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ILLINOIS POLLUTION CONTROL BOARD
November 4, 2004

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

Proceedings held on November 4, 2004, at
1:00 p.m., at the Bureau of Water, 1021 North Grand Avenue
East, Springfield, Illinois, before Marie E. Tipsord, Chief
Hearing Officer

KEEFE REPORTING COMPANY
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Reported by: Aimee L. Lingle, CSR, CCR
Illinois CSR No. 084-002921

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APPEARANCES

ILLINOIS POLLUTION CONTROL BOARD:

G. Tanner Girard
Anand Rao
Thomas E. Johnson
Erin Conley

ILLINOIS ENVIRONMENTAL REGULATORY GROUP:

Brenda Carter

ILLINOIS ASSOCIATION OF AGGREGATE PRODUCERS:

John C. Henriksen

VIBRA-TECH, VIBRATION MONITORING EXPERTS:

Dane Tittman

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PROCEEDINGS

HEARING OFFICER TIPSORD: Good afternoon. My name is Marie Tipsord, and I have been appointed by the Board as hearing officer in the matter of Proposed New and Updated Rules For Measurement and Numerical Sound Emissions Standard, Amendments to 35 Illinois Administrative Code 901 and 910, Docket No. R03-9.

To my right is Dr. Tanner Girard, the lead board member assigned to this matter, and to his right is Board Member Tom Johnson. Also present today on my left is Anand Rao of our technical unit and Erin Conley, our rules coordinator.

This is the fourth hearing to be held in this proceeding. The purpose of today's hearing is to allow anyone who wishes to to testify. And I have Mr. Henriksen and Mr. Tittman who both want to testify today. Is there any one else who wishes to testify?

(No response.)

HEARING OFFICER TIPSORD: Anyone may ask a question. However, I do ask that you raise your hand, wait for me to acknowledge you and, after I have acknowledged you, please state your name and whom you represent before you begin your questions. Any questions asked by a board member or

1 staff are intended to help build a complete record for the
2 Board's decision and not to express any preconceived notion
3 or bias. Dr. Girard?

4 BOARD MEMBER GIRARD: Good afternoon and welcome to
5 this hearing this afternoon to update the Board's noise
6 rules. We appreciate all the help we've gotten from many
7 individuals and corporations out there in making sure we
8 have the very best rules for the State of Illinois. We
9 look forward to your testimony this afternoon. Thank you.

10 HEARING OFFICER TIPSORD: I have been handed CVs or
11 bios, if you prefer, for Mr. Henriksen and Mr. Tittman. At
12 this time, I'm going to admit them both as exhibits. I
13 believe they're Exhibits No. 2 and 3, but I will double
14 check on that and clarify that. Any objection to admitting
15 those as an exhibit?

16 (No Response.)

17 HEARING OFFICER TIPSORD: Seeing none, Mr. Tittman's
18 will be admitted as, I believe, Exhibit 2 and Mr.
19 Henriksen's as Exhibit 3.

20 And at this time if we could have our witnesses sworn.

21 JOHN C. HENRIKSEN and DANE TITTMAN,
22 called as witnesses, were sworn in and testified as
23 follows:

24 BOARD MEMBER GIRARD: With that, Mr. Henriksen, I'll

1 turn it over to you.

2 MR. HENRIKSEN: Thank you and good afternoon. My name
3 is John Henriksen. I'm the Executive Director of the
4 Illinois Association of Aggregate Producers. We're a trade
5 association of companies that produce crushed stone, sand,
6 and gravel in this state. Our 112 members range everywhere
7 from mom-and-pop operations of literally mom and pop to
8 multi-national corporations that produce over 20 million
9 tons of these materials each year. We operate in 80 out of
10 102 counties in the state and are a key part of this
11 state's overall economy.

12 IAAP members that produce crushed stone and silica
13 sand use explosives in order to fracture the mineral
14 deposits that are being mined. In fact, absent using these
15 explosives, it's impossible to produce crushed stone or
16 silica sand. Since 1995, blasting operations at my member
17 operations have been regulated by the Illinois Department
18 of Natural Resources in accordance with Section 6.5 of the
19 Surface-Mined Land Conservation and Reclamation Act, which
20 is 225 ILCS 715/6.5.

21 Among other requirements, blasting operations are
22 subject to air blast or ground vibration monitoring or
23 both, as necessary, to prevent damage to property or injury
24 to people. Both IDNR and my industry employ highly trained

1 personnel to conduct air and -- air blast and ground
2 vibration monitoring as required by state law. Although we
3 are highly regulated by IDNR, we also recognize that we are
4 subject to noise regulations that are promulgated by the
5 IEPA. For that reason, IAAP members that conduct blasting
6 operations reviewed these rules and have instructed me to
7 comment upon the revised numerical sound standards found in
8 Part 901, as well as proposed new part 910, of the Board
9 rules that incorporates noise measurement techniques
10 currently contained in 35 Illinois Adm. Code 951, which, as
11 I understand, those are the regulations that the IEPA uses
12 to regulate noise.

13 We are going to propose three specific changes to the
14 rulemaking pending before the Board. And also, as an
15 alternative, we propose an amendment to those that we
16 believe would resolve all of our industry's concerns.

17 First and of most concern for us, proposed new Part
18 910 does not require non agency personnel who conduct sound
19 measurements be trained and experienced in the sound
20 measuring techniques and equipment. Section 951.101, the
21 IEPA section of these rules, those rules provide that:

22 Agency personnel conducting sound measurements shall
23 have been trained and experienced in the current
24 techniques and principles of sound measurement and in

1 the selection and operation of sound measuring
2 instrumentation.

3 We acknowledge that there is no approved state
4 licensing or certification process for personnel who
5 conduct sound measuring. We understand that. But we feel
6 strongly that Part 910 should at least incorporate the
7 minimal requirements that are set forth in Section 951.101.

8 It's important to keep in mind that data that are
9 gathered by non agency personnel could serve as the grounds
10 for a nuisance noise action brought before this Board.
11 That same data could be used as the basis of a nuisance
12 lawsuit that our members would have to defend against. So
13 for that reason, these personnel who do this kind of work
14 should possess some basic level of training and expertise.
15 Sound measurements gathered by personnel without some basic
16 level of training and expertise have questionable validity
17 and should not be considered by this Board or by a Court of
18 Competent Jurisdiction. So for that reason, as outlined in
19 our written comments, we submit respectfully that Part 910
20 be amended by adding a new Section 910.101 stating:

21 Personnel who conduct sound measurements in order to
22 show compliance with the Board's noise standards in
23 Part 900 and 901 must be trained and experienced in
24 the current techniques and principles of sound

1 measurement and in the selection and operation of
2 sound measuring instrumentation.

3 Again, despite the fact, and we acknowledge, that
4 there is no state certification for these kinds of folks,
5 there has to be some kind of requirement in IEPA's rules
6 that they're going to regulate this area that sets some
7 sort of baseline, bottom line requirement for folks to have
8 some kind of threshold level of expertise. If not, it
9 makes it possible for anybody to come into a hearing or in
10 a court and opine as to the existence or nonexistence of a
11 violation. It makes it possible for anybody, notwith-
12 standing them not having any kind of training or any
13 familiarity at all with this art, and it is an art, as
14 Mr. Tittman will talk about, and with the science, as he
15 will also talk about. It allows people with no level of
16 training or expertise to come in and generate a violation
17 against my industry or, even more significantly, to
18 generate a nuisance lawsuit that my members will have to
19 spend lots of money defending in Circuit Court. I would
20 defer to Mr. Tittman during his testimony, since he is an
21 expert in this area, to talk about this particular issue,
22 the issue of need for training.

23 The second problem we have is new Section 910.104.
24 This is Measurement Techniques for 35 Illinois Adm. Code

1 900. And that states that while sound pressure
2 measurements are not required to establish a violation of
3 the Board's nuisance noise standard under Section 900.102,
4 these measurements may be used as corroborating evidence.
5 And then Section 910.104 goes on to require that a person
6 conducting sound pressure measurements comply with the
7 instructions of the sound pressure measurement equipment
8 manufacturer, the sound measurement techniques in Section
9 910.105 are considered only as a guidance for gathering
10 such data.

11 So what that means is that if you can use this
12 evidence as corroborating evidence in the case, you ought
13 to follow what the manufacturers say you should do when you
14 use these devices. But the guides for instrumentation are
15 only as a guidance, not as a hard and fast rule to
16 determine the threshold and validity of this kind of
17 information.

18 As stated on page 5 of the proposal overview for this
19 rulemaking, and this is a quote from the rule, "The
20 proposed approach deviates from the detailed sound
21 measurement requirements specified in Part 951," rules that
22 are governing what the IEPA has to do when they gather
23 violations of nuisance noise.

24 We submit, our members submit, that proposed Section

1 910.104 serves to compound the problem created by the lack
2 of training and experience requirement for nonagency
3 personnel who conduct sound measurements. Sound pressure
4 measurements taken by persons with no training or
5 experience are inherently unreliable and, as we testified
6 earlier, shouldn't be allowed. But of even less value are
7 measurements taken by personnel who do not have to comply
8 with either Section 910.105 or Section 950.104. Therefore,
9 as in our written comments, we submit that Section 910.104
10 be amended to state as follows:

11 Sound pressure level measurements are not required to
12 establish a violation of 32 Illinois Adm. Code 900.102
13 (nuisance noise). However, sound pressure level
14 measurements may be introduced as corroborating
15 evidence when alleging a violation of 35 Illinois Adm.
16 Code 900.102. If sound pressure level measurements
17 are collected, manufacturer's instructions must be
18 followed for equipment used.

19 The other part of that sentence should be stricken
20 from the rule. If you're going to conduct this kind of
21 testing, you should follow what the manufacturer says or
22 follow what the manufacturer outlines in the directions for
23 the instrument.

24 In addition, the rules should be amended to state

1 that:

2 ...sound measurements used to establish a violation of
3 35 Illinois Adm. Code 900.102 must be obtained in
4 accordance with either Illinois Adm. Code 910.105 or
5 35 Illinois Adm. Code 951.104.

6 In essence, if you're going to use equipment to gather
7 data about sound over pressure and use that information in
8 any kind of enforcement case or use it in a way that might
9 be used to penalize people, the people that take those
10 readings should be required in these rules to not only have
11 a minimal level of training and experience, they should be
12 instructed by these rules to follow what the manufacturer
13 says, follow the method that the manufacturer outlines for
14 the use of these tools. And absent a level of training and
15 experience that's of some threshold level and absent
16 following what the manufacturer says for these instruments,
17 that evidence should not be allowed in before either this
18 Board or in a proceeding for Court of Competent
19 Jurisdiction.

20 The third issue we have, folks, is on proposed Section
21 901.109: Highly impulsive sound from explosive blasting.
22 There are tables on pages 16 and 17 in the proposed rules
23 for Class A land. And as outlined in there, a limit for a
24 2 hertz instrument is listed as 132 decibels as the outside

1 limit. In contrast, the Illinois Department of Natural
2 Resources has established a maximum air over pressure limit
3 of 133 decibels, a limit that is employed nationwide to
4 limit damage from air over pressure caused by the
5 detonation of explosives.

6 Section 901.109 should be amended to bring the IEPA
7 standard into conformance with the IDNR standards. And
8 Dave Tittman, who is a noise expert, a blasting expert,
9 will testify in more detail regarding this particular issue
10 and why it's so important that you don't have a set of --
11 two sets of regulations with different standards that might
12 regulate one industry.

13 As indicated earlier or at the outset, I indicated we
14 have two technical objections to these rules; two for Part
15 910, one for part 901, which Dave will bring his expertise
16 to bear on. But we also have an alternative proposal that
17 would resolve all of our technical issues. In lieu of
18 amending Parts 901 or 910 as I previously outlined, we
19 propose to amend Section 901.109(a) of Title 35, which is
20 entitled "Highly Impulsive Sound From Explosive Blasting."
21 We propose to amend that by adding the following simple
22 language at the beginning of that subsection:

23 Except for operations regulated in accordance with
24 Section 6.5 of the Surface-Mined Land Conservation and

1 Reclamation Act (225 ILCS 715/6.5).

2 The current IDNR regulations that regulate the mining
3 industry have done a good job since 1995, do an excellent
4 job in protecting the surrounding neighbors from air over
5 pressure blasting. In the event that IEPA elects not to
6 amend Part 901 and 910 to remedy the concerns I've outlined
7 earlier, concerns that may cause trouble for my industry,
8 we respectfully request as an alternative that this agency
9 amend its rules to basically state that for blasting
10 involving my industry, impulsive sound from explosive
11 blasting that's already regulated by DNR, that the IEPA
12 standards do not apply.

13 There's a need for the IEPA to regulate blasting
14 that's associated with construction activities. We
15 understand that. And there's a lot of uses of explosives
16 that the IEPA needs to be involved with. We understand
17 that fully, fully well. But we don't think there's a need
18 for the IEPA to also regulate our industry, given that we
19 are well and fully regulated by DNR. If the IEPA is going
20 to regulate us, fine. The IEPA's rules that will allow
21 these citizens to run in to Radio Shack, buy a \$30 or \$40
22 device, roll it out to a quarry, do some noise testing by
23 some of our people, and then use that as the basis for a
24 lawsuit, use that as a basis for an action before this

1 Board, and us have no easy means to knock out that
2 testimony because that person is not required to have any
3 education and training, that person is not required to
4 follow manufacturer's details of operation, if these rules
5 are not brought into compliance with what DNR does, at the
6 very least we suggest, respectfully, the IEPA consider just
7 walking away from the regulation of quarry blasting,
8 blasting involving my industry, which is highly and very
9 effectively regulated by DNR.

10 If I may, I would then allow the Hearing Officer --
11 well, I would be glad to answer questions, if that's
12 appropriate. But I also have Dane Tittman with me, who is
13 an expert for noise and blast studies for my industry.

14 HEARING OFFICER TIPSORD: I think we'll allow
15 Mr. Tittman to testify before we go ahead with questions.
16 But first, I would just like to note for the record that
17 your written comments have already been entered into the
18 record as Public Comment No. 5.

19 MR. HENRIKSEN: Thank you very much.

20 HEARING OFFICER TIPSORD: Mr. Tittman, go ahead.

21 MR. TITTMAN: Good afternoon, folks. My name is Dane
22 Tittman. I am with Vibra-Tech Engineers. I'm the area
23 manager out of the Chicago office. Our area includes all
24 the way from Springfield to the Canadian border here, so we

1 cover a wide area. And Vibra-Tech has been in business
2 since 1945. We're based in Hazelton, Pennsylvania. We
3 have 19 offices around the country. And we specialize over
4 in man-made vibrations, may they be ground or air
5 vibrations. This is the only thing that we're involved in.
6 I have been with Vibra-Tech for approximately 20 years. I
7 have been the area manager in Chicago for a little over 10
8 years.

9 We work with most of the large quarries, especially in
10 northern Illinois, large construction companies and public
11 concerns regarding air and ground vibration issues. Some
12 of the projects that we've worked on, we worked with the
13 Illinois DNR on blasting around landfill studies. We have
14 done an extensive study for the City of Elgin on ground
15 vibration, some quarries located in that community. I
16 helped revise the Wisconsin DNR regulations for blasting in
17 1998. We worked with the Chicago Building Commission on
18 projects around Chicago and also at O'Hare Airport. We've
19 done numerous sound studies for companies and firms, such
20 as Fermi Lab, the Glen Ellyn Park District, the Illinois
21 Rifle Association, and also for the reconstruction of both
22 the Kennedy and Stevenson Expressways.

23 I'm here mainly to talk today about Section 901.109,
24 Highly Impulsive Sound From Explosive Blasting. And in a

1 typical year, our office in Chicago alone reviews about
2 5,000 seismic records that are gathered from the -- most of
3 them are from the quarry industry. Probably 95 percent of
4 those come from there, and about five percent come from
5 underground blasting operations. And the DNR and the
6 regulations, as John said, established a limit of 133
7 decibels on the linear scale. And this can be found in the
8 Illinois Administrative Code, Title 62, Section 1, Section
9 300.225. And this was pertaining to a 2 hertz low
10 frequency seismograph to monitor. And most of the modern
11 seismographs are all of the 2 hertz variety right now.
12 There haven't been any 6 hertz instruments manufactured in
13 a number of years by any of the companies that do make
14 seismographs.

15 As John mentioned this, we could like to see the 133
16 decibel limit because this also conforms nationwide. And
17 this came from a study by the U.S. Bureau of Mines in 1980.
18 It was a report of investigations 8454 entitled "Structural
19 Response and Damage Produced By Air Blasting From Surface
20 Mining." And when they came up with the 133 decibel limit,
21 they felt that this was a very safe and conservative limit
22 because their studies showed that you would have to get to
23 151 decibels in order to cause any kind of damage to a
24 structure. And the type of damage that would be caused in

1 the structure would be window breakage on the site of the
2 structure that's facing the blasting activity. So they
3 built in a pretty good safety margin right here with the
4 133 level limit. And that's why we feel that this 133
5 would be in agreement with the DNR regulations for the
6 State of Illinois and also nationwide. This 133 is used
7 in -- the State of Wisconsin employs it and numerous other
8 states around the area. Minnesota also used the 133
9 decibel limit.

10 One thing that isn't mentioned in there that should be
11 brought out, instruments that are used to monitor air over
12 pressure from blasting activity are linear instruments, and
13 they go down to this low frequency scale, down to 2 hertz.
14 And most of the energy from a blast that's released is down
15 in this low frequency area, and that's why it's very
16 important to monitor this low frequency sound that's
17 generated that we don't even really hear as human beings.
18 That's where most of the energy is released.

19 Speaking a little bit on the training and experience,
20 measuring sound, especially, you know, the air over
21 pressure from blasting is a complex undertaking which the
22 average citizen is not capable of. Our field personnel are
23 all trained a couple of years, as a general rule. Some
24 take a little bit longer, some get there a little quicker.

1 But it typically takes a couple of years of watching, an
2 experienced person being with a new employee to make sure
3 that they are setting up the equipment properly and
4 interpreting the results correctly. And that gets to that
5 we must have linear equipment for blasting. And this is
6 not something that you can, you know, purchase at a Radio
7 Shack or some electronic store. It's a very specialized
8 piece of equipment. For example, the A scale, which is
9 more like our human hearing, and a lot of the criteria in
10 the regulations is based on the A scale, would completely
11 miss the low frequency content of the air over pressure
12 event from the blasting event.

13 We just talked about the training of people. That's
14 important. The equipment is important.

15 Couple of the pitfalls that can take place if sound
16 recordings are artificially high, they can -- if somebody
17 sets up the sound recording right in front of a building,
18 you'll get -- the instrument will record the air over
19 pressure. It will hit the building, bounce back, and
20 record it again, giving you an artificial high reading. So
21 it's very important where the placement of the instrument
22 is, for example, that is not addressed there. And we
23 always want to go to our closest non owned structure,
24 because this would be the area that typically will have the

1 highest air over pressures. Another thing that has to be
2 done is, for example, the microphone has to be three feet
3 off the ground and the wind screen has to be employed on
4 that microphone right there.

5 Nice thing about a valid air over pressure recording
6 in both companies such as ourselves and the DNR regulatory
7 body, we can look at that, we get a pretty good idea where
8 that seismograph was set up if that recording was taken
9 properly, and this helps to show -- in a blasting event,
10 there's a lot of paperwork that's rerequired by the DNR.
11 And one of the very important things is how far away that
12 seismograph was, if it wasn't set up in the correct
13 location as regards to where the blast took place in the
14 quarry. And the airover pressure recording can help us
15 because we know that sound travels at about a thousand feet
16 per second. So, for example, if a quarry was blasting,
17 they're saying they are 1500 feet away from their closest
18 non owned structure, that sound recording better be coming
19 in around 1.5 seconds into the record. If it's coming in,
20 you know, 3 seconds into the record, well, somebody is not
21 telling the truth right there. So, you know, the sound
22 recordings are very important to be done correctly. Just
23 it helps validate where the recording was taken.

24 Some of the items in Part 910 just don't pertain to

1 monitoring of open pit blasting operations. For example,
2 many days blasting takes place when the winds are greater
3 than 12 miles per hour or it's rainy out. If you were
4 doing, you know, typical sound studies, these are things
5 that you don't want to be monitoring. But quarries do
6 blast in these conditions, so we are out there, you know,
7 monitoring when it's raining, when it's very windy. So
8 there's some things in there that don't pertain.

9 And I guess in summing up here, the Illinois
10 DNR regulations have done an excellent job of protecting
11 the surrounding neighbors, and they've also made the quarry
12 operators better because they have been a very good
13 regulatory agency for our industry. I'm a firm believer
14 that they have done a very, very good job, and they have
15 very good regulations with the Illinois DNR. And I think
16 the 133 they have, as John mentioned, would just make it
17 very easy for the operators to understand what they have to
18 be in compliance with.

19 Thank you very much.

20 HEARING OFFICER TIPSORD: Thank you. Are there any
21 questions.

22 BOARD MEMBER GIRARD: Well, I have a question.
23 Certainly the Board does not want to have overlapping
24 rules, and it seems like the simplest fix here would be a

1 legislative fix where you get some language inserted that
2 says that if a quarry is in compliance with the
3 IDNR blasting rules, it does not fall into the Board's
4 noise rules. Or maybe there's already some language out
5 there in the legislative authorization for your blasting
6 rules and IDNR that already sort of hints that they expect
7 IDNR to regulate blasting noise from quarries, not the
8 Pollution Control Board.

9 MR. HENRIKSEN: Section 6.5 of the Surface Minded Land
10 Conservation and Reclamation Act is very clear that home
11 rule use of government have absolutely no power. There is
12 a real clear statement within that statute that the state
13 regulates it. It doesn't specifically state within that
14 part of 6.5 that it's only DNR's province. It implies that
15 DNR would be the only entity doing that because the entity
16 that is setting the standards, collecting the fees, doing
17 the inspections are all DNR people. And that's in Section
18 6.5.

19 You know, one possibility is, perhaps, a legislative
20 fix that would make it clear that not only does the State
21 have exclusive jurisdiction, but DNR has sole jurisdiction
22 rather than concurrent jurisdiction. It's possible a
23 legislative fix is one way to do that.

24 Let me suggest that another fix might be the proposal

1 I have outlined, which is for the agency to proactively
2 just carve our industry out of the rules. I would note
3 that if -- and again, I'm not an expert in these particular
4 rules, obviously. But, you know, there are certain
5 exemptions for all sorts of industries. You know, there's
6 a provision that deals with snow rules and a whole variety
7 of things, you know, that there's absolutely -- that there
8 seems to be very little regulation on.

9 Let me suggest that the IEPA consider just in these
10 rules, while they're open, carving us out. Making it real
11 clear that operations that are under the jurisdiction of
12 DNR not be covered by or not be inspected or have standards
13 be linked to our industry.

14 BOARD MEMBER GIRARD: Well, I think that in most of
15 those cases where there is an exemption, there's clear
16 legislative authority, or at least implied legislative
17 authority, and we can even go to a legislative discussion
18 during the passage of some law and pull out things that
19 will help us carve out an exemption. But the Board
20 typically does not have the authority to do that on its
21 own. We need to see some legislative intent or some way to
22 interpret what the legislature was doing to say that we
23 feel that, you know, this particular industry is exempted
24 from, you know, our board noise regulations generally

1 because it's being regulated by another state agency. And
2 so if it goes through the steps to be properly regulated
3 and licensed by that other agency, then the Board will be
4 able to exempt it, and that's what you see.

5 So generally, there's some legislative language in
6 there somewhere we can use for that authority. We
7 generally don't take that on ourselves because we're a
8 creature of statute. Just like IDNR, we don't just develop
9 our own authorities out of thin air.

10 MR. HENRIKSEN: And I'm mindful of that, and that's
11 the way it should be. But doesn't the Pollution Control
12 Board also have provisions within its structure operation
13 to exempt out certain industries or certain companies
14 within certain industries? I mean, again, if I -- perhaps
15 I've only taken a cursory look through these regs, but it
16 appears to be there are certain kinds of exceptions to
17 standards, like drop forages. I mean, it appears to me
18 there's a lot of industries that have come to the Pollution
19 Control Board and claimed special circumstances that would
20 justify them not having certain rules or certain standards
21 apply to them. And I'm sure their reasons are good or you
22 all wouldn't have exempted them.

23 Well, you know, let me suggest that, you know, I've
24 outlined a very feasible alternative. We're not talking

1 about us not being regulated. We're saying that rather
2 than you reduce the standards for us or we not be
3 regulated, let me suggest that you will consider through
4 the rulemaking process to allow DNR to do it, solely do it.

5 BOARD MEMBER JOHNSON: You're referring to 901.107
6 that lists all of the exceptions and includes agricultural,
7 field machinery, and emergency warning devices. And those
8 exceptions -- and, Marie, you correct me if I'm wrong --
9 but those are -- almost all of those are based on other
10 statutory exemptions, correct?

11 HEARING OFFICER TIPSORD: I believe that's correct,
12 yes.

13 BOARD MEMBER JOHNSON: Maybe, maybe the rules that
14 DNR, the Surface Mined Conservation and Reclamation Act, it
15 might behoove you to get to our technical unit. Would you
16 suggest that would be a decent idea?

17 HEARING OFFICER RAO: Some of the questions I wanted
18 to ask was whether this, you know, this Surface-Mined Land
19 Conservation and Reclamation Act, does it have requirements
20 for your noise monitoring -- for noise monitoring program
21 so that, you know, if these rules exempt your industry,
22 there is a set of rules that will make sure that you comply
23 with, you know, applicable standards?

24 MR. HENRIKSEN: Yes. Section 6.5 of the statute is

1 the statutory basis for the series of rules that Office of
2 Mines and Minerals promulgated. And those particular
3 rules, in addition to setting out air blast vibration
4 standards, also sets forth a very involved criteria for
5 training and testing of people.

6 MR. TITTMAN: Licensing.

7 MR. HENRIKSEN: Licensing. People who were in the
8 blasting industry in our state, it used to be wide open.
9 But since '95, we've required people who want to be
10 involved in quarry blasting or silica sand blasting to go
11 to school and take a test that's administered by the State
12 to then get a license to even do it. You can't manage
13 blasting at a quarry or silica sand operation unless you
14 have the proof of training in your hand.

15 BOARD MEMBER RAO: Yeah. My question is more about
16 noise monitoring. I know you have, you know, very detailed
17 requirements for licensing and permitting for quarrying.

18 MR. HENRIKSEN: Yes.

19 BOARD MEMBER RAO: Does that training also include how
20 you use this instrumentation, how you measure noise and
21 things of that sort?

22 MR. TITTMAN: Yes. The DNR here in Illinois, they
23 undertake part of the licensing process. They spend a
24 section of time, I think it's about a half day, that they

1 go over the proper use and setup of seismographs. These
2 people have to go back and retake their tests every three
3 years, and they go through a refresher course. So yes,
4 there is training that goes on.

5 We personally do -- our company does a lot of training
6 of blasters. We're called in. There will be a group of
7 people that are offering the seismographs who will do what
8 we call Seismology 101 where we will go through the basics
9 for them. Most of these companies ask us to come in on a
10 yearly basis. Every year, for example, the State of
11 Wisconsin, they have an eight-hour refresher course for
12 their blasters, and we're on the program there and just
13 going over the basics and answering people's questions and
14 concerns or if there's been any changes.

15 Also, the International Society of Explosive Engineers
16 has quite a section on proper setup and usage of the
17 seismographs in their blaster handbooks.

18 So there is some training that takes place, and there
19 is a lot of research that's been written about how to
20 operate the equipment.

21 BOARD MEMBER RAO: So if these training requirements
22 are all spelled out, you know -- I downloaded this rule
23 from DNR's website. It's Part 300, Surface-Mined Land
24 Conservation and Reclamation Act. Is that the rules that,

1 you know, flow from the act itself?

2 MR. TITTMAN: Yes.

3 MR. HENRIKSEN: Yes. And there are standards for air
4 blasts, there are standards for ground vibration, there are
5 standards for blasting reports to make sure that people set
6 their shots up correctly. There is a licensure and
7 training provision. DNR has a training regime that's --
8 well, looks like a phonebook. But, I mean, it lays out
9 their training regime to go through during this four-day
10 training and examination experience they do.

11 BOARD MEMBER RAO: So what I was getting to was would
12 it, you know, address your concerns if we cross reference
13 the DNR rules and our rules to say when it comes to
14 blasting, you follow some of the procedures that are set
15 forth in this Part 300 regulations? So that way, you know,
16 everything is spelled out for your industry in that rule,
17 and that would be a solution.

18 MR. HENRIKSEN: Yes, that would be great. Because
19 what that would do is that if people, citizens, want to go
20 and do air blast monitoring or whatever, they'll do it the
21 right way, you know. They'll do it in accordance with what
22 our rules say. And then they will, hopefully, be about
23 their business when they want to set these machines up.

24 BOARD MEMBER RAO: Because, you know, the language

1 that you have provided right now for, you know, training
2 personnel who are involved in noise monitoring, that kind
3 of a broad language where there is no certification
4 involved, we have had problems in the past with other rules
5 where we put in some kind of a qualification language in
6 there and, Marie can tell you, JACAR (phoneitc) will always
7 ask us to take it out because there's no certification or
8 no specific requirements involved. And so that way, this
9 cross referencing may be a better way to deal with your
10 concern.

11 MR. HENRIKSEN: Perhaps. Or again, going back to --
12 my initial suggestion is for blasting events that are
13 generated by my industry. The clearest way is for -- allow
14 me to respectfully submit, the clearest way is just for the
15 IEPA to say, these are under the jurisdiction of DNR.

16 BOARD MEMBER RAO: Just to clarify, we are the
17 Pollution Control Board, not the EPA.

18 MR. HENRIKSEN: I recognize that. But these are
19 EPA rules and --

20 HEARING OFFICER TIPSORD: No, they're Pollution
21 Control Board rules.

22 MR. HENRIKSEN: I'm sorry. The EPA would be doing the
23 enforcement.

24 BOARD MEMBER RAO: Not anymore.

1 HEARING OFFICER TIPSORD: EPA does not have a program.
2 EPA does not do noise enforcement any longer.

3 MR. HENRIKSEN: Does the Pollution Control Board have
4 a noise enforcement unit?

5 HEARING OFFICER TIPSORD: We have rules on it for
6 citizens. We have citizens who enforce it for us.

7 MR. HENRIKSEN: Well, I can't stress even more
8 strongly then, given that, that it would be a good idea
9 for -- if you're talking about the regulation of our
10 industry, especially when it gets into noise issues, that
11 the DNR -- that we respectfully submit that the Pollution
12 Control Board consider deferring to DNR jurisdiction over
13 our industry.

14 Anything else, you know, O'Hare, blasting that has to
15 do with construction that's not our industry, railroad, you
16 know, whatever kind of noise event, stockcar races, you
17 know, please continue to do your job. But let me suggest
18 that given that the IEPA doesn't have an enforcement
19 presence and it's going to be the Pollution Control Board
20 that is going to be doing an enforcement process for folks
21 on citizen complaints, it's paramount that either, (a) ,
22 people that come before you have the education, training,
23 and experience that our member, our industry, have, that
24 people that come before you take the pains that our people

1 do to use these instruments correctly and that the
2 standards that they are testing for match up ours. Or you
3 get into what I am concerned about, which is with all the
4 kinds of concerns people express about new operations,
5 expanded operations, we have seen time and time again folks
6 get together and figure out ways to stop new quarries or
7 stop expanding existing quarries. Even though these sites
8 are operating within the law, have the rights to mine,
9 folks grasp at just about any kind of straw to use to try
10 to stop these operations from opening up or expanding.

11 Let me -- I respectfully submit that a program or
12 enforcement program that allows citizens to come in,
13 purchase a handheld monitor from some vender, use that
14 without having any contact with the art of noise
15 monitoring, not be required by your rules to follow the
16 manufacturer's instructions, and then have those people be
17 able to trigger a nuisance complaint against one of my
18 folks, who spend literally -- with all due respect, if I
19 protect this vender, it is not cheap. They do a good job.
20 They are professionals that work for our people to make
21 sure we don't break the law. But that's the kind of
22 concern that we have.

23 So either the playing field has to be totally level,
24 which is that if a citizen comes in and they have a beef --

1 I mean, if you have a citizen who is a licensed blaster or
2 has that level of expertise and has a seismograph in their
3 yard and can come in and say, you know, I got a bad shot
4 here, 134 decibels, and I got this, you know, if they could
5 come in and bring that kind of case before you all, shame
6 on us. We ought to get hammered.

7 But the evidence that you all should hear should be
8 rendered by people who know what they're doing, do it
9 properly, and have the same kind of rules that DNR has or
10 the alternative. And we suggest that, you know, for quarry
11 blasting, the Pollution Control Board should consider a
12 method of deferring to DNR. Because they've done a good --
13 I don't want to say hard. They have been firm but fair and
14 done a good job regulating our industry.

15 And I can say that also, I worked for the State of
16 Illinois. I helped write and worked on the program, the
17 blasting program, when I was an attorney with Mines and
18 Minerals. So it's a hard-nosed program. And there were
19 some growing pains. I now represent the industry. There
20 were some growing pains. Our industry has benefitted from
21 this regulatory program. Our blasters are professionals.
22 The people who are in this business are very concerned
23 about staying within the law, and it's been a success story
24 for us.

1 So I would respectfully suggest the Board consider
2 some sort of mechanism via these rules to carve us out,
3 given the existence of a mature, comprehensive, and very
4 effective enforcement program.

5 BOARD MEMBER GIRARD: I have another question. John,
6 have any of your quarries had problems with nuisance noise
7 suits since 1995 and the new IDNR rules, do you know?

8 MR. TITTMAN: No suits that I know of.

9 BOARD MEMBER JOHNSON: We have had one case in front
10 of us involving a quarry, I don't know if it's one of
11 yours, but just in the last year. DuPage -- I shouldn't be
12 interrupting. I know there's one that came in front of us.

13 MR. HENRIKSEN: Yeah. There's been one. And maybe
14 that is a good example of what a good job DNR is doing.
15 Maybe it's an example of there's not that problem I'm
16 concerned about. But there's been one that I know of.

17 BOARD MEMBER GIRARD: You know, what I was getting to
18 is our current regulations allow citizens to bring nuisance
19 noise complaints. So, I mean, these new regulations would
20 not change anything in that regard. The citizens would
21 still be able to with some of the new language trying to
22 give more direction about how they should go about
23 collecting sound information, because some people felt that
24 it might be better for them. Because, as you can imagine,

1 we get all kinds of -- we get noise complaints, and we get
2 all kinds of evidence brought in to us.

3 MR. HENRIKSEN: Exactly. And for someone to come in
4 and say there's noise, it's of concern to us, whatever, it
5 bothers us, it constitutes a nuisance, that's one thing.
6 But what concerns me is that these particular rules will
7 allow a citizen to go and say not only is it an irritant to
8 me and deprives me the use and enjoyment of my property,
9 it's also 134 decibels, you know, and it's, you know, based
10 on something I got at the Radio Shack. And that's what
11 these new rules would allow you to do.

12 I mean, you know, our standards are over all authority
13 over nuisance complaints generally. The terms of these
14 rules seem to be for a specific -- would allow for a
15 specific enforcement action to be brought by citizens that
16 make very clear, would make very clear findings as to
17 violating, you know, a decibel limit.

18 And, you know, if -- I mean, another very plausible
19 scenario would be someone could come in here based on some
20 sort of equipment they purchased wherever, they prove up,
21 you know, to the satisfaction of the Board that there's a
22 violation of 135, 136 decibels, well, DNR should take that
23 and run with it. They should go after my guys or perhaps
24 use that as the evidence for some independent action.

1 I would suggest that your overarching authority over
2 nuisance complaints, we're not suggesting that you all walk
3 away from that. You should do what the law tells you. But
4 let me suggest that any expansion of the ability of
5 citizens that come in here and then opine that there is a
6 violation of a standard that is based upon use of equipment
7 that they may not know how to use, may not be used
8 correctly, may not know how to interpret even after they
9 use it.

10 BOARD MEMBER JOHNSON: I think what Dr. Girard was
11 indicating is these noise rules have not been updated since
12 the '70s, is that right?

13 BOARD MEMBER RAO: Yeah.

14 BOARD MEMBER JOHNSON: And so all the remedies that
15 are available after the promulgation of an updated rule are
16 available now and have been since 1970. So I think what
17 you were suggesting is that what we're trying to do is just
18 is make them easier and more user friendly. It's certainly
19 not to increase the likelihood of citizen enforcement
20 complaints. And every citizen enforcement complaint that
21 they currently -- I mean, we're not adding to that.

22 BOARD MEMBER RAO: No.

23 BOARD MEMBER JOHNSON: Everything that will be
24 available after a new rule promulgation is currently

1 available and has been since 1972, I think.

2 HEARING OFFICER TIPSORD: Mr. Tittman, did you have
3 something you wanted to say?

4 MR. TITTMAN: Yeah. The DNR has, I think,
5 approximately 30 to 35 portable seismographs, and anybody
6 can go on their website and request that an instrument be
7 placed on their property to monitor the blasting, and the
8 DNR will accommodate these homeowners. So this is one way
9 that the instrumentation -- it's not our equipment; it's
10 one of our competitor's. But it's very, very good
11 equipment that the State of Illinois has. It does, you
12 know, a very good job. And that's one way of getting
13 accurate records and having them interpreted by qualified
14 people, the people at the DNR. And these people are very
15 experienced and very good, the group of folks that are
16 working there.

17 So the equipment is there through the DNR. The
18 interpretation of the records are there through the DNR.
19 And, you know, that's why, you know, we would like to see
20 the DNR, I think -- I'm sorry, I forget what the
21 gentleman's name is.

22 BOARD MEMBER RAO: Anand Rao.

23 MR. TITTMAN: Yeah. You know, attaching something
24 about the regulations sounds like a good way to go if you

1 people could put something in to refer to the 300.225
2 section for the blast monitoring.

3 MR. HENRIKSEN: And again, I'm mindful of you alls
4 efforts to try to, well, update these rules, and they've
5 needed that. But at the same time, what you have also
6 done, if I understand it, is come up with a new Part 910
7 that outlines the mechanism for this to -- for the
8 implementation of these rules, because Part 910 is brand
9 new.

10 BOARD MEMBER RAO: Just as a matter of clarification,
11 the 910 rules are basically what used to be Part 951 rules
12 in the agency's rules.

13 MR. HENRIKSEN: Correct.

14 BOARD MEMBER RAO: And since the agency does not have
15 a noise program, it was decided to put those rules with
16 updated methods in the Board regulation so that it will
17 make it easier for people to use those rules.

18 MR. HENRIKSEN: And that makes perfect sense. And my
19 central point is you all in the rules deliberately stated
20 that since there's not -- in your overview, that there's no
21 certification program for using this kind of equipment, we
22 won't have what the EPA had, which is a requirement that
23 people who use this equipment and trigger a noise complaint
24 against someone show some basic level of expertise.

1 And again, if a citizen wants to -- if a citizen has
2 concerns about us or any noise vector and they want to do
3 some monitoring, fine. But your rules that they're now
4 shifting this program from IEPA to you all ought to provide
5 that people who do this kind of work, whether it's someone
6 in a subdivision or a church concerned about a new facility
7 or if it's a professional out there doing this kind of
8 work, there should be something specified in there that
9 says they have some kind of basic level of education,
10 training, and experience. And the answer in the rules was
11 that, well, there's no program out there. But that can't
12 be the answer. There has to at least be some sort of
13 statement in the rules that that person have a basic level
14 of training and experience. Or when it comes to a nuisance
15 complaint or something brought by somebody before this
16 body, how does someone defending the miscreant attack their
17 credibility? If they're not required to have any kind of
18 education, training, and experience, they're not required
19 to use this equipment in accordance with the manufacturer's
20 specifications, I mean, how does one respond to that? I
21 could get -- my people could get this person and, you know,
22 it would be a battle of an expert against somebody who
23 thinks there's a problem.

24 And I'm just -- I'm suggesting that the Board consider

1 either, (a), bring the rules up to a standard that there's
2 a level playing field where, if someone wants to bring a
3 complaint, a citizen, a hired gun, if they want to bring a
4 complaint against us, that they have education, training,
5 and experience, they use it right, and that they try to
6 apply against us the rules that apply to us. Either do
7 that or, respectfully, I submit that in terms of an
8 enforcement action on noise for you all, that you all
9 consider a mechanism to defer to DNR.

10 And if DNR didn't have a mature program that keeps us
11 well in check, I wouldn't suggest that. Because the last
12 thing that we want in our world is to have air blasts or
13 nuisance violations. Because as that arises, people get
14 stirred up and block our operations. We want to have
15 DNR continue to monitor the heck out of us and write us up
16 and take away licenses when they don't do the right thing.

17 I'm mindful of the shift. But if you're going to
18 regulate this area, let me suggest that you all lay some
19 requirements out. And if the answer is there is not a
20 licensure program or standards in Illinois, I mean, if the
21 current answer is -- let me suggest another answer: Write
22 one. You know, talk to experts. Talk to us. Talk to
23 people in other states that do this kind of work. Set up
24 some kind of criteria so that citizens, when they hire

1 someone to do this, that person has some kind of expertise
2 so that person is not a charlatan that goes out there and
3 claims to be getting noise readings from some subdivision
4 that's near a racetrack or quarry or wherever, and that
5 person has some kind of qualification, that person can show
6 that he or she knows what they're doing.

7 BOARD MEMBER RAO: I had a question for Mr. Tittman
8 about your suggested change for 901.109.

9 MR. TITTMAN: Yes.

10 BOARD MEMBER RAO: You recommended that the Board use
11 the number in DNR regulations 133 --

12 MR. TITTMAN: Yes.

13 BOARD MEMBER RAO: -- decibels? In 901.109 there are
14 several different standards. There's a standard under
15 901.109, Subsection A, for receiving Class A land. We have
16 107 decibels and for Class B 112. Which particular
17 standard did you want to be in place?

18 MR. TITTMAN: Well, the 133, which is down at the
19 bottom, it starts at the bottom of page 16 and goes to the
20 top of page 17.

21 BOARD MEMBER RAO: Okay. That is section 901.109,
22 Subsection B.

23 MR. TITTMAN: Right. It's right at the bottom of 16.

24 BOARD MEMBER RAO: It says, Lower frequency limit of

1 measuring system for flat response and radiation for linear
2 response. Is that --

3 MR. TITTMAN: Yes, the 2 hertz response right there.
4 The other options right there, the .1, that's for like
5 laboratory type sound measuring equipment. You won't find
6 that sensitive of a piece of equipment being used out in a
7 field.

8 As I mentioned in my testimony, all the modern
9 seismographs are 2 hertz instruments right now. That's why
10 we would like to see the 133. The older instruments of 20,
11 30 years ago were a 6 hertz. They didn't go down as low,
12 so they were missing some of that energy down there
13 between -- if we had a 6 hertz instrument, you would miss
14 the energy below 6 hertz. But now the new equipment goes
15 down to 2 hertz, so it's more sensitive. That's being
16 universally used in the field. So that's the real criteria
17 that we're looking at there is that 2 hertz level.

18 BOARD MEMBER RAO: Okay. The DNR regulations for .1
19 hertz and 6 hertz, they also have numbers like 134 for .1.

20 MR. TITTMAN: Right, because it is a more sensitive
21 instrument. But as I just mentioned, I've never seen a .1
22 hertz sensitive instrument used in the field. It's a
23 laboratory piece of equipment that you would only find in a
24 laboratory. There are no manufacturers that make an

1 instrument that go down that low that's used for monitoring
2 of blasting.

3 BOARD MEMBER RAO: So should we read, then, those
4 standards for .1 and 6 hertz?

5 MR. TITTMAN: In my opinion, you could remove those
6 completely.

7 BOARD MEMBER RAO: And just have a standard for 2
8 hertz?

9 MR. TITTMAN: The 2 hertz. That's all Wisconsin --
10 they had the very same table set up right there; 134 for
11 the .1, 133 for the 2, and 129 for the 6 hertz. When we
12 revised the regulations up in Wisconsin, we got rid of the
13 2 -- the .1 and the 6 hertz and just left it at 2 hertz
14 because that's what all the equipment is today.

15 BOARD MEMBER JOHNSON: And put in the 133 decibel
16 figure?

17 MR. TITTMAN: Yes, and put in the 133 decibel.

18 BOARD MEMBER JOHNSON: Can you ask her to go off the
19 record for a second?

20 HEARING OFFICER TIPSORD: Sure. We'll go off the
21 record.

22 (Discussion off the record.)

23 HEARING OFFICER TIPSORD: Back on the record.

24 BOARD MEMBER RAO: Continuing our discussion here, we

1 also have standards for receiving Class B land, and that is
2 set at 137 decibels for 2 hertz. Is that number consistent
3 with the DNR number? I don't think they have a number.

4 MR. TITTMAN: No, you're exactly right, they do not
5 have a number. They just have the flat 133 irregardless of
6 what type the land classification is.

7 BOARD MEMBER RAO: So would it be acceptable if we do
8 the same thing here, have 133 across the different classes
9 of land?

10 MR. TITTMAN: I would prefer 133. It keeps everybody
11 on the same page, and it keeps it nice and simple, and it
12 keeps it nice and consistent with what everybody else is
13 doing across the country.

14 133 is a very standard, good number to use. The
15 research is behind it. I'm going back to 1980 when the
16 U.S. Bureau of Mines did their studies. They came up with
17 this, and they feel it's a very, very safe limit. And, as
18 I said, Wisconsin uses it, our DNR down here, Minnesota
19 uses it, places where they can -- states that permit
20 municipalities or cities to put in their own blasting
21 regulations. The 133 is really rock solid.

22 BOARD MEMBER RAO: Okay. Thank you very much.

23 BOARD MEMBER GIRARD: Could you supply us with the
24 references to that Bureau of Mines study so that we can

1 place that in the record here?

2 MR. TITTMAN: Yeah. That Bureau of Mines was -- it's
3 Investigative Report 8454, and it's Structure Response and
4 Damage Produced By Air Blasts From Surface Mining. Dave
5 Siskin (phonetic) was the principal author of it.

6 BOARD MEMBER GIRARD: Thank you. And so that's the
7 study that most of the states now are basing their standard
8 on?

9 MR. TITTMAN: Yes, that's what they're basing their
10 standard on. That is correct. That's what the State of
11 Illinois used to base their standard on when they -- I
12 wasn't on the committee, but I'm assuming that it was.

13 MR. HENRIKSEN: Correct.

14 BOARD MEMBER GIRARD: Thank you.

15 HEARING OFFICER TIPSORD: Anything else?

16 BOARD MEMBER GIRARD: No.

17 HEARING OFFICER TIPSORD: All right. Thank you very
18 much.

19 MR. TITTMAN: Well, thank you folks.

20 HEARING OFFICER TIPSORD: Initially we had talked
21 about having -- the Board had indicated that we would have
22 two additional hearings. I think that, given the lack of
23 anyone else here to testify today, that the Board will
24 consider only having this one hearing and proceed to First

1 Notice again.

2 Given that, the comment period will close 30 days
3 after receipt of the transcript, and I'll do a Hearing
4 Officer Order to that effect. And then hopefully we can
5 proceed to a second First Notice on these rules.

6 Thank you very much. I really appreciate you coming,
7 and you've given us a lot of good information. Dr. Girard,
8 do you have anything further?

9 BOARD MEMBER GIRARD: Thank you. I think you've made
10 a very good case for the Board trying to change some of
11 these things, and certainly you're giving us some good
12 information to simplify some of our rules, and so we
13 appreciate all your work. And if you can find anything
14 else in there about legislative intent of putting the
15 regulations in IDNR and that can help us show that there's
16 some authority for your special case, we would greatly
17 appreciate it.

18 MR. HENRIKSEN: And we appreciate that. And I assume
19 that we'll get notice of subsequent proceedings, including
20 going to First Notice. So we'll take a good look at that
21 and see if we can provide information that will be of help
22 to this Board.

23 HEARING OFFICER TIPSORD: Yes. I'll do a Hearing
24 Officer Order that you'll get setting a specific date for

1 final comments. So if you think of anything else you want
2 to add before we go to First Notice, you'll be able to do a
3 final round of comments.

4 MR. HENRIKSEN: Thank you.

5 HEARING OFFICER TIPSORD: Thank you. And with that,
6 we're adjourned. Thank you.

7 (Which were all the proceedings had at said hearing.)

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1 STATE OF ILLINOIS)
) SS.
2 COUNTY OF MADISON)

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5 I, AIMEE L. LINGLE, CSR, do hereby certify that I
6 reported in shorthand the proceedings had at the hearing
7 aforesaid, and that the foregoing is a true, complete and
8 accurate transcript of the proceedings at said hearing as
9 appears from my stenograph notes so taken and transcribed
10 under my personal direction.

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Certified Shorthand Reporter

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16 CSR No. 084-002921

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