25,000	30,000	1,130	2,000	340	680	933	1,866	112	224
30,000	35,000	1,205	2,000	360	720	981	1,962	119	238
35,000	40,000	1,275	2,000	380	760	1,026	2,000	124	248
40,000	45,000	1,340	2,000	400	800	1,068	2,000	129	258
45,000	50,000	1,400	2,000	420	840	1,104	2,000	135	270
50,000	55,000	1,460	2,000	440	880	1,140	2,000	140	280
55,000	60,000	1,515	2,000	455	910	1,173	2,000	145	290
60,000	65,000	1,565	2,000	470	940	1,206	2,000	150	300
65,000	70,000	1,610	2,000	485	970	1,236	2,000	155	310
70,000	75,000	1,655	2,000	500	1,000	1,263	2,000	160	320
75,000	80,000	1,695	2,000	510	1,020	1,293	2,000	165	330
80,000	85,000	1,730	2,000	520	1,040	1,317	2,000	170	340
85,000	90,000	1,760	2,000	530	1,060	1,344	2,000	175	350
90,000	95,000	1,790	2,000	540	1,080	1,368	2,000	180	360
95,000	100,000	1,815	2,000	545	1,090	1,392	2,000	185	370
100,000	110,000	1,835	2,000	550	1,100	1,437	2,000	195	390
110,000	120,000	1,855	2,000	555	1,110	1,479	2,000	205	410
120,000	130,000	1,875	2,000	560	1,120	1,521	2,000	215	430
130,000	140,000	1,890	2,000	565	1,130	1,557	2,000	225	450
140,000	150,000	1,900	2,000	570	1,140	1,593	2,000	235	470
150,000	160,000	1,935	2,000	580	1,160	1,629	2,000	245	490
160,000	170,000	1,965	2,000	590	1,180	1,662	2,000	255	510
170,000	180,000	1,990	2,000	600	1,200	1,695	2,000	265	530
180,000	190,000	2,010	2,000	605	1,210	1,725	2,000	275	550
190,000	200,000	2,030	2,030	610	1,220	1,755	2,000	285	570
200,000	210,000	2,055	2,055	620	1,240	1,782	2,000	295	590
210,000	230,000	2,100	2,100	635	1,270	1,836	2,000	315	630
230,000	250,000	2,155	2,155	650	1,300	1,890	2,000	335	670
250,000	275,000	2,215	2,215	670	1,340	1,950	2,000	350	720
275,000	300,000	2,275	2,275	690	1,380	2,000	2,000	385	770

** = See § 55.11, "Highway."

(Figure 3-9) Table of distances for storage of explosive materials.

DONOR WEIGHT (POUNDS)		MINIMUM SEPARATION DISTANCE OF ACCEPTOR FROM DONOR WHEN BARRICADED (FEET)		MINIMUM THICKNESS OF ARTIFICIAL BARRICADES (INCHES)
OVER	NOT OVER	AMMONIUM NITRATE	BLASTING AGENT	
0	100	3	11	12
100	300	4	14	12
300	600	5	18	12
600	1,000	6	22	12
1,000	1,600	7	25	12
1,600	2,000	8	29	12
2,000	3,000	9	32	15
3,000	4,000	10	36	15
4,000	6,000	11	40	15
6,000	8,000	12	43	20
8,000	10,000	13	47	20
10,000	12,000	14	50	20
12,000	16,000	15	54	25
16,000	20,000	16	58	25
20,000	25,000	18	65	25
25,000	30,000	19	68	30
30,000	35,000	20	72	30
35,000	40,000	21	76	30
40,000	45,000	22	79	35
45,000	50,000	23	83	35
50,000	55,000	24	86	35
55,000	60,000	25	90	35
60,000	70,000	26	94	40
70,000	80,000	28	101	40
80,000	90,000	30	108	40
90,000	100,000	32	115	40
100,000	120,000	34	122	50
120,000	140,000	37	133	50
140,000	160,000	40	144	50
160,000	180,000	44	158	50
180,000	200,000	48	173	50
200,000	220,000	52	187	60
220,000	250,000	56	202	60
250,000	275,000	60	216	60
275,000	300,000	64	230	60

(Figure 3-10) Table of distances for storage of low explosives.

POUNDS		DISTANCES IN FEET		
OVER	NOT OVER	FROM INHABITED BUILDING	FROM PUBLIC RAILROAD AND HIGHWAY	FROM ABOVE-GROUND MAGAZINE
0	1,000	75	75	50
1,000	5,000	115	115	75
5,000	10,000	150	150	100
10,000	20,000	190	190	125
20,000	30,000	215	215	145
30,000	40,000	235	235	155
40,000	50,000	250	250	165
50,000	60,000	260	260	175
60,000	70,000	270	270	185
70,000	80,000	280	280	190
80,000	90,000	295	295	195
90,000	100,000	300	300	200
100,000	200,000	375	375	250
200,000	300,000	450	450	300

(Figure 3-11) Table of distances for storage of low explosives.

HOUSEKEEPING

Magazines are to be kept clean, dry, and free of grit, paper, empty packages and containers, and rubbish. Floors are to be regularly swept. Brooms and other utensils used in the cleaning and maintenance of magazines must have no spark-producing metal parts, and may be kept in magazines. Floors stained by leakage from explosive materials are to be cleaned according to instructions of the explosives manufacturer. When any explosive material has deteriorated, it is to be destroyed in accordance with the advice or instructions of the manufacturer. The area surrounding magazines is to be kept clear of rubbish, brush, dry grass, or trees (except live trees more than 10 feet tall, for not less than 25 feet in all directions. Volatile materials are to be kept a distance of not less than 50 feet from outdoor magazines. Living foliage which is used to stabilize the earthen covering of a magazine need not be removed.

INVENTORY

Inventories must be kept on all explosives, blasting agents, detonators, and primers, including mixed binaries. Permanent storage inventories are maintained by the magazine operator; working field inventories are maintained by the blaster-in-charge on a daily basis. Permanent storage inventories must be by withdrawal, return, and resupply with physical inventory checks at least monthly. Permanent storage inventory should use a “two-mode system,” with inventory sheets in each magazine and a hard-bound inventory book in the possession of the magazine operator. Magazine and field storage inventories must balance at the start and end of each day. Inventory inconsistencies *must* be resolved upon discovery, with full explanation recorded in the hard-bound inventory book.

Inventory entries must be made in ink, and include: a) date, b) material and quantity removed/returned/resupplied, c) name of person being issued or returning materials, or in case of resupply, name of manufacturer, d) lot number and date of manufacture, and e) name of person issuing/receiving materials.

Inventories should be kept by “cartridge count” and “cap count,” not by box or carton count. “Cap count” means the count of individual detonators such as “25 MS delay caps, 100 each,” not “1/4 box 25 MS delays.” “Cartridge count” means the count of individual units of explosive such as “Tovex 800, 54 sticks,” or “E-Cord, 700 feet,” NOT “1/2 case Tovex 800.” Detonators, primers, and detonating cords are packaged by unit count (each, feet, meters), resulting in a specific number of units per box or spool for a given product; once that number is known, there is no reason to open factory-sealed boxes to obtain an accurate count. Cartridge explosives do not share that reliability, and the contents of each case must be counted when it is opened; however, until opened, the factory seals should be left on cases and the inventory should read something like “5 cases + 38 sticks” (meaning there are five sealed cases, and one opened case containing 38 sticks, in the magazine). Blasting agents are normally inventoried by weight (pounds), but sack or bag counts may also be used.

Explosives Storage Magazine Condition Report

Inspector: _____

Magazine location:
 Section _____ Range _____ Township _____ County _____

National Forest: _____

Magazine name or number: _____

Date: _____

Designated individual responsible for magazine:
 Name _____ Title _____

Other personnel, if any, designated secondary responsibility:

Do these personnel hold current Blaster's Certificate authorizing handling, transportation, and storage? Yes No
 Is this a Forest Service magazine? Yes No

I. Magazine Site:

A. Conformance with American Table of Distances:

Is maximum storage stenciled or painted on inside wall of magazine? Yes No

Maximum quantity of explosives authorized for storage in magazine _____ lbs.

Quantity stored _____ lbs.

Barricaded? Yes No

Distance to nearest inhabited building, dwelling _____ feet

Distance to nearest public road _____ feet

Distance to nearest ski lift, downhill ski run, or other public facility _____ feet

Site *does* *does not* conform to standards

B. Is there utilization of natural barriers? Describe:

C. Drainage of terrain near magazine, (slope, direction of flow, soil, etc.). Describe:

D. Exposure to Sun (south slope, north slope, shaded by trees, covered by snowbank, etc.). Describe:

E. Accessibility to other than authorized personnel, i.e. exposed to careless discharge of firearms, vandalisms, etc. Describe:

(Figure 3-12) Explosives Storage Magazine Condition Report form.

STORING EXPLOSIVES IN REMOTE, UNINHABITED, ROADLESS LOCATIONS

In remote, uninhabited, roadless locations (backcountry or wilderness), store explosives and detonators separately behind natural barriers in an area out of site and a safe distance from the trail, and any campsite, overlook, or other place of normal public access. Make secure from theft as is practicable. Clear away leaves, dead grass, and other flammable materials. Protect explosives from water with fire-resistant waterproofed canvas; slope the ground to keep away surface water. Post explosives with a red-on-white warning sign reading, "EXPLOSIVES-KEEP OFF" in letters at least 1-1/2" high. The sign should be placed on or against the explosives, but where it will be seen by anyone approaching the cache.

Transport only an adequate amount of explosives to last for one work period (five or 10 days). Do not leave explosives unattended for more than 12 hours. Where practical, transport magazines by plane or helicopter.

STORING FIRELINE EXPLOSIVES IN THE FIELD

Using portable type 2 (see 27 CFR part 55, page 27) magazines where possible. A type 3 (see 27 CFR part 55, page 27) magazine or an explosive transport truck may be used if storage distance and attendance regulations are adhered to and the truck is kept locked.

When it is not possible to store explosives in an approved magazine, the explosives will be stored in a secured area away from the camp. If possible, store explosives behind a natural or man made barrier. The explosives shall be covered with a fire resistant waterproof tarpaulin and remain under constant surveillance by a guard. Post the explosives with clearly visible red-on-white warning signs reading, "EXPLOSIVES-KEEP OFF". Detonators shall never be stored with fireline explosives. In the event of a lightning storm, all personnel including the guard will move at least 1000 feet from the storage area

TWO-COMPONENT CAP SENSITIVE EXPLOSIVES

Store both components in an approved magazine. An approved magazine for two-component explosives is a locked cabinet for each component. However, when mixed, it becomes a Class A explosive and must be store according to CFR 27 part 55.

