

ORDINANCE No. 2016-012

**AN ORDINANCE REGARDING LICENSING OF
USE OF EXPLOSIVES AND BLASTING ACTIVITIES**

FINAL VERSION 2.0

The Town Board of Supervisors of the Town of Lucas, Dunn County, Wisconsin, do ordain as follows:

SECTION I. CREATION OF PROVISIONS.

Title 7, Chapter 10 of the Town of Lucas Code of Ordinances is renumbered to Title 7, Chapter 11 and Title 7, Chapter 10 is created to read as follows:

Title 7 ► Chapter 10

Blasting and Use of Explosives

7-10-1	Authority and Purpose
7-10-2	Definitions
7-10-3	Applicability of Chapter
7-10-4	Blasting Permit Application and Review
7-10-5	Pre-Blasting Site Inspection
7-10-6	Required Blasting Operational Standards
7-10-7	Temporary Permits
7-10-8	Regulation of Blasting Resultants
7-10-9	Applicability of Regulatory Standards
7-10-10	Violations and Penalties

Appendix A: Notice of Blasting in Community

Appendix B: Blasting Vibration Chart

Sec. 7-10-1 Authority and Purpose.

(a) Authority.

- (1) This Chapter is adopted pursuant to the police powers granted to the Town of Lucas under Section 60.10, Wis. Stats., and is in accord with Section 61.34, Wis. Stats. This Chapter is adopted to protect the public health, safety and welfare of the citizens of the Town of Lucas, Dunn County, Wisconsin.
- (2) The Town of Lucas ("Town") adopts and incorporates by reference the following regulations contained in the Wisconsin Administrative Code. Any amendment, repeal or re-creation of the Wisconsin Statutes and/or Wisconsin Administrative Code relating to this Chapter made after the effective date of this Chapter is incorporated herein into this Chapter by reference on the effective date of the amendment, repeal or re-creation. However, the Town may have more restrictive regulations provided by this Chapter than those found in the Wisconsin Administrative Code; in the event of a conflict between regulatory provisions, the more restrictive provision shall be applicable:
 - a. SPS 305, Wis. Adm. Code – Licensing of Blasters.
 - b. SPS 307, Wis. Adm. Code – Explosives and Fireworks.
 - c. SPS 314, Wis. Adm. Code – Fire Prevention Code (contains rules pertaining to general safety and fire prevention related to the storage and handling of explosive materials).
 - d. SPS 361-366, Wis. Adm. Code – Commercial Building Code (rules pertaining to the design and construction of buildings related to the storage of explosive materials).

(b) Purpose. The purpose of this Chapter is to:

- (1) Safeguard the health, welfare and safety of Town residents;
- (2) Protect public and private property located within the Town;
- (3) Provide reasonable minimum and uniform standards for all blasting and associated operations in the Town of Lucas;
- (4) Regulate the use of explosive materials, particularly when used with nonmetallic mining activity, and establish uniform limits on the permissible levels of blasting resultants to reasonably assure that blasting resultants do not cause injury, damage or nuisance to persons or property; and
- (5) Limit the adverse effects of blasting on persons or property outside any controlled blasting site area.

Sec. 7-10-2 Definitions.

- (a) **Interpretation of Definitions.** For purposes of this Chapter and any license or permit issued in accordance herewith, the following terms, phrases, words

and their derivations in this Section shall have the meaning given herein unless otherwise specifically provided for in this Chapter or unless the context clearly indicates otherwise or unless such meaning would be inconsistent with the manifest intent of the Town of Lucas. When not inconsistent with the context, words in the present tense include the future tense, words in the plural number include words in the singular number, and words in the singular number include the plural number. The word "shall" is mandatory, and not merely directory.

(b) **Chapter Definitions.** The following definitions shall apply in this Chapter. Terms not herein defined shall be understood to have their usual and ordinary dictionary meaning:

- (1) **Affected Building or Structure.** A building or structure within a distance extending two thousand six hundred and forty (2,640) feet (one-half mile) from the outer perimeter of a controlled blasting site area.
- (2) **Airblast.** An airborne shock wave resulting from the detonation of explosives.
- (3) **Barrier.** A material object that separates, keeps apart, or demarcates in a conspicuous manner, such as cones, tape or warning sign.
- (4) **Blast Area.** The area of a blast subject to flying rock, the emission of gases and concussion as determined by the blaster in charge.
- (5) **Blast Site.** The area where explosive material is being handled during loading of blast holes, including fifty (50) feet in all directions from the perimeter formed by the loaded holes. A minimum of thirty (30) feet may replace the fifty (50) foot requirement if the perimeter of loaded holes is marked and separated from the non-blast site areas by a protective barrier. The fifty (50) foot or thirty (30) foot distance requirements, as applicable, apply in all directions along the full depth of the blast hole.
- (6) **Blaster.** Any individual holding a valid blaster's license under SPS 305, Wis. Adm. Code, issued by the Wisconsin Department of Safety and Professional Services or other appropriate state agencies.
- (7) **Blaster in Charge.** The qualified person in charge of, and responsible for, the loading and firing of a blast.
- (8) **Blasting.** Any method of loosening, moving or shattering masses of solid matter by use of an explosive.
- (9) **Blasting Operation.** Any operation, enterprise or activity involving the use of blasting.
- (10) **Blasting Resultants.** The physical manifestations of forces released by blasting, including, but not limited to, projectile matter, vibration and concussion, which might cause injury, damage or unreasonable nuisance to persons or property located outside the controlled blasting site area.

- (11) **Community.** A built-up inhabited area.
- (12) **Controlled Blasting Site Area.** The area that surrounds a blast site and that meets one (1) of the following conditions:
 - a. Is owned by the operator; or
 - b. With respect to which, because of property ownership, an employment relationship or an agreement with the property owner, the operator can take reasonably adequate measures to exclude or to assure the safety of persons and property.
- (13) **Detonator.** 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 of instantaneous and delay types, blasting caps for use with safety fuses, detonating cord delay connectors, and non-electric instantaneous and delay blasting caps.
- (14) **Explosive.** Any chemical compound, mixture or device, the primary or common purpose of which is to function by explosion unless the compound, mixture or device is otherwise classified by the Wisconsin Department of Safety and Professional Services.
- (15) **Explosive Materials.** Explosives, blasting agents and detonators. The term includes, but is not limited to, dynamite and other high explosives, slurries, emulsions, water gels, blasting agents, black powder, pellet powder, initiating explosives, detonators, safety fuses, squibs, detonating cord, igniter cord and igniters.
- (16) **Flyrock.** Rock or karst that is propelled through the air from a blast.
- (17) **Ground Vibration.** A shaking of the ground caused by the elastic wave emanating from a blast.
- (18) **Highway.** Any public street, public alley or public road.
- (19) **Inhabited Building.** A building regularly occupied in whole or in part as a habitation for human beings, or any church, schoolhouse, railroad station, store or other structure where people are accustomed to assemble, except any building or structure occupied in connection with the manufacture, transportation, storage or use of explosive materials.
- (20) **Karst.** An area or surficial geological features subject to bedrock dissolution so that it is likely to provide a conduit to groundwater, and may include areas with soils less than sixty (60) inches thick over bedrock, caves, enlarged fractures, mine features, exposed bedrock surfaces, sinkholes, springs, seeps, swallets, and depressions with no surface drainage.
- (21) **Operator.** The person who is responsible for the operation at a mine, pit, quarry, or construction site where blasting activity occurs.
- (22) **Particle Velocity.** Any measure of ground vibration describing the velocity at which a particle of ground vibrates when excited by a seismic wave.

- (23) **Person.** Any individual, corporation, limited liability company, association, company, firm, partnership, society or joint stock company.
- (24) **Powder Factor.** Any ratio between the amount of powder loaded and the amount of rock broken.
- (25) **Primer.** A capped fuse, electric detonator or any other detonating device inserted in or attached to a cartridge of explosive.
- (26) **Stemming.** The inert material, such as drill cutting, used in the collar portion or elsewhere of a blast hole to confine the gaseous products of detonation.
- (27) **Unreasonable Annoyance.** An excessive, repeated noise, action or other disturbance that is not justified by reason to a reasonable person directly affected by such activity.

Sec. 7-10-3 Applicability of Chapter.

This Chapter shall apply to:

- (a) Any person who conducts blasting activity in the Town of Lucas in order to establish a footing, foundation, or other method of support for the construction, placement or erection of structures greater than fifteen (15) feet high above the ground surface.
- (b) To any person who is engaged in blasting activity in the Town of Lucas as part of a nonmetallic mining operation.
- (c) To any person who blasts in the Town of Lucas in order to demolish buildings or other structures when these require a Level 3 license, or higher, from the Wisconsin Department of Safety and Professional Services.

Sec. 7-10-4 Blasting Permit Applications and Review.

- (a) **Application Information Requirements; Fees.** An applicant shall submit to the Town Clerk an application for a blasting permit containing the following information, together with any supporting documentation. Applications shall be accompanied by the required permit fee as prescribed in Section 1-3-1. This permit fee shall represent payment for anticipated administrative and review costs incurred by the Town, including, but not limited to, Town monitoring of the operation, legal fees, engineering costs, inspection expenditures and other administrative expenses. This fee may be increased from time to time by a separate resolution or ordinance of the Town Board in the event the actual expenses exceed the established administrative fee. Permits shall be issued on an annual basis commencing January 1 and ending on December 31. All blasting permits applied for after January 1 shall be prorated from the date of issuance of the permit through the end of the year:

- (1) **Applicant Information.** Name, blaster license number and classification, address, land and cell telephone numbers, fax number, and email address of the applicant.
 - (2) **Blaster Information.** Name, blaster license number and classification, address, land and cell telephone numbers, fax number, and email address of the blaster in charge of blasting activities, if other than the applicant.
 - (3) **Operations Supervisor Information.** Name, address, land and cell telephone numbers, fax number, and email address of the person who will be in charge of the operation that blasting activity will support.
 - (4) **Map.** A map or aerial map showing the location of the blasting site and a sufficiently detailed description of the operations at the site. The map shall accurately depict the location of all dwellings and other structures located within two thousand six hundred and forty (2,640) feet of the controlled blasting site, with the names, addresses and telephone numbers of the owners or residents of such buildings provided with such map. Such map or aerial photograph shall have a scale of no less than one (1) inch equals one hundred (100) feet and having an overlaying grid of fifty (50) feet by fifty (50) feet.
 - (5) **Permits and Licenses.** Copies of all state, county and local permits and licenses that have been granted to the blaster and the operator for whose operation blasting activity would occur.
 - (6) **Proof of Insurance.** Proof of liability insurance per Subsection (b) below.
 - (7) **Blasting Procedures Description.** A written description of the types of explosives and blasting procedures proposed to be employed, including initiating systems.
 - (8) **Pre-Blasting Site Inspection Report.** A pre-blasting site inspection report as prescribed in Section 7-10-5.
 - (9) **Pre-Blasting Survey and Well Testing Information.** Sufficient documentation indicating compliance with the pre-blasting survey and well testing requirements of Subsection (c) below.
- (b) **Financial Assurance.** Each application for a blasting permit as herein stated, or a renewal thereof, shall be accompanied by a Certificate of Insurance for a Commercial General Liability Policy and said Policy of Insurance shall have, at a minimum, limits of coverage of not less than Five Million Dollars (\$5,000,000.00) in the aggregate and One Million Dollars (\$1,000,000.00) per occurrence. The certificate of insurance shall name the Town of Lucas and its residents as additional named insureds under the relevant policy. Any insurance which the blaster is obligated to carry under the terms of this Chapter may be carried under so-called "blanket" policies covering other properties or liabilities of the blaster, provided, that such blanket policies otherwise comply with the provisions of this Subsection.

Each insurance policy shall provide that it shall not be cancelled by the insurance company, except after not less than ninety (90) days' notice to the Town Clerk, in writing, by registered or certified mail. Not less than thirty (30) days prior to the expiration of the ninety (90) day notice of cancellation, the blaster must deliver to the Town of Lucas a replacement insurance policy in absence of which all blasting shall cease. The liability insurance must be issued by a company licensed by the State of Wisconsin to issue the policy. The Town Board reserves the right to increase the amount of the insurance policy depending on the circumstances of the blasting activity.

(c) **Pre-blasting Surveys and Water Quality Testing.**

(1) ***Where Required.***

- a. Pre-blasting surveys, which shall include water quality testing for existing wells, shall be conducted as part of the blasting permit application process when requested by the Town of Lucas or the property owner/property occupant, and thereafter as provided for by this Chapter, to determine the condition of all buildings or structures within the affected area of two thousand six hundred and forty (2,640) feet of the blast site(s) and the quality of water in all existing wells in the area to be tested prior to the proposed commencement of blasting.
- b. Residents outside of the boundaries of the affected area may petition the Town Board for a pre-blasting survey, with such survey to be at the applicant's expense. The petition to the Town Board shall describe, in detail, the rationale and need for the pre-blasting survey.

(2) ***Purpose; Expense.***

- a. Prior to consideration of a blasting permit application by the Plan Commission, the applicant shall have notified, in writing, all residents or owners of dwellings or other structures located within the affected area. Pre-blasting surveys and well testing shall be completed at the applicant's expense.
- b. The pre-blasting survey and water quality testing shall be promptly conducted in a complete manner.
- c. Each survey shall include a report providing the name, address and telephone number (if it can be determined) of the owner or resident of said dwellings, structures and/or wells, and documenting any pre-blasting presence or absence of damage or other physical factors that could reasonably be expected to be affected by the use of explosives. The testing of wells shall determine whether the water is safe for human consumption according to established drinking water quality standards, including standards applicable to children of all ages and pregnant women.
- d. The survey reports shall be signed by the person(s) who conducted the survey.

(3) ***Exception to Well Testing Requirement.*** If the blasting for which a permit application is being made is part of an operation that has been

already permitted and that tested the wells within a timeframe acceptable to the Town of Lucas, information regarding those tests can be submitted instead of testing the wells again.

- (4) **Resident/Owner Request Requirement; Applicant's Responsibility to Notify Affected Parties.**
 - a. As part of an application for a blasting permit, the applicant shall notify, in writing, all owners or residents of dwellings or other structures (including, but not limited to, wells) located within two thousand six hundred and forty (2,640) feet from the blasting site that the applicant intends to apply for a blasting permit from the Town of Lucas and will be completing a pre-blasting survey where requested as part of the application and review process.
 - b. This written notification shall include a statement indicating that the survey provides a baseline record of the pre-existing condition of the building or structure against which the effects of blasting can be assessed and it shall include an assessment of both the interior and exterior of the building(s).
 - c. The notification shall state that no pre-blasting survey will be conducted on a property unless the owner or resident makes a written request for a pre-blasting survey and a water quality test for existing wells. The owner or resident shall make this request in writing to the applicant, a copy of which shall be provided by the applicant to the Town Clerk. The applicant shall conduct a pre-blasting survey only of requested dwellings or structures and conduct water quality testing for existing wells when so requested.
- (5) **Copy of Reports; Objections.** At the applicant's expense, copies of the survey report shall be promptly provided to the Town Clerk, the property owner and resident, and the applicant/permittee. The resident/owner or the applicant/permittee may promptly submit to the Town, in writing, objections to the pre-blasting survey; such objections describe in detail such objections.
- (6) **Permit Renewal Situations.** In situations where a renewal of a blasting permit is requested, the applicant shall not be required to conduct a new pre-blasting survey of any dwelling or structure or conduct a well water quality test unless requested by a property owner/occupant. Such a request shall not be made more than once in a three (3) year period. A change of ownership of the property would justify a request for a pre-blasting survey to be conducted before the three (3) year period. [Cross-Reference: Subsection (e) below].
- (7) **Qualifications of Testing Firms.** The pre-blasting survey and water quality testing shall be conducted by an independent inspection company, subject to the prior approval of the Town of Lucas Town Board and the acceptance by the owner/resident and, in the case of well water testing, by a laboratory approved by the State of Wisconsin. The applicant/permittee shall provide the Town Board with a detailed description of the qualifications of the testing firm(s), including a minimum of three (3)

references for comparable services. Reasonable costs of such independent survey and well testing shall be the responsibility of the applicant or permittee. ~~The testing firms shall be hired by the Town, with the applicant/permittee responsible for the cost thereof.~~

(8) **Post-Permit Surveys and Well Testing.**

- a. If any new building or structure is added or a new well drilled subsequent to the effective date of the blasting permit, its owner or resident may request that a survey and water test be conducted of that building/structure and/or well. The permittee shall then conduct such survey and tests at the permittee's expense.
- b. In addition, if a building or structure is improved or modified to the extent that a building permit is required, the owner of that dwelling or structure may request that a pre-blasting survey be completed, at the permittee's expense. The permittee shall conduct such survey and testing work within a reasonable period of time, but not exceeding twice each calendar year for all such requests by an owner or resident. In addition, a change of ownership of the property would justify a request of a pre-blasting survey to be conducted regardless of other limits.

(d) **Review Procedures.**

- (1) **Plan Commission Review and Recommendation.** Upon the submittal of a complete application and required permit fee(s), the Town Clerk shall place the application on the agenda for the next meeting of the Plan Commission. A public hearing before the Plan Commission, after a Class II notice, shall be held regarding the application. The applicant or his/her agent shall be in attendance at the meeting the Plan Commission will review the application. If the Plan Commission determines that the blasting permit application is complete and the proposed blasting activity will fully comply with all applicable requirements of this Chapter and the Wisconsin Administrative Code, specifically but not limited to SPS 307, Wis. Adm. Code, the Plan Commission may make a recommendation to the Town Board regarding the granting of a blasting permit. The Plan Commission may recommend conditions related to the permit, as appropriate, to protect the safety, welfare and property values of Town residents. If the Plan Commission determines that the application is incomplete or that the proposed blasting activity will not be conducted in conformity with the requirements of this Chapter or the Wisconsin Administrative Code, the Plan Commission shall recommend to the Town Board denial of the permit application.
- (2) **Town Board Review and Determination.** The Town Clerk shall place the blasting permit application and the Plan Commission's recommendation on the agenda of the next regularly scheduled Town Board meeting for review and action by the Board. After considering the Plan Commission's recommendation and the review criteria of

Subsection (d)(1) above, the Town Board may approve, approve with conditions, or deny the application, or hold the application in abeyance pending the submittal of additional information, as appropriate.

- (e) **Renewals.** All applications for renewal of a blasting permit shall be filed by the permittee with the Town Clerk. Applications shall be accompanied by the permit fee required by Section 1-3-1. Renewal applications shall be reviewed by the Town Board, and the Town Board, at its discretion, may require all or some of the information required for an original application. No permit renewal shall be granted unless the project is in full compliance with the terms of the existing permit. Permit renewals may be conditioned upon correction of any unanticipated environmental or nuisance impacts occurring during the original or renewal permits. A public hearing shall be required to be held with respect to a renewal application, after a Class II Notice, if the renewal application provides for an enlargement of the previous blasting site area or otherwise provides for an alteration or change in the method of operations previously approved which might adversely affect the use or enjoyment of nearby properties. [Cross-Reference: Subsection (c)(6) above].
- (f) **Appeals.** Any appeal from the Town Board's decision to grant or not grant an original or renewal blasting license shall be initiated as an action commenced in Circuit Court not later than forty-five (45) days from the date of the Town Board action.

Sec. 7-10-5 Pre-Blasting Site Inspection.

- (a) **On-Site Inspection.** The blaster shall visually inspect the controlled blasting site area to determine if there is any evidence of a sinkhole, cave or subsurface void in the karst that could be part of a sinkhole or cave. If visual inspection reveals such, no blasting shall occur nor shall any structure support be placed therein.
- (b) **Use of Probes and Borings.** In addition to the required visual on-site inspection or when such inspection is inconclusive, it is recommended that the blaster use probes (such as borings) or geophysical methods, such as resistivity tomography, seismic refraction, microgravity or ground penetrating radar, to ascertain the presence of sinkholes or caves.
- (c) **Report Submission to Plan Commission.** The blaster shall submit a pre-blasting site inspection report regarding his/her findings and methods employed to the Plan Commission at the time an application for a blasting permit is made.

Sec. 7-10-6 Required Blasting Operational Standards.

- (a) **Notification of Blasting.** Notification shall be provided to the following persons and by the required methods specified in this Section a minimum of

twenty-four (24) hours (business days) prior to the initial blasting activity at a blast site as well as prior to all subsequent blasting events at the blast site:

- (1) ***Pre-Blasting Notification Procedures; Additional Pre-Blasting Surveys.***
 - a. A minimum of seventy-two (72) hours prior to the blasting at a blast site, the blaster in charge shall make a reasonable effort to notify all owners or residents of affected buildings. The blaster shall make a reasonable effort to ensure timely and effective notice that a blasting operation is to begin, using such means as a written notice, a telephone call, email or in-person notification. The notice shall include a request for acknowledgement of receipt of the notice. The blaster shall keep a record of all such notifications, or attempted notifications, by party, and any pertinent remarks, a copy of which shall be provided to the Town upon request.
 - b. As part of this notice, the blaster shall offer copies of the pre-blasting surveys to affected owners or residents. A pre-blasting survey provides a baseline record of the pre-existing condition of a structure(s) against which the effects of blasting can be assessed, and it should include the interior and exterior of the building.
- (2) ***Resident Call List.*** A resident call list shall be maintained by the permittee for the purpose of notifying persons living within the vicinity of the blast site at least seventy-two (72) hours prior to blasting activity. A resident shall be placed on the Resident Call List upon his/her request to be included for the purpose of receiving notifications. The Resident Call List shall be used prior to any blasting activity. The list shall include all owners of structures and residents of dwellings within two thousand six hundred and forty (2,640) feet of the blasting site and Town residents who have provided the applicant/permittee and the Town of Lucas a written request to be placed on the Resident Call List.
- (3) ***Public Blasting Signage.*** Before any blasting operation or blasting event, the blaster in charge shall give notice thereof to the general public by the conspicuous display of a fluorescent flag and legible sign displayed within one hundred (100) feet of all public roads bordering the blast site or on the nearest public road bordering the blast site. Said sign should also warn against the use of all mobile wireless communications equipment on all roads within one thousand (1,000) feet of the blasting operations in order to minimize interference with such operations. The flag and sign shall be displayed prior to and during all blasting operations and events.
- (4) ***Warning Signal.*** A distinctive warning signal of sufficient volume to be heard by all residents in the area adjacent to the site where the

blasting will occur shall be sounded prior to commencing blasting. Automotive or truck horns shall not be used as a warning signal.

- (5) **Utilities Notifications.** Whenever blasting is being conducted in the vicinity of natural gas, electric, water, fire alarm, telephone or cable television utilities infrastructure, these utilities shall be notified by the permittee not less than seventy-two (72) hours prior to commencing blasting.
 - (6) **Town Notification.** Written (hard copy or email) or verbal (in person or by telephone) notice shall be given by the permittee to the Town Chairperson, Town Clerk and Chairperson of the Plan Commission a minimum of one (1) full working day prior to the commencement of any blasting event. If a schedule including dates and times of blasting events is known at the time of application, the applicant shall include such schedule in his/her permit application and such information shall serve as the notification to Town officials. If such information is included with the permit application, further notice to Town officials shall be required only if there is a deviation from the schedule.
 - (7) **Additional Notifications.** Any person conducting blasting operations shall notify the Wisconsin Department of Safety and Professional Services, the local fire department, and the Sheriff's Department of the date and location of the blasting operation. Notification to the Wisconsin Department of Safety and Professional Services shall be made on Form SBD-7336 provided by the Department (Appendix A).
- (b) **Blasting Hours.** Blasting shall only be conducted between 9:00 a.m. and 4:00 p.m. Monday through Friday, holidays excluded, provided, however, that in the event that an emergency has delayed a blast beyond 4:00 p.m., a loaded hole may be blown within a reasonable time thereafter. Blasting shall not be conducted at other times or on Sundays or legal holidays. Petitions for exceptions shall be presented to the Town Board for consideration and action, and such petitions shall describe, in detail, the rationale for the request.
- (c) **Blasting Log.**
- (1) **Duty to Maintain Blasting Log.** An accurate blasting log shall be prepared and maintained for each blast fired, and a true and complete copy of said log shall be supplied to the Town Clerk within three (3) working days of the initiation of the blast. An accurate copy of such blasting log shall be kept by the permittee for a period of not less than five (5) years, and shall be made available to the Wisconsin Department of Safety and Professional Services and the Town of Lucas upon request. The Town may require that the permittee furnish to the Town an analysis of any particular blasting log to be prepared by the permittee. In the event the permittee cannot or will not prepare a reliable analysis, the Town may obtain such analysis from an independent expert. The permittee shall be liable for the reasonable cost of such analysis if it is determined after an opportunity to be heard that this requirement was violated by the permittee.

- (2) **Required Blasting Log Information.** Each blasting log shall include, but not be limited to, the following information:
- a. Name, signature and license number of blaster in charge of blast.
 - b. Specific blast location with grid coordinate references to the supplied aerial photograph or map of the explosives use area;
 - c. Type of blasting operation;
 - d. Date and time of blast;
 - e. Weather conditions at time of the blast;
 - f. Diagram and cross-section of the blast hole layout and the delay pattern;
 - g. Number of blast holes;
 - h. Blast hole depth and diameter;
 - i. Spacing and burden of blast holes;
 - j. Maximum holes per delay;
 - k. Maximum pounds of explosives per delay;
 - l. Depth of top stemming used;
 - m. Number, type and length of stemming used between decks;
 - n. Total pounds of explosives and type(s) used;
 - o. Distance to nearest inhabited building not owned by permittee;
 - p. Type of initiation system used;
 - q. Seismographic and airblast information, which shall include the following:
 1. Type of instrument and last laboratory calibration date;
 2. Exact location of instrument and date, time and distance from the blast;
 3. Name and company affiliation of person taking reading;
 4. Name of the person and firm analyzing the seismographic and airblast data when required;
 5. Trigger levels for ground and air vibrations;
 6. Vibrations and airblast levels recorded; and
 7. Copy of the seismograph printout.

Sec. 7-10-7 Temporary Permits.

- (a) **Temporary Permit Requirements.** The Town Chairperson, upon receipt of a completed temporary permit application, may issue a temporary permit to allow for special construction or demolition activities requiring the use of explosives and not involving nonmetallic mining activities. Temporary permits shall be issued for a duration of ten (10) consecutive working days. The Town Board, in its discretion, may grant one (1) ten (10) day extension. Only one (1) temporary permit [and one (1) renewal] can be issued for any given site within the year of permit issuance. Applicants for temporary

permits are required to provide financial assurance as specified in Section 7-10-4(b) and provide notice to all neighbors within five hundred (500) feet of the special construction or demolition activity.

- (b) **Temporary Permit Categories.** Permits shall be in the following categories:
- (1) **Road, Sewer, Heavy Construction.** The fee shall be as prescribed in Section 1-3-1, determined by the Town Board based on the explosive use plan submitted by contractor or blaster.
 - (2) **Construction Authorized by Town Board.** Construction authorized by the Town Board for Town use is exempt from the fee. Applicants for these permits are required to file financial assurances as specified in Section 7-10-4(b) and provide notice to all neighbors within five hundred (500) feet.
 - (3) **Construction.** This category includes home building, septic systems, swimming pools, etc. The fee is included in the building permit. If blasting becomes necessary after the issuance of a building permit, a fee in accordance with the Town Board's current fee schedule will be assessed for the blasting permit. No bond is required. However, proof of insurance and notice to all neighbors within five hundred (500) feet is required.
 - (4) **Agricultural.** This category includes stump removal, silo demolition, manure pits, etc. The fee shall be a fee in accordance with the Town Board's current fee schedule for the permit. No bond is required. However, proof of insurance and notice to all neighbors within five hundred (500) feet is required.

Sec. 7-10-8 Regulation of Blasting Resultants.

- (a) **Purpose of Section.** It is the purpose of this Section to provide for the establishment of uniform limits on permissible levels of blasting resultants to reasonably assure that blasting within the Town of Lucas does not cause injury, damage or a nuisance to persons or property outside and beyond the permitted explosives use area.
- (b) **Blast Monitoring Instruments.** All blast-monitoring seismograph instruments used to produce data to support compliance with this Section shall meet the following minimum specifications:
- (1) **Seismic frequency range.** Two (2) to two hundred (200) Hz (\pm 3 Hz).
 - (2) **Acoustic frequency range.** Two (2) to two hundred (200) Hz (\pm 1Hz).
 - (3) **Velocity range.** 0.02 to four (4.0) inches per second.

- (4) **Sound range.** One hundred (100) to one hundred forty (140) dB linear.
 - (5) **Transducers.** Three (3) mutually perpendicular axes.
 - (6) **Recording.** Provide time-history of wave form.
 - (7) **Printout.** Direct printout showing time, date, peak air pressure, peak particle velocity and frequency in three (3) directions and a printed waveform graph of the event depicting measured air blast and particle velocity in the three (3) directions.
 - (8) **Calibration.** Be laboratory calibrated as often as necessary, but at least once every twelve (12) months according to manufacturer's recommendations
- (c) **Control of Adverse Effects Generally.** The permittee shall take necessary steps prescribed by the Town to control adverse effects from his/her activity.
- (d) **General Requirements.** Blasting shall be conducted so as to prevent injury and unreasonable annoyance to persons and damage to public or private property outside the permitted explosives use area.
- (e) **Airblast.**
- (1) **Limits.** Airblast shall not exceed 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.
 - (2) **Monitoring.**
 - a. The blaster shall conduct monitoring of every blast to determine compliance with the airblast limit, shall monitor all blasts at the closest location to the blast of any dwelling, public building, place of employment, school, church or community or institutional building outside and beyond the permitted explosives use area, provided, however, that the permittee may monitor, at another location, approximately the same distance from the blast site, if the permittee is unable to obtain permission to conduct the monitoring from the owner of the preferred location.
 - b. The Town Board or its designee may, at its discretion, require the relocation of monitoring equipment to a more suitable site and/or may conduct independent air-blast monitoring to spot-check data supplied by the permittee. If independent monitoring by the Town after hearing discloses that this Chapter was violated by the permittee, then in that event, the permittee shall pay the reasonable costs incurred by the Town for the independent monitoring. Upon receiving and approving billings for such expenses, the Town shall cause notice of the expenses to be mailed to the permittee, who shall reimburse the Town for such expenses within thirty (30) days after receipt of such notice.

- c. The measuring equipment used shall have a lower-end flat frequency response of not more than two (2) Hz and an upper end flat frequency response of at least two hundred (200) Hz.
- (f) **Flyrock.** The permittee and his/her agents shall take all reasonable actions to assure that flyrock traveling in the air or along the ground meets all of the following conditions:
 - (1) Remain within the controlled blasting site area.
 - (2) Not be cast more than one-half the distance to the nearest inhabited building within or outside the controlled blasting site area.
- (g) **Ground Vibration.**
 - (1) **General.**
 - a. 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 the blasting level chart provided by the Wisconsin Department of Safety and Professional Services, incorporated herein as Appendix B. Ground vibration shall be measured as the particle velocity. Particle velocity shall be recorded in three (3) mutually perpendicular directions.
 - b. The blaster shall make and keep a seismograph record including both particle velocity and vibration frequency levels for each blast. The method of analysis shall be subject to discretionary review by the Town Board.
 - c. For quarry operations, the blaster shall report any ground vibration levels to the Town Board that are 0.75 inch per second with frequencies less than 40 Hz.
 - d. All structures in the vicinity of the controlled blasting site area, not listed in Subsection (g)(1), such as water towers, pipelines and other utilities, tunnels, dams, impoundments and underground mines shall be protected from damage by establishment by the permittee of a maximum allowable limit on the ground vibration. The blaster shall establish the limit after consulting with the owner of the structure.
 - (2) **Independent Seismic Monitoring.**
 - a. The Town Board, in its discretion, may conduct independent seismic blast monitoring to spot-check data supplied by the permit holder. If the independent monitoring was done after good cause was shown therefor and after the permittee was given notice and an opportunity to be heard on the matter, the permittee shall be liable to the Town for all expenses incurred by the Town as a result of such independent monitoring. Upon receiving and approving billings for such expenses, the Town shall cause notice of the expenses to be mailed to the permittee, who shall reimburse

the Town for such expenses within thirty (30) days after receipt of such notice.

- b. The Town Board, upon good cause shown and after giving the permittee notice and an opportunity to be heard, may request analysis of records and data for any or all blasts which occurred within the permitted explosives use area.
- (h) **Explosives Storage.** No explosives shall be stored at the permitted explosives use area.
- (i) **Limits on Depth and Number of Charges.** The permittee shall not charge any drill hole closer than six (6) feet to the surface, to lower the intensity of noise and shock. No drill hole shall be larger than six (6) inches in diameter and no more than eighty (80) holes are to be included in a blast. The maximum number of holes included in the blast may be decreased as ordered by the Town Engineer if particle velocities and/or air blasts using sixty (60) holes are considered to be too great by the Town Engineer.

Sec. 7-10-9 Applicability of Regulatory Standards.

- (a) **Effective Date.** All use of explosives and blasting activity conducted in the Town of Lucas shall be subject to the provisions of this Chapter. Existing operations of whatever nature, including without limitation nonmetallic mining operations, shall comply with the terms of this Chapter.
- (b) **Other Town Ordinances.** Where the provisions of this Chapter conflict with any provisions of any other Town Ordinance, the provisions of this Chapter, if more restrictive than those of the other ordinances, shall control and shall supersede the provisions of the other ordinances.
- (c) **State and Federal Regulations.** Where the provisions of this Chapter conflict with the provisions of any applicable State or Federal law or regulation, the provisions of the most restrictive Ordinance, Statute or Regulation shall control, to the extent permitted by State and Federal law.
- (d) **No Liability for Damages.** This Chapter shall not be construed as an assumption of liability by the Town of Lucas for damages due to injuries sustained or property destroyed or damaged by a person's failure to comply with the requirements of this Chapter.

Sec. 7-10-10 Violations and Penalties.

- (a) **Enforcement Provisions.**
 - (1) **Enforcement.** The following are criteria that the Town Board may consider for issuance, re-issuance, suspension or revocation of a blasting permit:

- a. Compliance with the blasting and pre-blasting survey standards established by the Town of Lucas as noted herein by this Chapter.
- b. Development and submittal to the Town Board the explosives use plan and fails upon operation to comply with the plan.
- c. Development and submittal to the Town the blasting log and fails upon operation to comply with the information called for by the blasting log.
- d. Maintaining the financial assurance required by the Town Board.
- e. Compliance with the operational hours for blasting as noted herein by this Chapter.
- f. Compliance with airblast and ground vibration standards established by the Town as noted herein by this Chapter.
- g. Compliance with the pre-blasting notification requirements to residents and the Town Board as noted herein by this Chapter.
- h. Attempts made by the permittee or party in interest to comply with the provisions of this Chapter.
- i. Consideration of atmospheric, unknown conditions including geophysical conditions, and other matters beyond the control of the permittee or party in interest.

(2) ***Suspension/Revocation.***

- a. The Town Board, following a due review and investigation of a written complaint, may suspend or revoke a blasting permit for any violation of the provisions or requirements of this Chapter or other applicable federal or state regulations. The following persons may file a verified complaint with the Town Board:
 1. Town Chairperson.
 2. Town Clerk.
 3. Town Board.
 4. Town Engineer
 5. Building Inspector.
 6. Any law enforcement officer.
 7. Any Town of Lucas resident.
 8. A landowner within two thousand six hundred and forty (2,640) feet of the blasting site.
- b. The Town Board will make a determination if the allegations of the complaint are of sufficient seriousness, importance, or otherwise of such a nature as to required a formal evidentiary hearing.
- c. The person subject to charges for violation of any Town of Lucas ordinance or any violation of a condition of the explosives use permit shall be provided a copy of the verified complaint and notice of hearing before the Town Board. The hearing shall be required to be not less than seven (7) days nor more than thirty (30) days after the receipt of notice, unless stipulated in writing by

the Town Board and the permittee subject to charges. The permittee's failure to appear at such hearing shall be deemed a waiver of the opportunity to be heard prior to final action of the Town Board.

- d. The person subject to charges for violation of any Town ordinance or any violation of a condition of the explosive use permit shall be entitled to the following:
 1. Representation by legal counsel.
 2. Right to present and cross examine witnesses.
 3. Right to subpoena witnesses by the Town Chairperson issuing subpoenas to compel attendance of witnesses.
- e. The Town Board may, after the hearing for any person previously issued an explosive use permit by the Town Board, act as follows:
 1. Revoke the permit as a final decision.
 2. Suspend the permit for a date certain as a final decision.
 3. Request additional information as an interim decision prior to taking future action.
 4. Take no action on the permit as a final decision.
- f. The final decision of the Town Board to revoke or suspend the explosives use permit shall be subject to appeal to the Circuit Court.

(3) **Emergency Temporary Suspensions.** Where warranted by emergency conditions, as determined in the reasonable discretion of the Town Board, a blasting permit may be temporarily suspended without notice or hearing to the permittee by the Town Board or its authorized designee. Written notice of a temporary suspension, and of the conditions that shall be met to reinstate the blasting permit, shall be promptly given to the permittee at the address contained in the application.

(b) **Penalties for Violations.** In addition to the denial, suspension or revocation of a permit issued under this Chapter, any person who shall violate any provision of this Chapter or who shall fail to obtain a permit as required hereunder shall upon conviction of such violation, be subject to a penalty of a civil forfeiture as prescribed in Section 1-1-6 of the Town of Lucas Code of Ordinances, together with the costs of prosecution. Each violation and each day a violation continues or occurs shall constitute a separate offense. Nothing in this Chapter shall preclude the Town from maintaining any appropriate action to prevent or remove a violation of any provision of this Chapter. Any default of such forfeiture determined by a Court of competent jurisdiction shall be subject to any penalties as provided by Sections 66.0109, 66.0113, 66.0115 and 66.0114, Wis. Stats., as may be amended.

SECTION II. SEVERABILITY.

- (a) If any provision of this Ordinance is adjudged invalid or unconstitutional or if the application of this Ordinance to any person or circumstance is adjudged invalid or unconstitutional by a court of competent jurisdiction, such invalidity or unconstitutionality shall not affect the other provisions or applications of this Ordinance which can be given effect without the invalid or unconstitutional provisions or applications.
- (b) If the application of this Ordinance to a particular parcel of land, building, structure, water or air is adjudged unconstitutional or invalid by a court of competent jurisdiction, such judgment shall not be applicable to any other land, building, structure, water or air not specifically included in said judgment.

SECTION III. CONFLICTING PROVISIONS REPEALED.

All Ordinances in conflict with any provision of this Ordinance are hereby repealed.

SECTION IV. EFFECTIVE DATE.

This Ordinance shall take effect upon passage and publication as provided by law.

ADOPTED this 13th day of December, 20116

TOWN OF LUCAS, WISCONSIN

Eugene Wenger
Chairperson

Bob Kamp
Supervisor

Steven Olson
Supervisor

Wendy Simonson
Town Clerk

INTRODUCED: December 13th 2016

PASSED: December 13th 2016

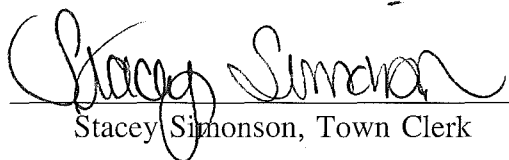
PUBLISHED/POSTED: Jan 3rd 2017

State of Wisconsin:

County of Dunn:

I hereby certify that the foregoing Ordinance is a true, correct, and complete copy of an Ordinance duly and regularly passed by the Town of Lucas Board of Supervisors on the 13th day of Dec, 2016 and that said Ordinance has not been repealed or amended and is now in full force and effect.

Dated this 13th day of December, 2016



Stacey Simonson, Town Clerk