

**Illinois Association of
Aggregate Producers**

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August 9, 2005

Dorothy Gunn, Clerk
Illinois Pollution Control Board
James R. Thompson Center
100 W. Randolph, Suite 11-500
Chicago, IL 60601

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AUG 10 2005

STATE OF ILLINOIS
Pollution Control Board

Re: Proposed Amendments to 35 Ill. Adm. Code 901
Proposed New 35 Ill. Adm. Code 910
Illinois Register Volume 29, Issue 16 (April 15, 2005)
Docket R03-009

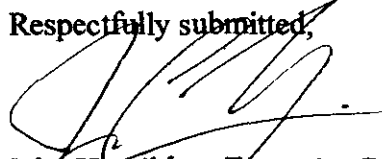
Dear Ms. Gunn:

Pursuant to Hearing Officer Tipsord's June 8, 2005 Order, please find enclosed the following documents:

- Summary of testimony from John Henriksen, Executive Director, Illinois Association of Aggregate Producers
- Summary of testimony from Willard Pierce, General Manager, Evenson Explosives, LLC

Please contact me if you have any questions.

Respectfully submitted,


John Henriksen, Executive Director
Illinois Association of Aggregate Producers
JCH/gls (Enclosures)

Cc: Docket R03-009 Service List

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Summary of Testimony – John Henriksen, IAAP

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The following summary of testimony is submitted by the Illinois Association of Agricultural Producers (IAAP) regarding the above-referenced rulemaking.

STATE OF ILLINOIS
Pollution Control Board

The Illinois Department of Natural Resources, Office of Mines and Minerals (IDNR) has promulgated a comprehensive set of coal and aggregate mine blasting regulations enforced by a highly trained, technologically proficient inspection staff using state-of-the-art equipment.

The Illinois Pollution Control Board (Board) has elected to regulate highly impulsive sound from blasting operations at mines even though implementing this regulatory program creates an essentially duplicative and overlapping regulatory program for these operations. Further, the Board has elected to regulate highly impulsive sound from blasting operations at mines even though this body has elected not to regulate other sources of noise.

The IAAP contends that it is unreasonable to regulate sound generated by blasting operations, operations already subject to a comprehensive State regulatory program, while electing not to regulate other sources of noise. Section 901.107(h) of the Board's rules, the regulations identifying those activities not subject to Board noise regulations, be amended to state as follow: Section 901.104 shall not apply to impulsive sound produced by explosive blasting activities conducted on any Class C land used as specified by LBCS Codes 8300 and 8500 SLUCM codes 852 and 854, but such operations shall be governed by Section 901.109.

Amending Section 901.107(h) as outlined above allows the Board to regulate non-mining blasting activities, pursuant to Section 901.109, and leaves the regulation of blasting operations at mines to IDNR. In the event that the Board elects to continue regulating blasting operations associated with the mining industry, the IAAP submits that Section 901.109 must be amended to bring the Board's regulatory program in harmony with the program enforced by IDNR.

First, Section 901.109 (c) provides that allowable sound limits of blasting operations prior to 7:00 am must be reduced by 10 dB. Given that decibel limits are logarithmic, a 123 dB limit represents approximately only 30% of 133 dB. In order to address concerns about night blasting operations, Section 901.109 (c) should be amended to read as follow: All blasting shall be conducted between sunrise and sunset except in emergency situations where unscheduled blasting is required to ensure operator or public safety. This change reflects the fact that sunrise is often well before 7:00 am during the summer, the time that aggregate mining operations are most active, and establishes a ban on night blasting in the absence of a true emergency.

Second, Section 901.109 should be amended by replacing all references to "receiving Class A or B land" with "protected structure" and then further amended by adding a definition of "protected structure" as follows: "Protected Structure" means any dwelling, public building, school, church or commercial or institutional building. Protected structures do not include: (a) Structures owned by the operator; and (b) Structures subject to a waiver from airblast and ground vibration requirements granted to the operator. These changes will ensure that Section 901.109 focuses on protecting public health and safety.

Third, new Part 910 (35 Ill. Code 910) must be amended to state that monitoring undertaken to ensure compliance with Section 901.109 requires the use of a flat response, sound pressure level microphone and recording device.

AUG 10 2005

Summary of Testimony – Willard Pierce, Evenson Explosives, LLC
STATE OF ILLINOIS
Pollution Control Board

First, Section 901.109(a) limits the Outdoor C-Weighted Sound Exposure Level to 107 and 112 decibels (dB) for Class A and Class B lands respectively and Section 901.109(b) limits both Class A and Class B lands to 133 dB when measuring with a 2 Hertz (Hz) microphone. Also, the limits specified in Section 901.109 apply at property lines and not at the location of a protected structure.

The Federal government and the Illinois Department of Natural Resources (IDNR) have regulated air overpressure from blasting to prevent damage to protected structures, including: dwellings, public buildings, schools, churches, commercial or institutional buildings. The regulatory limits to protect these structures have been well established nationwide at 105 and 133 dB for the two types of microphones.

Research of air overpressure produced from blasting has consistently shown the following:

- 1) That the equivalent air overpressure level of a C-Weighted microphone to a flat response microphone is 105 and 133 dB respectively.
- 2) Air overpressure produced from blasting is very low frequency and is poorly heard by the human ear.
- 3) The level necessary to cause damage (i.e. break glass) has a threshold of 145 to 150 dB.
- 4) Decibels (dB) are a logarithmic scale and every 6 dB represents a doubling or halving of pressure levels.
- 5) The location to monitor air overpressure is not always closest to the blast. Air overpressure is affected by wind speed and direction, temperature inversions, topography and distance.

Second, Section 901.109 lowers the limit during a specific time of day or for the number of occurrences in a day. The IDNR allows blasting only between sunrise and sunset. These are very specific times at any location on any given day. Appropriate limits should consistently apply regardless of time of day or number of occurrences per day.

Third, Part 910 covers in detail the methods to be utilized to monitor sound levels in order to determine compliance with the limits set forth in Part 901. However, within these methods, monitoring air overpressure levels from blasting is not referenced, nor is Section 901.109. Furthermore, the methods outlined are not appropriate to monitor air overpressure from blasting. Throughout Part 910 there are requirements to delete, or to turn off the instrument for "short-term background transient sounds. . ." by definition, air overpressure from blasting is a short-term transient sound.

There is an entire industry dedicated to the manufacture of blasting seismographs and the monitoring of air overpressure from blasting. Blasting seismographs are designed and calibrated to monitor blasting events based upon established regulatory programs nationwide. The blasting industry utilizes the same seismographs and methods to monitor blasting as the government agencies insuring compliance with the regulatory limits.

Based upon scientific research, established regulatory programs nationwide and the comprehensive blasting programs administered by the IDNR, the following recommendations are made:

- 1) Amend Section 901.109 to reflect 105 and 133 db limit for the C-Weighted and Flat response microphones respectively.
- 2) Specify that the limits apply at protected structures and define protected structures.
- 3) Limit blasting from sunrise to sunset except for emergency situations.
- 4) Do not lower the limit for time of day or for number of events in a day.
- 5) Require monitoring procedures and equipment that are appropriate to blasting.