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ILLINOIS POLLUTION CONTROL BOARD

IN THE MATTER OF:) R03-9
)
PROPOSED NEW AND UPDATED)
RULES FOR MEASUREMENT AND)
NUMERICAL SOUND EMISSIONS)
STANDARDS AMENDMENTS TO 35)
ILL. ADM CODE 901 and 910)

RULEMAKING HEARING BEFORE THE ILLINOIS POLLUTION
CONTROL BOARD, and Hearing Officer Marie Tipsord, and taken
before Ann Marie Hollo, CSR, RPR, RMR, at 1:30 o'clock
P.M., on September 1, 2005, at the Offices of the Illinois
Environmental Protection Agency, Illinois Pollution Control
Hearing Room, 1021 North Grand Avenue, Springfield,
Illinois, pursuant to notice.

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30 E X H I B I T S

31 NUMBER	32 ADMITTED AS EVIDENCE
33 Exhibits 4 and 5	34 22
35 Exhibit 6	36 33
37 Exhibit 7	38 34

39

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1 HEARING OFFICER TIPSORD: Good afternoon.
2 My name is Marie Tipsord, and I've been
3 appointed by the Board to serve as hearing
4 officer in this proceeding, entitled, "In the
5 Matter of Proposed New and Updated Rules for
6 Measurement and Numerical Sound Emission
7 Standards Amendments to 35 Ill. Admin Code,
8 part 901 and 910." This is docket number
9 R03-9.

10 To my right is Dr. Tanner Girard, the lead
11 board member assigned to this matter. And to
12 his right is Board Member Thomas Johnson. To
13 my immediate left is Anand Rao of our technical
14 unit. And also present today is John Nittle,
15 attorney, assistant to Board Member Johnson.
16 And Erin Connolly, our rules coordinator.

17 This is the fifth hearing to be held in
18 this proceeding and is being held at the
19 request of the Illinois Association of
20 Aggregate Producers pursuant to Section 5-40 of
21 the Illinois Administrative Procedure Act. The
22 purpose of today's hearing is to hear the
23 pre-filed testimony from the Illinois
24 Aggregate -- Illinois Association of Aggregate
25 Producers and the Illinois Department of

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1 Natural Resources.

2 As time allows, we will also hear from
3 anyone else who wishes to testify. At this
4 time, is there anyone else present who wishes
5 to testify?

6 MR. PIERCE: I am.

7 HEARING OFFICER TIPSORD: And you are
8 with?

9 MR. PIERCE: I'm Willard Pierce with
10 Evenson Explosives.

11 HEARING OFFICER TIPSORD: Right. You're
12 with the Illinois Association of Aggregate
13 Producers, and we have your summary pre-file.
14 Okay. Thank you.

15 Anyone may ask a question. However, I do
16 ask that you raise your hand, wait for me to
17 acknowledge you. And after I have acknowledged
18 you, please state your name and whom you
19 represent before you begin your question.

20 Please speak one at a time. If you are
21 speaking over each other, the court reporter
22 will not be able to get your questions on the
23 record.

24 Please note that any question asked by a
25 board member or staff are intended to help

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1 build a complete record for the Board's
2 decision and not to express any preconceived
3 notion or bias.

4 Also just for the record, I would like to
5 note that I had previously heard from Pat
6 Sharky (sp) who is representing the Village of
7 Bridgeview, and Dr. Paul Schomer who had hoped
8 to testify today, but Dr. Schomer had an
9 accident and is unable to attend. Ms. Sharky
10 notified us today that she will not be
11 attending the hearing, but they will be filing
12 additional comments before the close of the
13 comment period.

14 MR. HENRIKSON: Okay.

15 HEARING OFFICER TIPSORD: At this time,
16 Dr. Girard, would you like to say anything?

17 BOARD MEMBER GIRARD: Good afternoon.

18 On behalf of the Board, I welcome everyone
19 to this hearing to update our noise rules. We
20 are grateful for the time and effort that many
21 people have contributed to this process. We
22 look forward to the testimony and questions
23 today. Thank you.

24 HEARING OFFICER TIPSORD: Thank you.

25 With that, we'll begin with Mr. Henriksen

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1 and the aggregate producers.

2 MR. HENRIKSON: Thank you. May it please
3 the Illinois Pollution Control Board, my name
4 is John Henriksen. I am the executive director
5 of the Illinois Association of Aggregate
6 Producers.

7 HEARING OFFICER TIPSORD: Go ahead and
8 swear him in.

9 [WITNESS SWORN.]

10 HEARING OFFICER TIPSORD: And, you know,
11 we'll go ahead and swear in Mr. Pierce and
12 also -- I'm sorry.

13 MR. HAFLIGER: Jim Hafliger with DNR.

14 HEARING OFFICER TIPSORD: And Mr. Hafliger
15 at this time, too. So if there are questions
16 that might be asked, you can all answer at once
17 and you'll already be sworn. Okay. Very good.

18 [WITNESSES SWORN.]

19 HEARING OFFICER TIPSORD: Thank you. All
20 right. Go ahead.

21 BOARD MEMBER JOHNSON: Can I bring my
22 secretary in here? No. To swear her.

23 MR. HENRIKSON: As I was saying, I manage
24 the trade association representing companies
25 that produce aggregates. And for those of you

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1 don't know, that's crushed sand, stone and
2 gravel. We have 113 members that operated in
3 80 out of 102 Illinois counties last year to
4 put it in perspective. We produce 111 million
5 tons of these materials.

6 Since 1995, my industry has been regulated
7 for blasting by the Illinois Department of
8 Natural Resources, Office of Mines and
9 Minerals, in accordance with Section 6.5 of the
10 Surface Mined-Land Conservation and Reclamation
11 Act. Since 1982, the coal mining industry has
12 been regulated by the same agency in accordance
13 with Sections 3.13 of the Surface Coal Mining
14 Land Conservation and Reclamation Act.

15 Office of Minerals has promulgated a
16 comprehensive set of regulations that subject
17 both of these types of blasting operations,
18 coal mining and aggregate mining, to air blast
19 or ground vibration monitoring, or both, as
20 necessary to prevent property damage and
21 protect public safety. IDNR regulations
22 protect the general public from the impacts of
23 air overpressure resulting from blasting
24 operations of the mines. Both the aggregate
25 mining and coal mining blasting regulations are

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1 enforced by a highly trained, technologically
2 proficient inspection staff using
3 state-of-the-art monitoring equipment.

4 Jim Hafliger's testimony -- the gentleman
5 sitting to my left -- Jim Hafliger's testimony
6 later this afternoon will outline in detail
7 this comprehensive regulatory program.

8 Although blasting operations at aggregate
9 and coal mines are currently regulated by IDNR,
10 the Board is seeking to maintain an essentially
11 duplicative and overlapping regulatory program
12 for these operations, pursuant to 35 Ill. Admin
13 Code 901.109. During our last public hearing,
14 we argued that the Board could and should elect
15 not to regulate an industry that is already
16 heavily regulated by the State.

17 In the March 17, 2005 Hearing Officer's
18 Order and Opinion, the Board declined to follow
19 this assertion and stated that any exemption
20 from the Board's noise regulations would
21 require a statutory exemption. This holding
22 was based upon the Board's construction of
23 Section 24 of the Illinois Environmental
24 Protection Act that states as follows:

25 "No person shall emit beyond the

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1 boundaries of his property any noise that
2 unreasonably interferes with the enjoyment of
3 life or with any lawful business or
4 activity" -- this is the important part -- "so
5 as to violate any regulation or standard
6 adopted by the Board under this Act."

7 Although we are mindful -- or I am mindful
8 and my industry is mindful of what Section 24
9 states, it's critical for the Board to bear in
10 mind that the regulations or standards adopted
11 by the Board are promulgated pursuant to
12 Section 25 of the Act.

13 As outlined in Section 25 of this Act,
14 "The Board" -- and this is important -- "may
15 adopt regulations prescribing limitations on
16 noise emissions beyond the boundaries of the
17 property of any person and prescribing
18 requirements and standards for equipment and
19 procedures for monitoring noise and the
20 collection, reporting, retention of data
21 resulting from such monitoring." "May adopt."

22 Pursuant to this grant of rule-making
23 authority, the Board has elected to regulate
24 highly impulsive sound from blasting operations
25 at mines. They've elected to regulate our

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1 blasting. A source of sound that's heavily
2 regulated already by a sister agency.

3 Yet the Board has elected not to regulate
4 other sources of noise, despite the lack of a
5 statutory exemption for each of these sources
6 found in Section 24 of the Act. Moreover, the
7 Board has elected not to exempt these sources
8 despite the fact that these sources of noise
9 are currently unregulated by the State.

10 For example, the Board rules at 901.107
11 provides specific exemptions for sound emitted
12 from emergency warning devices, unregulated
13 safety relief valves, lawn care maintenance
14 equipment and agricultural field machinery used
15 during the day, equipment being used for
16 construction, land use for automobile,
17 motorcycle racing, and any land used for
18 contests, rallies, time trials, test runs or
19 similar operations of any self-propelled device
20 during the day.

21 Although the IAAP acknowledges the Board's
22 authority to decide what activities are subject
23 to limits on noise emissions, this authority
24 cannot be unlimited.

25 Specifically, we contend it's unreasonable

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1 to regulate sound generated by blasting
2 operations at mines, operations already subject
3 to the comprehensive State regulatory program,
4 while electing not to regulate other sources of
5 noise. Especially when there are no exemptions
6 in Section 24, exempting the other source of
7 noise. What the Pollution Control Board did in
8 its wisdom is elect to regulate some sources
9 than not. We contend that you should also
10 elect to not regulate blasting associated with
11 coal mining or aggregate mining, especially
12 since we are heavily regulated by a state
13 agency, as Mr. Hafliger will outline.

14 Therefore, the IAAP, with respect to
15 Section 901 of the Board's rules, the
16 regulations identifying those activities not
17 subject to Board noise regulations be amended
18 to state as follows:

19 And what I'm going to say is in little bit
20 of variance with my pre-filed testimony, since
21 my strike-through didn't work.

22 But anyway. Subsection H, we would
23 suggest that and respectfully submit that
24 901.107 (h) state, in part, 901 shall not apply
25 to impulsive sound produced by explosive

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1 blasting activities conducted on any Class C
2 land used as specified by capital L-B-C-S
3 Codes 8300 and 8500, period.

4 Land-Based Classification Standard 8300
5 refers to coal mines. LBCS Code 8500 refers to
6 aggregate mines. As outlined previously,
7 blasting operations at coal and aggregate mines
8 are currently regulated by IDNR's comprehensive
9 programs.

10 Amending 901.107 (h), as outlined
11 previously, allows the Board to regulate
12 non-mining blasting activities, pursuant to
13 901.109, and leaves the regulation of blasting
14 operations at mines to IDNR. Given the
15 flexibility of the Board's rule-making
16 authority under Section 25 of the Illinois
17 Environmental Protection Act, flexibility that
18 the Board has exercised previously to exempt
19 other sources of noise from regulation, we
20 respectfully submit that the Board should amend
21 901.107 in order to defer to IDNR's
22 comprehensive regulatory scheme.

23 But in the event that the Board elects to
24 continue regulating blasting operations
25 associated with the Illinois mining industry,

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1 the IAAP respectfully submits that Section
2 901.109 should be amended to bring the Board's
3 regulatory program in harmony with the program
4 enforced by IDNR.

5 We do appreciate the Board's amendment of
6 its proposed rules in response to our previous
7 comments in this rule making. The Board did
8 follow some of the changes we suggested, and we
9 do appreciate that.

10 Although these changes help to bring
11 Section 901.109 closer to the regulatory
12 standards enforced by IDNR, a further review of
13 the proposed rule making has revealed other
14 changes that must be made in the Board's rules.

15 First, Section 901.109, little "c,"
16 provides that allowable sound limits of
17 blasting operations prior to 7:00 a.m. must be
18 reduced by 10 decibels. Given that decibel
19 limits are logarithmic, a 123 decibel limit
20 represents approximately only 30 percent of 133
21 decibels. In order to accurately and fairly
22 regulate the same way we're regulated by IDNR,
23 we suggest that Section 901.109(c) should be
24 amended as follows:

25 All blasting shall be conducted between

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1 sunrise and sunset except in emergency
2 situations where unscheduled blasting is
3 required to ensure operator or public safety.

4 This change reflects the fact that sunrise
5 is often well before 7:00 a.m. during the
6 summer, the time that aggregate operations are
7 most active.

8 Second, the regulatory focus in Section
9 901.109 must be shifted from property lines to
10 protected structures. Regulating noise levels
11 at a property line is irrelevant to ensuring
12 public health and safety. Section 901.109
13 should be amended by replacing all references
14 to, quote, "receiving class A or B land,"
15 unquote, with quote, "protected structures,"
16 unquote, and then amended by referring
17 specifically to the way protective structures
18 are regulated by DNR in relation to coal mining
19 and aggregate mining.

20 My pre-filed testimony contained language,
21 but as my expert, Mr. Hafliger, points out,
22 this language is taken just from the aggregate
23 program. And the coal mining industry, their
24 protected structures are articulated
25 differently. So I would ask that the

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1 Board -- if the Board is going to be planning
2 to regulate mine industry and the coal mining
3 industry, that it focuses on protected
4 structures, and then regulate those structures
5 that are protected under the respective
6 aggregate and coal mining regulations.

7 Third, and frankly, even though it
8 may -- it's a very subtle point, but even most
9 importantly, in this context, new Part 910
10 35 Illinois Code 910, purports to establish
11 measurement procedures for the enforcement of
12 35 Illinois Code 900 and 901, procedures that
13 would include monitoring to enforce the limits
14 specified in 901.109. However, none of the
15 methods described in Part 910 will monitor
16 highly impulsive sound from blasting.

17 In essence, Part 910 must flatly state
18 that monitoring undertaken to ensure compliance
19 with Section 901.109 requires the use of a
20 blasting seismograph with a low frequency
21 response of 2.0 Hertz, and that this machinery
22 be used in conformance with manufacturer's
23 specifications and industry standards. Highly
24 impulsive sound from blasting can only be
25 accurately monitored by using this type of flat

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1 response, sound pressure level microphone and
2 recording device. In the absence of the use of
3 such a device, any Board measurement procedures
4 purporting to show compliance or noncompliance
5 with the performance standards established by
6 Section 901.109 are totally meaningless.

7 The gentleman to my right with Evenson
8 Explosives will outline in detail the technical
9 problems that are inherent in the Board's
10 standards in 901 and 109. And more
11 importantly, he'll outline why the part 910
12 regulations are so -- woefully deficient.

13 At this time, I've concluded my testimony,
14 but I'd be glad to answer questions.

15 HEARING OFFICER TIPSORD: Let's go ahead
16 with Mr. Pierce, and we'll have questions of
17 the panel, if that's okay.

18 MR. HENRIKSON: I would like the gentleman
19 from IDNR to speak next, if I may.

20 HEARING OFFICER TIPSORD: That's fine.

21 MR. HENRIKSON: Because I talked about the
22 IDNR program. He'll help put it in
23 perspective, and Willard can go last. And his
24 testimony is kind of based upon Jim's
25 testimony.

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1 HEARING OFFICER TIPSORD: All right.

2 That's fine. We'll do that then.

3 MR. HAFLIGER: Okay. Thank you.

4 My name is Jim Hafliger. I work for the
5 Illinois Department of Natural Resources Office
6 of Mines and Minerals, Mine Safety and Training
7 Division. My work title is Chief Division
8 Technical Explosive Specialist.

9 The information I'd like to share with you
10 today and respectfully submit for your
11 consideration, first of all, is basically a
12 program overview of what our responsibilities
13 are when we look through the rule-making
14 process that you're undertaking currently. We
15 would like to respectfully submit your
16 consideration on the voting areas of duplicity
17 in regards to our already existing program.

18 So to give you an overall summary of what
19 our program responsibilities are and how we're
20 structured here, I'd like to start out by
21 telling you that we have a staff of 12 members
22 that work out of three regional offices. We
23 have an office in Ottawa, Illinois, and we have
24 an office in Springfield, which is our main
25 administrative office, and we have an office in

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1 Benton, Illinois.

2 Out of that number, out of that 12, we
3 have 8 inspectors that are dedicated full time
4 as a lead state agency, regulating the use of
5 commercial explosives in the State of Illinois.

6 Within the scope of our regulatory
7 responsibilities that we're statutorily
8 delegated to regulating explosive use, handling
9 and storage at the State's 172 active surface
10 mining operations. Within the scope of our
11 program and what we do, our inspectors are in
12 the field on a daily basis. And we have
13 monitoring equipment that includes 35
14 seismographs that register and record for our
15 analysis by our division experts the traces
16 reflected as a result of air blast or air
17 overpressure and ground vibrations at these
18 operations.

19 One thing that we stress as part of our
20 comprehensive program, the way we regulate
21 this, first of all, is we do have a mature
22 program in place. The State was initially
23 delegated with authority to regulate explosive
24 use in the mid 1930s. Subsequently in the
25 1980s, in the mid 1980s, we began our coal

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1 regulatory blasting program. And then
2 subsequently in the mid '90s, we began
3 regulating blasting operations at the surface
4 aggregate operations.

5 Through the course of this and the
6 inception of this program and development of
7 our staff and their expertise, we've attained
8 35 seismographs that we use. And the nature of
9 government today is -- provides an opportunity
10 for us to reflect on the fiscal
11 responsibilities that we have in maintaining
12 this program. And for your knowledge, I
13 respectfully submit that these 35 seismographs
14 that we have for monitoring are valued at
15 nearly one hundred thousand dollars for our
16 monitoring equipment that our agent inspectors
17 use statewide.

18 Our people are also trained. Our field
19 inspectors are trained to go out and use this
20 equipment and analyze this equipment. It's
21 specifically designed for monitoring blasting
22 at surface operations. We're trained in the
23 use of this, and we're trained in the analysis
24 of the data that we subsequently recover after
25 these.

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1 A point that I believe worth making is
2 that we regularly monitor these sites. We take
3 a proactive stance to making sure that the
4 operators are fulfilling their statutory
5 obligation of compliance. And for us to
6 determine non-compliance at this operation, we
7 do that by monitoring with the seismographs on
8 a regular basis, and not specifically in
9 response to a citizen's complaint. Our
10 regulatory philosophy is that we're proactive,
11 not reactive. We don't just specifically show
12 up after there's been an incident or an
13 accident involving property damage or personal
14 injury.

15 And as part of the proactive program that
16 we have, where we stress compliance through
17 education, we have an extremely comprehensive
18 training program, which is referred to by other
19 agencies as one of the most comprehensive
20 blasting regulatory programs in the United
21 States.

22 And part of our program that we have, when
23 I stress compliance through education, is that
24 people that are in the field that are actually
25 doing the blasting are trained by our agency

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1 through a comprehensive training device and a
2 certification program that covers a multitude
3 of topics, that there are 22 specified within
4 the scope of our regulations, which have
5 already been submitted to you as part of my
6 summary of my testimony today. So you'll have
7 those for reference. So that's kind of an
8 overview of our program.

9 Our training, what we do, we have an
10 outstanding safety record. The industry does.
11 They've been cooperative in maintaining the
12 safety record. We recently achieved a landmark
13 safety achievement, which I had the opportunity
14 to announce at a venue last week, the Illinois
15 Mining Institute, where the aggregate and
16 surface mining operations in Illinois recently
17 completed a five-year period, during which time
18 they had used an estimated 500 million pounds
19 of explosives over a 5-year period without a
20 reported injury from the use of explosives,
21 which is admirable, to say the least.

22 So I'd like to address any questions that
23 you may have specifically about our program.
24 And I encourage you to look at the regulations
25 that I've submitted to you during the course of

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1 I'm Willard Pierce. I am the general manager
2 of Evenson Explosives. Our home office is
3 located in Morris, Illinois.

4 Our company manufactures and sells
5 explosives. And we provide blasting services
6 in four states. Again, our home base is in
7 Illinois, and that's where the majority of our
8 business is, but -- and it is mostly in the
9 aggregate industry.

10 Previously I was a technical specialist
11 with the DNR. A couple -- well, more than a
12 year ago, I was with them and had Jim's job at
13 that time. But I helped establish and
14 implement the blasting regulatory program that
15 is now in place. Prior to that, I conducted
16 air blast ground vibration research with the
17 U.S. Bureau of Mines. And the U.S. Bureau of
18 Mines has done blasting research as it relates
19 to air blasting ground vibrations since the
20 1940s.

21 All of the regulatory programs across the
22 country that I have seen or heard of or have
23 been involved with -- because when I was with
24 the Bureau of Mines, I traveled all over the
25 country -- in one form or another uses the

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1 Bureau of Mines recommendations for limits to
2 prevent damage to structures.

3 Given my background and given the job that
4 I have now where we are blasting, again, mostly
5 at aggregate industry, I have a technical
6 interest in this subject. And I also have a
7 practical interest in what we have to do, day
8 to day, to control the adverse effects from our
9 activity.

10 The interest that I have is that the
11 regulatory requirements are, one, consistent,
12 and they need to be consistent not maybe with
13 another regulation, but they have to be
14 consistent with what technology tells us. And
15 once we get that consistency, then the
16 requirements in the regulations and the limits
17 that are in the regulations can be implemented.
18 If they're not consistent, you have the problem
19 of one day doing one thing and another day
20 doing another.

21 Our blasters, based upon the regulations
22 here in Illinois, need two years of hands-on
23 experience. They need to take a training -- a
24 classroom training, classroom examination, and
25 then they're licensed blasters for the State.

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1 For our company, they have to have another two
2 years at least of hands-on working with
3 experienced lead blasters before we turn them
4 loose as a blaster.

5 Part of that training, part of that
6 requirement as a blaster is someone using
7 explosives in this state or in any state,
8 because of the liabilities involved, go well
9 beyond what any regulations are, and we want to
10 control the adverse effects. We want to know
11 how do you design that blast to control air
12 blast.

13 My testimony or outline of my testimony
14 that I previously submitted -- I'm not going to
15 read it, but I want to hit the highlights of it
16 as I go through this.

17 When I look at first -- the first thing
18 that I mentioned is there's two different
19 limits of the C-weighted and the flat measuring
20 systems that you list in 901.109. And they are
21 two different numbers. If you look at the
22 Bureau of Mines' work, because the Bureau of
23 Mines say that 133 dB is equivalent to 105 dB.
24 So there we have a discrepancy between two
25 different numbers.

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1 The other thing that I would suggest is
2 that once you have a number that is
3 appropriate, whatever number that is, whatever
4 you want to base that on -- and I don't know,
5 based on the science -- but whatever you want
6 to base that number on, that should be the
7 number. It shouldn't change with the time of
8 day. It shouldn't change with the number of
9 occurrences in a day.

10 And that brings me to the technical part
11 of air blast versus noise or sound. Even
12 though we can somewhat interchange those terms,
13 they're not. Air blast is a very specific type
14 of sound, if I can say it like that. And the
15 majority of the energy from air blast is very
16 low frequency. You don't even hear it. You
17 know, people that live next to a blast say,
18 "Well, I hear that blast every day." Well,
19 yes, but what you hear is the other effects of
20 blasting. You may hear some of the surface
21 delays. You may hear some of the venting, but
22 the majority of energy from blasting is that 2
23 to 3 hertz. You cannot hear that. You can
24 feel it on your chest if it's high enough, just
25 like a band going by with a base drum, but you

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1 really don't hear it. The noise that you hear
2 is actually a very low level part of the air
3 blast. And as you look at air blast records or
4 seismograph records, you can pick this out, and
5 it's very easy to see.

6 The industry that -- the blasting industry
7 recognized the importance of consistency within
8 not only regulations, but basing regulations on
9 research and bringing the measurement
10 instruments into this standard.

11 And about 12 years ago, the International
12 Society of Explosive Engineers, the industry
13 professional society, brought all the
14 manufacturers of blasting seismographs to the
15 same table to look at the standards so that all
16 the machines are standardized because there
17 were no standards. The standard was,
18 regulatory standard, was plus or minus 3 dB.
19 That's plus or minus 50 percent. That's a
20 huge, wide range. That was a deficiency.

21 So the industry brought all the
22 manufacturers together at the same table, and
23 they came up with standards for monitoring air
24 blast from blasting. That's the only thing
25 they looked at with a blasting seismograph,

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1 because it measures ground vibration, and it
2 has a microphone to measure air.

3 Within that standard, it was -- eventually
4 it was published about 1999, and that is the
5 standard that everybody refers to now. And
6 part of that standard was the monitoring
7 procedures.

8 And when I read through Part 910, where it
9 talks about that's -- I'm reading the
10 procedures for monitoring sound, not for
11 monitoring air blast. And that's the
12 deficiency that I see.

13 Because there's even parts in several
14 places in there, where you have a switch on a
15 monitoring instrument to turn it off for a
16 transient noise, for short-term transient
17 noises. By definition, air blast is a
18 short-term transient noise. It lasts about
19 three seconds. It's not the same frequency.
20 So it's not a steady state. It's a transient.

21 So by definition, the monitoring
22 procedures suggest even turn the machine off
23 during air blast. And I would -- I find that
24 confusing. Let me put it that way.

25 And what I would suggest is that if you're

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1 going -- if the Board chooses through rule
2 making to monitor air blast from blasting, that
3 you use a blasting seismograph that is
4 specifically designed to monitor that type
5 of -- I'm going to say the word "noise," even
6 though that it's not noise. It's a change in
7 pressure is what it is.

8 But from a technical standpoint, and
9 looking at what the industry has been using for
10 the last 20 some years as a standard, based
11 upon what the Bureau of Mines has done for
12 decades in their research, Part 910 does not
13 address how to monitor properly air blast from
14 blasting.

15 With that said, if we have a method that's
16 not consistent or that doesn't measure it, why
17 should we even -- I know I'm not supposed to
18 ask questions, but why should we even be
19 monitoring if we're going to turn the machine
20 off, bearing that in part of the blast?

21 I guess the main thing I want to say is
22 that the blasting industry has a standard for
23 air blast, and it has a standard for
24 monitoring. And it's been in place in coal
25 mining for many years. And in the aggregate

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1 industry, it's newer, but it's been in place
2 for many years. And it's based upon a science,
3 and the science says that 133 dB at a house, it
4 will protect that house. And if we're going to
5 have a standard, it needs to comply or be
6 consistent with what other regulatory schemes
7 have, unless we got a new body of research to
8 prove otherwise, and I don't know that we have
9 that.

10 I guess my five recommendations that I
11 have -- and I will repeat these -- is that both
12 the C-weighted and flat response microphones
13 reflect the same number, not two different
14 numbers.

15 I would suggest that the limit for air
16 blast, which a lot of times you can't even
17 hear, applies at a structure of some kind,
18 rather than to a person. And then with that,
19 you'll have to define what structures you want
20 that to apply at.

21 Let me say one thing about having it at a
22 specific location like a structure. The
23 importance of that is, if I read your proposed
24 regulation right, it's at the property line.
25 That may not be the best place to monitor air

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1 blast because of the geometry from the source
2 to the receiver. Actually, sometimes closer to
3 the mine is not a good place to monitor air
4 blast. Sometimes it's further away. The
5 consistent thing is the structure is always
6 going to be there. So that's the place to
7 monitor.

8 The third thing I have is to limit
9 blasting from sunrise to sunset except for
10 emergency situations. 7:00 to 10:00, those
11 numbers, you know, based upon the time of year,
12 they may or may not be a good number. Who's
13 going to shoot at 10:00 o'clock when it's been
14 dark since 5:00 o'clock? And yet at the same
15 time, during the busy time of year, we may have
16 to blast before 7:00 o'clock.

17 And then following up from that, do not
18 lower the limit for the time of day, because,
19 again, if we're establishing a limit, it should
20 be one number regardless of the time of day or
21 number of events that day.

22 And most importantly, we have to require
23 monitoring procedures and equipment that are
24 appropriate to blasting.

25 Basically, my interest as a company that

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1 does blasting, if I'm already spending an awful
2 lot of money monitoring from one agency, if I
3 have to do another one, I will, but that
4 may -- from what I read what's proposed right
5 now, I'm going to have to get a different type
6 of equipment, train in a different type of area
7 for monitoring and monitor at a different
8 location. Those are all costs.

9 With that, I'll answer any questions you
10 have.

11 I would like to say as a user of
12 explosives and as a blasting company, we want
13 to limit our blasting so we don't affect the
14 neighbors, but we want to have limits that are
15 consistent with a regulatory scheme and the
16 technology that we know exists to control air
17 blast from blasting.

18 Thank you very much.

19 HEARING OFFICER TIPSORD: Thank you.

20 Mr. Henriksen, before we go to questions,
21 is there any -- would you like to have your
22 summaries admitted as exhibits on the off
23 chance that there's something in the summary
24 that perhaps you didn't hit on in the testimony
25 here? We can do that as well if you would like

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1 to.

2 MR. HENRIKSON: I just would rather stand
3 on what my testimony was because I made some
4 changes in the summary and expanded it. And
5 also I was corrected by my experts on some of
6 this, on the regulatory change that I was
7 interested in making. So --

8 HEARING OFFICER TIPSORD: All right.
9 We'll just stand with your oral testimony.
10 What about with Mr. Pierce (sic)?

11 MR. HAFLIGER: I'd like our general
12 summary left as is, which is what you have,
13 what we've submitted to you. I feel that
14 there's probably information, and there's
15 program specific information that could be
16 utilized for your reference at some point.

17 HEARING OFFICER TIPSORD: All right. We
18 will admit the IDNR summary; is that correct?
19 We'll admit that as Exhibit Number 6.

20 (WHEREBY, EXHIBIT NUMBER 6 WAS
21 ADMITTED AS EVIDENCE.)

22 HEARING OFFICER TIPSORD: And, Mr. Pierce,
23 what about you?

24 MR. PIERCE: I'd like both, the summary
25 and my oral testimony.

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1 HEARING OFFICER TIPSORD: Then we'll admit
2 Mr. Pierce's summary as Exhibit Number 7.

3 (WHEREBY, EXHIBIT NUMBER 7 WAS
4 ADMITTED AS EVIDENCE.)

5 HEARING OFFICER TIPSORD: Yes. DNR has
6 the attachment. That is, we've already
7 admitted that as Exhibit 4 and 5. Great.

8 Thank you.

9 And I think we're ready for questions.

10 BY BOARD MEMBER RAO:

11 Q Mr. Henriksen, I had a few questions based
12 on your summary of your testimony that you
13 pre-filed. Apparently, you changed some of the
14 things. And just to clarify, in your pre-filed
15 summary, you suggested some changes to Section
16 901.107 (h), Subsection (h). In your earlier, you
17 know, pre-filed summary, you had asked us to make
18 sure that mining activities should be gone by
19 901.109. Now you are recommending that we just
20 leave the regulation of mining industry to the DNR,
21 not 901.109. Is that --

22 A (By Mr. Henriksen) As I testified when I
23 turned my summary in, as I've gone over it, I
24 realized that I hadn't struck through some of the
25 language that I wanted to strike through to indicate

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1 that it should be excised. So during my oral
2 testimony, which I'll rest on, I had that 901, this
3 Subsection (h), this exemption to state Part 901 --

4 Q The whole part?

5 A -- shall not apply to impulsive sound,
6 impulsive sound produced by explosive blasting
7 activity conducted on a Class C land use as
8 specified by -- used as specified by LBCS Code 8300,
9 8500.

10 Now, that's not to say that the IEPA
11 shouldn't regulate sounds generated from, you know,
12 crushing equipment, backup alarms on equipment.
13 There are -- there is sound that -- there are steady
14 state noises that are a function of a mining
15 operation that, you know, need to be regulated. We
16 understand that. And I may misuse a word or two.
17 I'm not a technical person. There are constant
18 noises, you know, like equipment operator, sound of
19 processing equipment operating.

20 And the IEPA has the authority to
21 regulate under Section 24, but we're suggesting is
22 that under Section 25, your rule-making powers, you
23 should defer to IDNR to regulate whatever noise is
24 produced by -- the impulsive sound produced by
25 explosive blasting, all right?

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1 And if we heard -- what Mr. Willard
2 was saying and what Jim was saying, we're talking
3 about a sound that lasts three seconds. Now, just
4 to put that in context; people have the idea that
5 you're constantly blasting at quarries, and we're
6 talking about stone quarries versus sand gravel
7 pits. Sand gravel pits, there's no blasting because
8 of the nature of the material. You scoop it up.
9 Stone quarries, you have to actually blast for
10 materials.

11 It's rare that a company blasts more
12 than one time a day. And that blast would
13 last -- the part you could hear -- and, again, I
14 have an expert here, Mr. Pierce and Mr. Hafliger,
15 both, if I misused words, they'll be quick to
16 correct me. But what you can hear is for three
17 seconds, all right? That's what we're talking
18 about. As opposed to backup alarms that might be
19 going on 8, 10, 12 hours a day if the conditions are
20 good, all right? So that's a busy operation that's
21 doing production shots every day. That's what --
22 BY BOARD MEMBER JOHNSON:

23 Q If the rule was amended to changed to
24 reflect that request that -- or that suggestion that
25 we exempt that particular activity from the noise

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1 rules, then all the other suggestions are irrelevant
2 at that time? We need to ask you questions about
3 them, right?

4 A That's correct. That's correct.

5 Q That's what you think the most appropriate
6 thing for us to do is, is to list those particular
7 activities as exempt from the rule?

8 A Yes, just the impulsive -- the impulsive
9 sound produced by explosive blasting activities.
10 That three seconds a day, to have DNR regulate, as
11 they've been doing very successfully over a number
12 of years. The rest of the noise that comes from our
13 business and quarries, you know, DNR is going
14 to -- EPA is going to regulate it as noise under
15 Section 24. And we tried monitoring devices, which
16 produce nuisance problems out there. That's a whole
17 different concept and spectrum of activities than
18 what these -- than what we're talking about.

19 Q Is it common that the day begins -- if the
20 sun rises at 5:30, is it common then at 5:35, that's
21 when that -- because you're -- some testimony was
22 with respect to changing -- if we get past that,
23 your first suggestion to change the hours, the
24 regulatory hours, and include making them daylight
25 to sunrise to sunset, rather than the specific hours

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1 we've listed here, is it often then that the day
2 begins with the blast and the rest of the day's
3 activity?

4 MR. HENRIKSON: I'll defer to Mr. --

5 MR. PIERCE: Very commonly what happens
6 is, when we do a service, a contractual service
7 for a quarry, we'll show up right about
8 daybreak or sunrise. We'll load the shot, and
9 maybe 4 or 5 hours later, the first shot will
10 go off or the shot will go off. There are
11 times, however, based upon production needs or
12 especially this time of year when
13 everybody's -- you know, the demands are there
14 and busy, we'll get there earlier, load the
15 shot. And we'll shoot by 7:00 o'clock, yes,
16 but that is rare. That is not -- we're not
17 sitting there waiting for the sun to come up,
18 no.

19 Another situation where that may come into
20 play -- and this is even more rare -- is if
21 whatever reason we had to defer a shot from the
22 day before; equipment breakdown, a lightning
23 storm came through. Whatever the reason is,
24 the shot, we didn't shoot. So it's sitting
25 there now. Somebody is going to be guarding it

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1 overnight. The sooner we can shoot that, the
2 better.

3 BY BOARD MEMBER JOHNSON:

4 Q Right.

5 A (By Mr. Pierce) Just because it's been a
6 long night, maybe sitting. Let's get it off. But
7 that is a very rare -- now, it's not, "It's 5:30.
8 Let's pull the trigger." It's typically mid morning
9 is the first blasting activity.

10 BOARD MEMBER RAO: Just following up on

11 Mr. Thomas' (sic) question.

12 BY BOARD MEMBER RAO:

13 Q If we go the other route of not exempting,
14 and, say, try to make these rules consistent with
15 the IDNR rules, would it be better if we
16 cross-referenced to IDNR regulations in our rules to
17 save any constant monitoring procedure? Say these
18 are the requirements? The requirements are
19 specified in, you know, the rules that's been
20 submitted by IDNR? You know, a specific reference
21 in our rules? That way there is no confusion what
22 procedures you follow, how you monitor or what
23 equipment you use.

24 A (By Mr. Henriksen) If you're addressing
25 that to me, I'm saying if you all elect to regulate

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1 impulsive sound produced by explosive blasting at
2 these mines, you should incorporate them by
3 reference. You should directly refer to them every
4 bit of what they require, so that something is not
5 left out or things aren't added to it that are
6 improper.

7 But the key thing is, that this
8 activity be monitored for compliance or lack of
9 compliance the same way IDNR does it, because
10 this -- and, again, this was not a haphazard
11 process.

12 I mean, our industry -- just to back
13 up. I work for DNR. I work for mines and minerals.
14 I helped put together the blasting program as an
15 attorney for mines. And I had to work through all
16 of this to make sure that we put together a program
17 that comported with what industry nationwide says
18 are best practices. So if you're going to incorporate
19 those rules, incorporate them all. And most
20 importantly, or as important as any of this stuff,
21 be sure you incorporate how this stuff is measured.
22 Be sure that it's required that anybody who claims
23 that we have -- we violated the Board's rules from
24 blasting has -- prove that up by using a seismograph
25 used precisely the way that Jim Hafliger or Willard

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1 Pierce would, would use it precisely. It's
2 critical.

3 BY HEARING OFFICER TIPSORD:

4 Q I am familiar with IDNR's program. What
5 are the consequences for a producer if they fail to
6 meet the --

7 A (By Mr. Hafliger) The punitive damage is
8 that we consider culpability and a whole host of
9 other things -- responsibility and the scope and the
10 nature of violation and the magnitude of violation.
11 It can go up to suspension or revocation of their
12 actual blasting operations with what they do out
13 there.

14 Q And how do you enforce that? Is that
15 through circuit court or the attorney general's
16 office? Is that a matter of your own rules?

17 A That's through our rule making and hearing
18 process, okay?

19 And if I can, while I'm adding this
20 in, regarding to Mr. Johnson's question earlier
21 about blasting during daylight; I think it should be
22 added and I probably should have mentioned that
23 earlier, but it's part of our inspection process
24 that we make to aggregate and surface coal
25 operations, they have obligatory records that they

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1 have to keep for us that incorporate every minor
2 detail about every element of the blast. There's 17
3 different areas or criterion that they have to
4 include on the blasting records, including the time
5 of day of the blast. In some cases, in coal and
6 aggregate industry, there's some minor variation,
7 but up to and including wind direction, temperature,
8 time of day, person involved with the blast, the
9 name and the certificate or license number of the
10 person doing the blast. The pounds of explosive per
11 eight millisecond delay. When we talk about these
12 small duration blasts, it's actually how many pounds
13 are going off at this time.

14 Within the scope of all this, that's
15 how we determine whether or not, A, as an
16 operator -- when I talk about us monitoring with our
17 35 seismographs, the majority of the operators also
18 have their own. And if they meet certain criteria
19 within the scope of our regulations in addition to
20 being monitored by us, they're also monitored by
21 them.

22 So when I said earlier that we have
23 35 seismographs, the 172 operations, that doesn't
24 mean that they're not being monitored. The majority
25 of the operations out there, out of the 172, are

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1 notice of infraction to the individual. So the
2 mining company may get the violation and a
3 dollar value assessed to it. The actual
4 blaster, who may be one of my employees, could
5 lose his blasting license or could get
6 suspended or could have to take more training,
7 or whatever the abatement action is for that
8 individual.

9 So the State holds both the company and
10 the individual responsible. And it's a very
11 serious matter. And I've been involved on both
12 sides of this discussion now. And I think all
13 parties take it very seriously because
14 it's -- you know, we hold a person responsible,
15 which is very meaningful, very meaningful.

16 BY BOARD MEMBER RAO:

17 Q Does your program also have any mechanism
18 for nearby residents to come and complain to you?

19 A (By Mr. Hafliger) We have implemented a
20 program over the past 10 years what we consider also
21 to be very comprehensive where we've established an
22 800 number for the ease of the people. We encourage
23 them to call us.

24 What we find is the blasting is
25 inherently specialized in nature. Much of the

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1 general public's perception from blasting comes from
2 Hollywood. And I also have the opportunity to teach
3 the classes for these blasters and explosive users
4 and law enforcement and anybody that used any kind
5 of commercial explosives.

6 And quite realistically, an effective
7 blasting at a quarry coal mine is very undramatic in
8 nature. What we might see on Hollywood, Hollywood's
9 portrayal of explosive use are giant fireballs, just
10 to make it a little more interesting and dynamic as
11 part of that.

12 But the practicality of explosive use
13 in the aggregate and coal industry, that anything
14 that you see, feel or hear as a result of the blast
15 is inefficient because it's lost energy. And the
16 economics dictate that you're utilizing every bit of
17 energy possible of your explosive. The fireballs,
18 the flashes of light and everything that you see on
19 television, which are created by adding special
20 effects, pyrotechnics, to make it more interesting
21 for the folks watching at home are not an accurate
22 portrayal by any means of the surface aggregate and
23 coal blasting.

24 Does that address your --

25 BOARD MEMBER RAO: Yeah.

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1 BY BOARD MEMBER GIRARD:

2 Q Jim, how many complaints do you get in a
3 typical year?

4 A (By Mr. Hafliger) Probably this year, we
5 probably have to date, we've had less than a
6 hundred. At the beginning of our program, until the
7 word got out and they knew who to talk to, that they
8 knew not necessarily a liaison, but they had a go-to
9 person. We probably started out with initial
10 implementation of our program in the aggregate
11 industry in the beginning '90s where it was several
12 hundred a year.

13 We've got kind of an informal number
14 that we use, which is an approximation, but we found
15 since recordkeeping within our program, that we find
16 that about 90 percent of the citizens' complaints
17 are addressed simply by them talking to a
18 representative of our staff who subsequently
19 explains the nature of blasting and what goes along
20 with it.

21 We find about another 5 percent, it
22 takes one of our staff members going out to their
23 residence, where they have the concerns, and meeting
24 with them, looking at some specifics, the structure
25 in relationship -- the geographical location of the

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1 structure in regards to mining operation.

2 And then we find about there's
3 another 3 percent that probably takes us installing
4 a seismograph there to put their mind at ease that
5 they can see that what we've described to them and
6 what our regulatory parameters are. We give them
7 the numbers. We explain the science to them the
8 best we can, and explain to them the numbers that
9 we're seeing. Whether there is or is not an issue
10 of noncompliance or the potential for structure
11 damage, or even in some cases, personal injury at
12 the nearest protected structure.

13 That leaves 2 percent unaccounted
14 for. And our best estimate is that there's 2
15 percent regardless of what we're going to do. We're
16 not going to appease their concerns.

17 But, yes, we do address that. That's
18 what we see as far as complaints. And those numbers
19 are down dramatically. We have interaction to get
20 out there, and implement and utilize our outreach
21 programs that we have.

22 Q Are those complaints more concerned with
23 noise or ground vibration or other effects?

24 A Just in general, a lot of times it's a
25 nuisance of the whole -- maybe the whole mining

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1 operation in general.

2 Maybe they have concerns, as
3 Mr. Henriksen stated earlier, where they talk about
4 the blasting. They talk about the backup alarms or
5 the dust or whatever. And, specifically, it's
6 probably the ground vibration.

7 If they're calling, describing to us
8 in laymen's terms that what they tell us is they're
9 shaking the ground out here, and they are giving us
10 things to have concern about, and that's where
11 we -- if we haven't already been out there in their
12 neighborhood somewhere, that's where we get in the
13 system and meet with people in a group, citizens
14 groups and a whole host of different venues, that we
15 do to try to address this not just for the sake
16 of -- you know, I don't want to be perceived as
17 specifically industry friendly, but it's, you know,
18 our obligation is to protect the general public from
19 property damage, and more specifically, personal
20 injury out there at the location. That's -- really
21 we've been delegated as regulators.

22 BY BOARD MEMBER JOHNSON:

23 Q Just so I've got it right, and I think
24 it's in your pre-filed testimony, but the wording
25 that you would suggest is that highly impulsive

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1 sound from blasting operations at mines? That's
2 what -- is that right?

3 A (By Mr. Henrikson) Yeah. I used the
4 Class C land use as specified by LBCS, Codes 8300
5 and 8500. I think you guys are upgrading your
6 classification system. So I tracked the numbers
7 that I think refer to surface coal mining and
8 quarrying.

9 Q And you said specifically that we don't
10 want you to exempt mining operations from noise
11 pollution cases based upon trucks coming in and out
12 of the quarry or grinding of the gravel. Maybe you
13 want us to, but you're saying that that's not
14 what -- that's not what you're suggesting in your
15 pre-filed testimony.

16 A What I'm saying is that -- that's correct.
17 That's correct. I think -- I mean, IEPA, Pollution
18 Control Board has certain obligations set out by the
19 Illinois General Assembly in Section 24. We
20 understand that. And our operations try moderately
21 to be good neighbors to keep the noise down.

22 What we're looking for, what we're
23 suggesting is that, that the 901.109, relating to
24 blasting activities, exempt us out. Now, there are
25 blasting other than coal mines. Aggregate mines and

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1 maybe construction. Or a farmer blowing up a tree
2 stump. Whatever. Regulate away. I mean, nobody
3 regulates -- you know, there's certain areas that
4 they've all been blasting that aren't, I believe,
5 regulated by the state. So regulate away.

6 But we're suggesting that your rules
7 be amended to -- an exemption to make it clear that
8 the Part 901 standards don't apply to impulsive
9 sound produced by explosive blasting activities
10 conducted at a Class C land used as specified by
11 LBCS Codes 8300 and 8500, period.

12 BY BOARD MEMBER GIRARD:

13 Q John, have you considered approaching the
14 General Assembly and getting a specific statutory
15 exemption written into the Environmental Protection
16 Act?

17 A (By Mr. Henrikson) No. And by that I
18 mean, I believe that you have enough flexibility in
19 your regulatory scheme if there's good reason, good
20 cause shown to do that. I mean, these rules -- I've
21 read them again. But there's different standards
22 set for different -- there are wholesale exemptions
23 for certain economic activities. Farm equipment. I
24 mean, you know, and I understand why. But being in
25 a mineral extraction industry, I understand why we

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1 have to do things farmers don't do.

2 With that being said, I think it's
3 important -- I'm not -- we're not saying and have
4 never said that our blasting activities shouldn't be
5 regulated. We're not saying that. We're saying
6 that our blasting activities already are heavily
7 regulated by the State of Illinois.

8 Those blasting -- and that regulatory
9 program has worked very well. We're getting less
10 complaints of our operations because of the work
11 they're doing. The professionalism of our blasters,
12 that function of the program Willard set up and Jim
13 administers, the professionalism makes our --
14 frankly, our blasters that come out of our state the
15 best in this nation. That's improved the quality of
16 work that we do. That's improved the quality of
17 blasting and production that we do. That's also
18 reduced the number of violations.

19 When this program first was
20 implemented, I was then working for the association.
21 I can assure you there were a number of violations
22 that the State wrote to my members, and by and
23 large, they were good violations. And it took some
24 training. It took some -- we went through some
25 teething problems, some education of our folks to

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1 figure out what to do, how to figure out the
2 paperwork, how to do the things right.

3 And now we have an excellent track
4 record with the State. We don't get many violations
5 from DNR because our folks are doing the right
6 thing. And it's no coincidence that the complaints
7 that we have to contend with has, in our industry,
8 go down every year. And we're frankly proud of that
9 record. Because the complaint of the system
10 means -- a complaint of the system means that a shot
11 hasn't been set up right, and we're wasting money.
12 Because if a shot is not efficient, that energy, as
13 these gentlemen have said, has escaped out of the
14 hole, and that energy has been used to push the
15 rock. That's money. That's a lot of cost.

16 MR. PIERCE: If I can add to that.

17 Everything Mr. Henriksen just said is in
18 addition to the fact that there is more
19 monitoring being done today than there's ever
20 been done yesterday. Just because the cost of
21 technology has gone down, just like any other
22 computer system. And we are monitoring -- the
23 industry is monitoring more today than they
24 ever have.

25 There are shots that we, as a company, put

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1 off that may have five monitors set up. Just
2 because if you have a blast here and you have
3 houses on all four sides, we want to know, not
4 just when we get a violation. We want to know
5 that we're keeping our numbers down. And
6 because you can't hear it, you don't have a
7 feel for it. You have to monitor. So the
8 monitoring is being done. It's being done.

9 BY BOARD MEMBER RAO:

10 Q Mr. Pierce, you recommended that the
11 monitoring procedures that have been proposed under
12 910 doesn't address explosive blasting the way it's
13 being proposed right now, and you said you follow
14 certain procedures under DNR's regulations. Are
15 those, you know, the monitoring procedures and the
16 equipment used for, you know, to monitor blasting,
17 does that apply only to blasting at mine sites? Or
18 it may be generally applicable to any other
19 explosive blasting?

20 A (By Mr. Pierce) It would apply to any
21 type of blasting because the air blast or the energy
22 that you get from the atmosphere from any type of
23 blasting is the same. It's going to be low
24 frequency because air moves very slowly. It's going
25 to be low frequency. So those type of instruments

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1 would apply to all types of blasting, yes.

2 Q So even if the Board decides to, you know,
3 defer to DNR for, you know, blasting for mining
4 industry, it would make sense to amend our rules to
5 cover other, you know, non-exempted blasting
6 appropriate monitoring procedures?

7 A I would agree with you. And, again, my
8 experience and expertise is limited in sound, but
9 when I read through 910, I'm very familiar with
10 that's exactly what you're monitoring there is
11 sound.

12 And blasting, even construction
13 blasting that has the explosives closer to the
14 surface so there's more noise out of it, a higher
15 level, it's still low frequency. It doesn't fit.
16 And it's still transient. It's still that couple of
17 seconds.

18 BY BOARD MEMBER JOHNSON:

19 Q Would it violate the rules as written
20 then? I mean, if you're saying it's not sound, but
21 it's pressure? Would a shot that you guys take on a
22 typical aggregate mine violate the rules the way
23 they're written currently?

24 A (By Mr. Pierce) Potentially, yes, but
25 unnecessarily.

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1 And let me give you a couple examples
2 with some numbers. I wish I had a chalkboard. I
3 love to draw pictures.

4 Anyway, for instance, if a lot of
5 mines are blasting near the perimeter of their
6 property -- I'm going to say, let's say, within
7 200 feet of their property line, where then you may
8 have a street. And, for instance, up in Chicago, we
9 may have an interstate, which is another hundred
10 feet or more to get across that. And then you may
11 have a property or a yard or a baseball field. And
12 so actually the structure where people are going to
13 be hanging out is literally a thousand feet away or
14 seven hundred feet away.

15 So with the monitoring up to the
16 property line at a hundred feet versus really where
17 we need to be monitoring, a thousand feet away, this
18 is a huge difference in what you're getting off of
19 this.

20 And then the geometry of a blast. If
21 you're down in this hole, you know, down in the hole
22 down here, and you're monitoring right on the edge
23 here, actually, there's a zone in there where you're
24 not going to get anything. And from noise or
25 pressure, it's going to come over that. So if

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1 you're required to monitor here, the better place
2 may be back here, or vice versa. I mean, it goes
3 both ways.

4 But my point when I brought up the
5 location of the monitoring, especially that the
6 property line versus something that you're
7 protecting, this is constant. This is always going
8 to be here.

9 So no matter what the effect is
10 between the source and the receiver, this is going
11 to remain constant. And it's something you can
12 design for. As a blaster, if I know that I'm
13 shooting to this, to protect this, I can design for
14 that. I can redirect my blast in a different
15 direction through delays that we use. But if I know
16 that today somebody is going to be monitoring here,
17 it's going to change everything. You know, change
18 the way I shoot that blast. And so it could go
19 either way, I guess, is what is my answer to your
20 question.

21 BY BOARD MEMBER RAO:

22 Q What you said brings up another question I
23 had about, you know, the complaints, going from the
24 property line to a structure, you know, the
25 protected structure as Mr. Henriksen said in his

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1 pre-filed testimony.

2 So when you start mining activities
3 if -- you know, I don't know how you do it. Maybe
4 you try to protect the structure which is nearest to
5 your blasting operation. You know, if that's the
6 case, you know, some time in the future, if somebody
7 decides to put some other structure closer, then
8 will you monitor to protect the --

9 A (By Mr. Pierce) The DNR regulations
10 require that, and that does happen. And it's a
11 constant thing of when, okay, now, they're building
12 this building. When is it protected? Is it the day
13 they do the foundation? Well, the foundation,
14 you're not really protecting it. It's when they get
15 the super structure on it.

16 But, yes, we encounter that
17 especially in the Chicago area on a daily basis of
18 moving our instrument from site to site. Not only
19 because the structure may -- a new structure may
20 come in, but depending on where we are in the
21 quarry. We may have to set up a different
22 instrument or a different location today than what
23 we did yesterday. That's very common.

24 Q Okay. I had one more question about this
25 monitoring equipment.

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1 I think Mr. Henriksen earlier
2 testified that if at all the Board decides to
3 regulate your industry, that we should make sure we
4 write in the rules that the monitoring equipment,
5 you know, should be used according to the
6 manufacturer's specifications. Something to that
7 effect. And my question is, are there any, you
8 know, standards for blasting seismograph, just like
9 ANSI has a number of standards for monitoring sound,
10 and you know, instrumentation? Do you have
11 similar --

12 A The answer is absolutely "yes." And,
13 again, I refer to that, the International Society of
14 Explosive Engineers, which is a professional body of
15 blasters from all the manufacturers. I think to
16 date, or today, there's about eight manufacturers of
17 blasting seismographs.

18 They all sat at that table, and they
19 all came up with a standard, not only for their
20 instruments, but for maintaining the instruments,
21 for installing the instruments for analyzing the
22 data. And that was published, and it's in the
23 society's handbook of blasting. It's a whole
24 chapter in there on just seismograph and blasting
25 monitoring. And that is the industry standard right

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1 now. And every state recognizes that.

2 One -- and if I could just talk about
3 that for a minute, because in 910, one of the
4 requirements is to have the microphone on 5-foot
5 stands, which is the way blasting seismographs were
6 20 years ago, because they were using a different
7 microphone at that time. Now, with the type of
8 microphones they're using, they literally can have
9 them at ground level because we're measuring the
10 pressure. Pressure doesn't change, and it doesn't
11 have the reflective surface. I think you're talking
12 25 feet? They say 5 feet. So it's a totally
13 different standard because it's a different thing
14 that we're monitoring with a different type of
15 microphone.

16 Another thing that's in 910 is not to
17 monitor if the wind is over 12 miles an hour. As a
18 blaster, if the wind is coming towards you, I have
19 to account for that if I have to monitor over there.
20 I have to take that into account. I have to take
21 into account and control more of what overpressure
22 I'm going to cause. So in one sense, the blasting
23 requirements, the blasting seismograph requirements
24 or standards are a little bit stricter, but they're
25 more appropriate.

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1 Q Okay. I'm sure we'll be able to find a
2 copy of this standard on the Web site or some place,
3 but would it be possible for you to provide the
4 correct citation to the standard sometime in the
5 comments? Or if you have it right now.

6 A I can give it to you right now. It is
7 isee.org, and they will have it all on their Web
8 site as the blaster's handbook. It's their
9 handbook.

10 BOARD MEMBER RAO: Thank you very much.

11 HEARING OFFICER TIPSORD: Anything else?
12 All right. Are there any questions from anyone
13 else? Okay.

14 MR. HENRIKSON: How long will the record
15 be kept open?

16 HEARING OFFICER TIPSORD: That's where I'm
17 going now.

18 First of all, I want to thank all three of
19 you for your testimony and the information
20 you've given us today. It was very helpful at
21 the last hearing. It's even been more helpful
22 at this hearing. We appreciate it.

23 We tried very hard to update our regs, and
24 it sounds like we're a little behind maybe on
25 blasting. IDNR, they've apparently updated

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1 their regs much before we did. And we thank
2 you very much for the information.

3 The Board's procedural rules say that a
4 hearing record shall be held open at least 14
5 days after receipt of the transcript. Our
6 transcripts are generally available within like
7 10 days, 10 working days, I think it is, for a
8 regular transcript. So I'm just going to go
9 ahead and pick September 30th, which should
10 give us plenty of time as a date to close the
11 record in this proceeding.

12 I will do also a written hearing officer
13 order of that effect. But at this time, we
14 will ask that all comments be submitted by
15 September 30th.

16 Dr. Girard, do you have anything else?

17 BOARD MEMBER GIRARD: Just to say thank
18 you for your time. You've been very helpful.
19 And we look forward to getting the transcript
20 and seeing again all the good information we've
21 got in the record. And we'll come up with the
22 best rule we can.

23 MR. HENRIKSON: Thank you.

24 HEARING OFFICER TIPSORD: And we thank you
25 very much. And with that, I think we're
adjourned. Thank you, gentlemen.

[END OF HEARING.]

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NOTARIAL CERTIFICATE

I, ANN MARIE HOLLO, a Certified Shorthand Reporter for the State of Illinois, CSR# 084-003476, and a duly commissioned Notary Public within and for the State of Illinois, do hereby certify that the preceding matter came before me at the offices of the Illinois Environmental Protection Agency, Illinois Pollution Control Board Hearing Room, 1021 North Grand Avenue, Springfield, Illinois;

That the said proceeding was reduced to writing, and this transcript is a true and correct record of the proceeding.

IN WITNESS WHEREOF, I have hereunto set my hand and seal on September 9, 2005.

My commission expires April 5, 2006.

Notary Public

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