

COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
ENVIRONMENTAL QUALITY BOARD

\* \* \* \* \*

IN RE: EQB OIL AND GAS

PUBLIC HEARING

\* \* \* \* \*

BEFORE: PATRICK HENDERSON, Executive Director

HEARING: Wednesday, July 21, 2010

7:00 p.m.

LOCATION: Lycoming College

Heim Building

G-11

Williamsport, PA 17701

WITNESSES: Michael Ochs, Barbara Jarmoska, Ralph  
Kisberg, Carmalene Churba, Rich Adams, Ross  
Cowles, Shahin Shabanian

COPY

Reporter: Xi Xia

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I N D E X

OPENING REMARKS

By Patrick Henderson 4 - 8

TESTIMONY

By Michael Ochs 8 - 14

By Barbara Jarmoska 14 - 21

By Ralph Kisberg 21 - 27

By Carmalene Churba 27 - 29

By Rich Adams 29 - 31

By Ross Cowles 31 - 34

DISCUSSION AMONG PARTIES 34 - 35

By Shahin Shabanian 35 - 36

CLOSING REMARKS

By Patrick Henderson 36 - 37

E X H I B I T S

1  
2  
3  
4  
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<u>Number</u>	<u>Description</u>	<u>Page Offered</u>
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NONE OFFERED

## P R O C E E D I N G S

EXECUTIVE DIRECTOR:

1  
2 -----  
3  
4 Good evening, folks. Thank you very much  
5 for coming out and we recognize your time as valuable  
6 and we want to get started promptly here on our public  
7 hearing. My name is Patrick Henderson. I am an  
8 alternate member of the Environmental Quality Board,  
9 representing State Senator Mary Jo White. Tonight, I  
10 call this hearing to order at 7:00 p.m.

11 The purpose of this hearing is for the  
12 Environmental Quality Board or the EQB to formally  
13 accept testimony on the proposed regulations  
14 concerning Oil and Gas Well Casing and Cementing. In  
15 addition to this hearing, the EQB held similar  
16 hearings on the proposed regulations in Tunkhannock on  
17 Monday, July 19th and will hold hearings on July 22nd  
18 in Meadville and Pittsburgh and an additional hearing  
19 on July 26th in Pittsburgh.

20 The proposed rulemaking, which was  
21 adopted by the Environmental Quality Board on May  
22 17th, 2010, updates the existing requirements in 25 Pa  
23 Code, Chapter 78, regarding the drilling, casing,  
24 cementing, testing, monitoring and plugging of oil and  
25 gas wells and the protection of water supplies. The

1 proposed rulemaking includes updated material  
2 specifications and performance testing and amended  
3 design, construction, operational, monitoring,  
4 plugging, water supply replacement and gas migration  
5 reporting requirements. The additional requirements  
6 are intended to minimize gas migration and will  
7 provide an increased degree of protection for both  
8 public and private water supplies.

9 In order to give everyone an equal  
10 opportunity to comment on this proposal, I would like  
11 to establish the following ground rules.

12 One, I will first call upon those  
13 witnesses who have pre-registered to testify at this  
14 hearing. After hearing from these witnesses, I will  
15 provide any other interested parties with the  
16 opportunity to testify.

17 Two, testimony is limited to ten minutes  
18 for each witness.

19 Three, organizations are requested to  
20 designate one witness to present testimony on their  
21 behalf.

22 Four, each witness is asked to submit, if  
23 available, three written copies of his or her  
24 testimony to aid in transcribing the hearing. If not  
25 available, it's not a problem. Please hand me your

1 copies prior to presenting your testimony, if they are  
2 available.

3           Five, please state your name, your  
4 address and affiliation, if any, for the record prior  
5 to presenting your testimony. We would appreciate  
6 your help in spelling names and terms that may not be  
7 generally familiar so that the transcript may be as  
8 accurate as possible.

9           Six, because the purpose of this hearing  
10 is to receive public comment on the proposal, EQB and  
11 DEP staff may question witnesses; however, witnesses  
12 may not question EQB or DEP staff.

13           In addition to or in place of oral  
14 testimony this evening, interested persons may also  
15 submit written comments on this proposal. All  
16 comments must be received by the EQB by August 9th,  
17 2010. Comments should be addressed to, and I have an  
18 address if you'd like to write it down and I will  
19 revisit this later, the comments should be addressed  
20 to the Environmental Quality Board, P.O. Box 8477,  
21 Harrisburg, Pennsylvania, 17105. That's the  
22 Environmental Quality Board, P.O. Box 8477,  
23 Harrisburg, PA. 17105. You may also e-mail comments  
24 to the following e-mail address,  
25 RegComments@state.pa.us. That's, R-E-G-C-O-M-M-E-N-T-S

1 @state.pa.us.

2 All comments received at this hearing, as  
3 well as written comments received on or before August  
4 9th will be considered and will be included in a  
5 formal Comment/Response document prepared by the  
6 Department of Environmental Protection and reviewed by  
7 the EQB prior to adoption of final rulemaking.

8 Anyone interested in receiving a copy of  
9 tonight's transcript may do so. Please see me or  
10 contact the Environmental Quality Board at the address  
11 previously given. All right. Again, we'll revisit  
12 the address and the e-mail address at the end of the  
13 hearing.

14 At this time, I am going to call upon our  
15 first pre-registered witness. For informational  
16 purposes, we have 14 pre-registered witnesses. At the  
17 conclusion of those, I will then open it up for anyone  
18 here who would like to come forward and testify.  
19 Again, we ask if you can please limit your comments,  
20 your oral comments, to ten minutes and if you can aid  
21 in assisting the spelling of your name, address and  
22 any unfamiliar terms so the transcript may be as  
23 accurate as possible.

24 Our first three witnesses, to give a  
25 heads-up to those who will be coming forward, first I

1 have a Mr. Ochs, second Barbara Jarmoska and third  
2 Ralph Kisberg. And I apologize in advance if I  
3 mispronounce anyone's name. Please feel free to  
4 correct me and assist us on that. With that, is Mr.  
5 Ochs available? Sir? Thank you.

6 MR. OCHS:

7 Michael Ochs, O-C-H-S of Williamsport.  
8 I'm also a member of the Pennsylvania Green Party.  
9 I'm not here on their behalf. You can read our  
10 statement about the natural gas drilling infracting  
11 and poisoning Pennsylvania on our website, gpofpa.org.

12 There are known knowns; there are known  
13 unknowns; and there are unknown unknowns. That quote  
14 may be familiar to some of you and from former  
15 Secretary of Defense, Donald Rumsfeld. I think it's  
16 applicable to the gas well fields in Pennsylvania.

17 My comments are primarily about two  
18 subjects, transparency and larger issues. Is there a  
19 transparent process whereby we can understand how the  
20 proposed standards were arrived at? Who were the  
21 participants in the process? Had all DEP participants  
22 divested themselves of gas industry and subsidiary or  
23 external contracting firms' investments, so as not to  
24 appear to have any conflict of interests?

25 For transparency issues, these are not in

1 my prepared statement; these are additional. Number  
2 one, our minutes of the meetings of the Oil and Gas  
3 Technical Advisory Board tab minutes subcommittees  
4 available online.

5                   Two was the January 30th, 2010 advanced  
6 notice of proposed rulemaking, ANPR, advertised in  
7 local newspapers and only 87 individuals, businesses,  
8 trade organizations and public interest groups  
9 provided comment, leads me to believe the answer is  
10 no.

11                   Three, inasmuch as the Board receives  
12 comments concerning issues beyond the scope of this  
13 proposed rulemaking, such as I will make, when might  
14 the public expect to receive from the Department a  
15 formal comment response document regarding such larger  
16 issues.

17                   And fourth, regarding the document's  
18 section H, Pollution Prevention and the 1990 National  
19 Policy Act, might the Title 25, Section 78.1  
20 definitions include those chemicals recently added by  
21 the U.S. Environmental Protection Agency as  
22 atmospheric air pollutants contributing to greenhouse  
23 gas, GHG, emissions and what steps the Department  
24 requires of gas drillers to eliminate those emissions.

25                   Might it aid transparency if we could see

1 cited the literature from different sources as to how  
2 the Environmental Quality Board came to its  
3 conclusion, for example, that from other regulatory  
4 bodies in other states, provided by the U.S.  
5 Department of the Interior and its Bureau of Land  
6 Management, National Inspection and Enforcement  
7 Strategy Program.

8                   Might each standard also reference  
9 sources from the gas industry, peer reviewed  
10 literature from the community of academic engineers,  
11 the point of view of PEER, P-E-E-R, the Public  
12 Employees for Environmental Responsibility and  
13 environmental watchdog groups such as the Oil and Gas  
14 Accountability Product or Earthworksaction.org, among  
15 others.

16                   In other words, I would ask that the  
17 Board use what we in the environmental community call  
18 the precautionary principle, which is similar to the  
19 Do No Harm ethic. The Board should adopt a  
20 precautionary principle in developing regulations  
21 whereby DEP requires peer-reviewed studies that  
22 demonstrate that the regulations will guarantee a safe  
23 and environmentally protective gas development before  
24 it would adopt the regs or permits drilling.

25                   Mr. John Hangar, the PA DEP Director, if

1 I'm not mistaken, in a comment he made here in  
2 Williamsport earlier this year, said that the  
3 hydraulic fracturing of the Marcellus Shale formation  
4 in the Commonwealth began about five years ago. Now,  
5 five years later, the Board is proposing revised  
6 standards. What's taking so long, or is the  
7 five-year period a speedy one for the bureaucracy? Is  
8 industry moving more quickly and creating potential  
9 hazards in our counties than government's ability to  
10 safely protect the environment from such potential  
11 hazards, if so might a reasonable request of a  
12 moratorium be favorably responded to, so as to allow  
13 the citizenry to play catch-up to temporarily halt  
14 further drilling until we are all satisfied the  
15 highest level of technological safeguards are in  
16 place.

17                   As to the phrase environmental quality,  
18 might the Board explain in layman's language what the  
19 carbon imprint of an extracted economy based on the  
20 expectation of a fossil fuel will be; will anything  
21 you are proposing lessen the carbon footprint that's  
22 the full cycle of the greenhouse gas emissions, GHG,  
23 from high-volume, thick water hydraulic fracturing.

24                   My understanding is that when you add up  
25 the emissions from the combustion of natural gas, one,

1 with two, the GHG emissions from the development and  
2 processing and transportation issues due to the use of  
3 fossil fuels to build pipelines, truck water, drill  
4 walls, make the compounds used in drilling and  
5 fracturing and treat wastes and the loss of carbon  
6 trapped in forests, et cetera. You add one and two,  
7 then with three, the leakage of methane gas in the  
8 transmission process, then the sum total of all  
9 emissions from natural gas use is considerably more  
10 than generally recognized, making it, quote, less  
11 attractive than oil and not significantly better than  
12 coal in terms of the consequences for global warming,  
13 unquote, professor of ecology at Cornell University.

14           A recent paper in the Scientific American  
15 proposes that we could move toward an economy based on  
16 renewable fuels, green energy sources, so-called, if  
17 we would only dedicate ourselves to that goal. So the  
18 question is raised, how does regulation and permitting  
19 of the natural gas industry in Pennsylvania move the  
20 Commonwealth toward reaching its goals or achieving  
21 greater reliance on renewable sources of energy by  
22 2020? The short answer, I suspect, is that it does  
23 not.

24           Yes, I realize that some say that natural  
25 gas is a bridge to such a future, but I wonder where

1 the evidence is that such a bridge to save your  
2 non-carbon-based, renewables is being built. Indeed,  
3 recent advice to investors in the Forbes Magazine this  
4 month is, the advice was to withhold investing in wind  
5 and solar. That was in an article entitled Energy  
6 Under Our Feet about natural gas.

7           My point is that the Board, by giving  
8 positive sanctioning to the Natural Gas Industry to  
9 industrialize our landscape will impede, prevent and  
10 delay the Commonwealth's ability to have a safe,  
11 sustainable future based on energy conservation and  
12 efficiency, along with the use of daily renewables,  
13 such as air, sun and water, and the Board's lack of  
14 proactive endeavors in this regard will tragically  
15 increase our contribution to global warming. Further,  
16 using up the nonrenewable carbon-based fossil fuel of  
17 natural gas is not part of the conservation ethic. Is  
18 extracting and using it as fast as we can just because  
19 we have a new horizontal faction of technology to do  
20 it; is that rational? Won't there be a glut of it in  
21 the marketplace with scant room to store it and thus  
22 result in end users making an excessive or wasteful  
23 use of it and won't suppliers be tempted to liquefy it  
24 and sell it abroad?

25           The quick diminishment of natural gas

1 supplies will not lead us to a policy of energy  
2 security. Only the use of natural renewables will  
3 more quickly move us to be self-sufficient with safer  
4 energy resources, not a reliance on the very difficult  
5 drilling through shale, with all of its attendant  
6 dangers. I urge the Board to address these larger  
7 issues.

8 EXECUTIVE DIRECTOR:

9 Barbara Jarmoska?

10 MS. JARMOSKA:

11 I will provide you with an electronic  
12 copy of this testimony and you can correct its  
13 spellings from that. Good evening. My name is  
14 Barbara Jarmoska. I own and reside on 20 Clean and  
15 Green and un-leased acres of rural land in Gamble  
16 Township. My mailing address is 766 Butternut Grove,  
17 Montoursville. Butternut Grove is a no outlet country  
18 road ending in a recently drilled and hydrofracked gas  
19 well on State forest land atop Jacoby Mountain.

20 I appreciate the opportunity to  
21 participate in the democratic process and appear here  
22 tonight to offer my testimony on proposed changes to  
23 Chapter 78 regulations. I also want to publicly state  
24 my appreciation for the work of DEP staff who, in  
25 spite of severe budget cuts, are attempted to improve

1 oversight and regulations regarding drilling for  
2 natural gas in Pennsylvania's Marcellus Shale.

3           If you want to understand the scope of a  
4 problem as well as the best solution, ask an expert.  
5 Better yet, ask an expert with over two decades of  
6 experience and no vested interest in the outcome.  
7 Regarding proposed changes to Chapter 78 regulations,  
8 those with far more experience than I have had already  
9 read DEP's proposal and made their recommendations. I  
10 am referring to the 49 recommendations provided to DEP  
11 by Harvey Consulting, LLC by Earth Justice on March  
12 1st, 2010 and signed by organizations representing  
13 hundreds of Pennsylvanians and thousands of United  
14 States citizens.

15           I do not have Susan Harvey's  
16 qualifications as a Petroleum and Environmental  
17 Engineer. The best I can do as a concerned citizen of  
18 Pennsylvania is to remind DEP that Pennsylvania's  
19 constitution guarantees my rights to clean air and  
20 water and those rights need to be protected to the  
21 fullest extent of the law. I believe those rights are  
22 currently being threatened by both domestic and  
23 multi-national energy corporations. I believe that  
24 threat is real.

25           I believe the new Chapter 78

1 recommendations of DEP are needed; I also believe  
2 these proposals do not go far enough. I favor each of  
3 the 49 additional proposals set forth by Harvey  
4 Consulting and further recommend that DEP adopt the  
5 Harvey Consulting recommendations as set forth in the  
6 aforementioned document. I would like to take this  
7 opportunity tonight at this hearing to highlight a few  
8 of the recommendations I believe to be most critical.

9           Number one, regarding cement. DEP's  
10 definition for cement sets a 24-hour compressive  
11 strength standard of at least 500 pounds per square  
12 inch. However, other states, such as Texas, have  
13 found that standard insufficient to prevent vertical  
14 migration of fluid and gas behind pipe. Texas  
15 requires operators to have knowledge of the location  
16 and extent of all usable quality water zones and an  
17 additional 72-hour strength standard of at least 1,200  
18 pounds per square inch across critical zones of  
19 cement. The Texas law is a 58 percent increase over  
20 DEP's proposal. I believe the Pennsylvania new  
21 regulation should match or exceed the 72-hour 1,200  
22 psi standard.

23           Number two, regarding water contamination  
24 reporting. Chapter 78 revisions would require a well  
25 operator to notify DEP if a water supply contamination

1 complaint has been received from a landowner, water  
2 surveyor or affected person within ten calendar days.  
3 This ten-day notification period is a travesty, it is  
4 far too long. Notification should be made within 24  
5 hours of initial report. This way, DEP is promptly  
6 notified and can send a technical team to the site to  
7 commence the investigation while the factors that may  
8 have contributed to the complaint are still present.

9           Number three, regarding water remediation  
10 and replacement. Operators should not be permitted to  
11 construct any new or replacement water supply that has  
12 not met the minimum standards of Pennsylvania's Safe  
13 Drinking Water Act, no exceptions.

14           Number four, regarding the testing of  
15 drinking water. Current recommendations for reporting  
16 only require that results of the laboratory analysis  
17 are to be provided. There are no clear instructions  
18 on what test must be reported or what test methods  
19 must be followed. All chemicals commonly used in the  
20 fracking process should be tested for. Water quality  
21 lab reports should include a summary verifying whether  
22 any contamination was found and if found, the report  
23 should clearly describe the amount of contamination  
24 and by what factor it exceeds Pennsylvania's Safe  
25 Drinking Water Act. All reports should be made

1 available to the public and provided to agencies  
2 responsible for drinking and ground water protection.  
3 Additionally, DEP should require a minimum of annual  
4 water quality testing as long as drilling, completion  
5 and well production continue.

6           Number five, regarding the use of blowout  
7 equipment. We need only to look at the Gulf of Mexico  
8 and to recent events in Clearfield County,  
9 Pennsylvania to acknowledge the need for blowout  
10 preventers and the dire consequences of ignoring the  
11 need for such protection. A blowout preventer or BOP  
12 cannot be installed until surface casing is set and  
13 cemented, therefore a gas flow diverter system should  
14 be installed to provide safety during the initial  
15 stages of drilling and setting surface casing. Once  
16 surface casing is set, a BOP can be installed to a  
17 well as it is drilled deeper into high-pressure zones.  
18 The proposed DEP regulations provide no criteria or  
19 standards for what constitutes an acceptable design  
20 for a drilling diverter system. Shallow gas hazards  
21 are well-known in the oil and gas industry to be the  
22 root cause of many well blowouts and explosions. Many  
23 of these situations could have been prevented by a  
24 more rigorous diverter system design. I recommend  
25 that DEP improve the safety device regulations to

1 include diverter system specifications.

2           Industry standard practice is to design,  
3 site and install a blowout preventer to handle maximum  
4 expected well head pressures during the drilling  
5 process. Currently in Pennsylvania, operators can  
6 obtain a drilling permit without installing a blowout  
7 preventer. Simply stated, a BOP should be required on  
8 every well drilled. Current regulations also do not  
9 require BOP devices on the drilling rig itself. This  
10 change should be included in the new regulations,  
11 again, with no exceptions.

12           Number six, regarding air pollution from  
13 venting and flaring of gas wells. New DEP proposed  
14 regulations require operators to ensure that excess  
15 gas encountered during drilling, completion or  
16 stimulation be flared, captured or diverted away from  
17 the drilling rig in a manner that does not create a  
18 public health hazard. I certainly agree. I also  
19 believe this proposal does not go far enough. There  
20 should be a mandate that operators select the most  
21 environmentally preferable, lowest impact method  
22 available. This includes the installation of devices  
23 designed to reduce methane, VOC and other toxic  
24 emissions into the air. Technology is available to  
25 require this and capturing gas, rather than flaring it

1 off into the atmosphere, could actually make this a  
2 profitable regulation for the industry. However, it  
3 is an extra step and if not required to do so, the gas  
4 companies have not thus far volunteered to follow this  
5 best management practice. It is my hope to see this  
6 technology employed as a requirement in the new  
7 Chapter 78 regulations.

8                   Once again, I would like to remind the  
9 EQB that I am in favor of each of the 49  
10 recommendations set forth in the Harvey Consulting  
11 document of March 1st, 2010. The six recommendations  
12 I have outlined this evening are those I feel are  
13 needed most urgently. That would narrow our window of  
14 opportunity to improve the odds that drilling for  
15 natural gas in the Marcellus Shale does not  
16 permanently and irrevocably diminish or destroy the  
17 way of life we have come to appreciate in  
18 Pennsylvania's endless mountains and rural  
19 communities. These new proposed regulations already  
20 come too late for the folks elsewhere. I urge the  
21 Board to implement all best management practices  
22 designed to guarantee to the fullest extent of the law  
23 the health and safety of Pennsylvania residents and  
24 the guarantee of clean air and water that's set forth  
25 in our State constitution. I urge the EQB to expedite

1 the regulatory process and once again, thank you for  
2 the opportunity to be heard.

3 EXECUTIVE DIRECTOR:

4 Thank you very much. Our next witness is  
5 Ralph Kisberg. He's followed by Carmalene Churba and  
6 Rich Adams. Is Mr. Kisberg available?

7 MR. KISBERG:

8 Thank you. My name's Ralph Kisberg. I  
9 reside at 1736 Almond Street in Williamsport and I  
10 also own property in Forks Township in Sullivan  
11 County. I'm going to follow up on what Barb was  
12 reading from. She and I both got a lot of information  
13 from the Harvey Petroleum recommendations, and you  
14 know, obviously I'm not an engineer; I don't have a  
15 technical background, but I do believe that citizens  
16 need to get involved in even these very difficult and  
17 technical situations. So my basis of going through  
18 the Harvey\* recommendations is some things that seemed  
19 to me to just be common sense that I would expect to  
20 be in the regulations and am surprised that they have  
21 not been in them and I believe that they should be  
22 included.

23 So the first point is that consistent  
24 with --- this is directly from the Harvey  
25 recommendations, consistent with the recommendations

1 of industry's trade groups operating in Pennsylvania,  
2 DEP regulations should require the use of surface  
3 casing and intermediate casing in areas where fresh  
4 water resource protection is of critical importance.  
5 So even industry agrees on this.

6           The second point, the cement ticket  
7 definition should be expanded to include A, a  
8 requirement for the operator to test the mixing water,  
9 pH and temperature and note it on the cement ticket.  
10 This is standard industry practice and aids in  
11 determining cement quality. B, a record on the  
12 waiting of cement time, the WOC, which is the time  
13 required to achieve the calculated compressive  
14 strength standard before casing is disturbed in any  
15 way. And C, a certification statement that requires  
16 the operator to certify under penalty of law that the  
17 cement job was completed in compliance with  
18 Pennsylvania regulatory requirements.

19           Under specific statutes, revise 78.55 to  
20 require well operators to submit a copy of their  
21 control and disposal plan for DEP review and approve  
22 prior to commencing operations to ensure compliance  
23 with the Pennsylvania environmental protection  
24 standards. Amend 78.71A to clearly state that  
25 sufficient casing and cement must be installed in the

1 well to prevent contamination of ground water  
2 resources in addition to the other purposes listed in  
3 that statute. Three, DEP regulations at 78.72D and E  
4 should be revised to clearly state that drilling  
5 operations must cease if a BOP fails a test. The  
6 blowout preventer must be repaired or replaced and  
7 successfully retested prior to resuming drilling.  
8 Obviously this, you know, you would think that that  
9 would happen anyway, but we certainly should have  
10 regulations on things like that.

11           The DEP regulation 78.82 should include  
12 specific instructions on how an operator should  
13 install conductor pipe to prevent infiltration of  
14 surface water or fluids from the operation into ground  
15 water. DEP should specify that the conductor pipe be  
16 cemented from top to bottom and firmly affixed in a  
17 central location in the well board with a continuous,  
18 equally thick layer of cement around the pipe. A  
19 mechanical or cement seal should be installed at the  
20 surface to prevent the downward migration of surface  
21 pollutants. Drilling fluids should be limited to air,  
22 fresh water, well water-based mud and exclude  
23 oil-based muds or use of other chemical lubricants.

24           DEP regulation 78.83C should be revised  
25 to increase the surface casing setting depth to 100

1 feet below the deepest fresh water zone and at least  
2 100 feet into bedrock. Correspondingly, DEP's  
3 proposed regulation at 78.83F needs to be adjusted to  
4 increase the 50-foot criteria into 100 feet.

5                   The following language should be added to  
6 DEP regulation at 78.83F. Surface casing must be  
7 cemented from top to bottom and firmly affixed in a  
8 central location in the well board with a continuous,  
9 equally thick layer of cement around the pipe. Cement  
10 must be placed behind surface casing, by the pump and  
11 plug or displacement method and sufficient amount of  
12 cement, at least 25 percent excess, must be used to  
13 ensure a protective cement bond is achieved from the  
14 bottom of the casing to the top of the hole. If the  
15 excess cement does not return at the surface, the  
16 operator must take steps to remedy the failed cement  
17 job, including pumping cement down the annulets from  
18 the surface to fill any void spaces. A cement bond  
19 log must be run to verify cement integrity prior to  
20 proceeding further in the well board. If the cement  
21 bond log does not verify placement of a continuous,  
22 solid layer of cement behind the surface casing from  
23 the bottom of the casing to the top of the hole, an  
24 additional string of casing must be set pursuant to  
25 78.83BA1.

1 Now, you know, this gets pretty technical  
2 and I don't pretend to know exactly what it means, but  
3 it seems to make common sense. There is a tool the  
4 industry employees called a gyroscopic survey which is  
5 a directional survey, it's a navigational tool for the  
6 well board that takes images every 100 feet down the  
7 hole and also takes temperature readings, temperature  
8 logs, for the cement about six hours after it has been  
9 poured and these readings show that there is cement  
10 behind the casing. If it's well-cemented, after six  
11 hours, it should read about 80 degrees and if it's  
12 water, it'll read about 65 degrees. So I think that  
13 this --- I don't know exactly, I haven't seen a  
14 gyroscopic survey mentioned in the requirements, the  
15 legislation, specifically, but it is a device that's  
16 available; it is mandatory in Texas, I've been told.  
17 And you know it's not uncommon for water to wash out  
18 the cement in certain places. Certainly some of the  
19 requirements that those Harvey recommendations include  
20 double cement and double casing and the other  
21 companies are doing this and this would make sense  
22 because if these things are happening, it would be  
23 pretty easy for water to migrate. Perhaps --- and I'm  
24 just speculating here, I'm not a scientist --- I don't  
25 know, but we're seeing a lot of methane migrating, but

1 pollutants, a lot of them are going to sink. So they  
2 will not show up necessarily in the water for a long  
3 time, but the methane is showing up in a lot of  
4 places.

5 To continue, revise 78.83A, A, to require  
6 the operator to prepare and submit a casing and  
7 cementing plan for DEP to review for review and  
8 approval as part of the well permit application. It  
9 apparently is not currently. DEP should review and  
10 approve a complete well drilling and completion plan  
11 application including a casing and cementing plan as  
12 part of the well permitting process so that  
13 appropriate permit stipulations may be placed in the  
14 permit. And expand 78.83A, A3 to include information  
15 on the casing's collapse, resistance and tensile  
16 strength. Also require information on casing age,  
17 condition, location of prior use and prior service  
18 history. So there are others, but in the interest of  
19 time, the last point in the Harvey recommendations is  
20 that the DEP should provide information on how it  
21 plans to expand and enhance its current inspection and  
22 enforcement program to ensure regulatory compliance.

23 My interest in this besides living here  
24 and having to have my property threatened by it is  
25 that I did work in the oil patch, as it's called, as a

1 laborer as a young man and I saw what goes on out  
2 there. Every well drilled, every pad, every project  
3 has somebody in charge who's got to make quick  
4 decisions at times under a lot of pressure when things  
5 are starting to go wrong. And I saw it in the Gulf  
6 years ago and we have evidence it still goes on there.  
7 Somebody makes a bad decision, pieces of rubber came  
8 up out of the hole on the deep water horizon, somebody  
9 reported it, tried to get the well stopped, but it's  
10 probably too much money to stop it, so now it's in the  
11 tens of billions instead of in the tens of millions.

12                   So the point here is that there are  
13 people graduating from college with environmental  
14 science majors who need jobs and I think we need  
15 people on-site. We can't just trust the companies who  
16 are well-meaning, but they aren't always there.  
17 Somebody's there that's got to, you know, see what's  
18 going on from our --- to protect the public. So think  
19 about creating some jobs for these kids coming out of  
20 college, put them on-site and let them make sure that  
21 what goes on is up to snuff. Thank you.

22                   EXECUTIVE DIRECTOR:

23                   Thank you. Carmalene Churba?

24                   MS. CHURBA:

25                   Hi, I'm Carmalene Churba, 2820 Lincoln

1 Drive, Montoursville, 17754. I'm a mother of four and  
2 I'm concerned --- I have concerns over the water ---  
3 over water contamination due to the drilling in our  
4 county and surrounding counties. I'm all for economic  
5 growth, but I feel that legislators need to clarify  
6 the language of the statutes that govern drilling.  
7 I've come to this conclusion after doing my own  
8 research and reading an excellent Earth Justice report  
9 by Susan Harvey, a woman with 23 years experience as a  
10 Petroleum and Environment Engineer. I'm in agreement  
11 with the recommendations Ms. Harvey set forth in the  
12 report and her recommendations do not seem  
13 unreasonable in any way or form and should have been  
14 in place from the beginning. The DEP and the EPA  
15 Environmental Quality Board need to take measures that  
16 will minimize contamination from oil and gas  
17 development in Pennsylvania.

18           Having access to clean water affects  
19 everyone. We need clean water to live. If we don't  
20 have access to clean water, it won't make any  
21 difference how much money has been made from the oil  
22 and gas industry. We can't live without clean water.  
23 Unfortunately, contaminated water and air has been a  
24 side effect of the drilling in parts of Colorado, New  
25 Mexico, Texas and even parts of Pennsylvania, just to

1 name a few. Residents and legislators of Pennsylvania  
2 need to make sure that the drilling is done  
3 responsibly.

4 I was able to come across this report and  
5 comment period just today due to my interest in what's  
6 happening in this area. I don't feel that enough  
7 information is given to the public for them to make  
8 their own decisions on what is going on in regards to  
9 drilling. I feel there should be more substantial  
10 public comment period, as well as additional public  
11 hearings, on the proposed Chapter 78 Regulations.  
12 Thank you.

13 EXECUTIVE DIRECTOR:

14 Thank you very much. Rich Adams,  
15 followed by Ross Cowles and Brian Smith. Mr. Adams?

16 MR. ADAMS:

17 My name is Rich Adams. I am a Senior  
18 Regulatory Advisor for Chief Oil and Gas. Our local  
19 office is at 700 Fairfield Road, Montoursville. I  
20 have a prepared statement.

21 Thank you for the opportunity to speak on  
22 some important regulatory issues concerning the  
23 Marcellus Shale development, specifically the proposed  
24 revisions to Chapter 78 rules and regulations.

25 Chief Oil and Gas is one of the few

1 privately held companies operating in the Marcellus  
2 Shale. We drilled our first Marcellus well in 2007  
3 actually right here in Lycoming County. We have more  
4 than 650 acres leased throughout Pennsylvania for  
5 exploration of the Marcellus. We have six drilling  
6 rigs running, two are currently active right now in  
7 Lycoming County, and we've drilled over 80 Marcellus  
8 Shale wells, most of them horizontal wells.

9           Having been a pioneer in shale drilling  
10 in the 1990s, Chief understands the early issues that  
11 come with the discovery of a new development field and  
12 we are committed to working with the Commonwealth, the  
13 local authorities and all the regulatory agencies to  
14 develop a working environment in Pennsylvania that  
15 will allow the development of this tremendous natural  
16 gas resource. Since entering the Marcellus in 2007,  
17 Chief has done just that --- we've worked closely with  
18 local and state governments, regulatory agencies and  
19 community leaders to develop the framework for  
20 operating efficiently and effectively to develop the  
21 natural gas resource while at the same time, and most  
22 importantly, protecting the environment and all the  
23 natural resources.

24           We also recognized early on that the  
25 regulatory and legislative framework in Pennsylvania

1 needed modernization in order for the Marcellus gas  
2 field to be developed successfully. This message has  
3 been consistently communicated by Chief as well as the  
4 Marcellus Shale Coalition. We have worked together  
5 with DEP as Chief and as part of the Marcellus Shale  
6 Coalition on these new regulations.

7 Chief is in agreement with proposed  
8 rulemaking and recommendation by the EQB to update the  
9 existing regulations for drilling, casing, cementing,  
10 testing and monitoring. Not only is Chief in support  
11 for the proposed rulemaking, but the increased and  
12 more stringent standards in the proposed rulemaking  
13 are already in practice in our daily operations.

14 To close, Chief, along with the many  
15 companies that have come to Pennsylvania to explore  
16 and develop the Marcellus Shale, is committed to be  
17 here, excited to be here. We know that this is a  
18 tremendous opportunity for the Commonwealth and we  
19 know that we can develop this new gas field in a  
20 responsible and environmentally friendly manner that  
21 will benefit everyone. Thank you.

22 EXECUTIVE DIRECTOR:

23 Ross Cowles?

24 MR. COWLES:

25 My name is Ross Cowles. I'm here

1 representing the Lycoming Creek Watershed Association.  
2 My address is P.O. Box 4144, Williamsport, 17701. A  
3 couple things about the Lycoming Creek Watershed  
4 Association is we've had the good fortune to be the  
5 first watershed in our area to have a gas well leak in  
6 our watershed. That was a test well drilled into  
7 sandstone, not the Marcellus, and that well failure we  
8 were told was caused by a threaded pipe failure in the  
9 casing. The current regulation only requires for  
10 testing welded and used pipe. It doesn't require  
11 pressure testing of any threaded pipe. From our  
12 prospective, with the few number of wells that we have  
13 in existence now compared to what will happen in the  
14 future, we see a need that all casing is tested for  
15 pressure, pressure-tested, not just welded and used.

16 Another point in the regulation that we  
17 take issue with is the restoration of the water supply  
18 that's been contaminated. We feel that if your water  
19 pre-contamination exceeded the Safe Drinking Water Act  
20 standards, then that's what you should get in the end.  
21 If that's what you had, then that's what you should  
22 get, that you should be restored to a  
23 pre-contamination condition.

24 Kind of an overall statement that the  
25 Watershed Association would like to make is that we

1 feel that the regulations are the lowest common  
2 denominator. They create the regulatory framework  
3 that's the baseline for a competitive environment.  
4 It's the bottom level of operations that anybody in  
5 this business can use to be the most efficient and  
6 spend the least amount of money. So this is the  
7 lowest standard. There are companies out there that  
8 we feel already exceed some of those standards, but we  
9 think that that's important to note.

10           You know, among a few of the other things  
11 that had happened in our watershed, there have been a  
12 few ironies for me. On Monday night, we were told  
13 that there is a State Police criminal investigation  
14 for frack water dumping in Rembranch (phonetic) and  
15 we've also had a dumping of drilling mud next to the  
16 deer crossing end. I think that, for the most part,  
17 the people who are in this industry want to see things  
18 done right, but obviously there are bad actors out  
19 there and that speaks to the point about the  
20 enforcement of regulation. The regulations are fine,  
21 but if there's nobody there to enforce them, who  
22 cares? That's a very important statement for us.

23           And the last thing I would just like to  
24 point out is that ironically, T. Boone Pickens  
25 happened to be on Larry King Live on Monday night and

1 he mentioned that the cause of the failure in the Gulf  
2 was no cement log. The rest of my comments will be  
3 submitted electronically in writing. Thank you.

4 EXECUTIVE DIRECTOR:

5 Thank you very much. Our next speaker is  
6 a Ryan Smith and that's to be followed by, and I  
7 apologize if I, again, mispronounce anyone's name,  
8 Shahin Shabanian and I believe Jamie Richards, I hope  
9 I'm in the ballpark on that. Is Mr. Smith available?  
10 Okay. Is Shahin Shabanian available?

11 MR. SHABANIAN:

12 I'm here, but not to submit anything.

13 EXECUTIVE DIRECTOR:

14 Would you like to come forward to speak?  
15 It's not required; I'm just trying to recognize folks  
16 who would like to come forward.

17 MR. SHABANIAN:

18 I don't know who submitted my name,  
19 but ---.

20 EXECUTIVE DIRECTOR:

21 I have a sign in for folks who wanted to  
22 testify.

23 MR. SHABANIAN:

24 Oh, I did sign, but I thought that was  
25 just a ---.

1                   EXECUTIVE DIRECTOR:

2                   I'll leave it to you.

3                   MR. SHABANIAN:

4                   All right. Well, I'll say something.  
5 Not necessarily with regard to ---.

6                   EXECUTIVE DIRECTOR:

7                   If you could just state your name and  
8 your address to help with the record ---?

9                   MR. SHABANIAN:

10                  My name is Shahin Shabanian. I reside at  
11 1111 Elmira Street. I apologize for that mistake, as  
12 my name came up. I just want to go ahead and recall  
13 experience that I have from Louisiana. I lived in  
14 Louisiana for 18 years; I was a faculty member at LSU  
15 Unit. So I want to caution the citizens and the folks  
16 of Pennsylvania about what I saw during those 18  
17 years. Driving to the east and west toward Texas and  
18 Mississippi, when you get to the area called Lake  
19 Charles, that area is marked by Don't Fish, Don't  
20 Swim. Louisiana much coastline has, you cannot use it  
21 for swimming. You have to go to Texas or you have to  
22 go to Mississippi. That is because of the lack of  
23 regulation. That's how petro chemical companies use  
24 the environment and abuse the environment. So I'm all  
25 for development; I'm all for job creation, but there

1 is something to say about the regulation and  
2 enforcement of the regulation.

3           And I'll just go ahead and finish with  
4 this little public information announcement that was  
5 on TV in 1980s showing an American indigenous person  
6 riding on a horse, looking at the environment and a  
7 tear coming down his cheek. Hopefully, we'll try to  
8 make sure that not also do we create energy, and by  
9 the way, I teach energy in college, but we also make  
10 sure that environment is protected. Thank you. Sorry  
11 for my mistake.

12                   EXECUTIVE DIRECTOR:

13           Not a mistake. Thank you very much, sir.  
14 Let me, because I've got two or three more names and  
15 who knows if they signed in to testify or signed in  
16 for parking validation --- let me do this. I will  
17 open it up to folks who would like to come forward and  
18 offer any remarks at this time. Just give me a show  
19 of hands and I'd be happy to call upon you. Okay.  
20 One last chance here --- no? Okay. I am going to  
21 then --- that brings us to the conclusion of our  
22 formal hearing.

23                   UNIDENTIFIED SPEAKER:

24           I'm sorry, 14 signed in.

25                   EXECUTIVE DIRECTOR:

1           Yes and I'll explain that very quickly.  
2 I think two folks that had preregistered also signed  
3 in here and then a few folks understandably signed  
4 here thinking it was an attendance sheet and I  
5 certainly understand that and apologize for that. So  
6 I believe I have called upon everybody who has  
7 preregistered who is here and I am opening it up to  
8 the floor for anybody who would like to step forward  
9 and offer any comment. Okay. Seeing none, I will  
10 recess this hearing. Right before I do that, let me  
11 remind you that comments may be submitted until August  
12 9th. They can be e-mailed and I'll give you that  
13 e-mail address again. It is regcomments@state.pa.us,  
14 R-E-G-C-O-M-M-E-N-T-S @state.pa.us, just like you see  
15 on the back of the license plate, the older license  
16 plates. With that, I will recess this hearing of the  
17 Environmental Quality Board at 7:50 and thank you very  
18 much for taking the time out of your schedules to come  
19 out this evening. Have a good evening.

20

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HEARING CONCLUDED AT 7:50 P.M.

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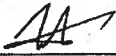
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CERTIFICATE

I hereby certify that the foregoing proceedings, hearing held before Executive Director Henderson, was reported by me on 07/21/2010 and that I Xi Xia read this transcript and that I attest that this transcript is a true and accurate record of the proceeding.



\_\_\_\_\_  
Court Reporter