

# Regulations for Blasting Agents and Explosives

By: Duke Chen, Principal Analyst  
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## Issue

Describe how blasting agents and explosives are regulated in Connecticut. This report updates OLR Report [2013-R-0222](#).

## Summary

Blasting agents and explosives are principally regulated at the federal, state, and municipal level by, respectively, the [U.S. Bureau of Alcohol, Tobacco, Firearms and Explosives](#) (ATF), the State Police's [Special Licensing and Firearms Unit](#) within the Department of Emergency Services and Public Protection (DESPP), and local fire marshals. The U.S. Department of Transportation (DOT) and State Fire Marshal also have regulatory authority and responsibilities.

Federal and state laws set licensing and permitting, storage, transport, and recordkeeping requirements. Federal law prohibits, among other things, certain activities without a license or permit, including manufacturing, selling, distributing, receiving, or transporting explosive materials. State law generally requires anyone storing, transporting, or using explosives to obtain both a license from DESPP and a permit from DESPP or the fire marshal of the town where the action will be conducted.

Under both federal and state law, licensees and permittees must (1) store explosives in a safe manner, including in specific containers and at minimum distances from certain structures; and (2) maintain transaction accounts and other records and allow certain government officials to inspect

them. Both sets of laws also establish penalties for violating their provisions, which include the possibility of fines, imprisonment, and forfeiture.

## Terminology

Federal law mostly regulates “explosive materials,” which includes explosives and blasting agents. “Explosive” is generally any chemical compound mixture, or device, the primary or common purpose of which is to function by explosion and “blasting agent” is any material or mixture, consisting of fuel and oxidizer, intended for blasting, not otherwise defined as an explosive ([18 U.S.C. § 841](#); [27 C.F.R. § 555.11](#)). State law defines these two terms similarly but does not have a collective term that groups them together (see [CGS §§ 29-343 & 29-349\(h\)](#); [Conn. Agencies Regs. § 29-349-106](#)).

Dynamite and black powder are examples of explosives (explicitly so under federal law). Ammonium nitrate and fuel oil in combination (ANFO), which is typically used in mining and quarrying, is an example of a blasting agent (see, e.g., ATF’s [2023 Explosives Industry Newsletter](#)).

Under both federal and state law, explosives and blasting agents are stored in a “magazine,” which is any building or structure, other than an explosives manufacturing building ([27 C.F.R. § 555.11](#); [Conn. Agencies Regs. § 29-349-106](#)).

## Licenses and Permits

### *Federal Law*

Federal law generally requires anyone who engages in the business of importing, manufacturing, or dealing in explosive materials to obtain an ATF federal explosives license. It also generally requires a permit for those who intend to acquire and use explosives in their state of residence up to six times within a 12-month period ([18 U.S.C. § 842](#); [27 C.F.R. § 555.41](#)).

The license or permit applicant must not, among other things:

1. be a prohibited person because of certain acts (e.g., criminal, prior institutionalization, or dishonorable discharge from military);
2. have willfully violated any provision of the federal explosives law; and
3. knowingly withhold information in connection with the application ([18 U.S.C. § 843\(b\)](#); [27 C.F.R. § 555.49](#)).

Licenses cost \$200 and are valid for three years with a \$100 renewal fee. Permit costs and terms vary depending on whether the permittee will be acquiring explosive materials from in-state or out-

of-state licensees or permittees ([18 U.S.C. § 843\(a\)](#); [27 C.F.R. §§ 555.42](#) & [555.43](#); see also ATF's Federal Explosives Licenses and Permits [webpage](#)).

A license or permit may be revoked if the holder violates any of the federal explosive materials laws or becomes a prohibited person ([18 U.S.C. § 843\(d\)](#)).

## ***State Law***

State law requires, with exceptions, anyone who stores, transports, or uses explosives to obtain a DESPP license. The applicant must submit a \$200 fee and show evidence of good moral character and competence in controlling and handling explosives. Additionally, if the license is to use explosives, the applicant must demonstrate that he or she is technically qualified to detonate explosives. The license (1) must bear both the licensee's fingerprints and his or her photograph taken within a year of the license issuance and (2) expires annually and may be renewed after a \$150 payment ([CGS § 29-349\(b\)](#)). Applicants must also submit to a state and national criminal history records check ([CGS § 29-349\(c\)](#)).

In addition to the license, state law requires anyone who manufactures, keeps, stores, sells, or deals any explosives to also obtain a written permit from DESPP or the local fire marshal of the town where the activity is to be conducted. The permit is valid for a year and costs \$100. The permit must state the location where the explosives will be stored ([CGS § 29-349\(d\)](#)).

Similarly, anyone who procures, transports, or uses explosives in the state must have a license and a written permit from DESPP or the local fire marshal. The permit must specify the purchaser's name, amount of explosives purchased and transported, and explosive's purpose. Additionally, if the permit is to use explosives, it must include the number of years the permittee has been blasting, and if the permit is to transport explosives, DESPP must inspect and approve the vehicle to be used. This permit costs \$60 and is valid for as long as is required to accomplish the purpose for the permit, but no more than a year. The vehicle inspection fee is \$100 ([CGS § 29-349\(e\)](#)).

If someone holds a valid federal user permit, state law entitles them to a state license or permit ([CGS § 29-350](#)).

By law, a license or permit may be suspended or revoked by the issuing authority if the holder violates the state's explosives laws or is convicted for a felony or misdemeanor ([CGS § 29-349\(f\)](#)). State regulations require a local fire marshal that finds evidence of a violation of the blasting and explosives laws or regulations related to storage, transportation, or use to immediately notify the State Fire Marshal ([Conn. Agencies Regs. § 29-349-112](#)). They also require the State Fire Marshal to revoke any license or permit for good cause ([Conn. Agencies Regs. § 29-349-114](#)).

# Transportation

## *Federal Law*

DOT regulations classify explosives and blasting agents as hazardous materials ([49 C.F.R. § 172.101](#)). This means those who transport them must receive certain training, have a security plan, and pack the explosives in a particular manner ([49 C.F.R. Part 172](#)).

## *State Law*

State law generally prohibits anyone from transporting explosive substances in a vehicle with paying customers (e.g., bus or train), though these substances may be carried in a part of the vehicle the customers are not using ([CGS § 29-351](#)).

Regulations also require, among other things, certain warnings and requirements on how such vehicles are repaired, stored, and attended ([Conn. Agencies Regs. § 29-349-179 et seq.](#)). For example, vehicles used for transporting blasting agents on public highways must be placarded based on federal DOT regulations ([Conn. Agencies Regs. § 29-349-286](#)).

# Storage

## *Federal Law*

Federal regulations classify explosive materials into three categories: (1) high explosives (e.g., dynamite); (2) low explosives (e.g., black powder); and (3) blasting agents (e.g., ANFO) ([27 C.F.R. § 555.202](#)).

Depending on the volatility of the explosive material, federal law requires differing levels of magazines, each with their own construction requirements ([27 C.F.R. § 555.203](#)). For example, blasting agents must be stored in a type 4 or 5 magazine, which must be weather- and theft-resistant, constructed with certain materials, and have doors with certain types of locks ([27 C.F.R. §§ 555.210 & 555.211](#)).

Regardless of the explosive type, all magazines used for storage must be inspected at least once every seven days and, except for certain circumstances, be locked ([27 C.F.R. §§ 555.204 & 555.205](#)). The law also requires these magazines to be situated a certain minimum distance from particular locations (e.g., highways or buildings) ([27 C.F.R. § 555.206](#)). In addition, the law prohibits open flames near the explosives and limits the number of explosives that may be stored in a magazine. Finally, there are requirements on how to keep the magazines clean and dry, as well as what type of lighting may be used ([27 C.F.R. §§ 555.212 to 555.217](#)).

## ***State Law***

State law generally prohibits anyone from storing any explosive material or compound other than gunpowder near another person's property if the quantity could endanger the lives or safety of others or injure their property ([CGS § 29-352](#)).

State regulations further require two magazine sizes for storing explosives – one for storing less than 50 pounds and another for storing more than that amount ([Conn. Agencies Regs. § 29-349-126](#)). The regulations also prohibit anyone from storing explosives in any building used as a school, theater, or place where the public gathers ([Conn. Agencies Regs. § 29-349-128](#)). Similar to federal law, state law also requires magazines to be locked and has construction and inspection requirements ([Conn. Agencies Regs. § 29-349-130 et seq.](#)). Connecticut also has specific storage requirements for blasting agents ([Conn. Agencies Regs. §§ 29-349-273 to 29-349-279](#)).

## **Recordkeeping Requirements**

### ***Federal Law***

Federal law generally requires all licensees and permittees to keep records of explosive material they acquire, distribute, and store ([27 C.F.R. § 555.107](#)). It also requires them to maintain a daily summary of the number of explosive materials received, removed, and remaining. This record must be kept at the magazine in which the explosives are stored or at one central location on the business premises ([27 C.F.R. § 555.127](#)). Sellers must retain a copy of the ATF form used for the transaction as part of their permanent records ([27 C.F.R. § 555.126](#)).

### ***State Law***

State law generally requires anyone who sells or gives away explosives to enter an accurate account of each disposition. The record must be legible and entered at the time of disposition. It must provide a history of the transaction that shows the name and quantity of explosive sold, the purchaser's or donee's name and home and business addresses, and the name and address of the person to whom the explosives were delivered. The record must be kept at the seller's or donor's principal business place in Connecticut and is subject to examination by any military authority, the DESPP commissioner or his designee, and police officers within the municipality where the business is located. Such authorities may require any dealer to produce his or her records from the previous year ([CGS § 29-345](#)).

The law also generally requires anyone who keeps or stores any explosives to report to the DESPP commissioner the (1) location of his or her magazine, (2) type of explosives that are being stored or intended to be stored, (3) maximum quantity stored or intended to be stored, and (4) distance the

magazine is located from the nearest building or highway. This report must be submitted before explosives may be kept or stored ([CGS § 29-344](#)).

Anyone not subject to the above laws and who possesses an explosive must report the amount and kind to the DESPP commissioner within 10 days after purchasing it and the purpose for which the explosive is to be used ([CGS § 29-346](#)).

State regulations require each user of explosives for commercial blasting purposes to keep a log book showing in detail, among other things, the quantity of explosives used in each shot, the types, the date, time, name of the land owner, location in which the shot was fired, and the authority issuing the permit ([Conn. Agencies Regs. § 29-349-203](#)).

## **Penalties**

### ***Federal Law***

There are a wide range of penalties for violating the federal laws. They penalize, among other things, engaging in business without a license, false statements or representations, unlawful storage, and failure to report theft or loss. Penalties range from fines up to \$1,000 or \$10,000, prison terms up to one year, five years, or 10 years, and the explosive materials may be seized and forfeited ([18 U.S.C. § 844](#); [27 C.F.R. §§ 555.161](#) to [555.166](#)).

### ***State Law***

Among the penalties under state law, violators of the statutory requirements on (1) reporting about storing or possessing explosives; (2) selling and giving away explosives; and (3) transporting explosives by common carrier are subject to a fine up to \$1,000, up to six months imprisonment, or both ([CGS §§ 29-347](#) & [29-351](#)). Additionally, a person who illegally possesses explosives may be fined up to \$10,000, imprisoned up to 10 years, or both ([CGS § 29-348](#)). State law also subjects violators of the (1) licensing and permitting laws and (2) state regulations on explosives and blasting agents to a fine up to \$10,000, up to 10 years imprisonment, or both ([CGS § 29-349\(g\)](#)).

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