ILLINOIS DEPARTMENT OF NATURAL RESOURCES

UNIVERSITY OF CHICAGO

STUDENT CENTER EAST

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TRANSCRIPT of PROCEEDINGS held before MR. ROBERT WELCH, Hearing Officer, taken in the above-entitled cause before GWENDOLYN BEDFORD, a Certified Shorthand Reporter within and for the County of Cook, State of Illinois, at the University of Chicago Campus, Student Center East, on Halsted and Taylor Street, Chicago, Illinois held on the 26th day of November 2013 at the hour of 6:30 p.m. pursuant to notice.

PRESENT STAFF:

MR. JIM STEPHENS

Mr. ROBERT MOOL

MR. MITCHELL COLON

MR. BRENDON DAILEY

MR. NICK SAN DIEGO

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Dept. of Natural Resources
OFFICE OF LEGAL COUNSEL

ORIGINAL

MR. WELCH: Hello, is this thing working? Okay. Everybody have a seat and we can get started, please. I'm not starting until you sit down. Okay.

Good evening ladies and gentlemen, before I think of anything else, if you have your cell phones on would you turn them to mute, please. I better do mine too.

My name is Bob Welch, W-E-L-C-H. I am the Hearing Officer by contract with the Department of Natural Resources. I am going to act as the moderator. I'll be calling the, names and telling people where to stand and all that kind of stuff.

As you know, we are meeting tonight with regard to the proposed Administrative Rules relating to the Hydraulic Fracturing Regulatory Act. These rules will been proposed. They are not the final rules. And the reason we're going to be here tonight and we are going to be in four other towns in the State of Illinois all the way to Carbondale and Decatur and Iona, Illinois doing the same thing we're doing here. Before we get to the purpose of the hearing, I want to introduce the people who are up here sitting beside me. On the far right is Nick San Diego. He is an attorney with the IDNR's office of Legal Counsel. Beside me is

Brendon Dailey and he is the IDNR Legislative Counsel. Next is Mitch Colon. He is the Director of the office of Oil and Gas Resources Management. Next to Mitch is Robert Mool, who is also an attorney with the Legal Counsel's office. And finally, Jim Stephens on the far left is a Well Inspector with the Office of Oil and Gas Resource Management. Thank you.

Now as the purpose of why we are here tonight, is you are all aware this past summer the General Assembly and the Governor signed the Hydraulic Fracturing Regulatory Act. It applies to all wells or only high volume hydraulic fracturing operations will occur in Illinois. This Act gave to IDNR the primary authority to administer and enforce the provisions of the Act.

The Act further requires the Department to adopt rules as necessary to accomplish the purposes of this Act. And again that is why we're here. We're talking about those rules. The draft rules that have been proposed and hopefully we will get some help from you people as to the final draft.

The administrative rule making process is designed to allow interested parties to have an opportunity to actively participate in the rule making

process through public comments which many diverse opinions may be heard are strongly supported by IDNR in the spirit of openness and transparency.

The purpose of this public hearing is to allow members to express their views and comments related to the proposed Hydraulic Fracturing Administrative Rules which had been drafted in response to The Act.

Now, many of them may be opposed to the idea of hydraulic fracturing and I kind of got a hint of that when I came in.

(APPLAUSE)

MR. WELCH: However, that train has left the station.

(HISSES AND BOOS)

MR. WELCH: I repeat, the General Assembly and the Governor signed the legislation.

UNIDENTIFIED FEMALE: It can be undone.

MR. WELCH: Not here, Ma'am. We're going to make some rules here right now. Well, it is up to you people. You have got two hours. If you want to do it by yelling at me, you can use up your two hours that way. If you want to add to the process making valid comments and recommendations, we want to hear that.

You can hold up the signs and do all that. But that is not going to accomplish a whole lot. If you want to help draft the rules, I suggest you be a little more positive. You through me off. Where was I?

Your input will assist IDNR in adopting rules that will assure that the process is done in a manner that is environmentally sound and consistent with the law. These gentlemen up here beside me are here to listen to your comments and to make notes in regards to your comments. Also we have a Court Reporter, who is trying to take down everything that we say. When you come up here and talk, we'd appreciate it if you would not only tell us what your name is and spell your last name so that we'll have a good record of that. I know from experience that Court Reporters get very upset if they can't spell the names right and it is not their fault.

The gentleman are here because they are interested in hearing from you. Due to the time limitations, because all these people want to talk, we only got two hours. They are not going to respond and they are not going -- they are not here to talk to you. They are here to listen to you. This is not a question and answer. This is a public comment hearing and we

want to hear your comments.

Throughout the public comment period, IDNR is going to accept and make changes to the proposed rules before filing for Second Notice. IDNR fully anticipates and expects changes to be made as part of the process. In other words, on the internet right now are drafts we're proposing. So don't get wound up about that, because they can be changed. They can all be changed. That is why we are here to hear what changes you think are necessary.

So this will be a very positive hearing, if you all take part in that spirit. As far as the format is concerned, we're going to be shuffling people around. Everybody filled out a card and wanted to speak, I can see how many there are. I don't know if I would get to all of them. But you are going to get four minutes. And we are going to ask you to not to use of more than four minutes because you are using up time that belongs to everybody else.

Now, Brendon has shuffled these. I think the card shark that he is, and we'll be picking those names in the order that they are sitting right now. What we're going to do is -- I'm trying to read my notes here. Have you come up here and after you finish

your statement, if you have got a written version of your statement, give it to Brendon and he has a box. These will be reviewed at a later date.

Now, as far as the logistics is concerned, stick with me now, okay. I'm going to call -- once we get started, I'm going to call four names and we're going to have two stand here and we might have to move that mic over so they don't step on this lady's toes and two here. And then when these two people talk in the front, we're going to call two more names and they will come in behind those people. So we always have someone on deck as it were so that there is no waiting for somebody to trip over somebody. We'll have somebody ready to go. That is what we're going to do. I think we're okay, Ma'am. After the first person falls down, we'll know what to do.

Now, when it's your turn to speak, please introduce yourself by your name and obviously and the city where you come from. Where you live would be better phrased. If you belong to an organization and you wanted to include that, let us know. That is fine. If your comment relates to a specific rule or section of the proposed Administrative Rules and you know the rule or Section Number, it would be helpful to

let us know what rule and Section Number you are talking about. Otherwise, go ahead with your comment. If you have a written statement and you want to read that, that is fine too.

Now, the reason I got Brendon sitting besides me is because we're going to stick to the four-minute limitation. And like I said, if you go beyond that, you're taking time away from somebody else. We want to get as many up here to comment as possible. When you are past the three-minute mark, he is going to do that. He is going to hold up a little sign and say you got one minute left. When he gets to 30 seconds, I'm suppose to make some kind of verbal comment. I'll do something to say 30 seconds.

UNIDENTIFIED FEMALE: Thirty seconds.

MR. WELCH: Now remember, the sole purpose of this hearing is to hear comments and the suggestions from the public in regards to the proposed administrative regulations. It is not a question and answer session. It is not about whether fracking is good or bad. It is about helping IDNR to make these rules better. Okay. That's the purpose here. Anything that is not addressed to that is not going to be helpful. It is not going to help us achieve the

goal what we are here for tonight. Please address your statements or comments to the proposed administrative Regulation. Okay.

Now, we're going to call some names. As a courtesy allow the Attorney General or the Attorney General Representative wants to make a comment also. So we're going to have this gentleman come up and I am going to call three more names so there won't be any hesitation. We're going to call Jessica Bryant. Jessica, you'll stand behind this gentleman here and then Jill Paulus, and Miss Paulus will stand here. You have a designated speaker? Dr. Laura Chamberlain. Dr. Chamberlain. This the other microphone. All right. Tell us your name and your organization, please.

MR. GIGNAC: Good evening. My name is James Gignac, G-I-G-N-A-C. I serve as the Environmental and Energy Counsel to the Illinois Attorney General, Lisa Madigan. The Attorney General has longstanding and significant concerns about large scale hydraulic fracturing and it's potential impacts on the people of our state. So she worked alongside the Illinois Environmental Council, the Natural Resource Defense Council, the Environmental Law and Policy Center, the

Sierra Club and other advocates to pass the strongest bill possible.

Attorney General Madigan fought to ensure that Illinois developed a rigorous set of environments to govern high volume fracking. These requirements were needed because prior to the Hydraulic Fracturing Act being passed, there were no regulations to the practice in Illinois. Now that the Department of Natural Resources is developing regulations to implement the Act which is a necessary and important step and the subject of this evening's hearing.

The Attorney General believes that the Department has put forth many helpful clarifications and useful details in the proposed rulemaking. However, there are numerous areas in need of revisions to ensure that the proposed regulations properly reflect the language and intent of the Act.

Our office will discuss our concerns in detail in the form of written comments, which we'll submit by January 3rd. For purposes of tonight's hearing, I would like to highlight a portion of those concerns.

First, the Act contains an important tool for citizens, municipalities and enforcement

agencies to use in the event of water contamination. Referred to as a "rebuttable presumption" Section 1-85 of the Act, places the burden on the fracking operator to establish that water pollution to nearby wells is not caused by its activities. Proposed regulations, however, attempt to add limitations on rebuttable presumption of water pollution that do not appear in the Act. Such as the types of water quality data and testing parameters that may be used. The Department should not restrict the ability of citizens to obtain belief if their water wells are contaminated.

Second, the key part of the Act prohibits the use of open pits to store fracking wastewater. In event of unanticipated flowback conditions, the Act does allow the use of properly constructed line reserve pits to capture flowback, but only on a temporary basis.

Section 1-75 (c) of the Act requires that any flowback captured in the pits must be removed from the site within seven days. The proposed regulations are inconsistent with the Act in that they would allow the seven-day time period removal to begin when the hydraulic fracking operations are completed instead of seven days from when flowback is captured in

the pits. This must be corrected.

Third, the Act contains an important provision of disclosure of trade secret protected chemical information to help professionals for the purposes of medical treatment. The proposed regulations must be changed in the event of an emergency, medical personnel, one essential point of contact available 24 hours a day, seven days a week from which to obtain information for a patient opposed to the trade secret protected chemical.

Fourth, we urge the Department to hold public hearings on permits in the county where the proposed well will be located and to ensure that citizens who may be adverse would have a full and fair opportunity to participate in the hearings.

The proposed rules unnecessarily and unfairly place the burden of proof upon citizens to establish the validity of their concerns in the hearing process. That should be removed. The Act clearly states that it is ultimately up to the permit applicant to demonstrate to the Department's satisfaction that it's proposed operations will comply with the law and protect public, health and safety.

We look forward to providing input on

these and other topics where more work is needed including, but not limited to, the currently low levels of administrative fines, the conversion factor, nitrogen foam and the lack of retroactivity in the requirements in our forthcoming written comments. Thank you.

(APPLAUSE).

MS. BRYANT: Hello, my name is Jessica Bryant, B-R-Y-A-N-T. In case you couldn't tell, I'm here with Green Peas. I actually hadn't planned on talking, but the lovely redhead in the back convinced me to do that. And that meant I was called first, because that is how the world works. Before I make my comment, I would like to request that there are additional hearings. I'm glad that there was a hearing today and that is great. I'm glad that happened. But eleven days is not enough for people to prepare for this sort of thing. I can only assume that eleven days were given because people hoped that no one would show up. So that is frustrating. I hope that there are more, especially considering it is a day and a half before Thanksgiving and people are, you know, planning their family get-togethers. And I would love it if there was one in Bloomington. It is a huge population.

I am sure it would also love to be represented on this issue. So you should do that.

Second of all, I'm pretty sure that although not everyone in this room can agree that fracking altogether is a bad thing, I'm sure that everyone in this room can agree that cancer is bad.

(Applause).

MS. BRYANT: No one likes cancer. And there are over 350 chemicals that are used in the fracking process. Some of which are really scary, like Benzene. Benzene is a known carcinogen. It is listed as a hazardous contaminant in the Safe Drinking Water Act. In case anyone in here that doesn't know, carcinogen means that it causes cancer.

It is also lead. It is not a coincident that you see billboards on the side of the road that says "Don't let your kids eat lead paint chips". They have a program to remove lead from your home. Why are we using it to pump water into the ground?

Formaldehyde another carcinogen. It causes lung damage. Reproductive problems for women over long-term exposure. It is also a carcinogen. Why on earth are we allowing this stuff, this contaminated water with known carcinogens in it to be an open air

container, open air pools, instead of a closed container. That's crazy. Everyone knows if it rains, that is going to spill out. Also it can just leak into the groundwater. Why would we want to drink this stuff? I'm not up here for me. I'm up here for the kids I might have one day. Long-term exposure to this would kill us. What are we doing? It is crazy.

There are one million fracking wells nationwide, one million. Industry itself has admitted that at least 5 percent of those wells have failed. In case you are not good at math, that is 50,000 wells. 50,000 wells. That is 1,000 for every single state. What are the chances that you live really close to one of those wells? They are really, really high. That's crazy. That means that if the cement casing cracks, because of the high pressure from the water that is being pumped into the ground, that means that that water in large portions is being pumped into the water that you drink everyday. That you drink everyday. That you drink everyday.

I know that we need natural gas, I understand. I have a gas burner in my house. I know we need it. But we need to do it in the safest way possible so that we are not killing ourselves. It just

seems crazy. If I had the choice between doing something that might harm me and doing something that might not, I'm not stupid. I would do the thing that I know is not going to hurt me. Thank you.

(Applause).

MR. WELCH: We're going to call two more names so that we have people lined up. You two confused me. I don't know who is who. We're going to call Linda -- it's Dr. Linda, I guess. And Marla Shuman. Put her back in the deck.

UNIDENTIFIED FEMALE: She is coming.

MR. WELCH: Ma'am, what is your name?

MS. WALLACE: My name is Jill Wallace. I'm a member of the Lead Group, the wild ones which is for wild plants. And that is also impacted by natural gas. Plants are dying. Where they find natural gas leaks are by trees dying. So I'm coming here with a broad perspective. I also feel that, yeah, this wasn't the most convenient day right before Thanksgiving. But it is the type of gratitude. I do feel very grateful for the life I have, and I use natural gas. I'm thinking there has to be a better way. Rather than squeezing out the last drops, we know that we have got the easy gas. This Shell gas is so far down in the earth that

we need to process sand from Ottawa to keep the ground open. Yes, sir, I'm against fracking. And I do believe that the young people are focusing on the right thing. They are focusing on new soil, new community and less materialism. This can be done. And we can focus -- instead of spending our money on the huge cost of fracking, we could be focusing on wind solar, geothermal, using the system and supporting the system which is dying. And it is death. So you've got this system of green light, red light. I have a paper on it for you and I'm sure you are familiar. This is apparently kind of the nationwide idea of green light, red light which you do have in your rules. So to begin with -- excuse me.

MR. WELCH: Take your time.

MS. WALLACE: I had been down to the -- with Dr. Laura in August and we suggested don't frack where there is already rolling earthquakes. But we're going to frack there and we are not going to worry about the green light until we get to the yellow light. We might slow down if we hit a five, which is even not the standard of the nationwide industry in the report that I'm going to give you. Illinois is becoming a poster child on risks. And one of the risks -- and what I'm

talking about and there is many more, are earthquakes. So we're going to yellow light to five. And then when we hit five, we're going to stop for three to six miles. Around the center of the quake. And we're going to figure out, according to your rules, how we can make the flow of the injection fluid, because we are talking about the injection wells, safe. We're going to control earthquakes. Well, that is humorous. That comes to my mind. Your penalties are minimal. $50 for a first infraction. And somewhere I saw $2,000 for a cause to a life. That is not enough.

(Hisses and Boos)

DR. CHAMBERLAIN: My name is Dr. Laura Chamberlain and I am going to hit the official statement of fracking which is a large coalition of community groups.

MR. WELCH: Are we missing somebody?

DR. CHAMBERLAIN: You put me over here. So anyway, I'm Dr. Laura Chamberlain. I was told that members of the JCAR, Joint Committee on Administrative Rules, was going to be here, one of the staffers. Are they here?

UNIDENTIFIED FEMALE: Probably Thanksgiving with their family.

DR. CHAMBERLAIN: Exactly. If you could give a copy to the JCAR members, I would really appreciate it. Thank you very much No. I have a comment. Exactly. We have three basic issues that we wanted to comment on. There is literally hundreds of holes in the rules. And we will be continuing the comments on them. But the chemical disclosure aspect of it in 245720 is really irreprehensible. I'm a family physician and it is absolutely inconscionable that we are forcing our ER physicians and our emergency personnel to track down the fractors in the middle of the night to try to find out one of the hundreds of chemicals that a frack worker might have been exposed to or a family that ran into one of these trucks that they are carrying around this radioactive produced water. It is unconscionable.

We were at the IDNR in August and we asked them to do something that is expressly permitted in this bill. In the Public Act and Section 177 it says that the Department can furnish under the trade secret aspect of it of the chemical disclosure, they could furnish the entire amount of the chemicals to County Public Health Directors, emergency managers, Fire Departments Chiefs, Directors of the Illinois

Department of Public Health -- right in the Act the Department could transfer the responsibility for the chemical disclosure to the Illinois Department of Public Health. We have talked about this with Dr. Hasburg and Dr. Gillian. We talked about it with Director Mark Miller. We highly recommend that you transfer the entire responsibility of chemical disclosure to the Department of Public Health as it says so in the Act. Thank you very much. They are health professionals and know what to do about it. It is not for physicians in this state to tell the IDNR why they need the chemical disclosure. And also it is not for physicians in this state to sign agreements exactly nondisclosure agreements, after they had a patient. We in the medical community learn from each other when we have cases like this that come into the ER. We need to be able to use the standards that are already relevant in the medical community for all medical cases, including those that are involved on the frack field.

I want to bring your attention to another issue to. We have a paper on radioactivity and we are extremely concerned with the radioactivity that is going to be brought up in the waste streams of these

frack fields. I encourage you to look at that paper. We have several very significant recommendations for you.

But the third thing that is very important is we had communication with Dr. Hamburger who is -- he is probably the world's premiere expert on the Wabash Valley Earthquake. And Mr. Miller he sent you a letter today and he has downgraded every one of the stages of the green and yellow and red light. This gentleman has written a book on the Wabash Valley Earthquake. He is a member of the U.S. Hazards Advisory Committee. I would highly recommend that you listen to what he has to say. He wants the green lights downgraded from three to two. The yellow lights downgraded from three to five to two to four. And he wants the red lights downgraded to four, so that it would be more protective to the Illinois citizens. We run a high risk of seismic events that were in the Wabash Valley. I really ask you to listen to the expert on this. If you would like some more expert advice of how to manage the seismic events, we would be happy to help you with that as as well.

(Applause).

MR. WELCH: Dave Kraft. If you'll stand

behind Miss Forst, Dr. Forst and Ira Abrams. One last try, Ira Abrams. Okay.

UNIDENTIFIED FEMALE: There is a big line outside. People are waiting. Brenda Lewis. All right. Dr. Forst.

MS. FORST: My name is Linda Forst, F-O-R-S-T. I'm head of Environmental and Occupational Health Sciences here at the School of Public Health at UIC. I am also a medical doctor training in internal and occupational medicine and Public Health. I have spent my career providing healthcare to the workers in the public related to hazardous exposures in the workplace and in the general environment. I also conduct research and teach and I had the privilege of working with a lot of environmental health scientists that are amazing.

Today I'm here to express my concern about Subparagraph G of the proposed regulation on Hydraulic Fracturing in Illinois. This pertains to emergency responses to the content of the hydraulic fracturing fluid.

I'm concerned with the draft regulation, striking an appropriate balance between the protection of the trade secrets and the protection of human

health. Those who drafted Subparagraph G are undoubtedly not sitting on the OSHA Hazard Communication Standards. The current standards require companies to have material data sheets on the site and make them available to workers and their representatives. Workers are entitled to know what they are working with in order to make an informed decision. And the proposed IDNR regulation healthcare providers who are treating workers and others only to track them, exposure information at IDNR during business hours or the priority of the site after hours. This is a tremendous barrier to treating workers and members of the public sicken by hazardous exposures. And time spent tracking down this information could be the difference between life and death.

I'm quit sure that the EPAs Community Right To Know Act is one of those who drafted this regulation. It stresses the importance of community knowledge, local hazards and hazardous substances for the purpose of emergency planning.

When Governor Quinn signed the HFRA into law, it was touted as the most stringent and protective fracking law in the nation. These brass task regulations emphasizing protection of trade secrets

water it down. This is the change to the proposed rule that needs to be made in order to protect the health of the public.

First the new OSHA Hazard Communication Standard will require moving to the global system before 2015. Illinois should require implementation of the new standard now in order to avoid having to rewrite this resourcing in another year.

Number 2, both statutes and regulation acknowledge the need for healthcare workers to have immediate information about the chemicals involved and the health emergency -- claims of trade secrets. As written, the regulation places the burden on the treating physician. Instead the Illinois Poison Center could function as a suppository of this information. the IPC has a hotline that's available 24/7. IPC understands the environmental hazards. Healthcare providers and residents are also familiar with the poison center. And finally it took a disaster management plan in the state. IDNR can leverage this high quality resource by adjusting the regulations to satisfy the sharing of the lists of the chemicals with the IPC and making IPC and the agent for this purpose. Revenues generated from taxation should be directly to

support ICP, a nonprofit for this additional work.

Third, IDNR should work with the Illinois Department of Public Health to establish surveillance of exposure of hazards of hydraulic fracturing processes and health effects could be anticipated as well as long-term health effects. There are existing databases that can be used to track these health disorders over time. A realtime and longitudinal surveillance system should be put in place with resources allocated from the revenues generated by the hydraulic fracturing work.

Finally, other research and tracking should be mandated with funds set aside, the health impact assessment. Online case studies in the counties and towns affected to shed light on the impact and inform people of the state and people of other states.

Thank you for allowing me to testify today. I look forward to these and other changes in the regulations.

(Applause)

MR. WELCH: I would like to mention when we started after the representative from the Attorney General spoke, the Attorney General is not really considered part of the public. Instead of stopping at

8:30, we're going to go to 8:35 and we'll call the last names at 8: 35. So that gives you that five minutes that they used up. Ma'am, Miss Schuman, is that how you pronounce it?

MS. SHUMAN: Good evening and thank you all for being here and thank you for this opportunity. I would like to start by saying my name is Marla Shuman, S-H-U-M-A-N. I am here with the Chicagoland Against Fracking. I would like to start by saying that I hope that there would be more hearings. Two days before Thanksgiving. A lot of people are out of town and there are many, many people who would like to be here. And so I request that there be another hearing in Chicago so the people who are out of town have an opportunity to speak on behalf as well.

MR. WELCH: Also a lot of people who can't be here, there is the website where you can make comments.

UNIDENTIFIED FEMALE: It is on the board.

MS. SHUMAN: Knowing that there are options of the public comments, they would like to physically be here because they want to make their presence known. It is meaningful for them.

I would like to share that. I'm a wholistic practitioner. I look at this from an

interconnected standpoint. So to speak from the outset, in the rules it says that the pit has to be closed. Why do we do that? We do that because if the pits are open, that could evaporate into the air. That could cause toxic rain. That rain not only rains on people's physical body, but onto the crops that people are going to eat. So the effects are much more far reaching than just the water source. They do seep in the food source, if we do not -- unless we are going to be extremely strict about the rules.

We are -- we all should feel a choice about the air, clean water, clean food. I'm sure none of you want to drink water with butane. I see some smiles here. If you could light some water on fire, you know that is not safe to drink. No one wants to drink fire, drink gasoline. With that many, many instances of frack wells and nearby towns happen in such a way that their water is undrinkable or showers are unshowerable. You cannot shower in frack water. How would you feel if you realized that your family could not drink the water from your own home, could not shower in the shower from your own home that you are providing for their safety and for their protection? Think about if that were you, how you would be

affected. Put yourself in these people shoes where an entire town has no portable drinking water. It feels like a luxury, but it is a necessity for life for all of us. Nobody can live without water for seven or eight days. It is not possible. So most important is the preservation of our resources. 300,000 gallons are pumped into the earth where there is millions of people who do not have portable drinking water. And here we are putting chemicals and wasting water to contaminate water. It doesn't make sense when we should be preserving our resources. Thank you.

(Applause)

MR. WELCH: I'll call two more names. Abby -- if you would stand behind Mr. Kraft, if you are here. And Briana Tong. Briana and Mr. Kraft. Go ahead.

MR. KRAFT: My name is Dave Kraft, K-R-A-F-T. Director of Nuclear Energy Information Service here in Chicago where a 32-year-old safe energy organization is based here. We thank you for the opportunity to present initial comments on the proposed Illinois Fracking Rules. More detail comments will be provided when writing prior to the January 3, 2014 deadline which will reference specific sections that you have promulgated. We do want to layout some general

obligations of what we read so far.

The radiation hazard has been inadequately addressed by the rules. The absence of explicit mention and the inadequacy of the regulations offered pertaining to radioactive substances in both enabling legislation and the IDNR Rules displays a shocking negligence on the part of the state legislature and IDNR to protect the public health and Safety and the environment.

The words 'radioactive" or "radioactivity" are only mentioned five times in very brief passages in the 135 pages of rules promulgated by IDNR. Either radon or radium are mentioned by name in the entire document even though both represent a substantial public health threat both to the workers and the residents near fracking storages and sites.

The second general observation is that the unique qualities of radioactive material in radiation are not adequately represented in the rules proposed. While general references are made regarding radioactive substances and the sections dealing with water quality, pollution, testing and spills and remediation, none of these adequately appreciate nor deal with the unique hazards produced by radioactive

substances released during the fracking process.

In general radioactive substances are treated simply as one more check back like all the others to be dealt with. No specifics. Unique to the remediation of radioactive substances in soil or water are given. No treatment, handling or transportation methods or requirements are given. Radiation is simply a nonissue in these rules.

Some brief examples. The issue of radon gas and the effects on local air quality, this is even mentioned in Section 245.845, which deals with the gas management in the flowback. That section only deals with hydrocarbons. Radon is not mentioned at all.

Another example. In the specific cases of the treatment of recycling of the flowback water, no mention is made as to what standards for radiation content would apply or what treatment methods would be used, even though that flowback water is reusable. So you may be contaminating workers inadvertently with that omission. It is clear that significant radiological threat exist. That every aspect of the fracking operation both to the workers on site, to the public living near the wells, storage and disposal sites both in the present and in the future. Radiation

contents of fracking needs to be govern by the existing rules and regulation for the storage, treatment, transportation and exposure of low level radioactive waste. You must define those entities as radioactive waste and not as mere fracking residues.

The final observation, we wrote the state legislature in January of this year warning of these hazards in fracking and none of our warnings were either responded to or addressed. Yesterday, Channel 7 News reported that a company known as Adco services, a radiation brokerage in Tinley Park, had been in violation over 70 times over a 20-year period, yet IDNR allowed Adco to retain its license and continue operating. This level of non-regulation will not be tolerated in fracking. We want you to know that now.

(APPLAUSE)

MR. KRAFT: The journalist said betrayal is a solid rational basis for this trust. And given the rules that we have seen and the way that we seen state agencies which are now understaff and underbudgeted and operated, we do not have the trust that these rules would protect the health, safety and environment.

(Applause)

MR. WELCH: Thank you, Mr. Kraft. Miss

Lewison.

MS. LEWISON: I'm Linda Lewison. I am an energy -- I am a board member of the Nuclear Energy Information Services, a 32-year-old watchdog. I want to make general comments, because Dave made the specific comments about the effects of radiation on hydraulic fracking. This is -- many of us know that hydraulic fracking is an inherently unsafe and toxic technology. In Illinois with increased occurrence of radar and radioactivity in these unique shell formations, we see that even more. It is unsafe in all of its parts. And you cannot regulate your way out of it as we are hearing tonight.

(Applause).

MS. LEWISON: The image from the inconvenient truth if you remember is the scales of justice, jobs. Does not have to say anymore. We cannot use the jobs as a cover for safe water, air and food, which is like Joe said we all know.

Senator Marqui said years ago that the energy policy and the choices we make about energy policy is the central story of our time. It drives climate change. It drives so much political acts of our political decision making. We support a carbon

free, nuclear free, energy policy. No nukes, no gas, no radioactive rate, no fracking, no coal, no oil, no Peco, no kidding.

(Applause).

MS. LEWISON: Eventually there will be a national moratorium on fracking. Eventually there will be a statewide moratorium on fracking. We have seen that organizations and individuals that go the regulatory route will eventually implode on this issue.

To end I want to say that we, as the public, are taxpayers and citizens as well as ratepayers. We fund the IDNR. We respectfully request that you take more than two hours and three minutes to hear us.

(Applause).

MS. LEWISON: If you have to stay half the night, we are all prepared to do that. It is a little cost to allow us, the public, or should I say the unwashed public to be heard and we request more hearings not only before Thanksgiving, but throughout the state. Thank you.

(Applause).

MR. WELCH: Ben Chametzky. Cathy Machay or G, Iron Student Network. You stand behind Miss Tong,

my right I guess. Okay. Miss Tong.

MS. TONG: I'm Brianna Tong. I'm a member of the Iron Student Network. Before I make my comment, I would like to request that the IDNR extend the comment period until after the holidays. During the holidays people are not thinking about making these comments. We would like that period to be extended at least to the end of --

(Applause)

MS. TONG: We know that the corporations exist to make a profit and that big banks, fossil fuel companies and all sorts of companies have a history of breaking laws and poisoning our environment. We know that fracking is hurting our community and the people in them. It is making wealthy corporations even wealthier. The only way to ensure that corporations are going to follow the law and protect us and our environment is to make it more expensive to break the law than it is to follow the law.

(Applause)

MS. TONG: And that is the problem with these rules. The rules drafted by the IDNR contain very minimal on corporations for very serious violations of the human and environmental safety. A token $50 for a

violation and only go up to $2,500 for a violation is Section 245.200. I am a student at the University of Chicago. I work part time and I make about $400 a month. When I get a ticket for violating the rules of Illinois, a parking ticket for $135, that is more than a fourth of my income.

(Applause).

MS. TONG: The top producer of gas made $118 billion in profit last year. A $50 or even $2,500 fine is not going to stop them from fracking in Illinois. The rules actually are technically lower than the daily fines in their original legislation.

The cost of polluting the groundwater of over 800,000 Illinoisans, the cost of illness and cancer caused by contaminated water and air and the cost of brain damage by toxic fumes should be reflected in the fines. The costs of violations need to be higher than the millions of dollars in profits that corporations stand to gain from fracking our land. Thank you.

(Applause).

MR. WELCH: We got away from spelling the last name. Would you spell your last name?

MS. DOMEKE: Abby Domeke. I'm a student at

UIC, a member of the Organization Roots of Justice and part of the Iron Student Network. I would also like to request that the IDNR extend the public comment period for 90 days ending on Friday, February 7th. And second that the Department hold more public hearings in Chicago and Bloomington around January. There is so many people that aren't going to get a chance to talk and they deserve an equal chance.

(Applause).

MS. DOMEKE: A key provision of the Bill passed is that fracking wastewater be stored in closed tanks. The only exception to this is when companies underestimate the size of the tanks and produce more wastewater than can be contained in the tanks. In other words, in case of emergencies. And in those cases companies would be allowed to store wastewater and dangerous open air pits for theoretically up to seven days. There is multiple problems with this rule.

First of all the Director's rules do not ensure that companies accurately calculate the appropriate size of the tanks, creating a loophole for companies to chronically underestimate these tank sizes.

The Department can easily fix this by

mandating a specific method by which companies must calculate the size of the tanks in order to minimize the frequency of overflow and thus the use of open air pits. As many people have said already, open air pits are in our food, the water goes in our showers. We can't have that.

My second problem is in reference to Page 3, Paragraph 6 of the Regulatory Act which states "Published studies or reports, sources of underline data, rule making, none." With this comment, I strongly object to the set of rules that blatently admit that if the authors have chosen not to consult published studies of the underlying data, this is absolutely unacceptable for something that has such a large effect on public health and the environment.

(Applause)

MS. DOMEKE: Before these rules are published, this commenter requests that IDNR participate in regular monitoring of government reports, media reports regarding the hydraulic fracturing published by reputable sources about the effects of fracking that are taking place in other parts of the world. This is important for something that has such a large impact on the environment and

lives. The issue of fracking is important to me first off because it has such a detrimental to the environment and our health. Something this dangerous should have regulations to protect us, the citizens, not the companies.

In addition to this, I would like to believe that the purpose of our government is still to protect our people's health and give them a voice.

Please show that your intent as government officials who our taxes pay your salaries, so this is still your intent by extending the comment period and providing us with more. Thank you.

(Applause)

MR. WELCH: I'll call two more names. Georgette Kirkendall. If you would stand behind this lady and I will let you spell that. And Joe Kaplan behind Ben. Ben, spell your last name.

MR. CHAMETZKY: Ben Chametzky, C-H-A-M-E-T-Z-K-Y. I'm a member of the Solidarity Network at the University of Chicago, the Iron Student Network and I came up in Carbondale, Illinois, down in Southern Illinois. And the thing is that during the holiday season, I'm not going to be there. I'm going to be out of state with other family and I'm not going

to be able to participate in a Town Hall in my own community. You guys scheduled the hearings during the period when people are traveling. So I would really like to be able to get together with the people I grew up with and express these thoughts.

And yeah, one of the things I grew up with everybody in Southern Illinois knows we are on this massive fault line. There is no preparation for it. We don't have the political clout the people in Chicago do, so there is not adequate funding for disaster relief. There is no -- I don't think any large scale preparedness plan. So these companies are going to be fracking and there is no size of the disturbances. We got brick buildings. We don't have Japanese technology to protect ourselves from earthquake damage. It is up to the regulatory authorities to make sure that these corporations trying to scrape the last bit of profit out of the natural resources would destroy everything that I grew up with.

The other thing about down there is a lot of the people are not in home municipalities. They are out in unincorporated townships and counties. And the regulations, as you guys published them, don't give any authority not to not hold rural municipalities to

regulate fracking in your boundaries. So if you live in Jackson County out where I live or anywhere in Union County, they have one municipality. If you live in a place where a lot of people live, you live that way, you have no political say in what is done with your resources. And a lot of the people there are living off of those resources. People there still have animals in their yard. They drink from wells. And it is like that there and it is, you know, the entire political say and what happens to their lives is being taken away. I hope you listen and come up with some better regulations.

(Applause)

MR. WELCH: Spell your last name.

MS. MACHAJ: Yes, I am Cathy Machaj, M-A-C-H-A-J. All right. I'm here with the Iron Student Network and with Fair Economy Illinois. Before I begin, I would like to ask for more public hearings here in Chicago closer to January and then Bloomington.

When my parents migrated here from Europe, they were taught an important life lesson that they then passed down to my brother and I. They taught us that nature never takes more than it needs, but fracking does. I ask specifically that IDNR provide

its rules to provide stricter regulations on wastewater leakage. As spoken before, the rules drafted contain a loophole that allows for open pits that store highly toxic carcinogenic waste water. This wastewater can easily leak into groundwater which in turn contaminates drinking water that we drink. This wastewater can generate fumes that harm us, animals and the ecosystem. Putting fragile ecosystems under that kind of stress can cause entire populations to become extinct.

I again ask IDNR to modify these rules on open pits, because this is a matter of letting entire cultures fade. Whether everyone wants to admit it or not, we all speak the language of nature. Thank you.

(Applause)

MR. WELCH: Two more names. Michelle Mejia. Who has been up here longer? Joe Kaplan.

MR. KAPLAN: My name is Joe Kaplan. I'm a student at the University of Chicago. I am here with a group called Students For Health Equity and I am also here with the Iron Student Network and Fair Economy Illinois. I actually grew up in Texas. I'm sure all six of you are aware that fracking has been around in Texas for a long time and there are thousands of wells

in Texas, but there are very few wells that ever get shut down. And I was not alive when the rules that dictated fracking were made where I am from. But had I been alive, I would have spoken out and said like we are all here to do now to make these rules strict. Oil companies will drill with strict rules, but strict rules help people who would suffer if these oil companies break the rules.

So I want to say the original regulatory bill requires the construction and testing of fracking wells meet standards set by the American Petroleum Institute, these rules create absolutely no incentive for companies to meet these standards. Without following these standards, all fracking wells would be in danger of flood outs, fire and explosions that endanger the lives of workers and nearby residents.

So the solution of this is to suspend or revoke permits automatically when companies violate these standards. This way companies will think twice before they decided to violate these regulatory provisions. And I also would like to suggest that you have more of these public hearings. We are here to help you make these rules better and lots of people who have lots of positive input and care deeply about these

rules. And so it is incredibly valuable to protect people like us and not people who are trying to make money. Thank you.

(Applause)

MR. WELCH: Miss Kirkendall.

MS. KIRKENDALL: Hi, My name is Georgette Kirkendall. I am a member of the International Socialist Organization. I would like to start by saying that as an Illinois resident, I would demand that IDNR extend the comment period past the holidays.

(Applause)

MS. KIRKENDALL: I demand that there are more hearings about this company which will irreparably damage our lives and our ecosystem. This is a travesty.

I can't help but notice that approximately half of you on the panel have bottled water. This serves as a symbol today that people like you, people with more means, can just go buy water while you damage ours. People like me, people like everyone in this room cannot afford an alternative when you pollute our drinking water. Not only is fracking in Illinois and the environmental issue is a Human Rights issue, we as human beings have the right to not

be abused by companies that are looking for profit. We have the right to drink water that is not full of radioactive waste. We have the right to not have companies come in and do procedures that could cause earthquakes. We have the right for our lawmakers to not say it is all right for fracking companies to cause four earthquakes before they have to shut down, as long as they are under a 5.0 magnitude. I mean what is wrong with all of you? Shame on you? Shame on you.?

(Applause)

MR. WELCH: Couple more names. Horn. Kaley Horn, Isaac Silver.

MS. NEMER-AANERUD: I'm Aija Nemer-Aanerud and I'm a member of the Iron Student Network and I am also here from Fair Economy Illinois. And before I make my comment, like many people up here I would like to request that the IDNR provide more hearings, particularly in Chicago for those folks who weren't able to be here tonight. And as you can see, there are a lot of people who aren't going to be able to make comments.

I also would like to request that the IDNR extend the comment period to 90 days in February, as demonstrated by the number of people who are in this

room to testify and the fact that it is two days before Thanksgiving. I believe more hearings must be added. I believe more hearings must be added to make this a truly transparent and democratic process. I think that there are a lot of problems with these regulations. I would like to speak about the issues of health officials, access to information about the chemicals that are being used as people have tonight.

There is tremendous health and safety risks associated with pumping something highly toxic and radioactive water into our bedrock. Chemicals usually are kept secret denying doctors and health care professional to know what toxins have been involved when they are trying to treat a patient. So as people have laid out in their testimony otherwise tonight, the availability of that information that is not available 24 hours, seven days a week, that healthcare professionals are going to have to track it down sometimes in the middle of the night is insufficient. So for this reason IDNR impedes the very fact that patients who come in contact with highly toxic fracking pollutants to at least require immediate treatment in Section 245.730.

This issue particularly troubles me

because I clearly can imagine what it would be like for the residents that would be affected by this. When I was young, my mom was diagnosed with cancer and as a child my life is dominated by the pain the rest of my family were going through as a result of that. Like doctors we couldn't afford, hair loss, nausea, and eventually when I was six she passed away. I don't want to see one more person have to go through that. It is awful.

I think that the IDNR's must enact stricter regulations to protect Illinois residents. The ones we have now aren't going to do that.

So with that, I also ask that you extend the public comment period again so we could see all these real repercussions. Thank you.

(Applause)

MR. WELCH: All right. Miss Mejia. Would you spell that?

MS. MEJIA: Sure. My name is Michelle Mejia. I'm a member of the Iron Student Network and Fair Economy Illinois. Before I make my comment, I also would like to request that IDNR extend the public comment period hold more hearings, particularly hearings here in Chicago and Bloomington.

I have grown up in a time where I have seen corporations wage war on people and the environment. These regulations are full of loopholes. I don't believe they are there by accident. I have some specifics.

The original regulatory Bill Section 170 requires that the construction and testing of fracking wells meet the standards that are set by the American and Petroleum Institutes. They create actually no incentive for companies to meet these standards. Section 245.1100 not only states IDNR may suspend or revoke permits and/or issue penalties in the event that these standards are not met. Without following these standards all fracking wells would be in great danger of explosions that endanger the lives of residents and the workers.

The solution to this is to suspend or revoked the permit automatically when companies violate these standards by changing the saying that IDNR will suspend or revoke permits or issue penalties. This way companies would know to think twice about violating those provisions.

Also, the rules as written also place an impossible burden on IDNR to prove that fracking

operations are a significant threat to public health and wildlife before they could suspend a permit. By IDNR potentially hindering it's -- fracking operators accountable for reckless actions. Worst companies can also completely nullify IDNR's suspension by submitting materially untrue information and claiming that its well operations constitute no significant threat to public health, environment, et cetera. IDNR has been allowing fracking operators to regulate themselves.

So I believe these rules undermine the spirit of the regulatory and I hope you take a second look.

(Applause)

MR. WELCH: We call Julian Borjas and Randy Juras. And what about Julian -- going once, going twice, gone. Zack Fabos, is it? Zack? Okay, Miss Horn.

MS. HORN: Hi, my name is Kaley Horn. I'm here as a part of a group called Students to Help Equity and Iron Student Network and also Fair Economy Illinois. I am here. I'm with the University of Chicago students. I'm a college student. And I am pretty busy. I understand that 11 days is not enough time to go through 135-page document on there rules

that were designed for the people. I think we need more time to be able to go through this document and have more space that we can voice our opinion. So I call for another public hearing after the holidays.

(Applause)

MS. HORN: So although I didn't make it through the 135-page document, I did get to Page 3 where the rules say there are no public study reports or sources of underlying data that were used or consulted in the process of this rule making. This is unacceptable. I think that this is echoed in other places in the document.

For example, in Section 245.200, the rules state that they require fracking companies to disclose all findings of serious violations under federal, state and other laws when applying for a fracking permit. But at the same time -- the definition of what constitutes a "serious violation". This is akin to having no disclosure requirement at all, because companies can easily state that this is not considered a violation to be serious enough for reporting. This to me is an example of the ineffective nature of these rules and an indication that not enough thought was put into them and not enough public input

was given.

The solution for this is to remove the word "serious" and ask the corporations to disclose any and all violations and fines alleged by public authorities.

(Applause)

MS. HORN: It is clear from what we heard tonight that these rules are inadequate, ineffective and out of touch with reality faced by the Illinois citizens and I ask that they be revised. Thank you.

(Applause)

MR. WELCH: Mr. Silver.

MR. SILVER: My name is Mr. Silver. The first thing I want to say so it gets on the record is thanks for the hard work of the note taker. I do a lot of that stuff and it is amazing to keep up with everything that people are saying and get that on the historical record.

(Applause)

MR. SILVER: So we've heard from people who have environmental and scientific and workplace safety expertise. And looking at all of the details of the things that are wrong about the proposed legislation. I just want to sort of step back beyond the details and

say this is about a process which when I first heard about it, it has been going on for decades? When I heard about it, I thought it was like a plot from the '90s cartoon series, Captain Planet. Blasting water into the earth to explode rocks and then pump poisonous chemicals and gas and other toxins to sit in pits and harm the land, the water, and the people who are doing the work and the people who have to live around that is totally ridiculous. Is there anybody here who has come to speak in favor of this? Is this really something that we can say we're going down the right path as a society rather than going down a path where everything will be put on the alter to be sacrificed for profit where there is no end to this stuff? Do we really want to blow up things underground in order to suck out the very last bit of fossil fuels until there is none left and then we are totally screwed?

I think it is totally ridiculous. It puts us on the wrong path. I'm for as many hearings as there can be. I'm for prolonging the process as far as it can go. I reject the framework that the train has left the station. As long as there is people --

(Applause)

MR. SILVER: As long as there is people who

live here and anywhere this is proposed who have any kind of moral, human and environmental conscience there will be opposition to fracking whether it is through public comment at events like this or any other thing that people deem necessary.

So the train hasn't left the station. We're all here and we are all opposed to it and I didn't see if anybody raised their hands in favor of fracking. So that is my comment. (Applause).

MR. WELCH: Christina Martinez and Joy Holowicki.

MR. WELCH: Mr. Juras.

MR. JURAS: My name is Randy Juras. As a resident of Homer Glen, Illinois, I currently do use well water. I am also a member of the Home Glen Environmental Committee and we have been following fracking in Illinois. While we do not feel that fracking will come to Will County, there are real concerns about how fracking will affect the readium levels in our wells.

I would like to point out that the City of Waukesha, Wisconsin is currently having problems with readium levels only in their deep wells. The water for these deep wells originated west of the

divide. The water seeps underground below the impermeable -- layer. While there is currently no mention of the fracking process being responsible for this readium, there is also nothing to say that fracking is not responsible.

More to the point, why are we here today? With the high volume hydraulic fracking that is being proposed, eventually cause deep water wells to become contaminated. Researching the history of fracking in Illinois, you'll find that fracking was probably done in some form or another 60 years ago. Only very small numbers and then no environmental follow-up was ever done.

From what I can see, the oil and gas industry had been wildcatting it up to now. House Bill 2615 and Senate Bill 1715 did not have universal approval. Not at all. There were and still are a large number of people who oppose fracking because it doesn't seem right to drop 70,000 gallons of toxic chemicals in a deep hole and pump gallons of water under high pressure on top of that. If nothing else, the wastewater will -- from the fracking process. Simply pumping dead wastewater back into the lakes, rivers is extremely risky. As we have seen with fly

hash they leak. Then you have the toxic chemical powering down the deep well. We are being told that it is only enough that we know what these chemicals are. Not which ones should not be used. It appears that no one is going to investigate what chemicals will have detrimental effects on the environment. As far as I can see, there is honestly is no way to tell of applying pressure to the toxic mix, exactly what the fracturing of the rock structure would incur. It does not seem to be an exact science yet. The possibility of fracking has created being bigger than expected is a real risk. What are the possibilities that fracking causes seismic activity. The whole idea of fracking is to move things around deep underground. Using high pressure with toxic chemicals to force a crack to happen and then inject a sand mix into that crack would keep the crack open. What are the assurances that radium will not also fall in these cracks? We know that there is a good chance the wastewater would have radium. Where else would that radium flow go.

Nowhere in the proposed rules do I see any further research being done with regard to any of these questions. They talk about minimum testing, but nothing about follow-up work to maybe be sure or to

determine how fracking causes seismic activities.

There also seems to be no standard on health or regulation how our wastewater will ultimately be treated. Holding all wastewater in the tanks is a good idea. What happens next to that wastewater, there is no way that toxic chemicals should be dumped anywhere. It needs to be handled in the same fashion as any hazardous waste product should be. Thank you.

(Applause)

MR. WELCH: Zack Fabos.

MR. FABOS: I'm Zack Fabos. I would like to ask two things of you. First, I would like to ask for an extension of the hearings. I would also like all of you to put yourselves in the shoes of those living in Southern Illinois, because if these regulations aren't changed, their lives will be ruined. And they would have nowhere else to go. I think their lives are at risk just so someone could make money. That is really all I have to say. Thank you.

(Applause)

MR. WELCH: We have Carol Kurz and Glenda Reed.

MS. MARTINEZ: Miss Christina Martinez. I live in Tinley Park which is near Brighton Park and I

represent the Tinley Park Community Garden. And my comment relates to the -- first, before I make any comment, I would like to say that we need to have more of these hearings. And I know that the Latino Community, when I talk about fracking they have no clue. There is a lot of people that do not have a clue. The media is not talking about it and the Spanish stations on the radio are not talking about this. It is affecting our food, our water and our health and we need to have a statewide education campaign to educate the public about fracking --

(Applause).

MS. MARTINEZ: -- particularly about fracking in the Spanish, Cantonese and the Japanese. So my comment relates to the administrative rules regarding wastewater storage. My understanding was that this water contained over 360 carcinogenic and radioactive chemicals.

According to the rules drafted by the IDNR, these natural gas companies will be allowed to store this wastewater in open air containment pits rather than closed tanks by the regulatory bill. This wastewater does leak into the ground and contaminate drinking water. Here in our State of Illinois the

water quality of 800,000 citizens may be compromised as a result of the fracking process.

As a registered and licensed dietician I express to my clients the importance of eight to ten glasses of water daily. If you don't have clean water to drink, people can get sick and develop cancer and become dehydrated and eventually die with long term consumption of contaminated water. I'm concerned about the health and well-being of my fellow citizens downstate. This is where fracking is supposed to take place. I have no faith in these companies following the rules. So that is all about money and not about the health and well-being of the people of the communities. There is no safe way to frack. Illinois needs to have a moratorium on fracking like Governor Cuomo has in New York State. Thank you.

(Applause)

MR. WELCH: Okay. I think that is Joy Holowicki.

MS. HOLOWICKI: Yes, my name is Joy Holowicki. And I'm with the Rising Tide Chicago. Yeah, go on the website. And so just hearing that a $2,000 fine for a loss of a life, am I hearing that correctly? That is pretty sick. You make me sick.

I also happen to work at Argonne National Laboratory and I have lived in Illinois my entire life. Even when I lived in Illinois, my entire life was not mutually exclusive from that part of me is that I am concerned about climate change. And most specifically how methane gas affects the atmosphere and how we are informing citizens about this effect and what its relationship is to fracking.

Recently the "New York Times" announced another study that methane release were grossly underestimated. And so what I would like to know is not only are these affecting human beings, how would they affect the other human beings around the world.

(Applause).

MS. HOLOWICKI: In addition to that, I want to know what the best standard practice is for fracking will be and what the industry is doing to help standardize that.

Now we have this permit system. So what I'm imagining is these mom and pop companies coming along and performing their highly intensive process, what is being done to standardize practices. This is a major concern of the EPA which in 2012 issued out Green Standard Practices and set that as a goal. What are we

in Illinois doing to help to promote that issue? We're probably doing nothing, since we can't even put the correct location of where the meeting is on their website.

(Applause).

MS. HOLOWICKI: I'm mad. And so are the citizens of Illinois. That is all I have to say. Thank you.

(Applause)

MR. WELCH: I'll call two more names. Tina Briggs. Tina Briggs. William McFadden, William McFadden. If you are here, let us know. Elias Friedman. Are you here?

MS. KURZ: My name is Carol Kurz and I'm a member of NEIS. Most of the comments that I wanted to make have been kind of spoken about already. I did want to make a comment about CO^2 emissions because we're fast becoming -- the methane gases are really hurting the rest of our lives. I have two grandchildren. One seven and one two. My grown children I'm not too concerned about, but I'm concerned about my grandchildren that we don't have global warming and all this fracking adds to that. And I am 75 years old and when I was a little girl growing up we

were told that we make this life better than how we -- we leave this place and we make it better than how we came. We are not doing that anymore. We all need money. We all love comfort. But we have got to get to the point where we care about each other because we're all in this together and nobody is going to survive. If you think that you are going to some trip to Mars or something and get away from this planet, this planet is not going to exist in another 100 years the way we are going. And it might be less than that. So please, please, I wish you would stop fracking. But if you cannot, make it as safe as you possibly can. This is really going nowhere and it is killing us all. That is all I have to say.

(Applause).

MR. WELCH: Those that want to leave a written statements with us, please do so. Miss Reed.

MS. REED: My name is Glenda Reed. I'm here with the organization Food and Water Watch. The Hydraulic Fracturing Regulatory Act was passed by the Illinois Legislature and signed into law after running negotiations between lawmakers, industry and several environmental groups. At the time, many of us warned that the oil and gas industries well paid lobbyists

would succeed in watering down the resulting regulations and that these watered down regulations would be inadequately enforced. Our underground sources of drinking water are vital. It only takes one case of contamination to ruin a community source of water. Oil and natural gas are not worth the risk of ruining our drinking water.

I would like to address Sections 245.210 at A6 and A7 and 245.815. That is 245.815, at B as well as 245.101. The rules proposed by the IDNR ignore what we are learning about fracking disasters across the country. And in doing so exacerbates the risk to the health of our water. So these sections are grossly inadequate to protecting against so-called frack hits. Frack hits occurs when new fractures from fracking intercept with aging and abandon wells. According to these sections, permitted operators would only have to worry about frack hits on existing wells that are within 750 feet of the proposed well. Measured at the minimum distance between any two points along two retrospective water holes. Even then they only need to consider those existing wells if they were drilled within 400 feet of the rock formation targeted by the new well.

I would like to clearly say that this law ignores realty. Just this past September in New Mexico, facking at one well blew fluids out of the neighboring well head located half a mile away. That is 2,640 feet away. That is three times, three times the distance required by the IDNR rules. That is three times inadequate.

(Applause).

MS. REED: New oil and gas wells with cement and casing failures, aging or abandoned wells, their own leaking casings, new fractures from fracking and existing natural fractures all combine to create a network of underground pathways through which contaminants can flow. Simply put, the oil and gas industry cannot reliably predict the length of fractures they are creating until they created them. And these rules all guarantee that the fractures from fracking will connect with existing pathways of contamination. There are many other problems that the proposal -- that the proposed regulations only begin to address. At Food and Water Watch we believe that these problems are best avoided all together with an outright band on fracking.

(Applause)

MS. REED: In lieu of the outright band, we ask that the IDNR extend the review period for two years to allow for adequate -- Thank you.

(Applause)

MR. WELCH: We're going to call Sasha Mitchell. Sasha. And Jessica Fujan. Jessica. Mr. Friedman, I think you're up.

MR. FRIEDMAN: My name is Elias Friedman. I'm here with the Iron Student Network, Chicagoland Against Fracking and also with Fair Economy Illinois. As others have pointed out, the IDNR has admitted that no studies, reports or underlying data were used for consulting in the process of this rule making. I would like to thank the IDNR for being honest about that. But also it is very clear even without that disclaimer.

(Applause).

MR. FRIEDMAN: Section 245.600 B1, the proposed rules for monitoring, testing water sources only are in effect within 1,500 feet of the well site and do not provide for testing on the horizontal leg. This is high pressure horizontal fracking. "Horizontal" is the keyword there. This type of fracking, this type of mining affects a wide area far beyond that 1,500 feet.

Additionally, the entire system of regulation, which we have been critiquing this whole long period we have had so far and will continue to, is about high volume, high volume horizontal fracking. Does that only involve wells with only 300,000 gallons of water? A number of the smaller wells would not be covered. I think this is a drastic oversight as well as the variety of other problems that other people have brought up. And I would like this to be noted and close this loophole by the IDNR if fracking must go through this state. Thank you.

(Applause)

MS. KATHURIA: My name is Monica Kathuria. I'm here today with the Iron Student Network and also Fair Economy Illinois. I also would like to start my testimony by requesting that the IDNR extend the public hearings and the comment period until well after the holiday, until February 7th, just over 90 days. It is apparent to me it was deliberately scheduled two days before Thanksgiving to mitigate the number of people that would show up. I know at least 30 people that wanted to be here that could not and another handful that are outside the room that haven't been let in.

We need more hearings in Chicago as well

as throughout the state, especially Bloomington.

I also want to mention the lack of studies, reports or underline data used in making these rules. I'm appalled that not a single Peer Review Journal or report was consulted in drafting of these rules. I have written high school papers that required more sources than that.

(Applause)

MS. KATHURIA: I also want to speak to the fines on administrative operating violations. Like people before me had mentioned, I know that corporations do not care about people as long as they are able to make a profit off of us and off our environment. I can't believe that fines for violating these rules go from $50 to $2,500 in this state. I pay parking tickets that are more than $50.

UNIDENTIFIED MALE: How about jail time?

MS. KATHURIA: I make about 1,000 a month to survive off of. These corporations that are making billions of dollars in profits by exploiting the people and the environment of our state need to be held accountable for their action. I demand that the rules be amended.

(Applause)

MR. WELCH: Brian Larson and Jason Duba.

MR. MITROFANENKO: Hi, my name is Sasha M-I-T-R-O-F-A-N-E-N-K-O. I'm here with the Iron Student Network. And also I'm here with Fair Economy Illinois. And before I make my comments, I also would like to request that IDNR extend the comment period until after the holidays and provide more hearings, particularly in Bloomington and in Chicago. The only Chicago hearing as we all know is today. Today is before thanksgiving. I was the only one spending time with the family during this wonderful week to come here and speak with you and thanks for that. Yeah.

My sister works in the Department of Environmental Science. I was aware of the dangers of fracking when I was growing up. I was also well aware that there is more than a billion people on this planet who don't have access to clean water. And being privileged to have access to clean water and using it for killing other people that is interesting. That is not how it is supposed to be.

And also -- I mean water is a great thing. As you all know, water keeps us alive. And IDNR, along with a lot of problems, a lot of problems with water moratorium. And high volume horizontal

fracturing means that well bores can oftentimes extend up to two miles from the actual oil sites. And unfortunately Section 245.600 B1 of the proposed rules only provide for testing and the moratorium on water sources within 15 feet of the wells, 1500 feet of the well site and do not provide for testing of the well bore.

This is a reckless disregard of the known risks of the underground -- of toxic fluid from the well bores and especially hydraulic fracturing and the use of the explosive charges and especially in areas known for the risk of higher magnitude earthquakes. The U.S. Government have themselves acknowledge that one major risk from fracking is that underground gases and chemicals which can lead to contamination of surface water and groundwater. Given that toxic chemicals are present not only along the vertical portion of fracking wells, but also the horizontal water testing and monitoring must be required along the full length of any horizontal well bores in order to mitigate this risk.

Furthermore, the fracking companies have the burden of proof of water pollution within testing areas are not caused by fracking, IDNR has to severely

limit this burden of proof to a small list of chemicals included in the law.

I'm 18 years old and I'm a student. I mean it might be selfish of me, but I care about the future of myself and friends and family. And, you know, I have a lot of dreams and I want all those dreams to come true. I don't want to get cancer around 30 or even sooner. So please do something about it. At least do something about it with the rules. It is obvious that a lot of things are not about this. Thank you.

(Applause)

MS. FUJAN: My name is Jessica Fujan. I'm representing the Food and Water Watch. I'm an organizer. I want to talk about 245.210 6A. It is worth looking at closely. It states 'To acquire permits to conduct high volume hydraulic fracturing in Illinois the Applicant would have to submit among other things, a key description of the confining zones constituting or contributing to that zone, including but not limited to a description of -- permeability, source contact and susceptibility to vertical -- of factures of confining formation if known after reasonable inquiry." I will repeat the last part. "If

known after reasonable inquiry." What does that mean? The fact of the matter is very little is known about the connectivity of pathways below ground. About the only thing we do know is that widespread drilling and fracking will expand those pathways creating new roads for contamination that we may not see for decades.

Widespread fracking in Illinois -- our landscapes fragment forests across the state. It will crowd rural road with heavy duty trucks carrying toxic waste leading to ineffable accidents spills. It will leave costly legacy of local air and water pollution for communities to cope with long after the industry has left town, along with the jobs it will supposedly create.

The proposed rules make all of these outcomes ineffable. As for the massive volumes of toxic waste generated by drilling and fracking, there are no good options though disposing of it as far as I'm concerned. Injecting it back underground is the industry's favorite option. The proposed rules anticipate this. But regardless of these rules, the risk that Illinois will be struck by damaging earthquakes will increase at the cost of waste disposal. We cannot afford to allow widespread

drilling and fracking in Illinois.

Now, with new rules proposed under the contentionous Hydraulic Facturing Regulatory Act the IDNR accept parameters for widespread fracking and drilling for oil and natural gas in our state. As a consequence, the coming oil and gas industry for the profits will enroll Illinoisans, many would be enrolled against their will. Some of who are here today, in a large public health experiment that puts their lives, their water, their family and future at risk. This is completely unacceptable.

I work in a national organization that fights fracking in a number of states, in a number of highly frack states such as Colorado and Pennsylvania. What we have seen is that in Pennsylvania they drew up regulations, ones that were supposedly strong. But the rules that we are looking at today, do not match rules that are currently enacted in other states that are already failing and endangering the lives of individuals, their families, their farms and even their livestock.

(Applause)

MS. FUJAN: At Food and Water Watch we agree with those in the back that regulating fracking is an

impossibility. That these companies will violate the laws that we're trying to set here today and we doubt that the IDNR will have the capacity to enforce the rules, even though the low standards that we are observing today.

We believe that a band on fracking is necessary to protect the people in this room. However, we understand that the point of these hearings is we'll talk about this specific content of the rules, but I look forward to seeing you at every hearing that you have coming up in the future.

We do encourage that you extend the comment period of these hearings and for comments for a 103-page document that we have been given 11 days to analyze. Your research couldn't come up with a comprehensive response to all the inadequacies that we have been given. We look forward to discussing the rules that we got before us for at least 90 days and talking to the rest of the holiday season.

(Applause)

MR. WELCH: Call two more names and that is going to be it. Karen Fort and Drew Nenin. UIC School of Public Health.

MR. DURSCHMID: My name is Mike Durschmid.

I'm an organizer with the Organic Consumer Association. We're a national organization working on food, agriculture and sustainability and social justice issues. Mandatory labor, factory, farming and fracking. In Illinois we are 30,000 strong. There is no safe way to frack. The very idea of claiming it is safe injecting hundreds of gallons of toxic chemicals into our earth -- many known carcinogens that don't breakdown and many so-called proprietary chemicals kept secret from public scrutiny is ridiculously reckless. And without the Halliburton loophole to the Clean Air and Water Act it would be criminal. The practice will deplete precious water resources at a time when we are experiencing increasing drought. Our farmers and communities need that water reserve. This practice will degrade and destroy our water resources in a way that is unrecoverable as well as the communities they operate in. The track record in other states and countries prove how hazardous this practice is.

Can this be regulated? Well, the bill as written is already way too weak. It allows for those polluters to still do business. This industry is constantly experiencing accidents. These are not just mishaps. The reckless business model plans for fines

as a doing business expense. Let's try that $50,000 a day to start with. I would go a $1 million a day.

UNIDENTIFIED MALE: Jail time.

MR. DURSCHMID: Jail time is good too. This IDNR regulation is even weaker than the already too weak bill. You need to fix that and then some. Example. The so-called fines as low as $50, how would that be a deterrent to destroying our farms and homes? I didn't even know about that $2,000 for a loss of life. How ridiculous is that. That is a real deterrent. Who wrote this, the Industry? Serious? It is not just a joke. I'm serious. It sounds like it.

Serious violations. The fractors are asked to list the past five years what serious violations they did. What the heck is that about? I want to know all the violations. No matter how far back it goes. And the serious violations, they need to not just pay a fine, a huge one, but all serious violations should require mandatory losses of permit. No exceptions.

(Applause)

MR. WELCH: You have 30 seconds left, sir.

MR. DURSCHMID: Is the corporate hypocrisy alive and well at IDNR? I think so. With this draft of

captive rules, the political corporate hatchet men and women running the IDNR have just proved itself as not just inept, but incapable and without the will to regulate fractures, yet alone stop them. The timing of this holiday -- this holiday timing of these hearings, we need more hearings. Either make the rules prohibitive to all fractors or turn this charge you have back on the policymakers, telling them only a band will do.

(Applause)

MR. CASTO: My name is Kevin Casto. I'm a member of South Side Solidarity Network at East Chicago, the Iron Student Network and I'm also here for Fair Economy of Illinois. First of all, I would like to demand, not just request, demand that IDNR extend the public comment hearings until after the holiday and provide more hearings particularly in Chicago and Bloomington. The only hearing so far in Chicago is today, a day and a half before Thanksgiving with only 11 day's notice and that is totally ridiculous. And there is no hearing at all in Bloomington.

There are so many points, as people have been talking for the last two hours, I would like to talk about the risk of large scale environmental

disasters. So even though Section 153 of the regulatory bill requires that fracking operations be conducted in a manner that will protect the public, health and safety and prevent pollution, the rules do not at all address the risk of large scale environmental disasters. They can occur as the result of fracking specifically in a valley in the Illinois 100 year floodplain. Earthquakes of over seven on the Richter scale. The Illinois Emergency management agency itself identified these areas with its most severe earthquakes of destructive and ruinous. An earthquake of these magnitudes compounded with fracking and injection walls spread throughout the affected zones is quite literally a recipe for disaster. Injection walls have been know to trigger earthquakes in area without major fault lines and to allow any fracking at all to occur in the New Madrid is putting the lives of thousands of Southern Illinoisans at devastating earthquakes. The only sensible solution is to prohibit any and all fracking along the La Bosch and New Madrid seismic zones. Whatever profits the corporations stand to gain from fracking is not worth the kind of human catastrophe that IDNR is putting us in danger of. IDNR cannot be allowed to play with

human lives so carelessly.

Earthquakes of these magnitudes can easily damage injection wells, fracking wells, open air pits causing toxic and radioactive fluids to poor into the ground and contaminate the soil and the hundreds of thousands of Illinoisans.

IDNR would not only be responsible for the damages directly caused by the earthquake itself, but a toxic chemical disaster, ruptured pipelines and wells. Similarly allowing any fracking within the Illinois 100-year floodplain zone is also asking for disaster. The environmental devastation caused by the recent floods in frack county colorado is inundated. Flooded wells and overturned tanks and ruptured lines are just a few of the horrific images of toxic chemicals spewing over Colorado. Open air pits of are particularly vulnerable for floods and compound the disaster.

Finally I just want to counter the idea that "the train has left the station". And that somehow like these legislations are being made and we have a little time, you know, to complain against them, and I just want to say, if these regulations are not seriously made so that fracking is actually safe, then

we the people, the people who you are trying to ignore by scheduling so few hearings over the holiday, we can push JCAR to reject these rules and we will come back unless you make these safe.

(Applause)

UNIDENTIFIED FEMALE: Don't shut out democracy.

MR. BUSSER: I am a member of the Iron Student Network and here with Fair Economy Illinois. Like a lot of people before I begin, I would request that the IDNR the extend the comment period until after the holidays as well as provide more hearings in Bloomington and Chicago.

(Applause)

MR. BUSSER: It is only fair to assume that the fact that this hearing was scheduled a day and a half before Thanksgiving and with only 11 day's notice that was done on purpose to make sure everybody here would not show up.

I would like to first start by saying that any regulations, any scientific research needs to go into enforcing those regulations. And regulatory procedures should not be at the cost of the taxpayer. That bill should be sent to the oil and gas companies

who is making the money.

(Applause)

MR. BUSSER: The specific section that i would like to speak to has to do with the health professionals' access, information about the chemicals used in fracking fluid. There are tremendous risks with pumping tons of toxic and radioactive water deep into our bedrock. With the actual chemicals used being kept secret, now even doctors and healthcare worker don't know what toxins have been involved when they see a sick patient. The IDNR rules impede the ability of affected patients to come in contact with highly pollutants to require immediate treatment. Even though these laws require that the IDNR provide health professionals with the information about the chemicals used in fracking when necessary to treat a patient, the rules provide circular information about what an affected patient is. There are over 353 mysterious chemicals that could be involved. Doctors cannot run a few tests when patients come in with results of an accident or exposure to these chemicals. To make matters worse, the rules give medical professionals only one of two options in the event of a medical emergency to either call the IDNR during normal

business hours or to call the trade secret holder. The IDNR gives no indication of how one could go about identifying who exactly this trade secret holder is and how to go about contacting them in the event of an emergency outside of the IDNR. Worse yet both IDNR and the trade secret holder have complete discretion when they want to share information about the chemicals involving fracking regardless of the medical necessity.

This is important to me. I grew up in a small town and I drank well water my entire life. I have had a mom and a grandma both die from breast cancer. And when my mom died a year and a half ago, I promised that I would fight to make sure that our public institutions are making sure that more carcinogens are not flooded into these areas where we know the environmental risk is involved in the increase of incidents of cancer. So the IDNR needs to do its part to make sure that that doesn't happen. Thank you.

(Applause)

MR. WELCH: Last car catchment aremfo rf t karen fort board members of the second uniontarianian church and here with the social justice committee. our religion ask us to affirm and promote the respect for the interdependent web of all existence which we are a

part. and there is a larger ethical calling that brings me here, speaking for the planet, the people. i also want job site for the people who live in the southern illinois and there is much work that needs to be done. there is just transsis, we can move towards a suspend and stainable low carbon economy. crane business magazine have joined by sex the business initiative pof the clie nate and the environmental policy and they are stating that preventing climate change is the greatest economic opportunity of our time. (applause).

those low income rural area that face increased pollution impacts for many of the same reason that urban community of the color face and increase pollution. small towns rural areas often support any project that promises any kind of the job much no matter how dangerous or deadly, they are desperate, they see no alternative. i want to hire these people to build wind farm and solar power. (applause).

climate change by the time my grandchildren are grandparent, the dust ball of heat would have turn southern illinois farm land into a waste land. unless we can keep the methane which is 37 times as harmful to the stratosphere as carbon dioxide. down there lifestyle depend upon you having long-term vision and

being not politicians but statesmen. (applause). it audauddon't end this meeting we can be here all night.

MR. WELCH: If you would like to take a few minutes break, we'll take a few minutes to meet in the back and try to summarize the comments and come back in less than five minutes and give you a summary of what we heard tonight.

(WHEREUPON the meeting was adjourned at 9 o'clock p.m.)

STATE OF ILLINOIS)

)SS:

COUNTY OF C O O K)

C E R T I F I C A T E

The within and foregoing deposition of the witness was taken before GWENDOLYN BEDFORD, Certified Shorthand Reporter and Notary Public, in the City of Chicago, County of Cook and State of Illinois, and there were present at the taking of said deposition Counsel as previously set forth.

The signature of the witness was waived by agreement of the parties.

The undersigned is not interested in the within case, nor of kin or counsel to any of the parties.

IN TESTIMONY WHEREOF, I have hereunto set my hand this 13th day of January, 2014.

Gwendolyn Bedford
GWENDOLYN BEDFORD, C.S.R.
No. 084-003700