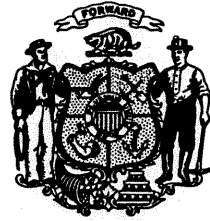


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CLEARINGHOUSE REPORT TO AGENCY

[THIS REPORT HAS BEEN PREPARED PURSUANT TO S. 227.15, STATS. THIS IS A REPORT ON A RULE AS ORIGINALLY PROPOSED BY THE AGENCY; THE REPORT MAY NOT REFLECT THE FINAL CONTENT OF THE RULE IN FINAL DRAFT FORM AS IT WILL BE SUBMITTED TO THE LEGISLATURE. THIS REPORT CONSTITUTES A REVIEW OF, BUT NOT APPROVAL OR DISAPPROVAL OF, THE SUBSTANTIVE CONTENT AND TECHNICAL ACCURACY OF THE RULE.]

CLEARINGHOUSE RULE 99-029

AN ORDER to repeal Comm 7.04 (6), 7.20 (2), 7.31 (3), 7.36 (2) (b), 7.42 (3), 7.45 (2) to (5), 7.55 to 7.57 and Comm 7 Appendices B to F; to renumber Comm 7.43 (1) and (2) and 7.64 (2) and (3); to renumber and amend Comm 7.04 (9) and 7.58; to amend Comm 7.01, 7.04 (2), 7.04 (10m) (intro.), (12), (14), (16) and (26), 7.20 (1), 7.218 (1) (a) and (b) Note 1., 7.30 (1) (c) and (f) Note, (2) (e), (3) and (6) (b), 7.31 (2), 7.33 (1), (2) (c), (3) (a), (c) and (g) and (5), Tables 7.33-1 and 7.33-2, Table 7.33-4, 7.34 (2) (d) and (3) (a), 7.35 (1) and (3), 7.36 (1) and (2) (c) and (d), 7.41 (2) and (5), 7.45 (1) and 7.64 (2) (b) and (5); to repeal and recreate Comm 7.04 (27) and (29), 7.25, 7.30 (8), 7.32, Table 7.33-3, 7.34 (1), 7.37 (3), 7.40 Note, 7.44 (4), 7.61, 7.64 (3) and (4) and Comm 7 Appendix A; and to create Comm 7.04 (2k), (2p) and (3m), 7.04 (11m), (19m) and (26h), Table 7.33-7, 7.42 (1) Note and 7.43 (1) and (4), relating to explosive materials.

Submitted by **DEPARTMENT OF COMMERCE**

02-12-99 RECEIVED BY LEGISLATIVE COUNCIL.
03-11-99 REPORT SENT TO AGENCY.

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RS:MM:jal;ksm

LEGISLATIVE COUNCIL RULES CLEARINGHOUSE REPORT

This rule has been reviewed by the Rules Clearinghouse. Based on that review, comments are reported as noted below:

1. STATUTORY AUTHORITY [s. 227.15 (2) (a)]

Comment Attached YES NO

2. FORM, STYLE AND PLACEMENT IN ADMINISTRATIVE CODE [s. 227.15 (2) (c)]

Comment Attached YES NO

3. CONFLICT WITH OR DUPLICATION OF EXISTING RULES [s. 227.15 (2) (d)]

Comment Attached YES NO

4. ADEQUACY OF REFERENCES TO RELATED STATUTES, RULES AND FORMS
[s. 227.15 (2) (e)]

Comment Attached YES NO

5. CLARITY, GRAMMAR, PUNCTUATION AND USE OF PLAIN LANGUAGE [s. 227.15 (2) (f)]

Comment Attached YES NO

6. POTENTIAL CONFLICTS WITH, AND COMPARABILITY TO, RELATED FEDERAL
REGULATIONS [s. 227.15 (2) (g)]

Comment Attached YES NO

7. COMPLIANCE WITH PERMIT ACTION DEADLINE REQUIREMENTS [s. 227.15 (2) (h)]

Comment Attached YES NO

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CLEARINGHOUSE RULE 99-029

Comments

[NOTE: All citations to "Manual" in the comments below are to the Administrative Rules Procedures Manual, prepared by the Revisor of Statutes Bureau and the Legislative Council Staff, dated September 1998.]

2. Form, Style and Placement in Administrative Code

a. The rule restricts the applicability of ch. Comm 7 to public buildings and places of employment. Are there any other locations at which explosive materials are used that should be covered by the chapter? [See, for example, ss. Comm 7.01 and 7.64 (3) (a) and (4) (a). Are the examples in s. Comm 7.64 all, by definition, public buildings or places of employment?]

b. The entire rule should be reviewed for conformance to proper drafting style regarding mandatory and permissive actions. Specifically, the rule should avoid use of a negative subject with an affirmative "shall." For example, in s. Comm 7.25 (2) (a), the phrase "Explosive materials shall not be carried . . ." should be changed to "No person may carry explosive materials . . ."

c. What is meant by the term "high explosives" in s. Comm 7.25 (2) (c) (intro.)? Could a defined term be used instead?

d. In s. Comm 7.25 (5), the second occurrence of par. (b) should be changed to par (c).

e. In s. Comm 7.34 (1) (b), it appears that the following phrase should be added at the beginning of the first sentence: "Before any surface blast is fired."

f. The material added to the note following s. Comm 7.45 is substantive and should be included in the text of the rule. [See s. 1.09, Manual.]

g. The provisions of the note following s. Comm 7.61 (1) which set forth the required elements of a preblasting survey are substantive and should be set forth in the text of the rule. [See s. 1.09, Manual.]

4. Adequacy of References to Related Statutes, Rules and Forms

a. The note following s. Comm 7.42 (1) should contain a cross-reference to the Department of Transportation (DOT) rules which regulate the use of mobile mixing vehicles on public highways.

b. The note following s. Comm 7.25 should contain a cross-reference to the DOT rules which regulate the transportation of explosive materials on public highways.

c. Section Comm 7.35 (1) should contain a cross-reference to the rules, if any exist, which set forth the various classifications of blasters.

5. Clarity, Grammar, Punctuation and Use of Plain Language

a. In item 3. of the analysis, the comma should be deleted.

b. The analysis should explain why the requirement to obtain a storage permit from the Department of Commerce for storing explosive materials in a community is eliminated.

c. In s. Comm 7.04 (27), should the phrase "or any other place" be inserted after "construction site"?

d. In s. Comm 7.25 (3) (c), should "may" be changed to "shall"?

e. In s. Comm 7.25 (4) (a), who approves the automatic fire suppression system? In sub. (5) (b), what constitutes a "competent" driver?

f. The term "blast pattern area," used in s. Comm 7.30 (2) (e) is not a defined term. What is meant by that term?

g. In s. Comm 7.30 (3), how is it to be determined if "adequate ventilation" has been provided?

h. In s. Comm 7.32 (3) (e), the phrase "or methods" should be changed to "by a method."

i. In s. Comm 7.36 (2) (c), should the phrase "in charge" be inserted after the word "blaster"?

j. Section Comm 7.61 should be rewritten to specify all of the following:

(1) The form of notice which must be given to residents and owners of affected dwellings or other structures. For example, must the notice be provided in writing?

- (2) May blasting be carried out if the owner or resident of an affected dwelling or other structure has not actually received the notice? For example, what is the result if the person is out of town when notice is given?
- (3) What penalty is imposed upon a blaster who does not comply with the notice requirement?
- (4) Under what conditions may the department approve less than 24 hours notification for construction blasting? What is the procedure for requesting this approval? What are the conditions under which it may be granted?
- (5) Must the blaster deliver the preblasting survey to the person who has requested it before blasting may take place?

k. In s. Comm 7.64 (4) (c), who must provide the seismograph record and to whom must it be provided?



State of Wisconsin \ Department of Commerce

HEARING DRAFT of PROPOSED RULES

Rule No.: Chapter Comm 7

Relating to: Explosive Materials

The Department of Commerce proposes an order to repeal Comm 7.04 (6), Comm 7.20 (2), Comm 7.31 (3), Comm 7.36 (2)(b), Comm 7.42 (3), Comm 7.45 (2) to (5), Comm 7.55 to 7.57, and Comm 7 Appendices B to F; to renumber Comm 7.43 (1) and (2), and Comm 7.64 (2) and (3); to renumber and amend Comm 7.04 (9), and Comm 7.58; to amend Comm 7.01, Comm 7.04 (2), Comm 7.04 (10m)(intro.), Comm 7.04 (12), (14) and (16), Comm 7.04 (26), Comm 7.20 (1), Comm 7.218 (1)(a) and (1)(b)Note 1, Comm 7.30 (1)(c), (1)(f)Note, (2)(e), (3) and (6)(b), Comm 7.31 (2), Comm 7.33 (1), (2)(c), (3)(a), (3)(c), (3)(g) and (5), Comm Tables 7.33-1 and 7.33-2, Comm Table 7.33-4, Comm 7.34 (2)(d) and (3)(a), Comm 7.35 (1) and (3), Comm 7.36 (1), Comm 7.36 (2)(c) and (d), Comm 7.41 (2) and (5), Comm 7.45 (1), Comm 7.64 (2)(b), and Comm 7.64 (5); to repeal and recreate Comm 7.04 (27) and (29), Comm 7.25, Comm 7.30 (8), Comm 7.32, Comm Table 7.33-3, Comm 7.34 (1), Comm 7.37 (3), Comm 7.40 Note, Comm 7.44 (4), Comm 7.61, Comm 7.64 (3), Comm 7.64 (4), and Comm 7 Appendix A; and to create Comm 7.04 (2k), (2p) and (3m), Comm 7.04 (11m), Comm 7.04 (19m), Comm 7.04 (26h), Comm Table 7.33-7, Comm 7.42 (1)Note, and Comm 7.43 (1) and (4), relating to explosive materials.

Analysis of Proposed Rules

Statutory Authority: Section 101.15 (2)(e), Stats.

Statutes Interpreted: Section 101.15 (2)(e), Stats.

The Division of Safety and Buildings within the Department of Commerce is responsible for adopting and enforcing rules to effect the safety of mines, explosives, quarries and related activities. Chapter Comm 7 contains safety and health standards for the manufacture, storage, handling and use of explosive materials, including the regulation of blasting resultants, in public buildings and at places of employment.

The proposed rules consist of a complete update of chapter Comm 7 in order to bring the chapter into conformance with current technology, federal standards, and nationally recognized practices published by the Institute of Makers of Explosives. The following is a summary of the major changes being proposed in chapter Comm 7.

1. Clarifying that chapter Comm 7 applies in public buildings and at places of employment. [Comm 7.01]
2. Updating the definitions for consistency with nationally recognized terminology. [Comm 7.04]
3. Requiring notification within 24 hours to local authorities, of the initial storage of explosive materials and of any subsequent changes in the location of that storage. [Comm 7.20 (1)]
4. Eliminating the requirement for obtaining a storage permit from the Department of Commerce for storing explosive materials in a community. [Comm 7.20 (2)]
5. Revising the transportation requirements and clarifying that the requirements apply only to on-site transportation of explosive materials. [Comm 7.25]

6. Updating the rules for blasting with non-electric systems by revising the requirements for blasting with cap and fuse, and adding new requirements for blasting with detonating cord and shock tube. [Comm 7.32]

7. Updating the rules for blasting with electric systems by revising the wording and separation distances to be consistent with nationally recognized terminology and practices. [Comm 7.33 and Tables 7.33-1 to 7.33-7]

8. Clarifying the requirements relating to surface blasting warnings and guarding of access roads to the blast area. [Comm 7.34 (1)]

9. Updating the minimum information required to be contained in each blasting log. [Comm 7.37 (3)]

10. Removal of the rules relating to smokeless propellants. [Comm 7.55 and 7.56]

11. Revising the rules for preblasting surveys and decreasing the required distance to determine the affected dwellings that would be offered a preblasting survey. [Comm 7.61]

12. Removing the rules for the maximum peak particle velocity limits and the scaled-distance equation as options for establishing the maximum ground vibration, and requiring the maximum ground vibration to be established in accordance with the currently optional blasting-level chart. [Comm 7.64 (4)]

13. Requiring a seismographic record to be made for all blasts. [Comm 7.64 (4)]

SECTION 1. Comm 7.01 is amended to read:

Comm 7.01 Purpose. ~~The~~ Pursuant to s. 101.15 (2)(e), Stats., the purpose of this chapter is to establish minimum safeguards to life, health and property by the adoption of reasonable and effective standards relating to explosive materials in public buildings and at places of employment.

Note: See s. 101.01, Stats., for definitions of “public building” and “place of employment.”

SECTION 2. Comm 7.04 (2) is amended to read:

Comm 7.04 (2) “Barricade” means natural features of the ground, such as hills, or timber of sufficient density that the surrounding exposures can not be seen when the trees are bare of leaves, or an artificial mound or revetted wall of earth, wood, concrete or other suitable materials ~~a minimum thickness of 3 feet at the top.~~

SECTION 3. Comm 7.04 (2g), (2k), (2p) and (3m) are created to read:

Comm 7.04 (2g) “Barrier” means a material object that separates, keeps apart, or demarcates in a conspicuous manner such as cones, a warning sign, or tape.

(2k) “Blast area” means the area of a blast within the influence of flying rock missiles, gases, and concussion as determined by the blaster in charge.

(2p) “Blast site” means the area where explosive material is handled during loading of blastholes, including 50 feet in all directions from the perimeter formed by the loaded holes. A minimum of 30 feet may replace the 50 feet requirement if the perimeter of loaded holes is marked and separated from non-blast site areas by a barrier. The 50 feet or 30 feet distance requirements, as applicable, apply in all directions along the full depth of the blasthole. In underground mines, at least 15 feet of a solid rib, pillar, or broken rock may be substituted for the 50 foot distance.

(3m) “Blaster in charge” means that qualified person in charge of, and responsible for, the loading and firing of a blast.

SECTION 4. Comm 7.04 (6) is repealed.

SECTION 5. Comm 7.04 (9) is renumbered 7.04 (14m) and amended to read:

Comm 7.04 (14m) “~~Cap sensitive~~ Detonator-sensitive explosive material” means any explosive material that can be detonated by means of a No. 8 test detonator when unconfined.

SECTION 6. Comm 7.04 (10m)(intro.) is amended to read:

Comm 7.04 (10m)(intro.) “Controlled blasting site area” means the area that surrounds a ~~blasting~~ blast site and:

SECTION 7. Comm 7.04 (11m) is created to read:

Comm 7.04 (11m) “Deck” means an explosive charge that is separated from other charges in the blast hole by stemming or an air cushion.

SECTION 8. Comm 7.04 (12), (14) and (16) are amended to read:

Comm 7.04 (12) “Delay electric ~~blasting cap~~ detonator” means an electric ~~blasting cap~~ detonator with a timing element interposed between the ignition head and the detonating compound.

(14) “Detonator” means any device containing a detonating charge that is used for initiating detonation in an explosive. The term includes, but is not limited to, electric ~~blasting caps~~ detonators of instantaneous and delay types, ~~blasting fuse caps~~ for use with safety fuses, detonating cord delay connectors, and non-electric instantaneous and delay ~~blasting caps~~ detonators.

(16) “Electric ~~blasting cap~~ detonator” means a ~~blasting cap~~ detonator designed for, and capable of, initiation by means of an electric current.

SECTION 9. Comm 7.04 (19m) is created to read:

Comm 7.04 (19m) “Fuse cap” means a detonator that is initiated by a safety fuse.

SECTION 10. Comm 7.04 (26) is amended to read:

Comm 7.04 (26) “Non-electric delay ~~blasting cap~~ detonator” means a non-electric detonator with an integral delay element used in conjunction with, and capable of being initiated by, a detonating impulse.

SECTION 11. Comm 7.04 (26h) is created to read:

Comm 7.04 (26h) “Non-electric detonator” means a detonator that does not require the use of electric energy to function.

SECTION 12. Comm 7.04 (27) and (29) are repealed and recreated to read:

Comm 7.04 (27) “Operator” means the person who is responsible for the operation at a mine, pit, quarry, or construction site where blasting activity occurs.

(29) "Primer" means a unit, package or cartridge of explosives used to initiate other explosives or blasting agents, and which contains a detonator or a detonating cord to which is attached a detonator designed to initiate the detonating cord.

SECTION 13. Comm 7.20 (1) is amended to read:

Comm 7.20 (1) NOTIFICATION. Any person storing explosive materials shall notify the local fire department and local law enforcement agency within 24 hours of the initial place, extent and manner of the storage, and of any subsequent changes in the location of that storage. Notification shall be made on forms provided by the department.

Note: Copies of the notice of storage of explosive materials (form SBD-6772) are available at no charge from the Safety and Buildings Division, P.O. Box 7302, Madison, WI 53707, telephone 608/266-8577. A list of state fire departments is available at a cost from the Safety and Buildings Division, P.O. Box 2509, Madison, WI 53701, telephone 608/267-4405.

Note: The state Emergency Response Board requires reporting of hazardous chemicals under chs. ERB 1 to 6.

SECTION 14. Comm 7.20 (2) is repealed.

SECTION 15. Comm 7.218 (1)(a) and (1)(b) Note 1 are amended to read:

Comm 7.218 (1)(a) The magazine with the greater quantity of explosives shall govern the separating distance, except that the quantity of explosives contained in ~~cap~~ detonator magazines shall govern in regard to the spacing of the ~~cap~~ detonator magazine from magazines containing other explosives.

(1)(b) Note 1: All types of ~~blasting caps~~ detonators in strengths through No. 8 ~~cap~~ detonator should be rated at 1-1/2 pounds of explosives per 1,000 ~~caps~~ detonators. For strengths higher than No. 8 ~~cap~~ detonator, the manufacturer should be consulted.

SECTION 16. Comm 7.25 is repealed and recreated to read:

Comm 7.25 General transportation requirements. (1) APPLICATION. The requirements of this section apply to the on-site transportation of explosive materials on roadways not open to the public.

Note: The transportation of explosive materials on public highways is regulated by the U.S. and Wisconsin departments of transportation.

(2) GENERAL REQUIREMENTS. (a) Explosive materials shall not be carried in the same compartment with flammable or corrosive materials. Explosive materials, other than blasting agents, shall not be carried in the same compartment with spark-producing metal tools.

(b) Explosive materials shall be transported or conveyed in original outside boxes. A "full cover" type paper carton shall be considered equivalent to the original box when the cover is replaced and taped. Damaged cases shall be placed in boxes as specified in s. Comm 7.208 (3) or in a daily supply box.

(c) Detonators may be transported in the same vehicle with high explosives provided the detonators are packed in containers meeting one of the following construction requirements.

1. The top, lid or door, sides and bottom surfaces of each container or compartment shall be a laminate construction of A/C grade or better exterior plywood, sheetrock, and low-carbon steel. In order of arrangement, from inside to outside, the laminate materials shall each be a minimum of ½-inch plywood, ½-inch sheetrock and 1/8-inch low-carbon steel. A ¼-inch lamination of A/C plywood is required on the exterior portion of a container or compartment that may contact other explosives carried on the same vehicle.

2. The top, lid or door, sides and bottom surfaces of each container or compartment shall be a laminate construction of A/C grade or better exterior plywood, solid hardwood, asbestos board or sheetrock, and sheet metal. In order of arrangement, from inside to outside, the laminate materials shall each be a minimum of ¼-inch plywood, 1-inch solid hardboard, ½-inch plywood, ½-inch sheetrock or ¼-inch asbestos board, and 22-gauge sheet metal.

(d) Cases of explosive materials shall not be dropped, slid, or otherwise roughly handled.

(3) TRANSPORTATION VEHICLES. (a) The vehicle transporting explosive materials shall have a tight floor. If there is any exposed metal on the inside of the body, it shall be covered or protected with nonsparking material so that the explosive materials containers will not come in contact with the exposed sparking metal.

(b) The vehicle transporting explosive materials shall be clean and free from surplus oil and grease, and shall have wiring completely insulated and fuel and exhaust lines free from leaks. All necessary precautions shall be taken to prevent the vehicle from catching fire.

(c) In an open vehicle transporting explosive materials, a flame-retardant and moisture-proof tarpaulin may be used to cover the explosives and the sides of the body shall be high enough to prevent cases from falling off.

(4) FIRE EXTINGUISHERS. (a) The vehicle transporting explosive materials shall be equipped with at least 2 fire extinguishers with a minimum rating of 2-A:10-B:C or one fire extinguisher and an approved automatic fire suppression system.

(b) Fire extinguishers shall be an Underwriter's Laboratories listed type and shall be located on the power unit and properly maintained.

Note: These extinguishers are effective against ordinary truck fires but are not effective against fires involving explosive materials. Fires involving explosive materials should not be fought and the area should be evacuated as rapidly as possible.

(5) OPERATION OF TRANSPORTATION VEHICLES. (a) The vehicle transporting explosive materials shall be handled in a safe and careful manner.

(b) The vehicle transporting explosive materials shall be driven by a competent driver at least 21 years of age. Drivers shall be familiar with all applicable federal, state and local regulations.

(b) No person may ride upon, drive, load or unload a vehicle transporting explosive materials while smoking or under the influence of intoxicants or drugs.

SECTION 17. Comm 7.30 (1) (c), (1) (f) Note, (2) (e), (3) and (6) (b) are amended to read:

Comm 7.30 (1) (c) When any blasting is done in congested areas or in close proximity to a structure, railroad, public roadway or highway or any other installation that may be damaged, precautions in the loading, delaying, initiation and confinement of each blast shall be exercised to prevent bodily injury and property damage and to minimize ground vibrations, air blasts and thrown fragments.

(1) (f) Note: Although blasting agents are generally less sensitive to accidental initiation than other explosives, they are still an explosive and should be handled with the care and respect due these products. It should be remembered that in use they are virtually always combined with a ~~cap-sensitive~~ detonator-sensitive explosive and the entire charge should be accorded the respect due the most sensitive element.

(2) (e) After explosive materials are laid out on the blast pattern, the blast pattern area shall be guarded against approach of vehicles and unauthorized persons until the shot is fired.

(3) FUME CLASS. Explosive materials used in underground blasting shall be fume class 1; however, fume class 2 and fume class 3 may be used if adequate ventilation has been provided.

(6) (b) The hose or tube used in the pneumatic loading system to convey the blasting agent from the hopper into the borehole shall be of the semi-conductive type. The resistance of the hose or tube shall be not less than ~~5,000~~ 1,000 ohms per foot nor more than 2 million ohms for the entire length

SECTION 18. Comm 7.30 (8) is repealed and recreated to read:

Comm 7.30 (8) HOUSEKEEPING. Empty explosive materials packaging shall be properly disposed of immediately following the blast.

Note: Local fire department authorities and the state Department of Natural Resources should be consulted regarding outdoor burning regulations.

SECTION 19. Comm 7.31 (2) is amended to read:

Comm 7.31 (2) PREPARATION LOCATION. ~~Except as provided in sub. (3), primers~~ Primers shall be made at the site just prior to loading in the borehole.

SECTION 20. Comm 7.31 (3) is repealed.

SECTION 21. Comm 7.32 is repealed and recreated to read:

Comm 7.32 Firing blasts with non-electric systems. (1) GENERAL. Blasting operations shall be suspended and all persons shall be removed from the blast area during the approach and progress of an electric storm.

(2) FIRING BLASTS WITH CAP AND FUSE. (a) Only an approved crimper shall be used for attaching detonators to safety fuse. Capped fuses shall be made up only as required, and safety fuses shall not be capped in any magazine.

(b) The burning rate of each spool of safety fuse to be used shall be measured and recorded.

(c) Before capping safety fuse, a short length shall be cut from the end of the supply reel so as to assure a fresh cut end in each detonator.

(d) The minimum safety fuse length for all blasts shall be 48 inches and sufficient to provide a minimum fuse burning time of 2 minutes.

(e) At least 2 persons shall be present at each location where cap and fuse blasting is done.

(f) The safety fuse shall not be lit before placing the primer in position.

(g) Cap and fuse shall not be used for firing mud cap charges unless the charges are separated sufficiently to prevent one charge from dislodging other shots in the vicinity.

(h) Cap and fuse shall not be used for blast initiation in communities, or on highways or adjacent to highways open to traffic.

(3) FIRING BLASTS WITH DETONATING CORD. (a) Detonating cord shall be matched to the blasting methods and type of explosive materials being used.

(b) Detonating cord shall be handled as carefully as other explosive materials.

(c) Detonating cord shall be cut from the spool before loading the main explosive charge. When explosive cartridges are attached to detonating cord for special applications, the cord shall be cut from the spool once the charge is loaded. The cord shall be cut with a sharp knife, razor blade or other instrument designed for cutting detonating cord. Detonating cord shall not be cut with devices such as scissors, cap crimpers, plier type cutters or similar instruments.

(d) Detonating cord to cord connections shall be made tight in accordance with manufacturer's instructions.

(e) Detonators shall be attached to detonating cord with tape or methods recommended by the manufacturer. The detonators shall point toward the direction of detonation. The cord-initiating detonator shall be attached at least 6 inches from the cut end of the detonating cord.

(f) A properly sized primer shall be used to initiate wet detonating cord.

(g) Detonating cord shall not be handled in such a manner to allow loops, kinks or sharp angles that might direct the cord back toward the oncoming line of detonation.

(h) Damaged detonating cord shall not be used.

(i) Detonators for initiating the blast shall not be attached to detonating cord until the blast area has been cleared and secured for the blast.

(j) A miniaturized detonating cord system shall use explosives that are insensitive to initiation by the miniaturized detonating cord.

(k) Sections of miniaturized detonating cord shall not be joined together.

(L) Detonating cord shall not be initiated with a surface delay connector designed for the initiation of shock tube only. When used with detonating cord, surface delay connectors shall be designed for use with the cord.

(4) FIRING BLASTS WITH SHOCK TUBE. (a) Shock tube connections to detonating cord shall be at right angles to prevent angle cut-offs.

(b) Situations shall be avoided where initiation system components can become entangled in machines, equipment, vehicles or moving parts thereof.

(c) Vehicles or equipment shall not be driven over shock tube.

(d) A shock tube shall not be pulled, stretched, kinked or put under tension such that the tube could be caused to break or otherwise malfunction.

(e) Shock tube shall be kept in an orderly manner to allow for visual inspection.

(f) The manufacturer's recommendations shall be followed when cutting and splicing lead-in trunkline shock tube. No other cutting or splicing of shock tube is allowed.

(g) Shock tubes shall not be tied together.

Note: An initiation signal will not pass through a knotted connection.

(h) Surface delay connectors shall not be hooked up until the blast is ready to fire.

(i) Surface delay connectors shall be protected from unintended energy sources such as impact from falling rock, impact from track vehicles or other mobile equipment, drilling equipment, flame, friction, electrical discharge from power lines, static electricity and lightning.

- (j) A surface delay connector shall not be hooked up to its own shock tube.
- (k) Any unused detonating device in a shot shall be kept as far away as possible from any shock tube.
- (L) The detonator shall not be removed from a surface delay connector block.
- (m) Non-electric leads shall not be held during firing.
- (n) Surface delay connectors shall be unhooked prior to handling a misfire.

SECTION 22. Comm 7.33 (1), (2) (c), (3) (a), (3) (c), (3) (g) and (5) are amended to read:

Comm 7.33 (1) INDUCED CURRENTS. Precautions shall be taken to prevent accidental discharge of electric ~~blasting caps detonators~~ from current induced by radar, ~~radio transmitters~~ wireless communication equipment, lightning, adjacent power lines, dust and snow storms, or other sources of induced current. The precautions shall include:

- (a) The suspension of all blasting operations and removal of persons from the ~~blasting~~ blast area during the approach and progress of an electric storm;
- (b) The posting of signs warning against the use of mobile ~~radio transmitters~~ wireless communication equipment on all roads within ~~350~~ 1000 feet of the blasting operations; and
- (c) Compliance with the requirements with regard to blasting in the vicinity of ~~radio transmitters~~ wireless communication equipment or power lines as specified in sub. (5).

~~Note: See Appendix C for further explanatory information.~~

(2) (c) Before introducing electric ~~blasting caps~~ detonators to a blast, all portable or temporary electric circuits within 50 feet of the blast site shall be de-energized.

(3) (a) Before stemming holes, electric ~~blasting caps~~ detonators shall be tested for circuit continuity with a blasting galvanometer or other approved instrument. In case a ~~cap~~ detonator wire is broken, a new primer shall be inserted or an alternate method of initiation shall be employed. Except for circuit testing, the leg wires shall be kept short-circuited until they are connected into the blast circuit.

(c) All electric ~~blasting caps~~ detonators fired in a single blast shall be made by the same manufacturer.

(g) Power sources shall be suitable for the number of electric ~~blasting caps~~ detonators to be fired and for the type of circuits used.

(5) RADIO FREQUENCY HAZARDS. (a) Electric ~~blasting caps~~ detonators shall not be stored or transported in the vicinity of ~~an operating radio transmitter~~ wireless communication equipment unless

they are in their original package or coiled as specified by the manufacturer. If not in their original package, they shall be kept in a closed metal container.

(b) When electric ~~blasting caps~~ detonators are used or handled in the vicinity of a known operating ~~radio transmitter~~ wireless communication equipment, the requirements as specified in Tables 7.33-1 to ~~7.33-6~~ 7.33-7 shall be followed.

Note: These tables were taken from the Institute of Makers of Explosives safety library publication no. 20, "Safety Guide for the Prevention of Radio Frequency Radiation Hazards in the Use of Commercial Electric ~~Blasting Caps~~ Detonators", and were derived from analytical "worst-case" calculations. They are based on an assumed 40-milliwatt no-fire level of commercial ~~blasting caps~~ detonators. ~~See Appendix C for further explanatory information.~~

(c) When it is not possible to determine if the requirements of Tables 7.33-1 to ~~7.33-6~~ 7.33-7 can be met, the following test or other approved test shall be conducted to determine if a radio frequency hazard exists. A #48 or #49 radio pilot lamp shall be inserted into a blasting test circuit in place of the electric detonator. If any glow is observed in the lamp, electrical firing shall not be used.

SECTION 23. Comm Tables 7.33-1 and 7.33-2 are amended to read:

Table 7.33-1

Recommended Distances for Commercial AM Broadcast Transmitters 0.535 to 1.605 MHz

Transmitter Power (1) (Watts)	Minimum Distance (Feet)
Up to 4,000	750 <u>800</u>
4,001 to 5,000	850 <u>900</u>
5,001 to 10,000	1,200 <u>1,300</u>
10,001 to 25,000	2,000
25,001 to 50,000(2)	2,800 <u>2,900</u>
50,001 to 100,000	3,900 <u>4,100</u>
100,001 to 500,000	8,800 <u>9,100</u>

(1) Power delivered to antenna.

(2) 50,000 watts is the maximum power of U.S. broadcast transmitters in this frequency range.

Table 7.33-2

**Recommended Distances for Transmitters up to ~~30~~ 50 MHz (Excluding AM Broadcast)
Calculated for a Specific Loop Pickup Configuration (1) (2)**

Transmitter Power (3) (Watts)	Minimum Distance (Feet)
Up to 100	750 <u>800</u>
101 to 500	1,700
501 to 1,000	2,400 <u>2,500</u>
1,001 to 5,000	5,500
5,001 to 50,000	17,000
50,001 to 500,000(4)	55,000

(1) Based on the configuration where the loop is placed in the plane of the transmitting antenna, using 20.8 MHz, which is the most sensitive frequency.

(2) This table should be applied to International Broadcast Transmitters in the 10-25 MHz range.

(3) Power delivered to antenna.

(4) Maximum for International Broadcast.

SECTION 24. Comm Table 7.33-3 is repealed and recreated to read:

Table 7.33-3
Recommended Distances of Mobile Transmitters Including Amateur and Citizens' Band
Minimum Distance (Feet)

Transmitter Power (1) (Watts)	MF	HF	VHF	VHF	UHF
	1.6 to 3.4 MHz Industrial	28 to 29.7 MHz Amateur	35 to 36 MHz Public Use 42 to 44 MHz Public Use 50 to 54 MHz Amateur	144 to 148 MHz Amateur 150.8 to 161.1 MHz Public Use	450 to 470 MHz Public Use Cellular Automobile Telephones Above 800 MHz
Up to 5	30	70	60	20	10
6 to 10	40	100	80	30	20
11 to 50	90	230	180	70	40
51 to 100	120	320	260	100	60
101 to 180(2)	170	430	350	130	80
181 to 250	200	500	410	160	90
251 to 500(3)	280	710	580	220	120
501 to 600(4)	300	780	640	240	140
601 to 1,000(5)	400	1,010	820	310	180
1,001 to 10,000(6)	1,240	3,200	2,600	990	560

Citizens Band, Class D Transmitters, 26.96-27.41 MHz

Type	Recommended Minimum Distance	
	Hand-Held	Vehicle-Mounted
Double Sideband—4 watts maximum transmitter power	5 ft.	65 ft.
Single Sideband—12 watts peak envelope power	20 ft.	110 ft.

(1) Power delivered to antenna.

(2) Maximum power for two-way mobile units in VHF (150.8 or 161.6 MHz range) and for two-way mobile and fixed station units in UHF (450 to 460 MHz range).

(3) Maximum power for major VHF two-way mobile and fixed station units in 35 to 44 MHz range.

(4) Maximum power for two-way fixed station units in VHF (150.8 to 161.6 MHz range).

(5) Maximum power for amateur radio mobile units.

(6) Maximum power for some base stations in 42 to 44 MHz band and 1.6 to 1.8 MHz band.

SECTION 25. Comm Table 7.33-4 is amended to read:

Table 7.33-4
Recommended Distances for VHF TV and FM Broadcasting Transmitters

Effective Radiated Power (Watts)	Minimum Distance (Feet)		
	Channels 2 to 6 and FM	FM Radio	Channels 7 to 13
Up to 1,000	1,000	800	750 600
1,001 to 10,000	1,800	1,400	1,300 1,000
10,001 to 100,000(1)	3,200	2,600	2,300 1,900
100,001 to 316,000(2)	4,300	3,400	3,000 2,500
316,001 to 1,000,000	5,800	4,600	4,000 3,300
1,000,001 to 10,000,000	10,200	8,100	7,400 5,900

(1) Maximum power channels 2 to 6 and FM—100,000 watts.

(2) Maximum power channels 7 to 13—316,000 watts.

SECTION 26. Comm Table 7.33-7 is created to read:

Table 7.33-7
Recommended Distances from Radio Navigation Beacons

Type of Beacon	Power (Watts)	Frequency (MHz)	Minimum Distance (Feet)
Omega	10,000	0.01	45
Loran-C	1,000,000	0.1	650
VOR	100	110	110
Localizer	100	110	110
Guide Slope	15	315	25

SECTION 27. Comm 7.34 (1) is repealed and recreated to read:

Comm 7.34 (1) SURFACE BLASTING WARNINGS. (a) Before any surface blast is fired, 3 distinctive warning signals shall be sounded. One all-clear signal shall be sounded after the blast area has been inspected by the blaster in charge. Air horns, klaxon horns or sirens shall be used as warning signals.

(b) All persons shall retire to a safe sheltered area away from the blast site. If shelters are not available, persons shall retire to a safe distance outside the blast area as determined by the blaster in charge.

(c) Warning signs, indicating a blast area, shall be maintained at all access roads to the blast area. The warning sign lettering shall be not less than 4 inches in height on a contrasting background.

(d) Upon final hookup, all access roads to the blast area not open to the public shall be guarded or barricaded to prevent the passage of persons or vehicles. Flag persons shall be safely stationed on public roadways and highways that pass through the blast area so as to stop traffic during blasting operations.

SECTION 28. Comm 7.34 (2) (d) and (3) (a) are amended to read:

Comm 7.34 (2) (d) Whenever blasting is being done in a tunnel at points likely to break through to where other persons are at work, the ~~foreman~~ blaster in charge shall, before any holes are loaded, give warning of danger to all persons who may be working where the blasts may break through, and shall not allow any holes to be charged until a warning is acknowledged and persons are removed.

Note: Underground blasting regulations are also issued by the federal Occupational Safety and Health Administration and the federal Mine Safety and Health Administration.

(3) (a) When chambering blast holes, persons shall retire to not less than 75 feet from the collar of the hole. The use of explosives to de-water blast holes is prohibited.

SECTION 29. Comm 7.35 (1) and (3) are amended to read:

Comm 7.35 (1) BLASTER REQUIREMENTS. When blasting operations are conducted in communities, the shots shall be designed and initiated by a properly licensed Class ~~4~~ 5, 6 or 7 blaster.

(3) NOTIFICATIONS. Any person conducting blasting operations in a community shall notify the department, the local fire department and the local law enforcement agency of the ~~time~~ date and location of the ~~blast~~ blasting operation. Notification to the department shall be made on forms provided by the department.

Note: ~~See appendix F for a sample copy of a notification form.~~ Copies of the notice of blasting in a community (form SBD-7336) are available at no charge from the Safety and Buildings Division, P.O. Box 7302, Madison, WI 53707, telephone 608/266-8577.

SECTION 30. Comm 7.36 (1) is amended to read:

Comm 7.36 (1) FUMES. ~~Blasting~~ Blast areas shall not be re-entered after firing until concentrations of smoke, dust and fumes have been reduced to safe limits as determined by the blaster in charge.

SECTION 31. Comm 7.36 (2) (b) is repealed.

SECTION 32. Comm 7.36 (2) (c) and (d) are amended to read:

Comm 7.36 (2) (c) When using ~~miniaturized~~ electric detonators, shock tube or detonating cord systems or gas initiated systems and a misfire is known or suspected, no person other than the blaster may enter the area for at least ~~30~~ 15 minutes.

(d) Before resuming operations, the blaster in charge shall examine the area for misfired shots and unexploded or burning explosive materials. In case burning explosive materials are observed, no attempt may be made to extinguish them and persons shall retire to a safe place and remain there at least one hour.

SECTION 33. Comm 7.37 (3) is repealed and recreated to read:

Comm 7.37 (3) INFORMATION. Each blasting log shall contain at least all of the following information:

- (a) Name, signature and license number of the blaster in charge of the blast.
- (b) Specific blast location, including address, bench and station number if applicable.
- (c) Type of blasting operation.
- (d) Date and time of the blast.

- (e) Weather conditions at the time of the blast.
- (f) Diagram of the blast layout and the delay pattern.
- (g) Number of holes.
- (h) Hole depth and diameter.
- (i) Spacing.
- (j) Burden.
- (k) Maximum holes per delay.
- (L) Maximum pounds of explosives per delay.
- (m) Depth of top stemming used.
- (n) Number, type and length of stemming used between decks.
- (o) Total pounds and type of explosives used.
- (p) Distance to nearest inhabited building not owned by the operator.
- (q) Type of initiation used.
- (r) Seismographic and airblast records, which shall include all of the following:
 1. Type of instrument and last laboratory calibration date.
 2. Exact location of instrument and the date, time, and distance from the blast.
 3. Name of the person and firm taking the reading.
 4. Trigger levels for ground and air vibrations.
 5. The vibration and airblast levels recorded.

SECTION 34. Comm 7.40 Note is repealed and recreated to read:

Comm 7.40 Note: High explosives manufacturing is regulated by the federal Bureau of Alcohol, Tobacco and Firearms under Title 27 CFR Part 55.

SECTION 35. Comm 7.41 (2) and (5) are amended to read:

Comm 7.41 (2) FUEL STORAGE. All fuel storage facilities shall be separated from the mixing plant and ~~located so that the fuel will drain away from the mixing plant should rupture of the tank occur, or~~ diked in a manner to contain the tank contents in case of rupture.

(5) MIXING PLANT HEAT. Heat for the mixing plant shall be provided from a source outside the building, ~~except that space heaters which do not depend on a combustion process within the heating unit may be used if they are properly installed and maintained and are located no closer than 30 inches from raw materials and finished product.~~

SECTION 36. Comm 7.42 (1) Note is created to read:

Comm 7.42 (1) Note: The use of mobile mixing vehicles on public highways is also regulated by the U.S. and Wisconsin departments of transportation.

SECTION 37. Comm 7.42 (3) is repealed.

SECTION 38. Comm 7.43 (1) and (2) are renumbered Comm 7.43 (2) and (3).

SECTION 39. Comm 7.43 (1) and (4) are created to read:

Comm 7.43 (1) APPLICATION. The requirements of this section apply to both fixed and mobile mixing equipment.

(4) MAINTENANCE. All mixing equipment and pumps shall be maintained in accordance with manufacturer's recommendations.

SECTION 40. Comm 7.44 (4) is repealed and recreated to read:

Comm 7.44 (4) PERSONNEL LIMITATIONS. Only persons essential to the mixing and packaging operation shall be allowed in the mixing and packaging area at any one time.

SECTION 41. Comm 7.45 (1) is amended to read:

Comm 7.45 (1) LIQUID FUELS. (a) ~~Unless otherwise approved by the department, no~~ No liquid fuel with a flash point lower than 125 degrees Fahrenheit may be used in the blasting agent mix.

Note: More volatile fuels such as gasoline offer no significant advantages in blasting and tend to increase the possibility of a vapor explosion and fire.

(b) ~~Crude~~ Unless otherwise approved by the department, crude oil and crankcase drainings shall not be used in the blasting agent mix.

Note: Crude oil and crankcase drainings may contain low flash point constituents or gritty particles which could increase the sensitivity of the blasting agent. The department will approve the use of crankcase drainings if the use has been approved by the federal Mine Safety and Health Administration and the use complies with ch. NR 590.

SECTION 42. Comm 7.45 (2) to (5) are repealed.

SECTION 43. Comm 7.55 to 7.57 are repealed.

SECTION 44. Comm 7.58 is renumbered Comm 7.24 and Comm 7.24 (2) is amended to read:

Comm 7.24 (2) RESIDENTIAL STORAGE. Black powder intended for personal use in quantities not exceeding 5 a total of 20 pounds may be stored in residences and associated buildings if kept in the manufacturer's original shipping containers and stored in a wooden box or cabinet having walls of at least one-inch nominal thickness.

SECTION 45. Comm 7.61 is repealed and recreated to read:

Comm 7.61 Preblasting notification. (1) PREBLASTING SURVEY. At least 24 hours prior to initial blasting at a blast site, the blaster in charge shall notify all residents or owners of affected dwellings or other structures, as determined under sub. (2), and offer to perform a preblasting survey. Notification of less than 24 hours may be made for construction blasting if approved by the department. If the resident or owner requests a copy of the preblasting survey, the blaster in charge shall provide a copy for the actual cost of the copy.

Note: A resident or owner of an affected dwelling or other structure may request a preblasting survey. A preblasting survey provides a baseline record of the pre-existing condition of a structure against which the effects of blasting can be assessed, and it should include the interior and exterior of the dwelling. While striving to minimize airblast, flyrock and ground vibrations, the blaster should inform local residents of the need for and the importance of blasting. A preblasting survey increases communications between the public and the blaster, helps the blaster to maintain good community relations, and is in the best interest of the owner and the blaster.

(2) AFFECTED BUILDINGS. Affected dwellings or other structures shall be determined based on the scaled-distance equation, $W = (D/D_s)^2$. Using a scaled-distance factor D_s of 55, affected dwellings or other structures shall be those located within the distance D of the controlled blasting site area for the weight per delay W of explosives to be used.

Note: An example calculation to determine D is as follows: For 4 pounds of explosives, $D = D_s(W)^{1/2} = 55(4)^{1/2} = 110$ feet.

SECTION 46. Comm 7.64 (2) and (3) are renumbered (3) and (2).

SECTION 47. Comm 7.64 (2) (b), as renumbered, is amended to read:

Comm 7.64 (2) (b) Shall not be cast from the controlled blasting site area more than one-half the distance to the nearest inhabited building within or outside of the controlled blasting site area.

SECTION 48. Comm 7.64 (3), as renumbered, is repealed and recreated to read:

Comm 7.64 (3) AIRBLAST. (a) Airblast shall not exceed a maximum limit of 133 peak dB at the location of any dwelling, public building, place of employment, school, church, or community or institutional building outside the controlled blasting site area.

(b) The blaster shall conduct monitoring of every blast to ensure compliance with the airblast limit. The measuring system used shall have a lower-end flat frequency response of not more than 2 Hz and an upper-end flat frequency response of at least 200 Hz.

SECTION 49. Comm 7.64 (4) is repealed and recreated to read:

Comm 7.64 (4) GROUND VIBRATION. (a) 1. The maximum ground vibration at the location of any dwelling, public building, place of employment, school, church, or community or institutional building outside the controlled blasting site area shall be established in accordance with either the blasting-level chart of par. (b) or by the department under sub. (5).

2. All structures in the vicinity of the controlled blasting site area, not listed in subd. 1., such as water towers, pipelines and other utilities, tunnels, dams, impoundments and underground mines, shall be protected from damage by establishment by the blaster of a maximum allowable limit on the ground vibration. The blaster shall establish the limit after consulting with the owner of the structure.

(b) The blaster shall use the ground vibration limits specified in Figure 7.64 to determine the maximum allowable ground vibration. Ground vibration shall be measured as the particle velocity. Particle velocity shall be recorded in 3 mutually perpendicular directions.

(c) A seismograph record including both particle velocity and vibration frequency levels shall be provided for each blast. The method of analysis shall be subject to discretionary review by the department.

(d) For quarry operations, any ground vibration levels above 0.75 inch per second with frequencies less than 40 Hz shall be reported to the department

SECTION 50. Comm 7.64 (5) is amended to read:

Comm 7.64 (5) EXCEPTIONS. (a) ~~Exempt area.~~ The maximum ground vibration and airblast standards of subs. ~~(2)~~ (3) and (4) shall not apply within the controlled blasting site area.

(b) ~~More restrictive limits.~~ If necessary to ensure that blasting resultants at a particular ~~blasting site~~ blast area do not cause injury, damage or unreasonable annoyance to persons or property outside any controlled blasting site area, more restrictive limits shall be established by the department.

SECTION 51. Chapter Comm 7 Appendix A is repealed and recreated to read:

**APPENDIX
PREVENTION OF ACCIDENTS IN THE USE OF EXPLOSIVE MATERIALS**

The prevention of accidents in the use of explosive materials is a result of careful planning and observing the best known practices. The user must remember that a powerful force is being dealt with and that various devices and methods have been developed to assist in directing this force. The user must realize that this force, if misused, may either kill or injure both oneself and one's fellow workers.

It is obviously impossible to include warnings or approved methods for every conceivable situation. Information pertaining to explosive materials is available from the Institute of Makers of Explosives in the Safety Library Publications (SLP) listed below. Copies of these publications may be obtained from the Institute of Makers of Explosives, 1120 Nineteenth Street, NW, Suite 310, Washington, D.C. 20036-3605, telephone 202/429-9280.

- Construction Guide for Storage Magazines (SLP No. 1)
- The American Table of Distances (SLP No. 2)
- Suggested Code of Regulations for the Manufacture, Transportation, Storage, Sale, Possession and Use of Explosive Materials (SLP No. 3)
- Warnings and Instructions for Consumers in Transporting, Storing, Handling and Using Explosive Materials (SLP No. 4)
- Glossary of Commercial Explosives Industry Terms (SLP No. 12)
- Handbook for the Transportation and Distribution of Explosive Materials (SLP No. 14)
- Safety in the Transportation, Storage, Handling and Use of Explosive Materials (SLP No. 17)
- Safety Guide for the Prevention of Radio Frequency Radiation Hazards in the Use of Commercial Electric Detonators (Blasting Caps) (SLP No. 20)
- Recommendations for the Safe Transportation of Detonators in a Vehicle With Certain Other Explosive Materials (SLP No. 22)

SECTION 52. Chapter Comm 7 Appendices B to F are repealed.

(END)

EFFECTIVE DATE

Pursuant to s. 227.22 (2)(intro.), Stats., these rules shall take effect on the first day of the month following publication in the Wisconsin Administrative Register.



201 West Washington Avenue
P.O. Box 7970
Madison, Wisconsin 53707
(608) 266-1018

Tommy G. Thompson, Governor
Brenda J. Blanchard, Secretary

June 14, 1999

JUN 19 REC'D

Senate Chief Clerk
Room 402
1 East Main Street
Madison, Wisconsin 53703

Assembly Chief Clerk
Room 402
1 East Main Street
Madison, Wisconsin 53703

Dear Chief Clerks:

**TRANSMITTAL IN FINAL DRAFT FORM OF ADMINISTRATIVE
RULES AND REPORT**

CLEARINGHOUSE RULE NO.: 99-029

RULE NO.: Chapter Comm 7

RELATING TO: Explosive Materials

Pursuant to section 227.19, Stats., agencies are required to submit, in triplicate, copies of the proposed administrative rules in final draft form together with a rule report and an analysis. The recommendations received from the Legislative Council are also to be submitted.

At this time, this material, together with cover letters to the President of the Senate and the Speaker of the Assembly, is being transmitted for referral to the standing committees for legislative review.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Brenda J. Blanchard', written over the typed name.

Brenda J. Blanchard
Secretary



201 West Washington Avenue
P.O. Box 7970
Madison, Wisconsin 53707
(608) 266-1018

Tommy G. Thompson, Governor
Brenda J. Blanchard, Secretary

June 14, 1999

Senator Fred Risser
President of the Senate
Room 220 South, State Capitol
Madison, Wisconsin 53702

Representative Scott Jensen
Speaker of the Assembly
Room 211 West, State Capitol
Madison, Wisconsin 53702

Dear Senator Risser and Representative Jensen:

NOTICE OF ADMINISTRATIVE RULES IN FINAL DRAFT FORM

CLEARINGHOUSE RULE NO.: 99-029

RULE NO.: Chapter Comm 7

RELATING TO: Explosive Materials

Section 227.19, Stats., requires agencies to submit proposed rules in final draft form to the presiding officer of each house for referral to the appropriate legislative standing committees.

The following information, as required by law, is being submitted to you.

1. Rules in final draft form (in triplicate).
2. Report consisting of:
 - a) Rule Report.
 - b) Public Hearing Attendance Record.
 - c) Public Hearing Comment and Agency Response Form.
 - d) Legislative Council Rules Clearinghouse Report.
 - e) Response to Legislative Council Rules Clearinghouse Report.
 - f) Fiscal Estimate.
 - g) Final Regulatory Flexibility Analysis.

If you have any questions regarding this matter, please do not hesitate to contact us.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Brenda J. Blanchard', written over a horizontal line.

Brenda J. Blanchard
Secretary

**PUBLIC HEARING COMMENT AND AGENCY RESPONSE
DEPARTMENT OF COMMERCE**

Hearing Location: Madison
Hearing Date: March 15, 1999

Rule Number: Chapter Comm 7
Relating To: Explosive Materials

DIVISION OF SAFETY AND BUILDINGS

Commenting		Exh. No.	Presenter, Group Represented, City, State	Comments/Recommendations	Agency Response
In Sup.	For Info.				
				No comments/recommendations were presented.	

**PUBLIC HEARING COMMENT AND AGENCY RESPONSE
DEPARTMENT OF COMMERCE**

Rule Number: Chapter Comm 7
 Relating To: Explosive Materials

Hearing Location: Wausau
 Hearing Date: March 16, 1999

DIVISION OF SAFETY AND BUILDINGS

Commenting In	For Opp.	Exh. No.	Presenter, Group Represented, City, State	Comments/Recommendations	Agency Response
				No comments/recommendations were presented.	

**PUBLIC HEARING COMMENT AND AGENCY RESPONSE
DEPARTMENT OF COMMERCE**

Rule Number: Chapter Comm 7

Relating To: Explosive Materials

Hearing Location: Appleton

Hearing Date: March 17, 1999

DIVISION OF SAFETY AND BUILDINGS

Commenting		Presenter, Group Represented, City, State	Comments/Recommendations	Agency Response
In	For Info.			
Sup.	Opp.	Exh. No.		
X		1	Quarries do have a product to harvest; the rules should not shut down quarry operations in Wisconsin. However, neighbors to the quarry should be respected. The amount of charge used is too severe. Monitors should not be placed on the grass or sand, this does not give accurate results. The problem needs to be reduced to a livable standard. The department should build sound barriers and create regional zoning districts like the state DOT does. Monitoring should be done with a stake driven 16 or 20 inches in the ground, or use the well casing. There is no dust control or ground water protection. Rules do not include any notification to ANR pipeline, hospital emergency rooms or paramedics in local communities when blasting occurs.	Monitors should not be placed on sand; monitoring may be done with a stake driven in the ground, or directly on the ground if properly coupled to the ground. The DNR has rules for dust control and ground water protection. The Department does not own the quarries like the DOT owns the highways. The rules require notification to the local fire department and local law enforcement agency; municipalities can require additional notifications.
X			Concerned with need for seismograph record for all blasting. Beaver dam blasting is done in very remote areas. Questioned if there could be an exception for beaver dam blasting.	There are many types of blasting that may be done in very remote areas. The exemption from the seismograph record can be allowed through a Petition for Variance.
X			<ol style="list-style-type: none"> Comm 7.34 (1) How far should warning horns be from residence? People are not hearing horns before blasts are set off, and warning signs are not being put up. Comm 7.35 (3) Neighboring communities are not being notified of blasting in an adjoining community. Comm 7.61 (1) Note In doing preblast survey, blasters say they are not responsible for damage because house was not constructed properly. Comm 7.64 (5)(b) Who determines when something is an annoyance or is unreasonable? Seismograph record is totally useless if not attached to the foundation. There is no help in enforcing these rules. How do you prove well damage was caused by blasting? 	<ol style="list-style-type: none"> Warning horns are sounded to warn persons in the blast area, not persons in residences. The rules require warning signs to be put up. Neighboring communities are not responsible for responding to an emergency. The preblast survey is not intended to determine if the house was constructed properly. The words are taken from the Statutes; in some cases, it may have to be determined in court. Research has proven that the records can be valid even if not attached to the foundation. Water purity can be checked before and after blasting.

**PUBLIC HEARING COMMENT AND AGENCY RESPONSE
DEPARTMENT OF COMMERCE**

Rule Number: Chapter Comm 7
Relating To: Explosive Materials

Hearing Location: Mailed In Comments
Hearing Date: N/A

DIVISION OF SAFETY AND BUILDINGS

Commenting		Presenter, Group Represented, City, State	Comments/Recommendations	Agency Response
In Sup.	For Opp. Info.			
X		William G. Ullmer Town of Scott New Franken, WI	Comm 7.64 (4)(d) This change raises ground vibration levels reported to the Department from 0.50 to 0.75 inches per second. 0.50 is high enough. If staffing is a concern, the 0.50 level could be reported but a vibration level of 0.75 would require an on-site inspection. By still reporting 0.50 levels and above, a pattern of high vibrations could be documented and possibly inspected.	The current code does not require reporting any ground vibration levels to the Department. This reporting requirement is a new rule. The 0.75 level is a starting point; it can be lowered in the future if the need arises.
X		Cyril Van Laanen Town of Scott New Franken, WI	Comm 7.64 (4)(d) This change raises ground vibration levels reported to the Department from 0.50 to 0.75 inches per second. Levels lower than 0.50 can shake houses and damage wells, even at distances greater than 500 feet from a quarry depending on rock conditions, location of houses, or construction of houses. The reporting level should be kept at 0.50 inches per second.	Same response as Exhibit No. 2.
X		Tom Howard DNR South Central Region Dodgeville, WI	Seismic recordings should not be required at each blast site. Detonations to remove beaver dams are typically quite small relative to quarry blasting, excavation blasting, rock removal. While there is a need for such controls when large amounts of explosives are used or detonations are in the immediate vicinity of buildings, there is no need for such controls for beaver dam blasting. The rules requiring seismic data to be recorded should have some reasonable exceptions attached, either for the amount of materials used per blast, distance from buildings or other developments, or to exempt certain blasting activity such as beaver dam blasting.	There may be buildings in the vicinity of beaver dam blasting. The exemption from the seismograph record can be allowed through a Petition for Variance, with the various parameters spelled out to provide an equivalency to the seismograph record. To more accurately reflect this type of petition, the Petition for Variance rule has been revised.
X		John R. Maestrelli USDA Wildlife Services Sun Prairie, WI	1. A seismographic record should not be made for all blasts. Although there is a need for this record to be made for most blasts, it is not practical or needed for blasting beaver dams based on the remote areas involved, the amount of explosives used, and the agency's policy of having the landowner sign a control agreement before blasting is conducted.	1. Same response as Exhibit No. 4.

**PUBLIC HEARING COMMENT AND AGENCY RESPONSE
DEPARTMENT OF COMMERCE**

Rule Number: Chapter Comm 7

Hearing Location: Mailed In Comments

Relating To: Explosive Materials

Hearing Date: N/A

DIVISION OF SAFETY AND BUILDINGS

Commenting		Exh. No.	Presenter, Group Represented, City, State	Comments/Recommendations	Agency Response
In Sup.	For Opp. Info.				
		5	John R. Maestrelli (Continued)	<p>2. The majority of beaver dam blast sites use a fuse shorter than 48 inches. The amount of explosives used is small and, in order to minimize the danger to the general public, it is advantageous to have the blast go off shortly after the blasters are a safe distance from the blast site. Any length of time beyond what is needed creates more of an uncontrolled blast situation. A 36-inch fuse length is safer and more practical, and gives the blaster the option of lengthening the fuse if needed.</p> <p>3. Presenter submitted copies of the Wildlife Services' private and non-private landowner agreements, site blasting record sheets, and explosives inventory record.</p>	<p>2. The burning rate of fuses varies significantly; the 48-inch length is to ensure safety. Other initiation methods can be used.</p> <p>3. Copies noted.</p>
X		6	Cliff Sebero DNR Peshtigo Service Center Peshtigo, WI	<p>1. Increasing the fuse length from 36 to 48 inches may appear to increase safety, but it may do the opposite by allowing more time for someone to walk, ski or drive an ATV into the blast area. When conditions call for more time, the blaster can use his/her discretion to use more fuse.</p> <p>2. For larger blasts, such as quarries, there may be a need for a seismographic record. However, for beaver dam blasting there is no need. Also, there is no need for a seismograph recording for blasting stumps, boulders, ice, frost, drainage ditching and pot holes.</p>	<p>1. Same response as Exhibit No. 5, comment no. 2.</p> <p>2. Same response as Exhibit No. 4.</p>

DEPARTMENT OF COMMERCE
PUBLIC HEARING ATTENDANCE RECORD

RULE NO.: Chapter Comm 7

DATE: March 15, 1999

RELATING TO: Explosive Materials

TIME: 10:00 a.m.

LOCATION: Room 3B, WHEDA Building

CITY: Madison

Name	Representation (Business, Assoc., Group, Self, etc.)	City and State	Appearing in Support	Appearing in Opposition	Appearing for Information
FAT Osborne	Aggregate Producers of WI	Madison, WI	✓		
CHUCK MAXWELL	PAVIED - DOWAN	WAUKESHA, WI	✓		
Cheryl Gair	Wt. COMMERCE	Madison			✓
Kouin Vincent	Applied Energies	Columbus	✓		
DAN BURCHETT	USDA-APHIS - Wildife Son	WAUPUN			✓

DEPARTMENT OF COMMERCE
PUBLIC HEARING ATTENDANCE RECORD

RULE NO.: Chapter Comm 7 DATE: March 16, 1999
RELATING TO: Explosive Materials TIME: 10:30 a.m.
LOCATION: Room E102, Northcentral Tech College CITY: Wausau

Name	Representation (Business, Assoc., Group, Self, etc.)	City and State	Appearing in Support	Appearing in Opposition	Appearing for Information
Mike Retherath	3M	Wausau, WI			X
LYLE BRICKO	3M co.	WAUSAU, WI			X
FRANK CAMMARATA	Philip Services Corp	Wis Rapids			X
John Bess	" "	" "			X
Rob Brown	" "	" "			X

DEPARTMENT OF COMMERCE
PUBLIC HEARING ATTENDANCE RECORD

RULE NO.: Chapter Comm 7 DATE: March 17, 1999
 RELATING TO: Explosive Materials TIME: 10:30 a.m.
 LOCATION: Room B115, Fox Valley Tech College CITY: Appleton

Name	Representation (Business, Assoc., Group, Self, etc.)	City and State	Appearing in Support	Appearing in Opposition	Appearing for Information
Kelly Thiel	USDA-WIS RO. BOX 1064	Rhineland WI		X	X
Joe Kreuser	W186 N6997 Mercy Rd	Menomonee Falls		X	
Quint Miller	FALCON DR B PO BOX 148 EVERAWE				X
Jeff Maulick	Energetic Solutions	Appleton			X
Kevin Vincent	APPLIED ENERGIES	Columbus	X	X	
RALPH ZEBUNER	TOWN + SELF	LEDGEBUEHN	X	X	
Chuck Maxner	PAYMENT LISON	WAUKESHA	X		

FISCAL ESTIMATE WORKSHEET
Detailed Estimate of Annual Fiscal Effect
DOA-2047(R02/97)

ORIGINAL
 CORRECTED

UPDATED
 SUPPLEMENTAL

LRB or Bill No./Adm. Rule No. Amendment No.
Chapter Comm 7

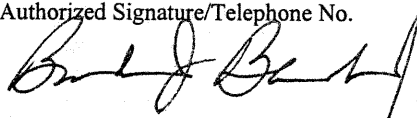
Subject
Explosive Materials

I. One-time Costs or Revenue Impacts for State and/or Local Government (do not include in annualized fiscal effect):
None known.

II. Annualized Costs:	Annualized Fiscal impact on State funds from:	
	Increased Costs	Decreased Costs
A. State Costs By Category	\$ 0	\$ -0
State Operations - Salaries and Fringes		
(FTE Position Changes)	(0 FTE)	(- 0 FTE)
State Operations - Other Costs		-
Local Assistance		-
Aids to Individuals or Organizations		-
TOTAL State Costs By Category	\$ 0	\$ -0
B. State Costs By Source of Funds	Increased Costs	Decreased Costs
GPR	\$	\$ -
FED		-
PRO/PRS	0	-0
SEG/SEG-S		-
III. State Revenues- Complete this only when proposal will increase or decrease state revenues (e.g., tax increase, decrease in license fee, etc.)	Increased Rev.	Decreased Rev.
GPR Taxes	\$	\$ -
GPR Earned		-
FED		-
PRO/PRS	0	-0
SEG/SEG-S		-
TOTAL State Revenues	\$ 0	\$ -0

NET ANNUALIZED FISCAL IMPACT

	<u>STATE</u>	<u>LOCAL</u>
NET CHANGE IN COSTS	\$ 0	\$ 0
NET CHANGE IN REVENUES	\$ 0	\$ 0

Agency/Prepared by: (Name & Phone No.) Commerce/Ronald Acker 267-7907	Authorized Signature/Telephone No. 	Date 2/5/99
--------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------	----------------

FISCAL ESTIMATE
DOA-2048 (R02/97)

ORIGINAL
 CORRECTED

UPDATED
 SUPPLEMENTAL

LRB or Bill No./Adm. Rule No.
Chapter Comm 7
Amendment No. if Applicable

Subject
Explosive Materials

Fiscal Effect

State: No State Fiscal Effect

Check columns below only if bill makes a direct appropriation or affects a sum sufficient appropriation

Increase Existing Appropriation Increase Existing Revenues
 Decrease Existing Appropriation Decrease Existing Revenues
 Create New Appropriation

Increase Costs - May be Possible to Absorb Within Agency's Budget Yes No
 Decrease Costs

Local: No local government costs

1. Increase Costs
 Permissive Mandatory
2. Decrease Costs
 Permissive Mandatory

3. Increase Revenues
 Permissive Mandatory
4. Decrease Revenues
 Permissive Mandatory

5. Types of Local Governmental Units Affected:
 Towns Villages Cities
 Counties Others _____
 School Districts WTCS Districts

Fund Sources Affected

GPR FED PRO PRS SEG SEG-S

Affected Ch. 20 Appropriations
None

Assumptions Used in Arriving at Fiscal Estimate

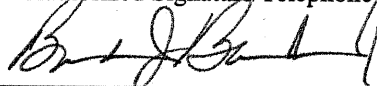
The Safety and Buildings Division is responsible for administering and enforcing chapter Comm 7. The proposed rules do not contain any changes in the Division's fees charged for administering and enforcing chapter Comm 7. Also, the proposed rules will not create any additional workload costs. Therefore, the proposed rules will not have any fiscal effect on the Division.

Local municipalities may voluntarily enforce chapter Comm 7, and they have the authority to offset any costs by charging appropriate fees.

Long-Range Fiscal Implications
None known.

Agency/Prepared by: (Name & Phone No.)
Commerce/Ronald Acker 267-7907

Authorized Signature/Telephone No.



Date

2/5/99

RESPONSE TO LEGISLATIVE COUNCIL CLEARINGHOUSE REPORT

Department of Commerce

CLEARINGHOUSE RULE NO.: 99-029

RULE NO.: Chapter Comm 7

RELATING TO: Explosive Materials

Agency contact person for substantive questions.

Name: Eric Hands

Title: Program Manager

Telephone No. 608/267-4434

Legislative Council report recommendations accepted in whole.

Yes

No

1. Review of statutory authority [s. 227.15(2)(a)]

a. Accepted

b. Accepted in part

c. Rejected

d. Comments attached

2. Review of rules for form, style and placement in administrative code [s. 227.15(2)(c)]

a. Accepted

b. Accepted in part

c. Rejected

d. Comments attached

(Continued on reverse side)

3. Review rules for conflict with or duplication of existing rules [s. 227.15(2)(d)]
- a. Accepted
 - b. Accepted in part
 - c. Rejected
 - d. Comments attached
4. Review rules for adequate references to related statutes, rules and forms [s. 227.15(2)(e)]
- a. Accepted
 - b. Accepted in part
 - c. Rejected
 - d. Comments attached
5. Review language of rules for clarity, grammar, punctuation and plainness [s. 227.15(2)(f)]
- a. Accepted
 - b. Accepted in part
 - c. Rejected
 - d. Comments attached
6. Review rules for potential conflicts with, and comparability to, related federal regulations [s. 227.15(2)(g)]
- a. Accepted
 - b. Accepted in part
 - c. Rejected
 - d. Comments attached
7. Review rules for permit action deadline [s. 227.15(2)(h)]
- a. Accepted
 - b. Accepted in part
 - c. Rejected
 - d. Comments attached

**COMMENTS ON LEGISLATIVE COUNCIL
CLEARINGHOUSE REPORT**

Clearinghouse Rule No.: 99-029
Rule No.: Chapter Comm 7
Relating to: Explosive Materials

2.a. There are no other locations that should be covered by the chapter. The Department interprets its authority under s. 101.15, Stats., to apply only to public buildings and places of employment. The examples in s. Comm 7.64 are public buildings and places of employment, and the rule has been revised to reflect this.

2.b. The rule has been reviewed for the use of a negative subject with an affirmative "shall", and none have been found. The Department prefers to use "shall not" when it more clearly conveys the intent to the reader. The Department has experienced confusion on the part of readers when the word "may" is used in rules, as it does not always convey the mandatory intent.

2.c. The term "high explosives" is defined in the current code under s. Comm 7.04(20).

2.g. The first sentence in the note following s. Comm 7.61(1) has been removed. The remainder of the note contains information regarding the purpose of a preblast survey and the importance of the survey relative to good public relations. None of the information is mandatory. The content of the survey and the amount of detail in the survey can vary depending on the type of structure being surveyed, and that decision is the responsibility of the blaster doing the survey.

5.b. The requirement to obtain the storage permit from the Department is being eliminated because it is not being issued and it serves no purpose. The time required in order to issue the permit would result in costly delays for the blasting industry. The requirement for notification of the storage to the local fire department and local law enforcement agency is sufficient.

5.c. As used in the rules, the definition of "operator" should remain as proposed.

5.d. The use of a tarpaulin is not mandatory, but if one is used it must be a certain type. The rule has been revised to reflect the intent.

5.e. In accordance with the definition of "approved", the Department would approve the automatic fire suppression system. A competent driver is one who is careful, reliable and physically able to drive the vehicle. The owner of the vehicle is responsible for the operation of the vehicle and for determining who is competent to drive it.

5.f. The undefined term "blast pattern area" has been changed to the defined term "blast site".

5.g. The rule has been revised to indicate that the blaster in charge is responsible for determining if adequate ventilation has been provided.

5.j.(2) The blasting may be carried out if the owner or resident has not actually received the notice. The wording has been changed to indicate that a reasonable effort must be made to notify the owner or resident.

Page 2 Comments on Clearinghouse Report

5.j.(3) The penalty for not complying with the notice requirement is the same penalty as for violation of any rule in chapter Comm 7. Penalties are specified in s. Comm 7.10.

5.j.(4) The rule relating to Department approval has been removed.

5.k. The rule has been revised to indicate that the blaster must make and keep the seismograph record.

RA:h:\rulemake\07ClrglseComs.doc

RULE REPORT

Department of Commerce

Rule No.: Chapter Comm 7

Relating to: Explosive Materials

Agency contact person for substantive questions:

Name Eric Hands

Title Program Manager

Telephone Number 608/267-4434

Agency contact person for internal processing:

Name Ronald Acker

Title Code Consultant

Telephone Number 608/267-7907

1. Agency statutory authority under which the agency intends to promulgate the rule(s).

Section 101.15 (2) (e), Stats.

2. Citation of federal regulations which require adoption or which are relevant to the proposed rule(s).

Federal regulations issued by the Mine Safety and Health Administration (Title 30 CFR Parts 56 to 58), Occupational Safety and Health Administration (Title 29 CFR Parts 1910 and 1926), and Bureau of Alcohol, Tobacco and Firearms (Title 27 CFR Part 55) are relevant to the proposed rules.

3. Citation of court decisions which are applicable to the proposed rule(s).

None known.

4. Description of the proposed rule(s).

The proposed rules consist of a complete update of chapter Comm 7. Chapter Comm 7 contains safety and health standards for the manufacture, storage, handling and use of explosive materials, including the regulation of blasting resultants. The proposed rules contain new requirements for reporting the storage of explosive materials, including changes in the location of the storage. The proposed rules contain revisions relating to transportation of explosive materials, blasting with electric systems, guarding of roads to the blast area, and preblasting surveys. The proposed rules remove 2 of the 3 options for determining the maximum ground vibration, and require a seismographic record to be made for all blasts.

5. Reason for the proposed rule(s).

The proposed rules have been developed in order to bring chapter Comm 7 into conformance with current technology, federal standards, and nationally recognized practices published by the Institute of Makers of Explosives.

FINAL REGULATORY FLEXIBILITY ANALYSIS

Department of Commerce

CLEARINGHOUSE RULE NO.: 99-029

RULE NO.: Chapter Comm 7

RELATING TO: Explosive Materials

Final regulatory flexibility analysis not required. (Statement of determination required.)

1. Reason for including or failing to include the following methods for reducing impact of the rule on small businesses: Less stringent compliance or reporting requirements; less stringent schedules or deadlines for compliance or reporting requirements; simplification of compliance or reporting requirements; establishment of performance standards to replace design or operational standards; exemption from any or all requirements.

Section 101.15 (2)(e), Stats., directs the Department to adopt and enforce rules to effect the safety of mines, explosives, quarries and related activities, including the regulation of blasting resultants. The proposed revisions in the explosive materials rules are minimum requirements to meet the directives of the Statutes, and any less stringent requirements would be contrary to the Statutory objectives which are the basis for the rules.

2. Issues raised by small businesses during hearings, changes in proposed rules as a result of comments by small businesses and reasons for rejecting any alternatives suggested by small businesses.

No issues were raised by small businesses during hearings.

3. Nature and estimated cost of preparation of any reports by small businesses.

None.

4. Nature and estimated cost of other measures and investments required of small businesses.

None.

5. Additional cost to agency of administering or enforcing a rule which includes any of the methods in 1. for reducing impact on small businesses.

None.

6. Impact on public health, safety and welfare caused by including any of the methods in 1. for reducing impact on small businesses.

None.



State of Wisconsin \ Department of Commerce

RULES in FINAL DRAFT FORM

Rule No.: Chapter Comm 7

Relating to: Explosive Materials

Clearinghouse Rule No.: 99-029

The Department of Commerce proposes an order to repeal Comm 7.04 (6), Comm 7.20 (2), Comm 7.31 (3), Comm 7.36 (2)(b), Comm 7.42 (3), Comm 7.45 (2) to (5), Comm 7.55 to 7.57, and Comm 7 Appendices B to F; to renumber Comm 7.43 (1) and (2), and Comm 7.64 (2) and (3); to renumber and amend Comm 7.04 (9), and Comm 7.58; to amend Comm 7.01, Comm 7.04 (2), Comm 7.04 (10m)(intro.), Comm 7.04 (12), (14) and (16), Comm 7.04 (26), Comm 7.20 (1), Comm 7.218 (1)(a) and (1)(b)Note 1, Comm 7.30 (1)(c), (1)(f)Note, (2)(e), (3) and (6)(b), Comm 7.31 (2), Comm 7.33 (1), (2)(c), (3)(a), (3)(c), (3)(g) and (5), Comm Tables 7.33-1 and 7.33-2, Comm Table 7.33-4, Comm 7.34 (2)(d) and (3)(a), Comm 7.35 (1) and (3), Comm 7.36 (1), Comm 7.36 (2)(c) and (d), Comm 7.41 (2) and (5), Comm 7.45 (1), Comm 7.64 (2)(b), and Comm 7.64 (5); to repeal and recreate Comm 7.04 (27) and (29), Comm 7.09, Comm 7.25, Comm 7.30 (8), Comm 7.32, Comm Table 7.33-3, Comm 7.34 (1), Comm 7.37 (3), Comm 7.40 Note, Comm 7.44 (4), Comm 7.61, Comm 7.64 (3), Comm 7.64 (4), and Comm 7 Appendix A; and to create Comm 7.04 (2k), (2p) and (3m), Comm 7.04 (11m), Comm 7.04 (19m), Comm 7.04 (26h), Comm Table 7.33-7, Comm 7.42 (1)Note, and Comm 7.43 (1) and (4), relating to explosive materials.

Analysis of Proposed Rules

Statutory Authority: Section 101.15 (2)(e), Stats.
Statutes Interpreted: Section 101.15 (2)(e), Stats.

The Division of Safety and Buildings within the Department of Commerce is responsible for adopting and enforcing rules to effect the safety of mines, explosives, quarries and related activities. Chapter Comm 7 contains safety and health standards for the manufacture, storage, handling and use of explosive materials, including the regulation of blasting resultants, in public buildings and at places of employment.

The proposed rules consist of a complete update of chapter Comm 7 in order to bring the chapter into conformance with current technology, federal standards, and nationally recognized practices published by the Institute of Makers of Explosives. The following is a summary of the major changes being proposed in chapter Comm 7.

1. Clarifying that chapter Comm 7 applies in public buildings and at places of employment. [Comm 7.01]
2. Updating the definitions for consistency with nationally recognized terminology. [Comm 7.04]
3. Requiring notification within 24 hours to local authorities of the initial storage of explosive materials and of any subsequent changes in the location of that storage. [Comm 7.20 (1)]
4. Eliminating the requirement for obtaining a storage permit from the Department of Commerce for storing explosive materials in a community. [Comm 7.20 (2)]
5. Revising the transportation requirements and clarifying that the requirements apply only to on-site transportation of explosive materials. [Comm 7.25]

6. Updating the rules for blasting with non-electric systems by revising the requirements for blasting with cap and fuse, and adding new requirements for blasting with detonating cord and shock tube. [Comm 7.32]

7. Updating the rules for blasting with electric systems by revising the wording and separation distances to be consistent with nationally recognized terminology and practices. [Comm 7.33 and Tables 7.33-1 to 7.33-7]

8. Clarifying the requirements relating to surface blasting warnings and guarding of access roads to the blast area. [Comm 7.34 (1)]

9. Updating the minimum information required to be contained in each blasting log. [Comm 7.37 (3)]

10. Removal of the rules relating to smokeless propellants. [Comm 7.55 and 7.56]

11. Revising the rules for preblasting surveys and decreasing the required distance to determine the affected dwellings that would be offered a preblasting survey. [Comm 7.61]

12. Removing the rules for the maximum peak particle velocity limits and the scaled-distance equation as options for establishing the maximum ground vibration, and requiring the maximum ground vibration to be established in accordance with the currently optional blasting-level chart. [Comm 7.64 (4)]

13. Requiring a seismographic record to be made for all blasts. [Comm 7.64 (4)]

SECTION 1. Comm 7.01 is amended to read:

Comm 7.01 Purpose. ~~The~~ Pursuant to s. 101.15 (2)(e), Stats., the purpose of this chapter is to establish minimum safeguards to life, health and property by the adoption of reasonable and effective standards relating to explosive materials in public buildings and at places of employment.

Note: See s. 101.01, Stats., for definitions of “public building” and “place of employment.”

SECTION 2. Comm 7.04 (2) is amended to read:

Comm 7.04 (2) “Barricade” means natural features of the ground, such as hills, or timber of sufficient density that the surrounding exposures can not be seen when the trees are bare of leaves, or an artificial mound or revetted wall of earth, wood, concrete or other suitable materials ~~a minimum thickness of 3 feet at the top.~~

SECTION 3. Comm 7.04 (2g), (2k), (2p) and (3m) are created to read:

Comm 7.04 (2g) “Barrier” means a material object that separates, keeps apart, or demarcates in a conspicuous manner such as cones, a warning sign, or tape.

(2k) “Blast area” means the area of a blast within the influence of flying rock missiles, gases, and concussion as determined by the blaster in charge.

(2p) “Blast site” means the area where explosive material is handled during loading of blastholes, including 50 feet in all directions from the perimeter formed by the loaded holes. A minimum of 30 feet may replace the 50 feet requirement if the perimeter of loaded holes is marked and separated from non-blast site areas by a barrier. The 50 feet or 30 feet distance requirements, as applicable, apply in all directions along the full depth of the blasthole. In underground mines, at least 15 feet of a solid rib, pillar, or broken rock may be substituted for the 50 foot distance.

(3m) “Blaster in charge” means that qualified person in charge of, and responsible for, the loading and firing of a blast.

SECTION 4. Comm 7.04 (6) is repealed.

SECTION 5. Comm 7.04 (9) is renumbered 7.04 (14m) and amended to read:

Comm 7.04 (14m) “~~Cap-sensitive~~ Detonator-sensitive explosive material” means any explosive material that can be detonated by means of a No. 8 test detonator when unconfined.

SECTION 6. Comm 7.04 (10m)(intro.) is amended to read:

Comm 7.04 (10m)(intro.) “Controlled blasting site area” means the area that surrounds a ~~blasting~~ blast site and:

SECTION 7. Comm 7.04 (11m) is created to read:

Comm 7.04 (11m) “Deck” means an explosive charge that is separated from other charges in the blast hole by stemming or an air cushion.

SECTION 8. Comm 7.04 (12), (14) and (16) are amended to read:

Comm 7.04 (12) “Delay electric ~~blasting cap~~ detonator” means an electric ~~blasting cap~~ detonator with a timing element interposed between the ignition head and the detonating compound.

(14) “Detonator” means any device containing a detonating charge that is used for initiating detonation in an explosive. The term includes, but is not limited to, electric ~~blasting caps~~ detonators of instantaneous and delay types, ~~blasting fuse~~ caps for use with safety fuses, detonating cord delay connectors, and non-electric instantaneous and delay ~~blasting caps~~ detonators.

(16) “Electric ~~blasting cap~~ detonator” means a ~~blasting cap~~ detonator designed for, and capable of, initiation by means of an electric current.

SECTION 9. Comm 7.04 (19m) is created to read:

Comm 7.04 (19m) “Fuse cap” means a detonator that is initiated by a safety fuse.

SECTION 10. Comm 7.04 (26) is amended to read:

Comm 7.04 (26) “Non-electric delay ~~blasting cap~~ detonator” means a non-electric detonator with an integral delay element used in conjunction with, and capable of being initiated by, a detonating impulse.

SECTION 11. Comm 7.04 (26h) is created to read:

Comm 7.04 (26h) “Non-electric detonator” means a detonator that does not require the use of electric energy to function.

SECTION 12. Comm 7.04 (27) and (29) are repealed and recreated to read:

Comm 7.04 (27) “Operator” means the person who is responsible for the operation at a mine, pit, quarry, or construction site where blasting activity occurs.