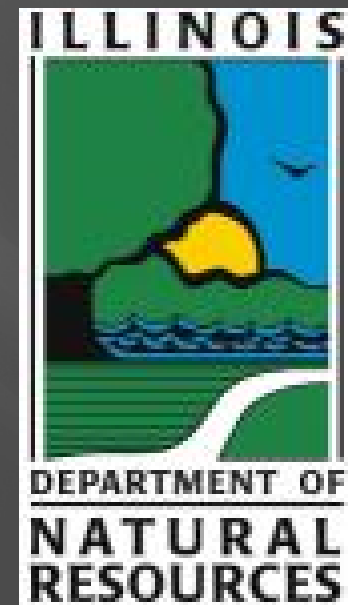
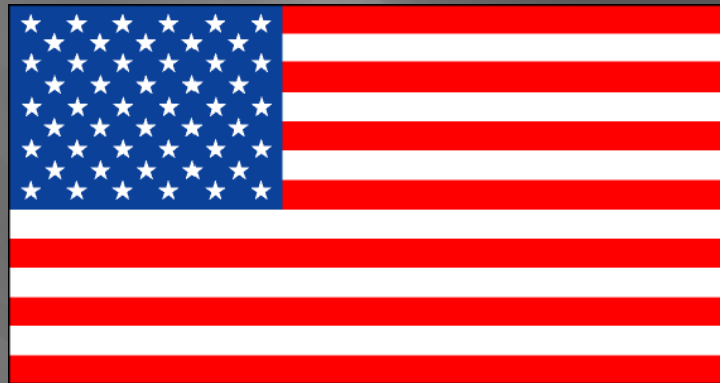


# Illinois Explosives

## Explosives Licensing/ Storage



# IDNR-General Knowledge

IDNR administers Acts/Rules which include land reclamation and explosives:

1. The Surface-Mined Land Conservation and Reclamation Act. (225 ILCS 715) and rules.
2. Illinois Explosives Act (225 ILCS 210) and rules.

# Inspector Daily Functions Per Reclamation Act

- ▣ Reviewing and preparing new mining permits
- ▣ Releasing reclaimed acreage within a mine
- ▣ Inspecting reclamation progress within the site
- ▣ Inspection for “active” status at a mine
- ▣ Inspecting all blasting and seismograph records
- ▣ Installing IDNR seismographs and downloading
- ▣ Answering all complaints
- ▣ Inspecting blasting: licenses, safety, blasts zone, etc.
- ▣ Assisting the operator with Department’s 10/10 rule

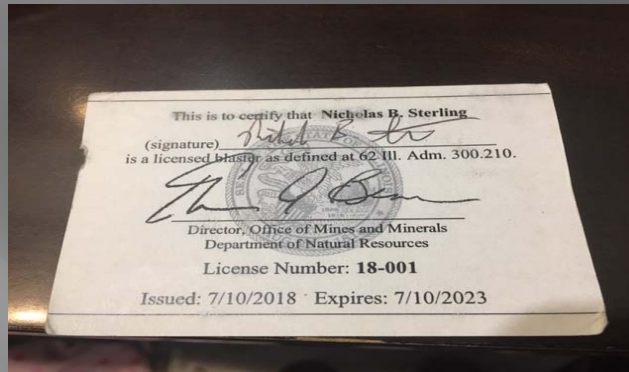
# Inspector Daily Functions Per Explosives Act

- ▣ Inspect all certified storage magazines
- ▣ Inspect/enforce licensing compliance
- ▣ Teach explosives classes
- ▣ Answer all complaints related to explosives both in the professional industry and with regular citizens.
- ▣ Investigate all explosives accidents in Illinois
- ▣ Continually work with ATF and local law enforcement to find individuals illegally possessing regulated explosives. (outside of the professional industry)
- ▣ Regulate a large variety of individuals/industries:  
Bomb squads, SWAT breaching, bomb dogs, professional fireworks industry, laboratories, mining, beaver dam shooters, manufacturers, general State and local (non-Federal) law enforcement, etc.
- ▣ Facilitate the set up of undercover stings to enforce the Explosives Act

# 2 TYPES OF EXPLOSIVES LICENSES FOR THE AGGREGATE INDUSTRY

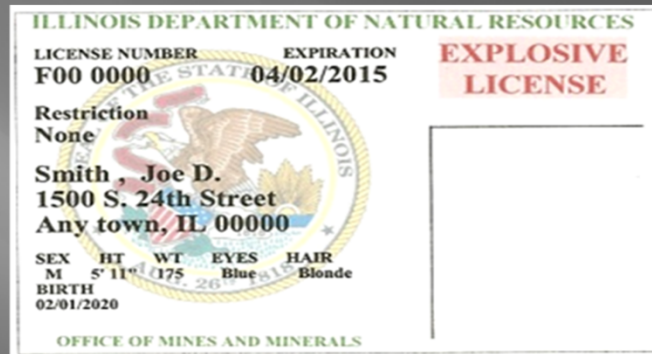
1. IL SURFACE BLASTER'S License
2. Illinois Individual Explosives License

# Surface Blasters License



1. This license is required and only good for blasting at a surface mine operations.
2. This class is a 3-day course, which includes testing on the fourth day, and includes designing an actual blast for a surface mine operation.
3. Must be qualified to test: 120 blasts or 2 years of related blasting experience, along with training that covers Section 300.235(b) of the 62 ILL ADM. CODE Part 33 of the Surface Mined Land Conservation and Reclamation Act.
4. This license is good for 5 years and the individual must retest to renew each 5 year term.
5. The fee is \$150.00 per term of 5 years.

# Illinois Individual Explosives License



1. This license covers all aggregate underground mining and any “non-exempt” assistants helping load explosives on a surface aggregate shot at a surface mining operation.
2. This license requires a one day course with a test at the end of the day.
3. Must be 21 years of age, legal citizen, not dishonorably discharged from armed services, not a fugitive from justice, not a felon (unless granted a relief of disabilities), along with other criteria within 62 ILL ADM. CODE 200.98
4. The license is good for 3 years and the individual does not retest to renew each 3 year term.
5. The fee is \$100 per 3 year term.



# Illinois Explosives Act - License

Limited exemptions to the licensure requirements do exist and include:

- ▣ fertilizers which might have an explosive nature which are used for agricultural or horticultural purposes;
- ▣ properly authorized common or contract carriers;
- ▣ primers or propellant powder used in muzzleloaders or for personal reloading, and;
- ▣ black powder (5 pounds or less) provided you possess a valid FOID (Firearm Owner IDentification) card.



# Illinois Explosives Act - License

Limited exemptions (continued):

The acquisition, possession, use, transfer, or disposal of explosive materials in connection with a mine, quarry, construction, manufacturing or wholesale or retail dealership operations in the ordinary course of business, provided:

- ▣ the operator has obtained a storage certificate from the Department;
- ▣ the acquisition, possession, use, transfer, or disposal of explosive materials is limited to the operator's business; and
- ▣ the person(s) designated as "magazine keeper" satisfies the licensure requirements, other than an examination.
- ▣ In addition, this exemption also applies to any employee, contractor or authorized individual (by Department) who is under the direct supervision of a licensee, a licensed blaster (Aggregate Mining Act), certified blaster (Surface Coal Mining Act) or certified shot firer (Coal Mining Act). Direct supervision requires supervisor to be present at all times during explosive use or disposal.

# Exemption Examples

- ▣ 1. Law Enforcement
- ▣ 2. Underground Miners (with certified storage)
- ▣ 3. Surface Blaster with 2 assistants. We register each mine site as a separate operation, to stay consistent with how ATF registers employee possessors.

# Explosives Hazards

- ▣ Complacency is big hazard. Ex: Losing the respect of how powerful the product is.
- ▣ Lack of training/experience.
- ▣ Storing explosives improperly, which can cause misfire or malfunction of the explosive
- ▣ Not focusing on the “big picture” of non-sparking around explosives. (Steel/Stray Current)
- ▣ Illegally Transporting: Vehicles, pockets, etc.

# MSHA (ATF) vs. IDNR

- ▣ Keep in mind that most, but not all regulations are similar.
- ▣ When Federal and State laws are different, one must follow the most stringent of the two regulatory bodies.
- ▣ Background checks are done separately. IDNR shares the information with FBI and Illinois State Police.
- ▣ MSHA enforces ATF law.

# SURFACE AGGREGATE BLASTING

Licensing requirements

# Surface Aggregate Blasting Licensure

- ▣ This license pertains to blasting in Surface Aggregate Mines only. This license is not to be used for construction, demolition, coal, underground, etc.

# Surface Aggregate Blasting Licensure

- ▣ Requirements for eligibility include:
  1. Completed, notarized application provided by the Department
  2. Proof of the applicant's blasting experience which shall consist of:
    - a) a notarized statement from the applicant's employer or a licensed blaster having personal knowledge of the applicant's blasting experience and affirming that the applicant has had at least two years blasting experience; or
    - b) A notarized statement from an ILLINOIS LICENSED BLASTER affirming that the applicant has experience with proper blast design to comply with regulations, drilling, loading, initiation systems and delay timing, monitoring requirements, and blast zone security and safety. The applicant's experience must include detailed involvement with at least 120 blasts.



# Surface Aggregate Blasting Licensure

- ▣ Training requirements listed in Sec. 300.235 (b). These include but are not limited to: Blast design, control of flyrock, ground vibration and airblast, loading of boreholes, initiation system, explosive properties, offsite monitoring, current Illinois and Federal laws, explosive properties and handling. 20 items in total
- ▣ The applicant must pass an exam with a minimum score of 70%.
- ▣ \$150 non-refundable fee
- ▣ **ALL SUBMISSIONS MUST CONTAIN ORIGINAL SIGNATURES**

# COMMON FINDINGS & DISCREPANCIES

# BLAST ZONES

- ▣ What is a blast zone?
- ▣ The blast zone, sometimes referred to as the blast area, is the area in which concussion (shock wave), flying material, or gases from a detonation may cause injury to persons or property.
- ▣ The blast zone should be large enough to cover all areas of concern, but at the same time should be small enough to manage. Blast warnings must be audible throughout the blast zone.
- ▣ Blast zones may not extend beyond property boundaries onto neighboring properties.

# BLAST ZONES

## ▣ COMMON DEFICIENCIES

- ▣ No blast zone indicated
  - ▣ No blast zone map
  - ▣ Blast zone not current
  
- ▣ The goal of a blast zone is to keep persons and property safe from incidental injury and accidents.

# ADMINISTRATIVE MISTAKES

- ▣ Blast records should be legible, complete, detailed and accurate.
- ▣ Blast records are a legal document and may be the only defense in civil matters
- ▣ Inaccuracies on blast records create doubt:
- ▣ Examples:
  1. Time on blast record vs. time on seismograph record
  2. Numbers of holes vs number of primers or detonators used

A complete list of blast record requirements can be found in Section 300.220 (a) (4) (A), (B), and (C). Up to 24 items.

# Lack of Knowledge

- ❑ In general, as experienced managers leave the industry, that level of experience is lost.
- ❑ Replacements commonly have a very basic knowledge of blasting, therefore don't fully understand or know the regulations.
- ❑ Educated management are better able to relate with the blaster as well as blasting requirements.

# Surface Aggregate Blasting Misconceptions

The violation goes to the blaster or blasting company?

Who does the violation go to?

Answer: It depends.

Notice of Violations (N.O.V.) go to the operator (company). Examples of this may include such violations as an exceedance of airblast or ground vibration, failure to monitor, flyrock outside of the blast zone, or administrative deficiencies.

Notice of Infractions (N.O.I.) are issued to the blaster. This would include items that occur due to direct negligence on the blaster's behalf.



# VIOLATION PROGRESSION

Initial Violation- Civil penalties and remedial action based on violation history, seriousness of the violation, and the degree of culpability of the operator.

Second violation of the same nature- Increased civil penalties and remedial action.

Third violation- “Show cause” phase.

# Surface Aggregate Blasting Misconceptions

I am not required to report any explosive accident to the Department.

62 ILL. ADM. Code, Sec. 200.805 (a)

An explosives license holder, temporary explosives license holder or storage certificate holder shall immediately report to the Office of Mines and Minerals by telephone at (217)782-9976 or by email at [DNR.Explosives@Illinois.gov](mailto:DNR.Explosives@Illinois.gov) and in writing within 24 hours any accident, injury, or incident involving explosive materials that results in death, personal injury requiring medical attention or property damage.

# Common questions

- ❑ Explosive Transportation- Am I required to demarcate any vehicles on mine property transporting explosives?
- ❑ ANSWER- Yes. Type 3 magazines shall be posted with warning signs in accordance with Section 200.602(b). On public roadways, the Department of Transportation regulations apply.
- ❑ If a blast is unable to be performed between sunrise and sunset, and “sleeping the shot” is required, who is eligible to perform this duty?
- ❑ Answer- Anyone who is licensed with the Department or is eligible, under the exemption, to acquire, possess, use, transfer or dispose of explosive materials in connection with mine, quarry, construction, manufacturing or wholesale or retail dealership operations in the ordinary course of business.