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COMMONWEALTH OF PENNSYLVANIA

DEPARTMENT OF ENVIRONMENTAL PROTECTION

ENVIRONMENTAL QUALITY BOARD

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IN RE: WATER STANDARDS AND FACILITY REGULATION

PUBLIC HEARING

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BEFORE: CYNTHIA CARROW, Chair

HEARING: Monday, December 14, 2009

5:06 p.m.

LOCATION: Cranberry Township Municipal Building

2525 Rochester Road

Suite 400

Cranberry Township, PA 16066

WITNESSES: Ken Zapinski, Barbara McNees, Joe Kirk, Larry Emerson, David Cannon, Myron Arnowitt, Cassie McCrae, Donald Giddon, Joylette Portlock, Suzanne Broughton, Sean Isgan, Emily Clack, Deborah Goldberg, Darrel K. Lewis, Bill Belitskus, Kurt Limbach, Cathy Pedler, Bernie Zurowski, Dan Pickering, Deborah Limbach, Louis D'Amico

Reporter: Diana L. Inquartano

I N D E X

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NONE OFFERED

P R O C E E D I N G S

CHAIR:

I would like to welcome you to the Environmental Quality Board's public hearing on the proposed regulations regarding waste water treatment requirements. My name is Cynthia Carrow, I am a member of the Environmental Quality Board representing the Citizens' Advisory Council. And I officially call this hearing to order at 5:05. The purpose of this hearing is for the EQB to formally accept testimony on the proposed regulations concerning waste water treatment requirements. In addition to this hearing, the EQB will hold hearings on the proposal on December 15, 2009 in Ebensburg; December 16, 2009 in Williamsport; and December 17, 2009 in Allentown. This proposed rulemaking which was approved by the EQB on August 18, 2009, establishes effluent limits for new or expanded sources of waste water containing high concentrations of total dissolved solids, or TDS. If opposed regulations apply to new waste water discharges that did not exist on April 1, 2009 and that contain TDS concentrations greater than 2000 mg/L or a TDS loading that exceeds 1000 pounds per day. For purposes of the rulemaking, a new waste water

discharge includes an additional discharge, an expanded discharge, or an increased discharge from a facility in existence prior to April 1, 2009. The proposed rulemaking also establishes monthly average discharge limits of 500 mg/L of TDS, 250 mg/L of total chloride, and 250 mg/L of total sulfate for all new discharges of waste water with high TDS. Additionally, new discharges of waste water resulting from fracturing, reduction field exploration, drilling or completion of oil and gas wells must also meet a monthly average discharge limit of 10 mg/L of barium and strontium. The Department initiated extensive outreach in the development of this proposed rulemaking including presenting the rulemaking for review and comment to the Water Resources Advisory Committee at several meetings in the summer of 2009. In order to give everyone an equal opportunity to comment on this proposal, I would like to establish the following ground rules. I will first call upon the witnesses who have pre-registered to testify at this hearing. After hearing from these witnesses, I will provide any other interested parties with the opportunity to testify as time allows. Testimony is limited to ten minutes for each witness and I will be strict about this because we have a very long list of

testifiers tonight. Organizations are requested to designate one witness to present testimony on its behalf. Each witness is asked to submit three written copies of his or her testimony to aid in transcribing the hearing. Please hand me your copies prior to presenting your testimony. Please state your name, address and affiliation for the record prior to presenting your testimony. The EQB would appreciate your help by spelling names and terms that may not be generally familiar so that the transcript can be as accurate as possible. Because the purpose of a hearing is to receive comments on the proposal, EQB or DEP staff present may question you, but the witnesses may not question the EQB or the DEP at this hearing tonight. In addition to or in place of oral testimony presented in this hearing, interested persons may also submit written comments on this proposal. All comments must be received by the EQB on or before February 12, 2010. Comments should be addressed to the Environmental Quality Board, P.O. Box 8477, Harrisburg, PA 17105-8477. Comments may also be emailed to regcomments@state.pa.us. And I would also like to say that written comments are as significant as providing oral testimony. All comments received at this hearing as well as written comments received by

February 12, 2010 will be considered by the EQB and will be included in a comment response document which will be prepared by the Department and reviewed by the EQB prior to the Board taking its final action on this regulation. Anyone interested in receiving a copy of the transcript of today's hearing may contact the EQB for further information. I would like now to call on the first witness, Ken Zapinski.

MR. ZAPINSKI:

My name is Ken Zapinski, 126 Anita Avenue, Pittsburgh, PA. I'm senior vice president of the Allegheny Conference on Community Developments, Transportation and Reconstruction Program. I appreciate the opportunity to comment on the proposed rule for total dissolved solids waste water treatment requirements. The Allegheny Conference is a private sector leadership organization that for 65 years has worked in collaboration with public and private sector partners to stimulate economic growth and enhance the quality of life in Southwestern Pennsylvania. The Conference's history of environmental advocacy is long and distinguished. One of our first initiatives was to clean up the skies over Pittsburgh through smoke control. To cite more recent examples, earlier this decade to called attention to the damage to our rivers

being caused by combined sewer overflows. Currently we are partnering with the Port Authority of Allegheny County and others to secure federal funds to replace the oldest, most polluting of the agency's diesel buses with new, cleaner burning natural gas buses. The Conference appreciates the Department's concern for water quality in the Commonwealth's waterways. However, Conference strongly believes that this proposed TDS rule should not be advanced. Though there are many areas of concern with this proposed regulation, I would like to focus our comments on three specific areas. The absence of detailed data to support this regulation and the inability of the Department to adequately define the issue; the recommendation by the DEP's Water Resources Advisory Committee to halt the implementation of this proposed rule, and historical DEP water quality monitoring data that showed no unusual changes in recent years in TDS conditions in the Monongahela River and other waterways in the state. We feel that the DEP is moving forward to implement regulations on TDS without sufficient scientific data to support the proposals. As stated in the November 7, 2009 publication of the proposed regulation, quote TDS can be naturally present in the water or the result of run off mining

or industrial or municipal treatment of water. The concentration and composition of TDS in natural waters is determined by the geology of the drainage, atmospheric precipitation and the water balance evaporation precipitation, close quote. The Department understands that TDS comes from a variety of sources. However it is necessary to understand the magnitude of discharge from each of these many sources before any sort of limit should be imposed and DEP has not done the analysis necessary to understand the current conditions. For example, we know that Mon River watershed alone there are four electricity generators, 1336 active mines, 1292 abandoned mines whose discharge is the responsibility of the Department, more than 30 NTDES permitted industrial sources, 25 NTDES permitted sewage treatment facilities, 1625 active shallow oil gas wells with permits issued in 2008 and year to date 2009, and 388 active Marcellus Shale wells with permits issued in 2008 and year to date 2009. In addition, sewer water runoff affects the entire watershed and road salt runoff affects the watershed in the winter months. All of the above sources contribute to the TDS levels of the Mon River, but no one knows how much each of these sources contributes to the current conditions.

It defies common sense to arbitrarily regulate an end of pipe limit on all these TDS discharges when there is no data defining how much each source contributes to the overall effluent level. Further more, the rule does nothing to account for the condition of river water as it enters Pennsylvania. A January 2009 report released by Tetra Tech cited TDS levels well above 500 parts per million at the Point Marion Lock during multiple occasions in late 2008. Currently West Virginia did not regulate TDS discharges and regulating the water in Pennsylvania may have little impact with the flow coming into the State already recorded at levels above 500 parts per million. The Conference is not alone in believing that DEP lacks sufficient data and analysis to develop an effective and appropriate TDS regulation. The Department's own Water Resources Advisory Committee made up of environmental interest group representatives, academics, industry representatives and others recommended to DEP at its July 15, 2009 meeting that the Department not proceed with the rule as proposed. Quoting from the minutes of that meeting, quote, Water Resources Advisory Committee believes the ramifications of the draft regulations are wide ranging and have not been adequately analyzed by the

Department. The Committee believes that the draft regulation needs to be supported by science. And the Committee recommends that the Department form a statewide stakeholders group to analyze the issues and develop appropriate solutions. A stakeholders' group has been formed and people across the State are spending countless hours to try to understand the rationale for the proposed regulation and the impact it would have on jobs invested in the Commonwealth. However, to collect sufficient data to understand current river conditions and develop an appropriate regulation, if it is necessary, will take far longer than the time allotted for the public comment on this proposed rule. We strongly encourage the Department to follow its own advisory committee's recommendation and collect and analyze the suggested data before moving forward with any TDS rule. The Department has said repeatedly that it has been monitoring TDS levels on Mon and other state waterways for 30 years. What the Department fails to note is that occasional increases in TDS levels above 500 parts per million have occurred in the Mon watershed during that time. Since 1973, the Department of Environmental Protection has collected 955 samples from four monitoring stations along the Mon. Only 27 of those samples,

fewer than three percent, have exceeded 500 parts per million and those 27 data samples are scattered over the past 30 years. Notably, there doesn't appear to be any obvious increase in TDS concentrations in recent years compared to historical performance. For instance, the TDS levels discovered in the Mon last year are far less than those recorded in 1997. The spikes recorded over the last three years after a decade of readings below 500 parts per million indicate a condition worth studying to understand its nature and its severity. A handful of samples is not enough to justify a new set of regulations for the entire state. TDS readings in other Pennsylvania waterways are even less convincing. In the preamble for the proposed rule, the Department says that the analysis of the Beaver River shows an upward trend of TDS concentrations. Yet according to the data provided to us by the Department, TDS has not exceeded the 500 parts per million level since August 20, 1998. Along the west branch of the Susquehanna River, the Department has data reaching back to 1973. Of the 588 samples tested, only 5, less than one percent, exceeded 500 parts per million, the most recent in 2005. The data show no intended crisis. There is no need to rush. There is a need however to take time,

collect and analyze data, and if necessary draft a regulation that adequately and appropriately addresses the TDS conditions. Once again for the reasons stated above we are recommending that the Department not advance this proposed regulation. Thank you once again for the opportunity to testify.

CHAIR:

Thank you. I would now like to call on Barbara McNees.

MS. MCNEES:

Thank you. My name is Barbara McNees. I am president of the Greater Pittsburgh Chamber of Commerce. The Chamber is located at 425 Sixth Avenue in Pittsburgh. My home address is 221 Country Club Drive, Ellwood City, Pennsylvania. I want to thank the Board for the opportunity to comment on the proposed permitting strategy pertaining to the total dissolved solids waste water treatment requirement. In 2000, the Greater Pittsburgh Chamber of Commerce entered into a strategic affiliation with the Allegheny Conference on Community Development, the Pittsburgh Regional Alliance, and the Economy League of Southwestern Pennsylvania. Our organizations represent ten counties, businesses and industries in those ten counties, as well as economic development

partners and others. The affiliation plays to the strengths of each organization. The advocacy efforts of the Chamber, the research and analysis expertise of the Economy League, and the marketing intelligence capabilities of Pittsburgh Regional Alliance. These strengths guided by private sector leadership enable an efficient model for regional improvement. The Chamber continues to use its ability to bring people and organizations together around issues critical to regional businesses and through unified voice effectively convey the need and priority of the region to local, state, and federal government. The Chamber appreciates the Department's work in the area of water quality and its efforts to create streamline permitting and a strategy for total dissolved solids. However, we believe that this proposed rule should not be advanced. Though there are many areas where we have concerns with the proposed regulation, I will focus my comments on two specific areas. Consideration of the Water Resources Advisory Committee recommendation and lack of competitive cost effective treatment options. Consideration of the Water Resources Advisory Committee recommendation, the DEP's committee, has claimed that there is insufficient data to proceed with this rule and we

would agree. At their July 15, 2009 meeting, they recommended to DEP that it not proceed with the rule as proposed because it believed, and I quote, the regulations are wide-ranging and have not been adequately analyzed by the Department. As a draft regulation needs to be supported by science and that their recommendation is that the Department from the State form a statewide stakeholders group to analyze the issue and develop an appropriate solution. We strongly encourage the Department to follow its own advisory committee's recommendation and collect and analyze the suggested data before moving forward with the proposed rule. Lack of competitive cost effective treatment options, a particular concern to us is how this regulatory approach has the potential to seriously damage the state's economy. The treatment options available for regulating TDS have not been proven to be cost effective. Specific sector analysis has been generated in the manufacturing, coal, natural gas, and electric utility industries just to name a few. These industries evaluated the potential impact that opposing TDS treatment options would have on them and reported their findings to the Water Resources Advisory Committee. The conclusions reported from all sectors if a current approach is financially ruinous

to Pennsylvania. I would like to share a few of these examples from the previously presented sector analysis that they've done. The manufacturing area, the pharmaceutical industry presented preliminary sector analysis to DEP's Water Resources Advisory Committee on October 16 of 2009. The industry reported that several treatment options were studied including micro filtration, removal of CSS granule activated carbon absorption, reverse osmosis system, and brine concentrator and crystallizer. The estimated cost of implementing one of these treatment options on just one of the many facilities in Pennsylvania was $13.2 million for the installation and startup capital cost. The total annual operating cost was reported to be $5.8 million with the solid waste disposal cost estimated at $456,000 per year and the annual electric cost estimated at $400,000 per year. On September 29, 2009 the coal industry presented the preliminary sector analysis to DEP's WRAC. The industry indicated that though a variety of treatment options were examined; reverse osmosis was shown to be the most viable option for Pennsylvania. The estimated capital expense for treating just the volume of water reported in one survey estimate would cost the mining industry in excess of $1.3 billion. Annual operating and

maintenance cost would be close to $133 million. The coal industry also estimated that it would take at least two and a half to three years to implement reverse osmosis treatment option assuming that there are no difficulties or delays. Just as you can see, this timeline already surpasses the implementation of the proposed rule. The natural gas industry presented a preliminary sector analysis also on November 10, 2009. The industry reported that several residual produce water treatment and disposal options were available including conventional pre-treatment of metals and suspended solids, mechanical evaporation, TDS removal crystallization, TDS brine concentrator and deep well injection. The estimated cost of implementing the metal TDS removal would be over $12 million annually and the cost for implementing TDS removal would be more than $50 million annually. The industry estimated that lead times of at least one year would be needed for permitting and equipment orders. It should also be noted that significant advances in recycling waste water have been made, but though the industry intends to invest further in exploration innovation, natural gas producers do understand the need to continue to treat the waste water system. The electric utilities presented a

preliminary sector analysis on October 16 of 2009. The industry noted that a variety of treatment options were examined, but evaporation was shown to be the most viable in Pennsylvania. The estimated capital cost to implement treatment options on 15 electric utility plants in the Commonwealth would cost the industry $1 billion. The annual operating and maintenance costs for those 15 plants would be about $70 million annually. Electric utilities estimate they would need several years of lead time to implement the treatment systems, agaın surpassing the proposed implementation date. As indicated above, it would cost millions of dollars in capital investment and hundreds of millions of dollars in annual operating costs to implement TDS treatment systems. Additionally, any TDS treatment will generate much higher CO2 and air emissions if the treatment systems were applied and they would increase the disposable into landfills. This is especially concerning. There have been very limited data collection and analysis of this problem and any clarity into the environmental benefit. Additionally it is important to consider the effects that the regulation will have on municipal storage treatment facilities. The treatment technology required for these facilities to meet the

proposed rule is also very expensive. System upgrades would result in higher rates for customers. At the time, facilities that do not upgrade could not accept natural gas waste water and would sacrifice a significant amount of local government revenue. Moreover, we've talked with sewage treatment facilities here in the Southwest region and we're concerned when we learned that many of them were not even aware that these regulations may be coming down the pipeline. Here are some of the anecdotes that we found from our discussions with the municipal facilities. The majority of the facilities who track their discharge levels only track TDS. No facilities track chloride and only tracks sulfate. Most facilities were only aware of their TDS levels because they were in the process of reviewing their MPDES permit and the TDS has to be measured for the permit. Otherwise they do not track TDS levels. Some facilities who do track their TDS levels only track their levels quarterly and did not know their current numbers or they employ an engineering firm to track their levels and do not keep current record. A few facilities did know that their TDS levels were already in the area of 14 up to 550 parts, but this was an area that they had not concentrated on either. The

bottom line in this is that these are shutdown conditions for many of our industries. It would affect employers and would mean a loss of jobs and investment in the State. The lack of cost effective treatment options severely hinders the competitiveness of many industries that do business inside the Commonwealth. And as we've also pointed out, these regulations would have a severe implication on the municipal sewage treatment facilities and their ability to afford treatment option. Thus we urge the Department to consider the high cost of compliance. It's not only businesses but also to local government when considering this proposed regulation. In summary I would like to restate the concern and make the following recommendation. We strongly encourage the Department to follow its own Advisory Committee's recommendation and collect and analyze the suggested data before moving forward with the proposed rule. The lack of cost effective treatment options severely hinders the competitiveness of many industries that do business inside the Commonwealth. We urge the department to consider the high cost of compliance to not only businesses but also to local government when considering this proposed regulation. And again, thank you for the opportunity to be present.

CHAIR:

Would Joe Kirk like to step forward, please? Joe Kirk?

MR. KIRK:

Good evening. My name is Joe Kirk; I'm executive director of the Mon Valley Progress Council. The address of the Council is 435 Donnor Avenue, Suite 410, Monessen, Pennsylvania. By way of background the Progress Council is a corporate sponsor in community and economic development organization located in the city of Monessen within the Mid-Mon Valley. Our region includes a portion of the Monongahela River running from the Allegheny County line to Greene County. The Mid-Mon Valley still suffers from major dislocation of the 1980's in addition to current adverse economic conditions. My professional background includes more than 20 years at the Mon Valley Progress Council working in the field of economic development. As an EPA 208 water quality manager in the 1980's, I managed a major urban non-point source Commission study coordinated with the United States Army Corps of Engineers for the City of Greenville, South Carolina. I welcome this opportunity to comment on the proposed rulemaking under 25PA code CH95. My concerns will speak to

several areas regarding the process used in the promulgation of the proposed rules and a closed course of action to address these issues. In the Mid-Mon Valley, frankly we need every job we can create or maintain and have a deep concern when actions are under consideration that could threaten our energy producing sector and a major --- and the remaining industrial base of our region. The question at hand is not whether or not DEP should pursue efforts to ensure viable streams and safe drinking water. Their question is whether in this specific case the process followed thorough scientific investigation and proposed appropriate water quality standards, considered the recommendations of the DEP Water Resources Advisory Committee, evaluated changing water use practices in one of the industries of concerns, the Marcellus Shale exploration, and clearly assess the broad and significant economic implications of this rulemaking. Let me briefly consider each of these four points:

One, scientific studies. Cited documentation of scientific research by DEP from the Monongahela River involved incomplete selective data analysis and sampling. The data cited in the proposed rule was gathered during low flow periods and make no mention

of additional readily available data that documents a fluctuating but not increasing level of TDS.

Likewise, this additional TDS monitoring data has been collected for many of the major rivers in the commonwealth including many of those mentioned in the purported proposed regulation.

However, it seems more than unusual that data --- that the DEP is not considering this data set.

In addition, the proposed standard of 500 parts per million is only an EPA guideline for water aesthetics. The EPA guideline makes no records to documented impacts on the water quality or the relationship to existing background conditions.

Two, ignoring the recommendation of the Water Resources Advisory Committee. While recognizing that the Water Resources Advisory Committee is an advisory panel, DEP developed a panel to gain insights on rulemaking. This would seem to be particularly helpful in developing an entirely new standard of water quality standard.

The bylaws of the WRAC state the purpose of the Committee is to provide technical advice to the Department of Environmental Protection on environmental, economic, and other social impacts of existing or proposed regulations, close quote.

That advice was very clearly at the July 25, 2009 meeting. Referring to the minutes of that meeting, Board member Gary Merritt asked whether the Department had taken any actions on the formation of the stakeholders group to discuss total dissolved solids in the Monongahela River. The response was essentially it had not been done. The DEP staff response was, quote this could be a possible parallel path to the development of regulations, close quote. I would ask why would it not be a better course of action to first meet with the stakeholders in the area to gain a better insight as to the cause of high TDS readings to help determine both regulatory and non-regulatory standards.

A resolution passed at the WRAC meeting was also very clear. Quoting from the minutes, WRAC believes that the ramifications of draft Chapter 95 regulations are wide-ranging and have not been adequately analyzed by this Department, close quote. Rather than proceeding with the regulations, WRAC specifically called for the formation of a state-wide stakeholders group.

Three, changing practices in Marcellus Shale expiration. This charge of water used in this industry into waste water treatment systems in

subsequent waterways is a major concern of the DEP. It is my understanding that the recycling of water has vastly increased in this industry, thus significantly reducing impacts on water treatment systems and discharges in the Monongahela River.

My question is whether there have been efforts to sit down with the industry to discuss current practices as well as potential industry practices which could reduce or eliminate the need for new regulations.

Four, clearly assess broad and significant economic implications of this rulemaking. This rulemaking has very significant and broad implications with the private sector and waste water treatment systems. Industry feedback I have seen called the impact of the proposed rulemaking, quote, a shutdown condition, close quote. Meaning they would have to close operations. Where is the assessment of economic impact for the rulemaking? I don't know if the industry concerns are overstated, but they do warrant analysis.

In conclusion as noted before our region needs every job it can create or just keep. Before proceeding with this rulemaking, it is essential that one, the real need for the water quality standard be

clearly analyzed.

Two, standards be developed that reflect scientific studies.

Three, communication with affected industry be pursued.

And four, clear understanding of the economic impacts of the rule must be ascertained. Thank you again for the opportunity to appear at this hearing and to provide comment on this rulemaking.

CHAIR:

Larry Emerson.

MR. EMERSON:

Good evening. My name is Larry Emerson and I'm an environmental manager for Alpha Natural Resources. Our Pennsylvania services and Amfire affiliates operate 21 surface and underground mines and four coal preparation facilities in Western PA. As the second largest coal producer in the Commonwealth with just under 2,000 employees, we are committed to operating safely, efficiently, and responsibly.

I'm speaking tonight in opposition to the proposed rulemaking to amend 25 PA Code Chapter 95 and to add new end of pipe effluent standards for new discharges containing high concentrations of TDS, sulfates, and

chloride. And I do so primarily because the proposed rulemaking is premature and is neither based on sound science nor economic realities.

We appreciate the opportunity to present comments and hope the Department considers the full impact of this regulation on Pennsylvania.

First it is clear that the proposed rulemaking is by DEP's own admission predicated on very limited sampling of the Mon River between October and December of 2008 when river levels were at historical lows and there were high dissolved solids concentrations entering the Commonwealth from the South. Again by DEP's own admission, TDS levels dropped after prolonged dry weather moderated and rainfall conditions returned to normal.

On that basis, the DEP is attempting to take a giant regulatory leap based on a temporary condition in the main stem of the Mon River and is now proposing a statewide effluent limit on TDS in all watersheds. This approach is clearly unjustified.

Further the DEP asserts in its November 14 PA Bulletin, the studies performed by government agencies document the adverse effects of discharges of TDS on chronic communities and certain receiving streams. The regulating committee has asked numerous times for

copies of those studies.

To date, the DEP has not provided any of that data. They couldn't even allow an ındependent analysis much less arrive at a conclusion that a statewide standard is appropriate. In short, the DEP is basing this rulemaking on data that is either non-representative of statewide conditions or has not seen the light of public review. For these reasons, the rule making is premature and is not based on sound science.

Second, the DEP makes contradictory statements in the PA Bulletin by initially stating that there does not currently exist a treatment for TDS, sulfates, and chlorides other than dilution. Then it goes on to state that treatment costs will be in the order of 25 cents per gallon.

While we appreciate the DEP has a public duty and cannot completely project the economic consequences of this action, the proposed rule will adversely impact many sectors of the economy, especially those with high volume discharges. Consequential in analysis of the majority portion of the coal sector and as we have already indicated the DEP through the Advisory Committee, the only viable treatment technology available today is reverse osmosis followed by

evaporation and crystallization. The minimum estimated cost of treatment to meet the limits imposed by this rule on the coal sector based on real data will result in capital and operating costs of over $49,000 per gallon per minute. Industry-wide, it is estimated that treatment cost alone will require $1.3 billion in capital expenditures and operating costs are estimated at around $133 million annually. This is a far cry from the estimated 25 cents per gallon suggested by the agency.

And this does not even include the solid waste treatment that will result from this treatment process. The solid waste has to be land filled somewhere, and the DEP's cost estimate does not address this at all. Neither has it considered the implications of the enormous electricity consumption that would be needed to run these large treatment facilities.

Clearly the DEP has not completely investigated the cost benefits of this rule and we all would be well served to understand the impact of this action before it is imposed in a little over one year from now.

Which brings me to the third point and that is the timeframe for implementation is unreasonable. If the

rule is imposed as written, we would estimate that it would take two and a half to three years to conduct feasibility studies, design a treatment plant, and permit such a facility. Given the DEP's recent budget losses and reduction in funds, it is simply unreasonable to impose a compliance deadline of January 2011 when the Department is ill-positioned to handle the additional permitting needed to meet these requirements.

Finally from the standpoint of this rule's impact on new or expanded public and private sector discharges, it is clear that the agency has not fully evaluated the widespread nature of this action. To be sure, this rule will have significant impact statewide as it will impose additional treatment cost on any new dischargers and all existing facilities that add to or increase their discharges consequent to economic expansion, regardless of what activity the discharger is engaged in.

Public water treatment plants and publicly owned sewage treatment facilities will be impacted by this rule and the cost of meeting the proposed rule will likely be born by the taxpayer. Privately held sewage treatment sites serving residential developments, commercial facilities, industrial and mining companies

that wish to expand and add new business will also be affected by this rule. Wherever they might be located in the state, this approach ignores local conditions and stifles economic development throughout the Commonwealth when it is needed most.

In summary, this rule is premature, is not grounded in thorough analysis, and will result in restraints on businesses and additional costs to taxpayers that collectively will work against the rebound in the Pennsylvania economy.

Further it is our hope that the Department sees the wide-ranging impact to all industries that will be affected by this rule. And with this information we hope the Department will take a step back and not pursue TDS limits at this time. Thank you.

CHAIR:

David Cannon, please?

MR. CANNON:

My name is David Cannon, I'm vice president of environment health and safety for Allegheny Energy at 800 Cabin Hill Drive in Greensburg, Pennsylvania. Allegheny Energy owns and operates eight generating facilities in Pennsylvania with a capacity of over 2,750 megawatts including coal, natural gas, and hydroelectric units. We serve

approximately 715,000 customers with low cost, reliable electric service in 23 counties in the Commonwealth. We employ 2,170 people at 26 facilities across the state. Allegheny Energy also has operations in West Virginia, Maryland, and Virginia.

Before publishing the draft Chapter 95 rule, the DEP sought input from its Water Resources Advisory Committee, or WRAC, and WRAC recommended against proceeding with the rulemaking at this time because PA DEP had not adequately assessed the ramifications of the draft rule. WRAC also recommended a subcommittee be set up to review the issue. DEP rejected the WRAC's recommendation against proceeding with the rule, but did set up the WRAC's TDS subcommittee to further evaluate the issue. I am a member of that subcommittee representing the power generation industry and Allegheny Energy is committed to work with PA DEP and all the affected parties to address TDS issues in Commonwealth waters. And there are a number of members of that subcommittee in the room.

As a member of the subcommittee, I'd like to take this opportunity to publicly thank Deputy Secretary John Heinz for the leadership and a real spirit of cooperation I think he's brought to the subcommittee's deliberations. But with regard to the

draft rule, however, as has been discussed in the subcommittee meetings and raised by numerous parties throughout the Commonwealth, there's significant problems that should be addressed before any final action is taken.

These include one, the rulemaking is premature due to insufficient information on loadings, sources of the TDS, impact, and treatment technology.

In other words, we're still not sure if the sources of the TDS that seasonally affect various sampling points in the Commonwealth's watersheds such as the Monongahela River.

Two, the potential cost for affected parties are significant, potentially imposing billions of dollars in costs.

Three, there is no rational nexus between the perceived problem and the rule. Billions of dollars in treatment might do nothing to resolve any TDS issues. This issue is plainly demonstrated in the Chesapeake Bay strategy where extensive studies show that eliminating all point sources would not significantly affect the nutrient levels to the watershed, so different approaches had to be taken.

Four, there's significant uncertainty as to whether technology even exists for different

industries to meet PA DEP's proposed end of the pipe standards.

Five, many suggested treatment technologies have other energy and environmental impacts such as solids generation and disposal that must be more thoroughly assessed.

Six, given the required time for technology development, installation, and permitting, PA DEP's goal to rule effective January 1, 2011 is not workable.

In a best case scenario it would take three to five years to design, permit, procure and construct the requisite technologies.

Point seven, the proper resolution of any TDS issues in multi-state watersheds such as the Monongahela for example, would address the entire river basin and accordingly include other affected states such as West Virginia. Again, the best model would be that followed by the multiple stakeholders and the multi-year effort of just be fed.

My final point is recent meetings of the TDS subcommittee have suggested that the volume of the Marcellus shale waste water and the number of potential treatment facilities have decreased. Accordingly, the original driver for the regulations,

one of the major original drivers, should be reexamined prior to any end of the pipe standard being analyzed.

I thank you for the opportunity to comment. Allegheny Energy will be submitting more detailed comments as part of the public comment period and will continue to work with DEP and the WRAC subcommittee as well as other affected parties as we move forward. Thank you.

CHAIR:

Myron Arnowitt?

MR. ARNOWITT:

Good evening. My name is Myron Arnowitt. I am Pennsylvania State Director for Clean Water Action. Clean Water Action's office in Pittsburgh is located at 100 Fifth Avenue, Suite 1108, Pittsburgh, PA 15222. I personally live in the City of Pittsburgh on the west side.

Clean Water Action will be submitting more detailed comments to the Environmental Quality Board. I'd like to present a few thoughts on the DEP's proposed regulation.

Clean Water Action is a nation environmental organization. We have 150,000 members throughout Pennsylvania and we work to protect America's waters

and to ensure that we have healthy communities in our state.

DEP's proposed revisions to Chapter 95's water treatment requirement cover all our sources of total dissolved solids, or TDS. It is clear though that the rush to drill for natural gas in Pennsylvania's Marcellus shale is a primary concern and that these issues must be addressed in the regulation.

Clear Water Action is pleased to see that DEP is setting discharge standards for TDS that will go a long way towards ensuring that our rivers and drinking water supply will not face dangerous levels of these pollutants as they have now.

In Southwest Pennsylvania it's the Monongahela River that supplies most of the water to 350,000 residents including several thousand of our members, has not met several drinking water standards for TDS for the past few years.

These levels of TDS in the Mon River have not been seen previously in the several decades of data that the DEP has presented and I'm a member of the TDS stakeholders group that has been mentioned previously and thus received the presentation by DEP that day. These levels of TDS ---.

So in addition to the Mon, also the Beaver River

really hasn't for the most part gotten over the TDS limit for drinking water standards is getting dangerously close.

DEP's proposed standard would not only protect drinking water supplies from TDS, but also will ensure that fish and other aquatic species are protected from this pollution. High TDS levels in Dunkard Creek caused a devastating fish kill last September and we must ensure that this does not happen again.

Clean water is not just important for aquatic species that have to live in the river, but also for a wide range of companies that depend on clean water supplies, including forestry and recreational fishing, but also including large industrial and manufacturing based uses that are located on rivers throughout our region.

It's critical that DEP set a TDS standard that protects all uses of the river and not just rely on the rivers as a disposal site for our treated wastewater.

DEP has proposed that this new wastewater treatment standard is going into effect January 1, 2011. We urge the state to act quickly to get these new rules on the books as soon as possible.

In the meantime, DEP should not continue to hand

out permits to drill new Marcellus shale wells which are just going to add to our --- to the amount of poorly treated wastewater that is currently going into our rivers and streams. It does not make sense that we would need these --- that we are saying on the one hand that we need these new standards to protect our rivers but at the same time it is okay to discharge displaced water without standards for the next year or so.

Our region currently has a number of resistant plants that are taking or discharging Marcellus wastewater with little or sometimes no treatment including discharge in Allegheny, Fayette, Indiana, and Lawrence Counties.

While there are some treatment plants outside of the state that handle TDS and waste water there are currently none operating in Pennsylvania. If the oil and gas industry wishes to continue to generate wastewater, they must established wastewater standards for TDS. This is only common sense, it is not currently what is happening. And it's critical that DEP not permit new wastewater plants to discharge Marcellus waste water and thus this plant can affect DEP standards.

DEP's proposed standard covers five contaminants

common in Marcellus waste waters are TDS, chloride, sulfates, barium, and strontium. We would urge the DEP to consider some additional contaminants which have frequently been found in Marcellus waste water and that are highly toxic including bromide, arsenic, benzene, and radium.

All of these contaminants are linked to higher cancer risks. Bromide can cause problems for the drinking water system that have treatment plants that use chlorine for disinfection. The combination can resolve in high levels of trihalomethanes which have been tied to bladder cancer and reproductive problems.

Already two public water systems in the region, the tri-county municipal authority in Elizabeth Township have had violations for their levels of trihalomethanes and many of our large water systems in the region are dangerously close to the current standard for this pollutant.

Finally while industry will assert that the new rules will cost billions, already ingenuity in the field of wastewater treatment providing some new potential solutions including source reduction and including new technologies that are coming into play. There's an article in The Leader Times about new companies in the area that are excited about being

able to utilize companies wishing to treat TDS. These rules are needed and they can be carried out. We need to make sure we don't treat this problem like you did at the beginning of the coal industry in Pennsylvania by assuming that the supposed riches coming in the future will balance out our environmental damage.

Unfortunately we are still paying millions of dollars in taxpayer money to clean up the damage done by the coal industry. We are already looking at the TDS that destroyed Dunkard Creek. Let's act quickly to protect one of the only truly necessary resources for our region, clean water.

I'd just like to make one additional comment with the issue of the vote at the Water Resources Advisory Committee. I do think it's important to not a couple of things.

One, is that there were several votes; two of them were opposed to the public comment immediately. Those were from Departmental organizations, it was not a unanimous decision of the WRAC.

And second, the decision was really between whether the proposal should go to public comment to get public input simultaneous with DEP establishing a stakeholder process, which is also in the proposal. Or should DEP establish a stakeholder process and wait

and delay public input until after the stakeholder process has come up with their recommendation.

What our organization voted for in the WRAC was that the public had a chance to chime in parallel with the stakeholders process which is what is going on now. I think that it is important to understand what the vote in WRAC was actually about. Thank you very much for your time.

CHAIR:

Cassie McCrae?

MS. MCCRAE:

Good evening, everyone. My name is Cassie McCrae. I'm here this evening to present comments on behalf of the Center for Coalfield Justice. The Center for Coalfield Justice is located at 184 South Main Street in Washington, PA.

And for the past 15 years the Center has been working in Greene and Washington Counties to advocate for the rights of citizens and also work towards protecting their environment.

In Southwest Pennsylvania we recently watched a fish kill in Dunkard Creek stretch throughout 42 miles of stream in Greene County, Pennsylvania and West Virginia. Many industry representatives are prepared to blame the golden algae bloom for destroying

virtually all the aquatic life in Dunkard. It's entirely irresponsible for the rest of us not to recognize that these are the very companies that created the conditions of possibilities for that otherwise alien algae. Without extremely high total dissolved solids levels, particularly chloride, golden algae would never have grown in the otherwise fresh mountain waters. Without the dumping of various fluids among them, wastewater control based coal hydraulic fracturing, Dunkard Creek would never have had these enabling TDS levels. The DEP's own water quality data reflects that many of the Commonwealth's major watersheds simply cannot assimilate additional TDS sulfates and chlorides. In addition to Dunkard Creek, this was demonstrated last year when 17 notable water supply intakes in the Monongahela River Basin failed to meet water quality standards including high levels of toxic bromide, disinfection byproducts that increase the risk of bladder cancer for residents of the Commonwealth. We find ourselves in this situation because the Department of Environmental Protection has so long operated by the principle that dilution was an effective treatment for total dissolved solids, sulfate, and chloride. Presently there are no operating facilities in the Commonwealth capable of

removing total dissolved solids. The first of its kind is currently under construction and I expect it to be complete by 2011. Meanwhile, gas companies continue to expand their operations with millions upon millions of gallons of water contaminated with high TDS levels will have to go somewhere.

In order to treat the total volume of waste water from hydraulic fracturing we will need over 50 identical facilities to the one currently under construction. If the Commonwealth fails to recommend greater wastewater regulation now, we stand at great risk of no longer being able to provide clean, safe drinking water for the citizens of the Commonwealth in the near future.

We must have safe drinking water. The standing proposal for the Department of Environmental Protection will help to ensure that we have a safe water supply for our citizens in the coming years. Industry must be required to cease all cleaning operations until the Commonwealth has established clear and efficient regulations of waste water management and bear in mind the future security of public health and our most valuable natural resource, water.

Moreover, the Department of Environmental

Protection should add discharge standards to the most contaminants that are frequently found in Marcellus shale and gas drilling wastewater. You should extend bromide, arsenic, benzene, radium, magnesium and possibly others. The Department of Environmental Protection needs to ensure that all aspects of the generation of Marcellus wastewater are regulated.

Currently there are no requirements to track wastewater from drilling sites to treatment plants, and there is no oversight over the reuse of Marcellus wastewater. These are gross shortcomings that put the public health of Pennsylvania's citizens for years to come are simply unacceptable.

It is an excellent beginning to limit the new discharges into the waters of the Commonwealth. But the DEP also needs to consider limiting existing discharges.

If a recent pollution began from the Monongahela River Basin south fork of 10 mile creek and Dunkard Creek have demonstrated anything, it is that the existing allowances are already beyond the capabilities for assimilation by the region. We are well beyond safety levels for TDS, sulfates, and chlorides and it is the clear responsibility of the Department of Environmental Protection to take action

on this matter. For these reasons we strongly support the proposed rule Chapter 95. And if I could just add on a personal note, I'll give you my personal address too. 38 Shade Drive West, Pittsburgh, PA 15228. In response to all the discussion about economic hurdles which I can certainly appreciate, but quite frankly until you figure a way to drink money, we have no choice other than to establish that the consummate business of this Commonwealth is maintaining clean and safe water supplies.

CHAIR:

Donald Giddon?

MR. GIDDON:

My name is Donald Giddon. I reside at 205 Elysian Street, Pittsburgh, 15226.

CHAIR:

Would you mind spelling your street?

MR. GIDDON:

E-L-Y-S-I-A-N. I apologize to start with for two things. First I have tubes down my throat and my speech is not very clear. I apologize for that. But maybe that means you have to listen more carefully.

Secondly, I apologize for my voice at this point. I must admit the first four speakers --- a great deal.

As a member of the Sierra Club and I have great concerns with the issues that were expressed by various public but we also have something to be concerned about here. Can we be absolutely sure that water quality affects all organisms including humans --- downstream of a discharge. That includes cows on the streamside, vegetable farmers that use the water to irrigate their land, and draw water from the stream through their roots. This problem of discharge in the streams is not limited to so-called aquatic organisms because in fact we are all aquatic organisms. Almost everything living is affected by this.

Secondly, let's move forward. It's time for everybody to jump on the bandwagon. Well, wait a minute. The problem isn't going away and the price is only going up. Let's do this in an intelligent way. Let's determine how you're going to permit new --- before we permit them. No one can --- supervision ---. Besides that, the whole industry is --- If you discharge --- wastewater from ---. So they're working hard to improve their performance. That doesn't mean --- should be any lower. I spent 20 years in the water treatment business. I worked for --- Corporation. I know a little bit about water treatment. Does everybody understand what total

dissolved solids are? It's precipitated out, to delete it. You could put it in an unfamiliar sewage treatment plant and that'd never happen. What went in comes out the outside. So expense of --- dissolved solids. The precipitated somehow. Or --- expensive. It's just that simple. We can't destroy the Commonwealth's --- resources because we want the best. If we do that, if we --- water. It's just that simple. It's not us against them. Everybody's in this together. I agree with the first four people who spoke that this is more than just --- treatment plants and we won't have the treatment plants in time to accomplish this rule. I'm not sure the rule is --- anyway. I haven't seen a table of components of the water that lists the discharge limits of the individual components. How much arsenic are we going to allow in the water? How much radium are we going to allow in the water at this time? Have you read the scores of Marcellus shale components in Texas? When they produce --- those residue in the valves and the pipes and into the tanks and whatever disposal they have, but suddenly they realized that radium is precipitating out of the ---. Another has to do with waste disposal on the fittings and then we have to do waste deposal on the fittings at the well holes. And

we don't have the disposal systems to deal with it. If it happens and we've permitted all these wells and suddenly we've got a bunch of --- in the Commonwealth, what then. Finally, I think we have been --- of natural gas. Of the 15 highest producing states, Pennsylvania being the 15th, the other 14 above us all have some tests. But we need the money in Pennsylvania from the business. I know I'm not going to go turn this in because this has little to do with this right now. Thank you very much.

CHAIR:

Did you say that you do not wish to submit written comments?

MR. GIDDON:

Not this.

CHAIR:

And you will turn one in?

MR. GIDDON:

I will.

CHAIR:

Okay. Joylette Portlock?

MS. PORTLOCK:

I am Joylette Portlock. I am the Pennsylvania Outreach coordinator for Pennsylvania's Future, PennFuture. We are located at 425 Sixth

Avenue, Pittsburgh 15219, suite 2770. We are a statewide public insurance membership organization. We operate in Harrisburg, Pittsburgh, Philadelphia, West Chester, and Wilkes-Barre. PennFuture's advocating and litigating to protect health and environmental quality across the Commonwealth.

PennFuture supports the Environmental Quality Board's proposal to amend 25 Pennsylvania Code Chapter 95 to establish effluent standards for these resources of wastewater between high concentrations of total dissolved solids, or TDS.

We also urge the EQB to extend those proposed standards in two ways. First by eliminating the applicability thresholds of 2000 mg/L or 100,000 pounds per day.

And second, by making them applicable to listing source through the addition of a transition gain. Pennsylvania's rivers and streams provide billions of dollars of direct and indirect economic benefits to Commonwealth families, farms, and industries.

Recent developments have shown such benefits to be threatened to a greater extent now than they have at any time since the clean water laws which strengthen for basis industrial pollution. The new threat comes from wastewater from manufacturing. Again there is an

active model and gas drilling operations have produced wastewater pollutants and gas which consist mainly of a variety of sulfate. In late 2008, high TDS levels in the water of the Monongahela River south of Pittsburgh threatened to shut down industries that are dependent on the River's fresh water for their operations. And in effects water supplies to approximately 330,000 people in the Southwestern part of the state. The Mon is already burdened with high TDS levels due to discharges from the coal mining industry and became overburdened from the extremely high TDS wastewater produced by gas drilling operations. More recently, in August and September 2009, the discharge of high TDS wastewater into the Dunkard Creek from the coal mine in West Virginia and Pennsylvania created conditions that virtually wiped out the stream's population involved in massive kill of fish. Over the next several years, development of the natural gas from shale in Pennsylvania threatens to exacerbate the problems in the Mon and Dunkard Creek and to extend them to other rivers and streams throughout the Commonwealth. PennFuture agrees with the conclusion of the Pennsylvania Department of Environmental Protection that it cannot protect the quality of rivers and streams in the Commonwealth and

still approve, quote any significant portion of the pending proposal and applications from resources of discharge of high TDS wastewater that includes sulfates and chloride, end quote. Or continue to allow the pollution to be used as a method of treating wastewater and TDS. However, contrary to the Department's belief that currently no treatment exists, treatments for TDS, sulfates, and chlorides other than pollution, end quote, there are several currently available treatment technologies that can be used to meet the limitations in section 95.10. Much of the high TDS wastewater generated by sources other than Marcellus shale gas extraction can be treated by reverse osmosis. Indeed the reverse osmosis is successfully used in thousands of facilities around the world to extract solids from clean water which typical has TDS levels of approximately 35,000 mg/L so that it can be used for drinking and household purposes.

Although reverse osmosis and other conventional treatment technology would generally not be suitable to treat the extremely high TDS wastewater often produced by Marcellus shale gas extraction, GE Water and Process Technology and other companies are advertising concentration, vapor compression

evaporation, and other filtration technologies that are claimed to be suitable for treating high TDS wastewater from shale gas extraction. Indeed on Saturday as referenced earlier, Leader Times newspaper reported that a joint venture formed by two companies was able to perform on-site treatment of Marcellus shale wastewater at a site in northern Butler County, using a patented treatment at a cost of about $6 a barrel or 14 cents a gallon, a cost that would ease the economic especially for multi-billion dollar gas drilling companies.

PennFuture believes that by limiting TDS discharges into Pennsylvania streams from new sources, the proposed amendment will permit the Department to begin addressing the TDS discharge into Pennsylvania's rivers and streams. The proposed F1 standard will help ensure that the cost of protecting the streams and rivers from contamination by TDS will be born by those who generate the contaminates rather than by those who dependent on cool water from rivers and streams for recreation, agriculture, industrial uses, or drinking water. The proposed amendment to Chapter 95 are a good starting point, but they must go farther if Pennsylvania's rivers and streams are to be truly protected to the degree guaranteed under

Pennsylvania's clean stream law and the federal clean water act.

The proposed F1 standards for new discharges of high TDS wastewater should be extended in two ways.

First, the contrast of high TDS wastewater and the related applicability threshold with the TDS concentration 2000 mg/L or about 100,000 pounds per day should be eliminated. This change will be consistent with other technology based treatment being requested. It would also eliminate an inconsistency that the regulation will permit in this current formulation. Facilities that discharge very low volume of wastewater concentrations above 2000 mg/L will be required to treat the discharges to 500 mg/L.

Even though the TDS levels added to the streams might be relatively insignificant. While facilities that discharge high volumes of wastewater at concentrations less than 2000 mg/L will not be required to treat, even though the amount that are added might lead to significantly high volumes.

Second, the proposed effluent standards should apply to existing sources. Whether a national pollution discharge elimination implements the permit are renewed or modified. Extending the effluent standards to existing sources will not only reduce the

amount of starches of Commonwealth's rivers and streams, but will also level the regulatory and economic playing field between new and existing sources of TDS wastewater.

Making all source play by the same rules will ensure the cost of protecting the quality of Pennsylvania's rivers and streams is not formed disproportionately by new industry and operation such as the virgin shale gas industry which is expected to provide thousands of new skilled jobs and huge direct and indirect economic benefits.

Further, by extending the effluent standards to both existing and new discharges of TDS wastewater, you will strengthen the demand for treatment for future technology.

PennFuture is confident that the market will respond with suitable, low cost treatment method which should position Pennsylvania to reap further job creation and other benefits of being a leader in supplying new treatment technology both in the United States and around the globe.

PennFuture will be submitting additional written comments on various details of the proposed rulemaking. In general, we believe the proposed changes and additions are a prominent first step for

Pennsylvania's citizens, farmers, and industries. But instead of being limited to new sources of high TDS wastewater, the new F1 standards should apply to all sources of wastewater and TDS. They should be applied immediately to new sources of TDS wastewater without triggering threshold and they should be extended to reducing sources of TDS wastewater upon renewal or modification of the sources of TDS wastewater. Thank you for allowing me to comment here today.

CHAIR:

Suzanne Broughton?

MS. BROUGHTON:

My name is Suzanne Broughton. I live at 2377 Jenkinson Drive in Franklin Park. I am president of the League of Women Voters of Greater Pittsburgh. However, today I am speaking as an individual because the proposed regulations are statewide. So addressing them for the League is the prerogative of the League of Women Voters of Pennsylvania, our statewide organization. And they may do so.

But I would like to note that the League is currently studying all aspects of the extraction of gas from Marcellus shale and expects to arrive at conclusions in the Spring of 2010. And I'm sure that both the Environmental Quality Board and the

Pennsylvania legislature will hear more from me following the completion of the study.

I am also the widow of the late Duquesne University Law professor Robert Broughton, developer of Duquesne's course in environmental law and for a while Chair of the Pennsylvania Environmental Hearing Board in 1973 to '74.

I worked closely with Professor Broughton on environmental concerns during his life and I maintain that interest today in part as a vice president of the North Area Environmental Council, which is a group in the northern suburbs of Pittsburgh which Professor Broughton and I were among the founders 40 years ago.

It appears to me that while the Marcellus shale may have been the approximate cause of the development of these proposed amendments to 25 Pennsylvania Code Chapter 95 and seems to be the cause of heightened public interest in their adoption. These amendments apply to the effluent oil gas operations more generally and to other effluence as mentioned here in the earlier testimony has surely indicated. When I started to write this I was thinking this was a Marcellus shale issue, but it's clearly much broader issue.

In fact, I think these amendments may be long

overdue. As I have followed the publicity surrounding the enormous fish kill in Dunkard Creek, I have noted the emerging view that the offending wastewater was discharged from Consol Energy's. Most recently the Post Gazette reported that West Virginia will allow Consol to resume pumping this wastewater from the mine because not to do so will allow it to back up into the mine and jeopardize the safety of miners underground.

An internet search turned up an article in an online publication of the Charleston Gazette in Charleston, West Virginia. They quoted West Virginia's Department of Environmental Protection as stating that Consol Energy has agreed to stop ejecting wastewater from coal benemethane from its Blacksburg mine number one to determine whether that wastewater ejection are increasing pollution discharge to Consol's Blacksburg number two mine.

So it seems to me that the fossil fuel industry is capable of weaving a web of interconnected coal and gas facilities and processes without a whole lot of thought about the effects of the resulting effluent and capable of creating a situation where the maintenance of mine safety and personal safety requires discharging toxic effluents in public waters. I think we can do better.

In addition, a transcript from one of those September 23 broadcast on national public radio stated that since 2002 Consol has been violating West Virginia water quality standards by releasing high levels of chloride in the streams at several sites and polluting the waters in 2003 and then again in 2004, 2007, 2008, --- to give Consol additional time to meet these standards. My next piece dealt with the Pennsylvania Bulletin announcement and quoted of the stream analysis of the Monongahela as well as other streams that others have mentioned so I won't read that thought. While being in Pennsylvania cannot determine what regulatory enforcement occurs in West Virginia, we can set a better example.

A West Virginia news release dated back to at least 2002 suggests to me that TDS problems predates the advent of the Marcellus shale extraction and it follows in Pennsylvania and that it is from various sources and would be very wise.

And therefore I conclude that the Pennsylvania standards for TDS have been insufficiently strict and have been for some time. I understand the comments on the insufficient data and scientific process and it may be that there is more than one approach to how we solicit public input and that the state voters meeting

is a fine idea and that public comment is a fine idea in what the order these things aught to be. But the goal ought to be the same. Article One Section 27 of the Pennsylvania Constitution states that people have a right to clean air, pure water, and the preservation of natural environment. Pennsylvania's public natural resources are the common property of the people including generations yet to come, and as a trustee of these resources the Commonwealth. Writing in the Pennsylvania Bar Association in 1970 Professor Broughton had a hand in developing the language of that amendment concluded that such language as in the amendment. It will, quote, in many areas provide a possible weapon which can help prevent further deterioration of the quality of the environment in Pennsylvania. It should effectively shift that balance of legal power to enhance environmental quality and the human race at least a decent chance in years to come, end quote. It did pass. And this Board is part of those quote generations yet to come. Inheriting the responsibilities uphold this constitutional language and to prevent further environmental deterioration. In averting the toxic conditions that result in an excess level of toxic is an aspect of that responsibility. Now for a minute

let me get away from what I wrote. I'm 73. I'm probably older than most if not all of the people in this room. My memory goes back to the beginnings of cleaning up our rivers and the Hudson River resulting in the national environmental policy act. And my memory, though it isn't perfect as I grow older, says that almost every case that we found that we needed to clean up something, the industries involved would come up with expositions as to why they couldn't do it and why it would cost too much and so forth. And yet if you look at things today and much of it was done, the industry survived and so did our economy most of the time. And so I would urge the Environmental Quality Board to fulfill the responsibility of the Constitution of Pennsylvania. By not adopting the views of Chapter 95 as they are by certainly proceeding along the lines of developing an adequate policy and adequate amendments to deal with the long standing and growing total dissolved solids in an effective and efficient way. Thank you.

CHAIR:

Sean Isgan?

MR. ISGAN:

Thank you for giving me the opportunity to speak tonight. My name is Sean Isgan. I'm from

Somerset, Pennsylvania and I am owner of CME Engineering. We employ 70 people providing civil, mining, and environmental engineering skills to a diverse group of industrial and municipal clients.

Our firm was engaged by the Pennsylvania Coal Association to provide an independent opinion as to the effect of the proposed Chapter 95 regulations that they would have on the Pennsylvania mining industry. Myself and colleagues from our firms spent considerable time in reviewing and analyzing the proposed regulations. We have serious concerns that the regulation as written will have resounding negative implications for the mining industry as well as all industries and municipalities throughout the Commonwealth.

We also have concerns that adequate study has not been conducted to first determine if there is a TDS problem and if so, the magnitude of that problem.

Secondly, the cost to comply with the proposed regulations does not appear to have been carefully addressed.

And thirdly, the waste products that will be generated by the required available treatment technology have not been appropriately considered.

We understand that PA DEP's Water Resources Advisory Committee, WRAC, made up of environmental groups, academics, industry representatives and others considered this in their meeting on July 15, 2009 and recommended the DEP to not proceed with the rule as proposed. The Committee instead recommended the DEP work in conjunction with WRAC to form a stakeholders group to analyze issues and develop appropriate solutions before proceeding with the proposed rulemaking. We agree with that decision.

November 7, of this year proposed Chapter 95 rulemaking places end of pipe discharge limits to 500 mg/L TDS, 250 mg/L sulfate, and 250 mg/L chlorides, the discharges that did not exist on April 1, 2009 or discharges that weren't ---. Based upon our review of DEP data available at the time of the report, it appears that the proposed regulations are based on a few months of water monitoring conducted in the Mon River during an exceptionally low flow period in the fall of 2008.

Considering the enormous impact this regulation will have on public and private treatment plants, it does not appear that DEP has conducted the appropriate studies to determine that there is a real

sustained threat from TDS concentrations, the extent of the threat, or the correct parameters and concentrations to control TDS.

West Virginia University's Water Research Institute has collected and analyzed data from the Mon River for a period of years and it had two presentations in 2009 regarding TDS. The Institute monitored the Mon River at Point Marion from 1999 to 2006. During that timeframe, the Point Marion monitoring location showed declining trends in chloride, sulfates, and TDS.

We note that EPA has established national on your drinking water regulations that set mandatory water quality standards for drinking water contaminants. These standards established primary and secondary maximum contaminant levels, MCLs, for substances in drinking water.

Primary MCLs are established based on hazard potential to human health and secondary MCLs were established for non-hazardous substances. The EPA has not established primary MCLs for TDS, sulfates, and chlorides, choosing instead to establish secondary MCLs.

The secondary MCLs are guidelines to help public water systems manage their drinking water for

aesthetics such as taste, color, and odor.

If the proposed Chapter 95 rulemaking is approved, it will have a significant impact on industry and municipal treatment plants due to the limited treatment technologies available to reduce TDS and the extremely high capital and O and M costs associated with these technologies.

We at CME evaluated treatment options to reduce mine wastewater TDS concentrations and this information was presented to the WRAC TDS stakeholders group on September 22, 2009. We looked at managed discharge, managed treatment, electro dialysis, precipitation, liquid to liquid extraction, reverse osmosis, and evaporation crystallization.

Finally the only technology able to reduce TDS to the limits in the proposed rulemaking for the coal industry is a system of reverse osmosis combined with evaporation and crystallization and much of that would also require pretreatment.

With regard to my municipal approach as highly suspect is this technology has not been tested at length for use by mining wastewaters. There are many problems with the use of this technology, some of which are reverse osmosis will pose a rigorous pretreatment process to remove scaling agents and

biological activity. Our units are custom built to the unique chemistry of the mine water and are not off the shelf items. Due to the variation in water quality, a feasibility study would need to be conducted for each source to be treated.

Some applications require corrosion resistant specialty metals with long wait times for delivery.

As noted above, reverse osmosis combined with evaporation and crystallization and pretreatment is the only viable technology at this time available to reduce TDS, sulfates, and chlorides to the proposed concentration limits. Based on our estimates, treating the volume of water just for the mining industry as presented in our study will cost $1.3 billion. Yearly O and M cost of $133 million. And these costs do not include land acquisition, site development, utility extensions, etc. necessary to construct a plant. The lea time required to design, construct, and implement the TDS system is estimated at two and a half to three years.

We believe the timeframe in the proposed rulemaking is unachievable and the deadlines for compliance are unrealistic. Even assuming there was a need for control for such huge expenditures, it is

insufficient time to complete the feasibility, design, and permitting stages, acquire the equipment, construct the treatment facilities, test them and bring them online.

In addition, cumulative market lead time for materials have not been taken into consideration. There are other associated environmental concerns with this technology coupled with the required energy demand and limited disposal options that make this treatment questionable not only financially but with respect to the overall good for the greater Commonwealth.

For example, power to reduce the billions of gallons of wastewater each year; the energy required to treat, evaporate, and crystallize discharge just from the mining industry is approximately 429 megawatts, another power plant. Disposal of solid waste is not addressed in the proposed rulemaking and we are uncertain that Pennsylvania's landfills will even accept this waste for disposal. Residual solid waste will be generated at a rate of 650 tons a day or 237,000 tons a year as for the mining industry alone.

Wastewater is not evaporated through solid; the volume of residuals in the form of

concentrated brine will be one billion gallons annually. As a business owner who depends on the success of industry, I have serious concerns that the Chapter 95 regulations will force business to leave the Commonwealth, thereby eliminating my clients and causing me to lay off employees.

I request the Chapter 95 regulations be withdrawn and an additional study regarding TDS be performed as recommended by the Advisory Committee. Thank you.

CHAIR:

Emily Clack?

MS. CLACK:

Hello. My name is Emily Clack and I live at 409 Sweetbriar in Pittsburgh, Pennsylvania. I come before you today pretty much as a concerned citizen and environmentalist. As someone who's talked to a lot of people about in Washington county and also Allegheny county about the TDS and heavy metals, especially that have been found in the Mon and around it.

What I've found is a lot of people are really concerned about this. Just as concerned about it as me. What I'm not going to stand up here and talk about is how it's going to affect industry

because I really have no idea. I don't have those numbers.

What I want to speak about is how it's going to affect our communities and our residents. I'm --- specifically in Chapter 95. I want to talk a little bit about the timeline and our solutions for solving our TDS problem in the Commonwealth.

First I want to address the fact that none of these proposed regulations will be going into effect until January 1, 2011, a little over a year from now leaving many of our waterways and drinking water sources open to new TDS solution before that. I would recommend that we limit as many environmental --- limit the amount of permits that are going out until we figure out what to do with this wastewater. And what this will do is leave hundreds of thousands of residents with a question mark as to whether or not their drinking water is safe.

Second and more importantly, I'm very concerned with the solutions Chapter 95 alleges. Although I applaud the DEP's first steps in controlling TDS, it is in my opinion that stronger steps need to be taken. So on reviewing the DEP executive summary of Chapter 95, the DEP says the existing practices for high TDS wastewater is to

remove both heavy metals but currently there is no treatment for TDS, sulfates and chlorides in existence other than dilution. I don't know, I guess I was always taught dilution isn't the solution for pollution and if this is our only way of doing something about it, I think --- that's kind of silly to me.

I, as many of you guys, am concerned about how this will affect industry. So if I had to choose between residents bearing the burden of clean up and the parties responsible, I would always vote for the parties responsible to take ownership for what they've done to the waterways. Because as many other people have said, our water is for everybody.

The responsibilities for TDS --- this is not just an economic issue, but I also believe it is a health concern. For many residents who swim, fish, and drink in the waters affects by high TDS, these residents will have to pay for the cleanup at our own drinking water intake, and it's my hope that the DEP will consider the cost of the taxpayers to clean up this drinking water and think of how the higher TDSs will affect our health.

And I've kind of wanted to address a little bit about what we've --- that there's been a

lot of talk about what to do with the solid waste left over from the treatment of this water. It seems interesting to me because when you talk about how toxic it is and how hard it is to deal with and what I kind of want to pose the question there, maybe we should think about that in our waterways. If it's so toxic, why are we talking about that if we're drinking it or having to clean it up later in public intake? Thank you very much for the opportunity for the comment period. And again I applaud the DEP in the first steps.

CHAIR:

Deborah Goldberg?

MS. GOLDBERG:

Thank you for the opportunity to appear at this hearing. My name is Deborah Goldberg; I'm the managing attorney of the Northeast office of Earthjustice which is located at 156 William Street in New York City.

Earthjustice is a national nonprofit public interest law firm that is dedicated to protecting national resources and wildlife and to defending the right of all people to a healthy environment.

The Northeast office has been approached

on water qualities issues in both New York and Pennsylvania, especially as they relate to discharges of wastewaters from coal production and gas development.

My remarks this evening will focus primarily on concerns about the proposed standards for new gas wastewater discharges containing high concentrations of total dissolved solids. We will be submitting more detailed written comments by the February 12 deadline. I want to emphasize at the outset how urgent it is to address the large volume of high TDS wastewaters that are being generated by gas development in this state.

Penn State has reported only industry forecast of nearly 20 million gallons of gas wastewater per day by 2011. And Pennsylvania waterways cannot dilute that amount of pollution.

Although industry now appears to be backing off the estimate, it is clear that the Commonwealth must act quickly to prevent widespread degradation of its fresh water resources. Repeated high TDS levels in the Monongahela River not only in 2008 but again this year already are polluting the drinking water for 350,000 people. An elevated TDS concentration in Dunkard Creek transformed a diverse

ecosystem into a habitat favorable only to lethal and evasive algae.

Problems of this order, if industry dismisses as extreme cases soon will become the norm if Pennsylvania does not swiftly institute the TDS standards.

If current gas development practice continue and the Department of Environmental Protection does not implement Chapter 95 revisions or regulations equally or more protective of water resources than are currently proposed, industry will use up the assemblance of capacity of every drop of fresh water in the state in a matter of years.

It is harder to understand how the DEP can continue to issue new gas drilling permits, especially for wells that can be developed only through consumptive use of millions of gallons of water each, knowing that there is inadequate capacity to treat and safely to dispose of the physical volume of high TDS level wastewater. No new drilling permits should be issued until standards are in place to protect water quality from TDS and sometimes other far more toxic pollutants that are commonly found in gas wastewaters, unless an applicant certifies under penalty of law that its waste processing and disposal

will produce no discharge into Pennsylvania's waterways.

Such a certification requirement would provide incentives for the development of industrial wastewater treatment plants with zero discharge systems for processing gas waste.

For the same reason, no new or modified permits should be issued for treatment of gas waste until the new standards are in place unless the facility is developing a zero discharge system and can adequately manage the residual waste.

Water quality should not be allowed to degrade further while we wait for the effective date for the new regulations. We cannot wait for a new study to protect the waters of the state. For waste produced by developers already holding gas permits, drilling permits, and for existing wastewater treatment plants that are authorized to process gas waste, DEP's proposed Chapter 95 revision are a move in the right direction. If opposed rush for applications of effluent movement would appear to capture the most significant TDS generators provided that the 2000 mg/L TDS concentrations is the daily maximum and that sources are not permitted to dilute the wastewater stream to evade the applicability of

the new regulation.

As apposed effluent generally will promote compliance of federal drinking water standards and regulation of the current discharge will help ensure the protection of aquatic life.

Earthjustice is also supporting a number of measures to strengthen the standards, a few of which I'll mention here.

DEP should adapt the requirement posed by the Delaware River Basin Commission that discharge is not to cause more than 133 percent increase in TDS concentration over background stream levels. Such a requirement would prevent back-flooding from recent, hard-earned water quality and treatment in some streams, including those affected by acid mine drainage. We should not allow these regulations to slide back instead of making progress.

The proposed revisions eventually should apply to all significant sources of discharges of TDS and other covered pollutants. New sources of discharges should be subject to standards immediately. Existing sources of discharges meeting the threshold should be subject to implement the rule of the use of permits.

DEP should require full characterization

of all gas development wastes and propose standards for additional pollutants commonly found in gas wastewater. Gas development has been proceeding rapidly enough to develop a database for determining which contaminants are our greatest concern.

The well location, type of waste stream, for example whether it's flow back or produce water, a list of contaminants analyzed, concentrations of contaminants found in each sample, pattern information, and other relevant data should be collected on a regular basis and posted to the DEP's website in a user friendly format so the public can understand the risks of improperly managed wastewater and intelligently participate in the process of developing new standards.

Finally Range Resources Corporation announced in October that it is recycling all of the wastewater produced by its natural gas drilling operation in Washington County. And we've also heard about recycling operations in Butler.

Earthjustice would be very interested in knowing precisely what was being recycled. The industry often uses drilling to mean just that, drilling and as apposed to stimulation, production, and other phases of gas development.

Wastewaters from drilling which usually are limited in volume and toxicity may need little treatment for reuse. Flow back and production time are another story. Although environmentally protective recycling is to encourage the disposal of onsite recycling of toxic gas wastewaters should not be exempt from DEP oversight or from public scrutiny.

We need to understand precisely what technologies are being used on these sites and if they are successful they should be promoted further and the economic viability of those technologies should be well known.

If not, Chapter 95 may need revision to ensure that gas wastewater treatment and recycling does not degrade water quality. Thank you.

CHAIR:

Darrel Lewis?

MR. LEWIS:

Thank you. My name's Darrel Lewis. I'm here to testify on behalf of the Pennsylvania Mining Professionals. My address is Box 1022, Kittanning, Pennsylvania. Mining Professionals appreciates the opportunity to provide testimony on proposed Chapter 95 regulations concerning the effluent limits for total dissolved solids, sulfates, and chlorides.

PMP is an organization comprised of engineers, geologists, surveyors, and other scientific professionals involved in resource planning and permit preparation. Certainly coal, industrial mill industries, and providing a liaison between regulatory community and the mining industries.

Organized in 1980, we were working with regulatory agencies to achieve a balance between the mining industry and protecting the environment of the Commonwealth. Our membership also includes industrial mill and coal producers across the Commonwealth.

The Department of Environmental Protection through the Board of Quality is proposing to amend Chapter 95 PA 25 Code to establish a statewide limit of 500 mg/L for total dissolved solids, 250 for sulfates and chlorides. This will have a devastating effect on the industry of Pennsylvania.

The justification for these limits is based on data collected by the Bureau in only two and a half months on the Monongahela River during exceptionally low flow period in the fall of 2008. Considering the extensive stream system found in the Commonwealth, this is hardly a representative sample, let alone a scientific data set. To impose such

restriction based on such minimal data is irresponsible of the Bureau and PMP strongly opposes this regulation.

It should be recognized that the proposed limits are based on secondary drinking water standards as established by the federal Environmental Protection Agency, where it's their considerations like taste, color and odor. The EPA does not enforce these secondary standards, but considers them guidelines to assist public water supplies in managing their drinking water.

To compound matters, reportedly the TDS, chloride, and sulfate concentrations in the Mon River entering Pennsylvania from West Virginia are near or exceeding these limits already. Pennsylvania's industry should not be penalized for high concentrations of compound initiated out of state. The proposed regulations impose these standards on end of pipe discharges that were never intended to meet drinking water quality. Currently the primary means of lowering TDS is through dilution, which the rivers of the Commonwealth have done for years without any ill effects.

To establish these limits at end of the pipe points will cause excessive hardship on industry

such as mining, natural gas, timbering, agriculture, municipal waste systems, and any other industries that utilize water since it's difficult to avoid elevated TDS in water associated with earth disturbance and manufacturing.

Furthermore, the proposed rulemaking requires that any new discharge including changes to existing discharges must meet these standards by January 1 of 2011, barely over a year away. Without dilution from the receiving rivers, the only currently viable treatment of lowering water TDS is reverse osmosis. This process is really only appropriate for the treatment of small amounts of water such as residences. In large quantities such as industrial sites and mines have become infeasible and prohibitively expensive.

Even if industry could meet these unrealistic standards at end of pipe, the timeframe is too short to plan, redesign, and construct these treatment facilities. DEP's permitting process alone can take over a year to complete. Reverse osmosis also results in approximately 25 percent concentrated waste requiring the cost of special handling methods to dispose of properly.

At a minimum, the Bureau of Water Quality

should be required to conduct extensive sampling to determine if there is a problem, the source, extent, duration, and seasonal effects. The Bureau should also evaluate the methods of treatment, predicting outcomes, provide cost figures to substantiate the findings, and include alternatives and analysis, along with social and economic justification for this proposal.

These are not unreasonable requests. Only what DEP requires of the mining industry every day. We're to obtain a permit. Background water sampling to obtain a mine permit must be conducted for a minimum of six months; except where there's historic pollutional discharge, for a minimum of one year sampling is required.

Underground long vault coal mines require a minimum of two years of stream data for an application to even be considered complete enough for acceptance. Industry cannot make a claim without data to support its position in assessing the impacts.

The Bureau of Water Quality should be held to at least the same standards and should not be allowed to impose effluents based on insufficient data and without evaluating the impacts.

We believe DEP's rush to regulate is

based on very limited data, is unjustified, unscientific, and will cause irrefutable harm to many industries within Pennsylvania. The timeframe is unrealistic for compliance and the end of pipe standard would be impossible to meet with today's technology.

Many industrial facilities will be unable to comply and be forced to shut down. This will lead to job loss and flight of industry to other states. In today's economy with Pennsylvania's budgetary problems, we cannot afford to lose good paying jobs or our industrial tax base. For the health of our state's industry, I urge you to reject this regulation and prevent these standards from becoming effective.

Additionally, I state for the record that the Pennsylvania Mining Professionals supports the testimony of the Pennsylvania Coal Association and the Pennsylvania Concrete Association. Thank you.

CHAIR:

Thank you. Bill Belitskus?

MR. BELITSKUS:

My name is Bill Belitskus. My address is 117 Westwood Lane, Kane, Pennsylvania. I live in the oil and gas patch in McKean County in Hamlin Township.

So here's an economic and social

evaluation for you to consider on oil and gas drillings. These resources had better not pollute my water well with their Marcellus well they're going to do across Route 6 from my property.

Very simple, isn't it? And you better have standards for dealing with your wastewater. It's totally insane what's been going on in Pennsylvania. You're basically permitting drilling that you have no ability to treat the water for, the wastewater. You're hauling it across the state right now over Route 6 to Warren to a brine treatment plant that basically was never set up to treat Marcellus drilling fluids, contaminated drilling fluids, or any of the chemicals and heavy metals that are in it. And that water basically then gets dumped into the Allegheny River. You need to stop it now.

So basically I'm just --- my comments are going to mirror really quickly that you need to stop issuing drilling permits and you need to stop permitting wastewater facilities that are not equipped to handle the wastewater that's being created by your process. And this meeting has been astounding, and I'm not going to thank the Environmental Quality Board for finally holding a public hearing where the public could actually come to it. I mean, all the deals that

have been cut so far in Pennsylvania over the past couple of years as Marcellus has moved into our state behind closed doors is astounding.

And what occurred tonight from industries, don't regulate us because we've been doing things for years that there's no process to deal with this. You've been creating wastewater you're telling me basically that you're unable to treat? You knew that all along? What kind of responsible industry would do that? And so my comments tonight are basically focused on Marcellus drilling. And you know you want to be player in Pennsylvania, then you need to start acting like a good citizen. That would be the first thing I'd want to say.

I'm going to concentrate on an issue that I don't think has been covered enough. Radioactive waste from the Marcellus is an issue the Environmental Quality Board and state regulators must designate treatment standards for as they draft new rules for wastewater treatment. An analysis of wastewater samples by the New York Department of Health found levels of radium226 and related alpine beta radiations are up to 10,000 times higher than drinking water standards according to a memo the Agency sent to the Department of Environmental Conservation. This is New

York State we're talking about, across the border from where I live.

The same must be required of equipment used for drilling which can eventually emit much higher levels of radiation and the water itself.

Louisiana, for example, began regulating radioactive materials after it found radioactive build up in pipes dumped in scrap yards and in the steel used to build the schoolyard bleachers. The levels in that state were just one eighth of those measured so far in New York. That's what we know from our adjacent state.

The PA regulations on wastewater totally ignore radioactive waste generated from Marcellus drilling. Details about treatment options for the brine containing radioactive materials generated by Marcellus drilling are nonexistent. I've read the proposed amendment.

Radioactive contaminated drilling fluids and fracturing wastewater is currently being dumped into our waterways from water treatment plants that are not set up to take radioactive substances. The burden of protecting Pennsylvania's citizens from radioactive contamination of its drinking water also in the Commonwealth of Pennsylvania. Pennsylvania has

laws governing radioactive materials but the State's building plans don't specify when they would apply.

Plants that can filter out the radioactive materials are left with a concentrated sludge that has substantially higher radioactivity than the wastewater. Sludge can also collect inside the pipes at well sites and waste bins and in holding tanks. We already know experts who review the concentrations of radioactive metals found in New York's wastewater said the leftover sludge is likely to exceed the legal limits for hazardous waste and would need to be shipped to Idaho or Washington to some of the only landfills in the country permitted to accept them.

And I don't want our municipal landfills to be taking low level radioactive waste as part of your amendment. That's not okay. My landfill in McKean County, Rustic LLC, is now --- we already know it's leaking radioactive treating into the west branch of the Clarion River. And then your Oil and Gas Act, our legislators have totally, this in quote our state legislators, this Environment Quality Board, PA DEP have no updated environmental assessment requirements and regulations in place to protect Pennsylvania property owners' probable water supplies.

You're talking about total dissolved solids; you don't even have a plan to protect our wells from sources of Marcellus contamination with quote and please stop using the new technology. It's not new. They did drilling down of the Marcellus shale in Texas for years. We know what happened in Texas, the contamination that occurred there and the impacts on communities. We know what happened in Wyoming. We know what happened Dimmick, PA over in the Northeast part of the state. And I can tell you citizens in McKean County aren't going to stand up and basically let the Marcellus drilling industry steamroll us.

To date Marcellus drilling contamination has been bargained away out of sight, out of mind, with respect as deals with the industry and the Commonwealth.

And actually you need to hold more than four public hearings. That's absurd. This is the first one that's been available and I had to drive almost three hours to get here.

Finally the statements by John Hanger, acting DEP secretary were quite astonishing. I guess he is our current secretary at this point.

Essentially Mr. Hanger was quoted in the

Reuter's news article saying that Pennsylvanians are just going to have to live with some of their water being contaminated because Marcellus shale gas drilling is just too important. And I'm including that Reuter's news article with our testimony today.

So basically until the Environmental Quality Board has formulated and adopted the required protective regulations for the treatment of Marcellus drilling fluids and wastewater in order to protect Pennsylvania's drinking water and our fish and aquatic life and to protect it from the withdrawal of massive amounts of fracturing water from the Commonwealth's waterways. And I think enough people have said it today, those water resources belong to the citizens of Pennsylvania, not to any one company. I don't care where you're from, Texas or how they do it in Texas, but this is PA and we're not hillbillies up in the woods and we're not going to --- you know, you're not going to basically come in and destroy our streams, pollute our wells with your activities.

So I don't want anymore issuing of gas drilling permits and wastewater permits for treatment by plants that aren't capable of even handling the wastewater that you're taking to them. And that's not just total dissolved solids, that's all the chemicals.

You only have to go out to Interstate 80 right now and watch the tractor trailer trucks coming across from Texas with drilling company names on them and they've got 55 gallon drums wrapped up in plastic on pallets and they have hazardous data safety sheets on the sides of them. Come on, guys, what are you trying to do to us? I'm not drinking it, okay. So actually your regs don't go far enough at this point. Just talking about total dissolved solids, that's a nice thing to get into an argument about, but basically what it comes down to, what I've heard here today should make any citizen in Pennsylvania. We've basically listened to an industry, and a lot of industries, not just oil and gas, get up and whine. And the whine is, hey, we never took care of this stuff, and now you're asking us to do it. And it's going to cost some money. Well, get your wallets out, guys.

CHAIR:

Kurt Limbach?

MR. LIMBACH:

Hello. My name is Kurt Limbach. I'm here to speak as a citizen of Pennsylvania and also as the environmental officer of the Tubmill Trout Club. My address is 350 Creek Road, Oliver, PA 15923.

Now I've sat here tonight and listened to the coal industry, the power industry, and the gas industry tell me that they're going to be good stewards of my water, my public water supplies, and the public waterways. Obviously this is utter nonsense. From the inception of these industries into the state, they have done nothing but harm our environment.

We've heard the power company say that they provide cheap electricity. Well, then obviously they can spend a little money to clean up discharges if their electricity is so cheap. We've had the coal industry say that TDS and drilling is not a problem. They're not the whole threat. I suggest that the coal industry executives prove it by having their families drink water with high levels of TDS in it and they can bathe in it and they can water their plants and their gardens with it and they can do a study with maybe UPMC to show how safe the stuff is. The first 1,500 Marcellus wells drilled in Pennsylvania required which could only be permitted seven and a half billion gallons of water, all of which becomes highly polluted in the dragging process. And like this gentleman said, there is not one facility in Pennsylvania that can treat froth water.

The potential is now to 40,000 wells which would've used an outstanding 200 billion gallons of water. The Marcellus industry is buying this water, it's buying pristine water from water authorities. It's buying very clean water. It should return the water to the Commonwealth in the same condition. It should not be allowed to discharge highly polluted water into the waterways of the Commonwealth or even slightly polluted water. It is buying clean water from our state.

Three years ago I got with the EPA to express my concerns about PA and the coal benemethane gas industry. My reading on coal methane gas industry in Wyoming and Colorado that the total dissolved solids were highly destructive. And I learned the Pennsylvania coal contains 100 times the TDS levels of Wyoming and Colorado coal. So it's not surprising that three years later we have high TDS levels in our water. Because the coal industry has a lot of discharge, TDS water from coal flows directly into our rivers, but first receive no treatment at all.

Now we have other industry people say, well, where there's low flow, it's only a problem because there's not enough water to dilute the pollution. I can tell, I also own a home in Lebanon

and every time there's low flow my water smells bad and tastes bad. I've lived in the Pittsburgh area for over 50 years, I never had water that smelled or tasted from my public water supply. I also heard a bunch of people say that these standards shouldn't apply because they only have to do with taste and smell. Are they suggesting that the public in Pennsylvania should have to drink water which is reputedly healthy but just tastes bad and smells bad? This is nonsense.

The coal industry keeps fooling around saying how cheap their fuel is and it's the answer to America's energy needs. But it's only cheap because they push their problems onto the other people in society. The citizens in society have to pay for their reluctance to clean up their own messes.

I appreciate the DEP's finally holding a hearing, but I think the controls go nowhere near far enough. We're certainly not benefiting economically from the Marcellus. The employees are from out of state, the gas company owners are from out of state, there's no severance tax in Pennsylvania. So the general public gets harmed as our water supply is degraded and destroyed and some other parties are getting rich. That's what's happening here. And it's

time for Pennsylvania's citizens to wake up and defend our clean water. Thank you very much.

CHAIR:

Cathy Pedler?

MS. PEDLER:

My name is Cathy Pedler and I'm here representing two groups today, the Allegheny Defense Project and the Pennsylvania Lake Erie Watershed Association.

The Allegheny Defense Project is located in Kane, Pennsylvania where we've been protecting and restoring the Allegheny's wild forests and rivers for 16 years. The Pennsylvania Lake Erie Watershed Association is located in Erie, Pennsylvania.

Between the two groups we have about 7,000 members that I'm representing today. We've been talking about oil and gas drilling; we've seen our share of that in the Allegheny National Forest where we have currently 15,000 active oil gas wells. We have a prediction of about at least 50,000 more if things continue as they're going with the Marcellus and Blackyard River which are both deep wells, deep drilling processes. I think we know a little bit about the effects of oil and gas drilling and we're very concerned about this proposed rulemaking. DEP

should immediately stop issuing gas drilling permits since there are no discharge standards in place at this time for the total dissolved solids, chloride, and sulfate. It is irresponsible for the Commonwealth to allow these gas wells to be drilled producing millions of gallons of wastewater when protective standards are not yet in place.

We need strong standards to protect our drinking water; we can't allow it to continue to degrade while rules are being developed. The only wastewater plants should be permitted by the DEP. The interim policy of DEP is to allow existing discharges to continue to dump this polluted wastewater into our streams and rivers without meeting the proposed standards until 2011. Some plants that are not expanded will be grandfathered, allowing continued pollution. There are many applications being processed and agreements being struck to allow these polluted discharges to continue.

Our better quality streams don't have TDS saturation problems yet. They are being pushed for high TDS discharges that won't have to meet the new standards yet either. This policy could lead to all of our streams being laden with these pollutants continuing in a downward spiral while regulations are

finalized. We can't degrade our waterways because industry doesn't want to wait to drill and discharge. Until protective discharge standards are implemented, Pennsylvania DEP must stop issuing all wastewater plant permits.

The proposed regulations leave many problems unaddressed. There is no attempt to regulate recycling and reuse of flow back into hydraulic fracturing fluid as some of the other commenters have said. Instead of producing at the well site, some companies are already using these fluids and the concentration of the amount of contaminants in these fluids is not being tracked or regulated. This is a huge loop hole that must be closed to protect our water quality. Discharge standards should be applied to the use of fluids.

DEP must use real data to assess standards, not averages, and propose TDS, chloride, and sulfate standards all use a monthly average to meet a maximum daily requirement. This means they can discharge than the level allowed on any given day as long as they don't exceed it on average over a month's time. We certainly aren't allowed to do that with our bank accounts, so why should they be able to do that with industry?

Pennsylvania DEP must require a continuous measurement to prove compliance so the standards that are adopted are not exceeded. Also the amount of water being consumed at the reservoirs, lost underground during well development and fracturing, reusing --- discharge facility cannot be adequately tracked. A few wells of fresh water two to nine million per gas well will take a toll on our water resources and the discharge of the wastewater will also.

We need the state to accomplish effective water resource planning and management. Discharge standards should require an accurate accounting by history of the quantities of fresh water, reused or recycled water, and discharged wastewater.

DEP must set standards that are protective of aquatic life. An analysis must be done to set standards that do not harm the living communities of our streams and rivers.

Basically just some other points, our history will be known for our decision and the protective resources of the Commonwealth, our drinking water, our aquatic habitats, or to allow them to be depleted and poisoned for private interests. Thank you.

CHAIR:

Mr. Zurowski?

MR. ZUROWSKI:

Bernie Zurowski. 131 Morewood Avenue, Pittsburgh. Do we have a representative from the DEP here tonight? Sir. And what is your title, your ---.

RON FURLAN:

I'm Ron Furlan. I'm the permit and planning division manager of the Bureau of Water Standards and Facility Regulation.

MR. ZUROWSKI:

Of course, I support this amendment. I don't think it should be legal for industry or any individual to pollute any stream or any tract of land or piece of air anywhere. So that's my position. You can be sure that anybody that is attached to industry cannot be trusted. We have to ask ourselves who are the trusted? Who are the trusted? I seriously doubt they're these people. We can trust each other. You got to get involved. Thank you.

CHAIR:

Dan Pickering?

MR. PICKERING:

My name is Dan Pickering. I am a citizen of Allegheny County. I grew up in Pittsburgh, spent

all my life here and these issues are very dear to me because it affects me, my family, my neighbors and my community and I support the amendment because I feel that industry should put back the water the way it was taken out. Very simple. It does take a lot of rocket science to figure out the logic. They're concerned about the cost of doing that. Well, the costs are going to get paid, and they're going to get paid now or later. You want to pay them now when you can also save the environment in the process, or do you want to destroy the environment and then pay later? You get a double whammy. You get one whammy or you get two whammies, what do you want? I think one whammy is the way to go. It's kind of simple.

Should the solid wastes they're concerned about, they don't know where to dump them? Oh, so we dump them into our water. That's a good solution. I'd rather put them in a landfill or find a solution. The solution is not to dump them back into the water. It's not a complicated issue. And that's basically where I stand on that issue.

CHAIR:

Debra Limbach?

MS. LIMBACH:

Hello. My name is Debra Limbach and I

live at 350 Creek Road in Bolivar, Pennsylvania, 15923.

And as a fellow custodian of this fine earth of ours I want to just comment that I support the proposed changes issued by the DEP for its Chapter 95. Thank you very much.

CHAIR:

Is there anyone else wishing to provide testimony tonight?

MR. D'AMICO:

I would like to speak.

CHAIR:

Okay. Your name, please?

MR. D'AMICO:

My name is Louis D'Amico. I am executive director of the Independent Oil and Gas Association of Pennsylvania. My office is at 115 VIP Drive, Suite 210 in Wexford, Pennsylvania.

Members of my organization, the Independent Oil and Gas Association of Pennsylvania, are as interested in protecting our water resources as any other organization in the Commonwealth. We do however have a considerable number of concerns regarding our environmental protection proposal to limit stream discharges to 500 mg/L total dissolved

solids.

The U.S. Environmental Protection Agency has found no potential health effects of concentrations of 500 mg/L. The real issue here is what impacts the various constituents of TDS have individually, aquatically, health or other issues at what concentrations.

For example, during the low flow periods of the last year, the Monongahela River had issues related to high TDS. The primary constituents were found to be sulfates. Chlorides, which are the primary pollutant in the oil and gas leverage, were considered a minor component at levels far below what would be deemed as an impact on aquatic life or other issues.

Before setting unrealistic attainment goals, the Department should focus its efforts on studying real effects of TDS, considering individual components and components' impact on the environment.

Once again using the Mon as an example, the high TDS concern was clearly an issue created by drought conditions on the Mon. At normal flow levels, this had not been an issue. This is the flaw in DEP's logic. Any discharge levels should be viewed in real time with actual stream flow data in a similar

capacity based on current flows, not an arbitrary Q710 design in setting discharge standards for its facilities in Pennsylvania and on Pennsylvania streams.

The Department is traditionally allowed a reasonable mixings of. Limiting the TDS levels to 500 mg/L at end of pipe of discharge points severely impacts the ability of the existing plants that not only want to expand operations but also maintain existing operations.

TDS is an issue in Pennsylvania largely as a result of abandoned mine discharges from facilities in the last century. If these limits will largely impact new sources of TDS, particularly the drilling and completion operations of new natural gas wells in the Commonwealth, they ultimately will have the negative effect of any new job creation as well as development of human energy resources here in Pennsylvania.

The strategy of the VP advocates has no consideration for impossible air quality or waste management issues arising from new treatment technologies that might be needed to meet these standards. No regard is given to how to manage constituents would meet these standards.

Almost incomprehensible the Department knowing the time it takes for them to permit new facilities, those that they regulate, to possibly consider implementing this new standard prior to January 1 of 2011.

If every disposal facility needed in the Commonwealth to meet this new strategy for all industries and prepared permit applications that would be delivered to the State Office Building today, few if any permits would be ready for January 2011. This assumes the technology meets these standards of economic costs are proven and in place.

In actually I don't think many of these technologies are fully proven. Bench testing and small case scale facility testing must be done before full scale construction could begin. The best estimate of the cost to manage technology will cost multiple times the cost of current disposal options. The high cost could result in plugging in abandon of many conventional stripper wells in the Commonwealth, resulting in a loss of fully 25 percent of our current natural gas supply. We find ourselves replacing this supply with sources outside of Pennsylvania.

In summary, the Department needs to fully evaluate the need for this strategy and whether the

perceived date is real. They should also thoroughly examine the full impact on the environment in implementing this strategy. That includes energy requirements, air quality impacts, and waste management impacts.

The Department should also re-examine its overly ambitious timeline for implementing this strategy.

Finally, the Department should fully understand the financial impact this will have not only on the oil and gas industry, but every manufacturing, job creating industry in Pennsylvania. I will have additional written comments.

CHAIR:

Is there anyone else who would like to provide testimony? As I mentioned when we began, all comments received at this hearing as well as written comments received by February 12 will be considered by EQB and will be included in a comment response document which will be prepared by DEP and reviewed by the EQB prior to the Board taking final action on this regulation. Anyone interested in receiving a copy of the transcript of today's hearing may contact the EQB for that information. Hearing no other witnesses present, on behalf of the EQB I adjourn this hearing

at 7:35. Thank you all for coming.

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HEARING CONCLUDED AT 7:36 P.M.

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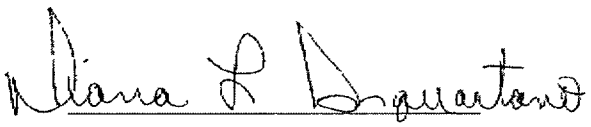
CERTIFICATE

I hereby certify that the foregoing proceedings, hearing held before Chair Carrow, was reported by me on 12/14/2009 and that I Diana L. Inquartano read this transcript and that I attest that this transcript is a true and accurate record of the proceeding.



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FINAL REGULATIONS DELIVERY INSTRUCTIONS

Deliver as follows:

1. Representative Scott E. Hutchinson
   Location: 152 Main Capitol
   Provide copy of regulatory package.
   Signs transmittal sheet –Minority Chair, House Committee line

2. Representative Camille George
   Location: 38 East Wing Capitol
   Provide copy of regulatory package.
   Signs transmittal sheet – Majority Chair, House Committee line
   ***Provide gold copy of transmittal sheet to Rep. George's Office after signature.**

3. Senator Raphael Musto
   Location: 17 East Wing Capitol
   Provide copy of regulatory package.
   Signs transmittal sheet – Minority Chair, Senate Committee line

4. Senator Mary Jo White **(signs transmittal sheet)**
   Location: 168 Main Capitol
   Provide copy of regulatory package.
   Signs transmittal sheet – Majority Chair, Senate Committee line
   ***Provide pink copy of transmittal sheet to Senator White's office after signature.**

5. IRRC
   Location: 14th Floor, 333 Market Street
   Provide copy of regulatory package.
   Signs transmittal sheet on Independent Regulatory Review Commission line.
   IRRC staff keep original transmittal sheet (white copy)
   Request copy of transmittal sheet for filing with the Policy Office.

6. Office of General Counsel
   Location: 17th Floor, 333 Market Street
   Provide signed, yellow copy of transmittal sheet to the Office of General Counsel staff.

7. Inform the Policy Office (Michele Tate) when delivery is complete
   Provide copy of signed transmittal sheet for filing.