COMMONWEALTH OF PENNSYLVANIA

DEPARTMENT OF ENVIRONMENTAL PROTECTION

ENVIRONMENTAL QUALITY BOARD

POTTSVILLE DISTRICT MINING OFFICE

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IN RE: BENEFICIAL USE OF COAL ASH

PUBLIC HEARING

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BEFORE: THOMAS CALLAGHAN, P.G., Chair

HEARING: Wednesday, December 9, 2009
1:02 p.m.

LOCATION: Department of Environmental Protection
Pottstown District Mining Office
5 West Laurel Boulevard
Pottsville, PA 17901-2522

WITNESSES: Larry LaBuz, Randy Lindenmuth, P.E., Dan Trainer, Robert A. Gardinski, P.G., Duane Feagley, Michael C. Sinclair, M.D.

Reporter: Lori A. Behe

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

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3 CHAIR:

4 I would like to welcome you today to the
5 Environmental Quality Board's public hearing on
6 proposed regulations regarding the beneficial use of
7 coal ash. My name is Tom Callaghan. I'm the manager
8 of the Department of Environmental Resources ---
9 Protection's Pottsville District Mining Office. I am
10 representing the EQB today at this hearing.
11 I officially call this hearing to order
12 at 1:02 p.m. The purpose of the hearing is for the
13 EQB to formally accept testimony on proposed
14 regulations concerning beneficial use of coal ash. In
15 addition to this hearing, the EQB held hearings on
16 this proposal on Monday, December 7th in Pittsburgh
17 and on December 8th in Ebensburg. So in addition to
18 today's hearing, EQB will also hold a hearing on
19 Thursday, December 10th in Harrisburg.
20 This proposed rulemaking includes
21 amendments to 25 Pa. Code Chapter 287 and the addition
22 of Chapter 290 for the establishment of standards,
23 procedures and requirements applicable to the
24 beneficial use of coal ash. Provisions of the
25 proposal address the operating requirements necessary

for the beneficial use of coal ash, including certification guidelines for the chemical and physical properties of coal ash, water quality monitoring at sites where coal ash is beneficially used, requirements for the storage of coal ash in piles and surface impoundments, and improvements in reporting requirements to track volumes and locations of sites where coal ash is beneficially used --- beneficially reused. Excuse me.

The Department initiated extensive outreach in the development of this proposed rulemaking, including presenting the rulemaking for review and comment to the Solid Waste Advisory Committee in March 2009, and the Mining and Reclamation Advisory Board in April of 2009.

In order to give everyone an equal opportunity to comment on this proposal, I'd 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 those 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. Organizations are requested to designate one witness to present testimony on its behalf. Each witness is

1 asked to submit three written copies of his or her
2 testimony to aid in transcription the of hearing.
3 Please hand me your copies prior to presenting your
4 testimony.
5 Please state your name, address and
6 affiliation for the record prior to presenting your
7 testimony. The EQB would appreciate your help by
8 spelling names and terms that may not be generally
9 familiar so that the transcript can be as accurate as
10 possible. Because the purpose of this hearing is to
11 receive comments on the proposal, EQB or DEP staff may
12 question witnesses. However, the witnesses may not
13 question the EQB or DEP staff.
14 In addition to or in place of all
15 testimony presented at today's hearing, interested
16 persons may also submit written comments on this
17 proposal. All comments must be received by the EQB on
18 or before December 22nd, 2009. Comments should be
19 addressed to the Environmental Quality Board, P.O. Box
20 8477, Harrisburg, PA, 17105-8477. Comments may also
21 be emailed to regcomments@state.pa.us.
22 All comments received at this hearing as
23 well as written comments received by December 22nd,
24 2009 will be considered by the EQB and will be
25 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 now like to call the first witness and would remind you to spell your name out for the record and also provide any copies of written testimony that you have to me before you proceed with your testimony. Just go off the record for a little bit.

OFF RECORD DISCUSSION

CHAIR:

The first witness is Larry LaBuz, PPL Generation.

MR. LABUZ:

Again, my name is Larry LaBuz, that's L-A, capital B, U-Z, with PPL Generation, 2 North 9th Street, Allentown, PA, 18101. Good afternoon, members of the Environmental Quality Board. My name is Larry LaBuz. I am the supervisor of the coal combustion products at PPL Generation.

PPL owns about 12,000 megawatts of generating capacity in the United States, including 9,800 megawatts in Pennsylvania. Over 3,000 megawatts

1 of PPL's generating capacity in Pennsylvania is fueled
2 by coal. PPL operates two coal-fired power plants in
3 the Commonwealth, the Montour Plant in Montour County
4 and the Brunner Island Plant in York County. Each
5 year these plants produce enough electricity to power
6 about two million typical homes. These two plants
7 generated about 40 percent of the electricity produced
8 by PPL in Pennsylvania last year.
9 I appreciate the opportunity to speak
10 with you about the proposed rulemaking to revise the
11 standards, procedures and requirements for the
12 beneficial use of coal ash. PPL supports
13 Pennsylvania's efforts to strengthen measures that
14 will protect groundwater quality of mine reclamation
15 sites that use coal combustion products. Electricity
16 powers the Commonwealth's economy and enables our
17 modern standard of living. Along with the benefits of
18 electricity comes a significant responsibility for
19 companies that generate electricity.
20 PPL is an environmentally responsible
21 company that has made substantial investments in
22 environmental controls at its power plants over the
23 last two decades. Just last month, PPL completed the
24 second largest construction project in its 90-year
25 history, a $1.4 billion project to install flue gas

1 desulfurization scrubbers and other environmental
2 controls at the Montour and Brunner Island Power
3 plants. PPL has also acted responsibly in the
4 beneficial use of coal combustion products, which
5 include coal ash and synthetic gypsum produced by the
6 scrubbers.
7 With proper regulation and oversight by
8 the Department of Environmental Protection, beneficial
9 use of coal ash is a good environmental solution for
10 Pennsylvania. Pennsylvania's residual waste
11 regulations have provided a framework for the
12 beneficial and responsible use of coal ash since the
13 mid 1990s. Under this framework, PPL has been able to
14 beneficially use all of the coal combustion products
15 from the Montour and Brunner Island Power plants, an
16 achievement for which PPL was recognized by the EPA in
17 2008.
18 In recent years, much of the beneficial
19 use of PPL's coal combustion products has been for
20 cement production, wallboard manufacturing and for use
21 as fill material. The option to use coal combustion
22 products for mine reclamation remains part of PPL's
23 strategy for responsibly managing coal combustion
24 products.
25 Continued use of coal ash for mine

1 reclamation is important for Pennsylvania's
2 environment and for the health and safety of its
3 citizens. According to the DEP Bureau of Abandoned
4 Mine Reclamation, Pennsylvania has more than 5,000
5 unreclaimed mines covering 189,000 acres.
6 Environmental problems related to abandoned coal mines
7 affect 45 of Pennsylvania's 67 counties. DEP
8 estimates that it could cost $15 billion to address
9 streams with degraded water quality due to acid mine
10 drainage.
11 Abandoned mines also represent a serious
12 public safety hazard. The growing popularity of
13 off-road recreation brings more people into contact
14 with mine sites, sometimes with tragic results.
15 Nearly vertical highwalls in open pit mines can be
16 unstable and prone to collapse. Subsidence into deep
17 mine openings like the crop falls where in Schuylkill
18 County is a threat to hunters, hikers, mountain
19 bikers, snowmobilers and other outdoor enthusiasts.
20 At Sharp Mountain here in Schuylkill County, PPL has
21 provided about 85,000 tons of fly ash at no cost to
22 the project that has been used to reclaim 14 of 43
23 acres of crop falls at the site.
24 A study by the National Academy of
25 Sciences commissioned by the United States Congress in

1 2006 concluded that the use of coal ash with proper
2 oversight and environmental safeguards is appropriate
3 for mine reclamation because it can meet reclamation
4 goals and preclude landfill development on greenfield
5 sites. The study noted that coal ash has certain
6 advantages in mine reclamation projects. Coal ash may
7 neutralize acid mine drainage, reducing the potential
8 for contaminants from abandoned mines to enter the
9 environment. This is true of PPL's coal ash that is
10 used for mine reclamation, which is amended with lime
11 and high in alkalinity.
12 Of course, coal ash use for mine
13 reclamation must be properly regulated and managed to
14 avoid adverse effects on the environment. Three key
15 elements are proper characterization of the ash before
16 it is placed into mines, proper characterization of
17 abandoned mine site to understand groundwater flow
18 paths, and robust monitoring of mine sites where coal
19 ash had been used for reclamation.
20 Pennsylvania DEP has been involved in the
21 use of coal ash for mine reclamation for more than 25
22 years. The General Assembly said in 2004 that DEP's
23 carefully crafted regulations is a model for the
24 nation and that the use of coal ash for mine
25 reclamation has environmental and economic benefits

1 for the Commonwealth.

2 PPL supports DEP's proposal to adopt the
3 National Academy of Sciences' recommendations to
4 improve site characterization and water quality
5 monitoring at mine sties. That understanding should
6 be factored into decisions about qualifying coal ash
7 that may fail to meet certification standards for
8 secondary MCLs. The proposed regulations allow such
9 qualification if the mine site operator can show that
10 the use of coal ash at these levels will not adversely
11 affect surface water or groundwater quality, and the
12 use of coal ash will achieve an overall benefit in
13 groundwater quality.

14 PPL has two specific recommendations for
15 consideration. First, PPL believes that the
16 regulations should be revised to allow DEP to waive
17 secondary standards at mine sites where applicants can
18 show that any increases in concentrations of those
19 constituents would be inconsequential. Secondary MCLs
20 are non-health-based EPA standards. They're based on
21 taste, odor or other aesthetic issues typically not of
22 concern at abandoned mine sites.

23 PPL has experience in which DEP would not
24 qualify coal ash that exceeded the standard for
25 aluminum, a secondary MCL, established to optimize

1 treatment processes at public surface water treatment
2 plants because concentrations for that parameter at
3 the mine site where the coal ash would be used were
4 low. There was no consideration of whether the
5 resulting increase would be of any consequence, nor
6 was there any consideration of the overall
7 environmental benefit and public safety benefits that
8 would have resulted. DEP should have the authority to
9 waive secondary standards at mine sites if applicants
10 show that any potential increase in concentrations for
11 these constituents resulting for the beneficial use of
12 coal ash would be inconsequential regardless of
13 baseline levels.
14 PPL also recommends that when secondary
15 MCLs and other non-health-based standards in
16 groundwater are exceeded, abatement requirements
17 should not automatically be triggered, but should be
18 considered in relation to the overall environmental
19 and public safety improvements resulting from the use
20 of coal ash.
21 Thank you again for the opportunity to
22 present PPL's views on this issue. I would be happy
23 to answer any questions you may have.
24 CHAIR:
25 Thank you, Mr. LaBuz. The next witness

on the agenda is Randy Lindenmuth, Lehigh Engineering.

MR. LINDENMUTH:

My name is Randy Lindenmuth, Professional Engineer, managing director of Lehigh Engineering, L.L.C., 200 Mahantongo Street, Pottsville, Pennsylvania. Thank you for the opportunity to present several points for your consideration in finalizing the details of the new Chapter 290, Beneficial Use of Coal Ash.

Among other engineering services, Lehigh Engineering provides mining engineering services for anthracite mining companies. We provide coal ash permitting application and design services as part of their mining permitting needs. I am submitting the following concerns and suggestions on behalf of Lehigh Engineering, Reading Anthracite Company, Gilberton Coal Company, Selkirk Mining Company, B-D Mining Company, Schuylkill Energy Resources and Gilberton Power Corporation.

I also speak on behalf of myself since I was born and raised in the anthracite area. I have spent most of my life here. I have seen the devastation caused by many decades of mining with no effort toward reclamation or concern for the environment. I have also seen the advantages of the

1 beneficial use of coal ash to help remediate some of
2 these scars.
3 For 20-plus years, coal ash has been
4 beneficially used in various ways. Come to think of
5 it, it has been used for longer than that. A long
6 time ago, when I was in Port Carbon, we used our ash
7 to sweeten the soil to grow better tomatoes, and also
8 used it on snow and ice-covered roads and walks before
9 gravel and salt replaced it. Now, we mine lime and
10 replace the ash for the garden. We also mine gravel
11 and salt to replace ash, much to the detriment of the
12 environment, roads, bridges, walks, shoes and
13 vehicles. And finally, we should remember most of our
14 soil originally came from ash as it was spewed from
15 unregulated volcanoes.
16 So much for the past. We are here today
17 to make sure that the new rules we set forth for the
18 beneficial use of coal ash are environmentally sound.
19 My comments primarily deal with the beneficial use of
20 ash for mine land reclamation.
21 The initial driving force to upgrade the
22 ash regulations came from the National Academy of
23 Sciences' 2006 study. Their comprehensive review of
24 the beneficial use of coal ash in reclamation found
25 that there were no major weaknesses in the currently

1 used methods, practices and monitoring. They did,
2 however, make recommendations that they felt would
3 improve the program. Over the past year, most of
4 these recommendations have been or are in the process
5 of being implemented. We have been working with PADEP
6 in attempting to have most of the improvements and
7 recommendations in place as soon as practical.
8 The spirit of Chapter 290 is outlined by
9 Chairman John Hanger in the EQB Proposed Rulemaking
10 Introduction of the new chapter. That spirit should
11 not be lost when interpreting the intent of the new
12 regulations after approval.
13 My first request for your consideration,
14 the proposed rules do not address a transition time
15 for the new regulations to be implemented. Some of
16 the existing beneficial used sites may have to have
17 new wells installed or existing ones revamped to meet
18 the new guidelines. I suggest that there be a maximum
19 implementation time of one year allowed so as not to
20 interrupt the use of the facility while the new
21 requirements are being put into place.
22 The second point for your consideration,
23 as long as an existing facility has complied with the
24 previous guidelines, there should be no retroactive
25 requirement to meet the new regulations at those sites

during the proposed implementation period as suggested above. This provision would provide grandfathering of the old regulations and allow for transition to the new for all existing permitted sites prior to their attaining full implementation of the new requirements.

The third point for your consideration, we will learn a lot as we put the new regulations in place. We should plan to review the pitfalls and varying interpretations of these regulations and take corrective or clarifying action to revise them as needed after a year or so. We must work together to quickly fix the hopefully few problems with this program so that it works well for the overall good of Pennsylvania.

The fourth point for your consideration is use of the de minimus or insignificant concept is missing from the regulations. These regulations should only be effective for projects where more than, I'll put the term X thousand tons are involved. As written, they would be effective for the first pound or ounce or whatever.

Lastly, we will be supplementing these comments by submitting separately by December 22nd a few proposed minor technical wording revisions. Thank you.

1 CHAIR:

2 Thank you. The next witness is Dan

3 Trainer for Tom Brown from Northampton.

4 MR. BROWN:

5 Good morning. My name is Thomas R.

6 Brown, representing Northampton Generating Company, 1

7 Horwith Drive, Northampton, Pennsylvania, 18067.

8 Good morning again. My name is Thomas R.

9 Brown and I'm the general manager of the Northampton

10 Generating Plant. My plant is located in Northampton

11 Borough, Northampton County in State Senator Lisa

12 Boscola's and State Representative Julie Harhart's

13 districts. I'm also a resident of Schnecksville,

14 Pennsylvania, which is within Representative Joseph

15 Brennan's district.

16 A major environmental problem in

17 Pennsylvania is waste coal piles. As a resident of

18 Pennsylvania, I'm concerned with the environmental

19 degradation caused by historical mining practices

20 prior to 1977. The impacts of these historical

21 operations need to be addressed in order to resolve

22 the sins of the past and return the affected land to

23 its natural state or reclaim it for economic

24 productive use.

25 The Pennsylvania Department of

1 Environmental Protection and the local representatives
2 of the affected areas can attest to the impact of
3 waste coal piles in their districts and the need for
4 them to be removed. Abandoned mine lands, the
5 associated acid mine runoff and the surrounding
6 streams that have been damaged ranks as one of the
7 major environmental issues facing our Commonwealth.
8 I am here today to provide an update of
9 what my plant is doing to address this issue and to
10 provide comments on the proposed changes in Pa. Code
11 Chapters 287 and 290 on the Beneficial Use of Coal
12 Ash. First, I'd like to give just a little background
13 on the Northampton Generating Plant. The power plant
14 is rated at 110 megawatts, is primarily fueled by
15 anthracite waste coal, also known as culm.
16 Alternative fuels are also utilized at the plant.
17 These include tire-derived fuel, petroleum coke, paper
18 processing residual, high carbon fly ash and wood
19 chips, all of which are waste products usable by
20 projects like Northampton as fuel. The plant is
21 relatively new. It started operations in 1995. The
22 plant sells power to FirstEnergy pursuant to a
23 long-term power purchase agreement, which
24 unfortunately does not allow us to adjust the price of
25 power to reflect cost increases associated with

1 regulatory changes.

2 Currently we employ 46 people at the

3 power plant in Northampton and 29 people at our fuel

4 site operations in Luzerne County. Additionally, we

5 contract with a trucking firm that employs

6 approximately 40 people. These are family-wage jobs

7 with great benefits and hopefully long-term security.

8 Our waste coal comes from a variety of sites,

9 primarily in Luzerne and Lackawanna Counties. Our

10 Highland site, which is 50 miles from the power plant,

11 presently supplies about 85 percent of the fuel our

12 plant requires to produce electricity.

13 Facilities such as the one we operate

14 provide a unique environmental benefit to Pennsylvania

15 by burning waste coal utilizing circulating fluidized

16 bed technology. We are turning the waste product from

17 past mining operations into a useful natural resource.

18 By utilizing waste coal piles, plants such as

19 Northampton are removing the principal sources of

20 contamination to surface water and groundwater in

21 Pennsylvania.

22 This waste coal was accumulated from over

23 100 years of mining and lays idle on thousands of

24 acres of land, land that prior to the accumulation of

25 discarded waste coal, possessed a variety of aesthetic

1 and useful qualities. Over time, wind, rain and other
2 naturally-occurring environmental conditions caused
3 the piles of waste coal to alter and/or expand their
4 environmental footprint on the Commonwealth's limited
5 land resources.
6 The combination of technological
7 advancements in combustion technologies and support
8 from both government and investors has resulted in the
9 development of Independent Power Producers and a
10 beneficial use for waste coal in quantity. This
11 beneficial use today generates electricity to meet the
12 energy needs of hundreds of thousands of Pennsylvania
13 households.
14 The first CFB generating plants in
15 Pennsylvania became operational in 1987, and since
16 that time, waste coal plants in Pennsylvania have
17 collectively converted 195 million tons of waste coal
18 into clean electricity and produced over 98 million
19 tons of beneficial use ash for reclamation of
20 abandoned mine lands. In 2004, it was estimated that
21 the Commonwealth's CFB plants burned approximately ten
22 million tons of waste coal annually and produce about
23 7.9 million tons of alkaline-rich byproducts per year.
24 More than 90 percent of these byproducts
25 are used for mine reclamation projects, filling mine

1 pits and the reclamation of coal refuse areas.
2 Another five to eight percent is used for replacement
3 for lime and acid mine drainage prevention or as soil
4 amendment/replacement at mine sites. The remaining
5 two to five percent is used for other beneficial uses,
6 such as antiskid applications for roadways, pipe
7 bedding and other uses. Cumulatively, the
8 Pennsylvania CFB electric generating plants have
9 reclaimed over 4,500 acres of abandoned mine lands.
10 Northampton has removed and burned
11 approximately nine million tons of waste coal
12 beneficially used for mine reclamation, approximately
13 six million tons of ash, and reclaimed almost 3000
14 acres of land during our 14 years of operation.
15 Northampton has received numerous environmental awards
16 for reclamation work and our innovation in improving
17 the environmental performance of the generating plant.
18 These include the 1996 Pennsylvania Governor's Award
19 for Environmental Excellence for construction of a
20 plant on a brownfield site using advanced technology,
21 the 1998 PA Governor's Award for Environmental
22 Excellence for reclamation of 117 acres at our
23 Kaminski Site, and the 1998 Department of Interior
24 National Award for Excellence in reclamation of 117
25 acres at the Kaminski Site.

1 It's my position that some of the
2 additional requirements proposed in the regulations
3 will hinder our company's ability to further pursue
4 the removal of waste coal piles. Government
5 investment and PUC regulations helped start our
6 industry. In fact, Pennsylvania has been a great
7 working partner over our existence. The Commonwealth
8 has recognized the benefit projects like Northampton
9 provide in cleaning up dangerous waste coal sites
10 while providing clean, reliable electricity. We, the
11 CFB industry, provide a zero cost option for cleaning
12 up waste coal piles. Should we stop, the
13 responsibility for cleaning up the abandoned mine
14 lands would ultimately fall to the citizens of the
15 Commonwealth. We work closely with groups like Earth
16 Conservancy to reclaim abandoned mine lands and return
17 them to economic productive landscapes. However, the
18 recent proposed regulatory changes by the Commonwealth
19 will have an adverse effect on determining which lands
20 will be cleaned up and reclaimed.
21 Further burdensome regulations such as
22 the additional monitoring requirement being proposed
23 threaten existing jobs, hamper job creation and could
24 significantly impact the ongoing cleanup of abandoned
25 mine sites. The Commonwealth has operated

1 historically with reasonable effective regulation and
2 direction in this area. However, recent government
3 actions and threatened actions are counterproductive
4 to cost-effective waste coal utilization and the
5 reclamation of waste coal sites within the
6 Commonwealth. Most of the plants in our industry
7 typically, like us, pursuant to long-term power
8 purchase agreements that provide no ability for our
9 price to reflect the cost increases associated with
10 tax and regulatory changes.
11 The adverse effect that any such
12 increases in tax and compliance costs may have on the
13 owners of these facilities and the beneficial land
14 reclamation services they provide to the Commonwealth
15 and its citizens must be considered before any such
16 adverse tax or regulatory changes are adopted. We
17 would also note that the regulatory changes will
18 significantly increase the cost for our facilities to
19 generate power and may contribute to increased
20 electricity costs to the Commonwealth's residents as
21 these contracts expire and are replaced.
22 Our concern relating to the water quality
23 monitoring requirements is that the requirements are
24 being increased significantly, resulting in higher
25 costs without reducing the perceived environmental

1 risk. Specifically, we have the following concerns.
2 The list of elements that need to be analyzed is being
3 increased, the limits of these elements are being
4 decreased, and the duration of monitoring is being
5 increased, which results in significant sampling cost
6 increase.
7 Our concern relating to bonding is the
8 extending bonding requirement that will reduce the
9 available cash to conduct our business. The current
10 practice is to release part of the financial bond upon
11 completion of the work. The proposed regulations
12 require that entire bond be held until completion of
13 the ten-year post-operational monitoring period.
14 These bonds require our company to place the full
15 value of the bond with the bonding company. There
16 will be no money available to bond new sites for
17 cleanup because we will have the entire previous
18 site's bonded amount being held for ten years.
19 Release of bonds will not be partially as
20 is the current practice. This is wrong. The bond
21 amount will be excessive and unnecessary, given that
22 the work will have been completed. We agree that some
23 money should be held during he post-operation period,
24 but the entire amount is excessive and will add
25 significant cost to the reclamation process. It may

very well make it uneconomical to remove certain waste piles.

Our concern related to the fee structure associated with coal ash permitting is that it is excessive. The current practice is that there's a one-time $250 permit filing fee. The proposed regulations require a $2,000 filing fee, which is nonrefundable, and an annual filing fee of $2,000 per year for each year that we are processing or holding a permit. This new fee adds at least $20,750 to any project, no matter the size. The regulations also give the Department the ability to raise this fee every three years. Again, what's the tangible benefit and what's the cost?

Our concern relating to the pH requirements is that they will restrict the potential uses of CFB ash due to the upper-level restrictions. Currently, the pH of our CFB ash is normally between 9 and 12.5 because of the amount of limestone that must be added to our fuel to achieve a typical 90 percent reduction of sulfuric oxides in our flue gas.

The bottom line is that the existing Pennsylvania regulations have set the standards and set the example for ash disposal for the rest of the country. The existing regulations have been working

1 effectively to protect the environment and the
2 citizens of Pennsylvania. Contrary to the perception
3 put forth that CFB ash is being disposed of in a
4 cavalier manner, this is not the fact. The ash that
5 Northampton generates and places in compliance with
6 our existing permits is being methodically placed at
7 our ash pit using prudent, recognized engineering
8 practices, subject to consistent oversight and review
9 by PADEP and other government agencies.
10 The ash material is first spread using a
11 road grader in thin four to six-inch lifts. The ash
12 material is then compacted to set standards, using a
13 roller pulled behind the grader. The ash, having been
14 previously conditioned with water, sets up in a
15 low-grade and pervious cement block. Upon reaching a
16 level approaching the approved final grade, the ashes
17 will be covered with four feet of cover material, and
18 then a one-foot layer of material capable of
19 supporting vegetation will be placed on top as the
20 final cover. The site will then be seeded. The end
21 result is a strip pit cut that has been filled and the
22 land restored to a useable state.
23 The proposed regulatory changes will
24 increase our operating costs but will not provide any
25 significant reduced risk to the environment. The

1 proposed regulatory changes by the Commonwealth will
2 have an adverse effect on determining which lands will
3 ultimately be cleaned up and reclaimed. The added
4 regulatory compliance cost may very well make it
5 uneconomical to remove certain waste coal piles.
6 In closing, I'd like to commend the EQB
7 for seeking input on this very important issue. We
8 will also be providing additional written detailed
9 comments by December 22nd. Thank you very much.
10 CHAIR:
11 Thank you. The next witness is Robert
12 Gadinski.
13 MR. GADINSKI:
14 Good afternoon. My name is Bob Gadinski.
15 I'm a resident of Schuylkill County and I am a
16 professional geologist. I was a hydrogeology
17 supervisor for the Wilkes-Barre Regional Office,
18 retiring in 2004.
19 I guess the first place to start is with
20 the definition, beneficial use of coal ash. First of
21 all, in most cases, we're not dealing with coal ash.
22 I remember in 1986 when coal ash was deregulated.
23 Nick DeBenedictis said, this is the same stuff that
24 comes out of people's stokers. This is not the same
25 stuff that comes out of people's stokers; okay? You

1 cannot burn cement kiln dust, carbonaceous shale, lime
2 kiln dust, okay, in your stoker. Try it. You'll see
3 how far you'll get. You won't get much of a burn at
4 all. Okay.
5 The other issue that I have here is
6 beneficial use. The definition of beneficial that I
7 got off my computer today is having a good effect or
8 profitability. I think the second one applies here.
9 Okay. Profitability is the driving force here, far
10 from being improvement of the environment, because I
11 have not seen any improvement of the environment based
12 on the projects that I looked at over the last two or
13 three years. None. Okay.
14 Now, there are various cases, and I'm not
15 going to go into them, but there are a lot of cases
16 where pH in mine pools have gone up to nine. I have
17 seen situations where the mine pool itself has been
18 heated up to 70-plus degrees. Okay. Inexplicable.
19 Nobody is able to explain why this happened here. I'm
20 seeing iron and manganese levels screaming coming off
21 some of these sites. And iron and manganese has been
22 shown to cause an onset of hemochromatosis, which is
23 very similar to polycythemia vera, which is a blood
24 cancer disorder, which is rampant in this part of
25 Pennsylvania, the anthracite coal region.

1 Based on everything that I've done, okay,
2 I started off with this back in 2005 when I found out
3 that they were going to put a coal ash dump in the
4 back of my house in a recharge zone. All right. I
5 contacted the people that were involved and basically,
6 I met with them in the field and I showed them the
7 mine openings. I showed them the structural geology.
8 I showed them the fracture patterns that connect the
9 valley where I live and my neighbor's, okay, with the
10 recharge zone. All right. This permit has been
11 issued anyway, okay, despite the fact that tons of
12 wells are at risk in this situation.
13 All right. Now, what I'm seeing, based
14 on my review of the data, looking at various projects,
15 there's a systemic problem with the entire state
16 program. Every one of the projects that I looked at
17 fails to have any vertical control on wells. I could
18 not find one potentiometric surface map at any one of
19 these sites, which is basic to doing any groundwater
20 investigation, any groundwater study. Not one. Okay.
21 I have found monitoring well construction details are
22 nonexistent. So even though there's evidence of
23 contamination, the full extent of contamination is
24 unknown because of improperly-developed monitoring
25 systems. I have also found out that there are

1 monitoring wells, okay, that may be improperly placed.
2 So we're talking about a program here.
3 We're talking about a program which is supposedly a
4 success story, but there's nothing to back it up.
5 There's nothing to back this story up, okay, no data.
6 I'm still asking people to show me some of these
7 success stories. Show me the sites where water
8 quality has improved as a result of the application
9 and the use of coal combustion waste. And that's what
10 it should be called. It is a coal combustion waste.
11 It is not a benefit to the environment or public
12 health. Okay.
13 Now, this even goes back further.
14 Besides the projects I looked at, the flagship that is
15 used to justify the dumping of all of these wastes in
16 Pennsylvania goes back to Barkham (phonetic). I
17 looked at the Barkham study. I went up to
18 Williamsport, did a file review. I could not find one
19 map showing a potentiometric surface of the water in
20 that area, the groundwater. Believe it or not, based
21 on the data, they do not have one downgradient well
22 based on structural geology and mining in the area.
23 Bedrock just to the northwest, not one downgradient
24 well. Is this a success story? Is this what we're
25 basing this legislation on? Because I think it's

1 incredible. Okay.
2 The other thing is we're talking about
3 the quality of this waste. Everybody probably heard
4 of the famous Kingston Fossil Plant release that
5 occurred last December. Okay. Here's something
6 that's really interesting. Okay. Let me give you
7 some information here. Okay. The Kingston Fossil
8 Plant in Tennessee produced seven million tons of ash
9 last year. Okay. And believe it or not, the lead in
10 that was approximately, let's see here, 51,000 pounds
11 of lead which generated the ash. Okay. This is based
12 on the EPA's TRI data.
13 The cogeneration plants around here, I'm
14 not going to mention who they are, but I'll give you
15 one example. This one cogeneration plant around here
16 produced 791,000 pounds of waste and it produced
17 45,000 pounds of lead. We're talking a situation,
18 about a situation, where ten times the amount of waste
19 was generated at Kingston, and we have almost exactly
20 the same amount of waste generated at these plants.
21 Okay. So when people tell me that the coal ash here
22 in Pennsylvania is better than the coal ash in other
23 parts of the United States, I say there's a lot of
24 funky mathematics going on here. Okay. All right.
25 Now, just to end right now, okay, going

1 back to this release at the Kingston Fossil Plant,
2 okay, it's really interesting if you look at the waste
3 report that was done by EPA. Okay. EPA back on June
4 30, 2009, they were looking at disposal facilities,
5 where they could get rid of all this ash that was
6 generated, okay, all that was spilled. Okay. And
7 believe it or not, there's a site here in Pennsylvania
8 that wanted it all that's up in Hazleton. They wanted
9 this ash. Okay.
10 Well, anyway, looking at the reason why
11 it was not considered, the TVA eliminated the Hazleton
12 site from consideration as they were unable to commit
13 to installing a liner for placement of KIF material.
14 EPA, okay, and TVA, they were more protective of the
15 Commonwealth of Pennsylvania, the resources and the
16 people, okay, than our own DEP. These regulations
17 that are being proposed, they want to dump the waste
18 into open pits. These open pits leak. I'll guarantee
19 you they leak. And they will leak.
20 So this is it for my testimony. I would
21 appreciate --- I really do appreciate the time that I
22 was allowed. Thank you.
23 CHAIR:
24 Thank you. The next witness is Duane
25 Feagley.

1 MR. FEAGLEY:

2 Thank you. My name is Duane, D-U-A-N-E,
3 Feagley, F like in Frank, E-A-G-L-E-Y. And I
4 represent the Pennsylvania Anthracite Council and the
5 33 mining and affiliate members of the anthracite coal
6 mining region. Our address is P.O. Box 138,
7 Pottsville, Pennsylvania, 17901.

8 I am here today on behalf of the 33
9 mining operators and affiliate members of the
10 Pennsylvania Anthracite Council regarding the proposed
11 guidelines for coal ash beneficial use and mine site
12 approval. My comments are basically going to stem
13 around the regulations themselves. I'm going to talk
14 about five specific areas.

15 Chapter 290, Section 101, General
16 Requirements for Beneficial Use of Coal Ash, part (d).
17 This section states that a water monitoring plan must
18 be developed and implemented if either more than
19 10,000 tons of coal ash per acre is to be used on a
20 project or more than 100,000 tons of coal ash in total
21 will be used on a project. Continuous projects will
22 be considered as a single project for the purpose of
23 this section.

24 Currently, there are thousands of acres
25 of land and hundreds of small abandoned mine sites in

1 the Anthracite Region, many of which could benefit
2 from the beneficial placement use of coal ash for
3 reclamation purposes. However, when an operator
4 factors in engineering costs, permitting fees, bonding
5 costs along with the cost to construct to maintain
6 monitoring wells throughout the site, it is highly
7 likely that operators will avoid --- will choose to
8 avoid these smaller sites because they will now become
9 too costly to use for the placement of ash. We
10 believe these tonnage limitations are far too
11 constricting, and these new rules will result in a
12 disincentive for reclaiming hundreds of small
13 abandoned mines that mark the anthracite coal mining
14 region. We suggest that the Department take a look at
15 this and develop some incentives to take a look how
16 they can use ash and create some incentives for some
17 of these areas.
18 Chapter 290, Section 104, Beneficial Use
19 of Coal Ash as a Mining Activity (4)(1). As it is
20 written, this section requires that the beneficial use
21 of coal ash be permitted and active and pay an annual
22 fee of $2,000. The Department doesn't specify how it
23 arrived at that figure. It's just a figure. The
24 regulation further does not allow for a permitted and
25 inactive site. The regulation calls for strict

1 monitoring of active ash disposal sites, whether they
2 are receiving ash for beneficial use or not. This has
3 resulted in the expiration of numerous ash disposal
4 permits in the area.
5 The Pennsylvania Anthracite Council
6 recommends that DEP establish a second category of
7 permitted ash disposal sites that are approved, but
8 are not actively utilizing ash for beneficial use.
9 Operators could be allowed to identify, permit and
10 inventory inactive sites for future use. The operator
11 would be required to go through the normal public
12 commenting period process. However, they would be
13 exempt from the background mining requirements while
14 the site is inactive. Operators would be required to
15 give a one-year notice to the DEP and pay the active
16 permit fee of $2,000 or whatever that fee might be and
17 begin doing the background monitoring before ash could
18 begin being placed at the site. To offset the
19 tracking costs, the Department can levy what I'm
20 recommending a small annual inactive fee of maybe
21 $250.
22 Section 290.104, Beneficial Use of Coal
23 Ash at Mining Activity Sites (f)(1). According to
24 this section of the regulation the volume of coal ash
25 to be placed at the site may not exceed the volume of

1 coal ash, coal refuse, culm or silt removed from the
2 site by active mining operations on a cubic yard basis
3 unless approved by the Department. Nearly all mining
4 being done in the anthracite coal mining region is the
5 remining of previously mined and abandoned areas. In
6 those cases, operators are mining reserves that have
7 been depleted by 50 percent or more perhaps decades or
8 even a century or more ago. Additionally, in many of
9 those cases, the overburden removed to get to the coal
10 of those abandoned sites may not even be located on
11 the current permit for use in backfilling.
12 By restricting the beneficial placement
13 of ash at a remining site to current volumes being
14 extracted, the Department will be creating a
15 disincentive for mine operators to enter an abandoned
16 mine area for remining purposes. The wording in this
17 section does give the Department significant authority
18 to approve greater volumes of ash at remining sites if
19 they choose. However, a strict adherence to this
20 requirement in the anthracite region could unfairly
21 and needlessly limit the beneficial use of coal ash in
22 the remining process. We recommend that the
23 Department write rules that account for coal volumes
24 that may have been mined decades ago and allow for
25 increased volumes of coal ash on those sites based on

1 the historic extraction of coal from the site.
2 Section 290, Chapter 301, Water Quality
3 Monitoring (3)(g). Under this section of the
4 regulation, water monitoring shall be continued
5 quarterly for a minimum of five years after the final
6 placement of storage of coal ash at the site and
7 annually thereafter for years five through ten. After
8 the final placement of coal ash at the coal site, the
9 Department may require more frequent or longer water
10 monitoring if the result of the water quality
11 monitoring indicates contamination may be occurring.
12 While we fully understand the
13 Department's desire to protect the public's interest
14 in the placement of coal ash, we must also recognize
15 the success of this program. The Pennsylvania DEP has
16 a 20-year track record of excellence in administration
17 of the placement and use of coal ash for beneficial
18 use. The Department offers no rational or scientific
19 basis for the requirement of the additional five years
20 of monitoring beyond what is already prescribed by
21 law. We believe that the current testing and
22 monitoring requirements are sufficient to protect the
23 environment and the public at large.
24 This requirement will needlessly lead to
25 more costs on the part of operators while providing no

1 additional protection for the environment. According
2 to 290.104 Section (d)(5), operators will be required
3 to pay the annual $2,000 permitting fee to the
4 Department until the final bond release for the coal
5 mining activity site. Operators will be required to
6 pay an additional $10,000 plus bonding costs for an
7 additional five years. This requirement, along with
8 those we cited earlier, leads to an even greater
9 disincentive for operators to use coal ash to reclaim
10 small sites. We believe this should be addressed more
11 fully by the Department.
12 Chapter 290, Section 304, Assessment Plan
13 (a)(1). This section of the regulation requires an
14 operator to submit an assessment plan in the event the
15 data obtained from monitoring by the Department or
16 person indicates a, quote, significant change, end
17 quote, in the quality of groundwater or surface water
18 from background levels determined under Section
19 209.301. This section of the proposed regulation is
20 completely void of any suggestion or information on
21 what would trigger an assessment plan.
22 Additionally, in the anthracite coal
23 mining region, geography, geology and a legacy of long
24 abandoned mine workings may create challenges when
25 trying to identify sources, reasons and durations for

1 any significant change in water quality. The
2 anthracite coal mining region is littered with
3 thousands of acres of underground tunnels, creating
4 enormous drainage areas that include entire towns and
5 cities. As a result, changes in hydrology can occur
6 as a result from stormwater diversions, wildcat
7 sewers, combined sewer overflows, leakage into the
8 drainage system. In addition, illegal dumping of
9 trash can create short-term and negative impacts on
10 water quality in that particular area as well.
11 Further, breaches in barrier pillars that
12 are known to occur from time to time, major rain
13 events, major snow melts could all result in increased
14 flows and temporality impact whatever quality in an
15 ash disposal site. In addition, drought conditions in
16 an area could also contribute to a temporary
17 occurrence of water degradation.
18 We believe the regulations should include
19 a better definition of significant change and how long
20 of a duration that significant changes lasts before an
21 operator would need to submit and implement an
22 assessment plan. We believe the trigger in this
23 duration should be better defined by the Department
24 and the regulations. Those are my comments. Thank
25 you.

1 CHAIR:

2 Thank you. The next witness is Michael

3 Sinclair.

4 DR. SINCLAIR:

5 My name is Michael Sinclair. The address

6 is 1101 Flexer Avenue in Allentown. I have no

7 affiliation. I thank you for the opportunity to speak

8 at this hearing. My name is Michael Sinclair. I'm a

9 physician from Allentown. And as a physician, I'm

10 concerned about the health of my family, my community

11 and all Pennsylvanians. I'm also concerned about the

12 health of our environment.

13 I am not an environmental scientist, nor

14 am I an expert on the effects of toxic metals and

15 other substances found in industrial waste. I'll tell

16 you frankly that before the widely-publicized disaster

17 that occurred in eastern Tennessee last December, I

18 don't think I ever heard of coal ash. I didn't even

19 know about the 2005 spill into the Delaware River.

20 But that incident in Tennessee received a great deal

21 of attention in the media and it created much interest

22 in problems that many of us did not even know existed.

23 I began to worry and I began to read. The more I

24 read, the more I worried.

25 I always knew that Pennsylvania was a

1 major coal producer. I now know that we also burn a
2 huge amount of coal, and most of the coal is burned,
3 of course, to generate electricity. And in fact,
4 nearly half of our electricity is produced by
5 coal-burning power plants.
6 The chief residue of coal combustion is
7 coal ash. About 130 million tons of coal ash are
8 produced annually in the United States, and
9 Pennsylvania ranks third in coal ash production. Coal
10 ash contains variable amounts of heavy metals,
11 arsenic, lead, mercury, selenium and so forth. It
12 also contains a fair amount of radioactivity. Almost
13 half of the coal ash is recycled for beneficial uses,
14 such as making concrete bricks, building highways,
15 embankments and so on. There is little or no evidence
16 that these uses are safe. But recycling coal ash is
17 another issue altogether, and I am here to talk about
18 storage of this material.
19 So far the Environmental Protection
20 Agency has not been willing to call coal ash a
21 hazardous material, and therefore, there are no
22 federal regulations regarding the handling or disposal
23 of this substance. At the present time, each state
24 has the opportunity to decide what is best for its
25 citizens. The Pennsylvania Department of

1 Environmental Protection has the responsibility to
2 deal with this issue here. If the EPA determines that
3 coal ash is a hazardous material, and they will begin
4 again looking at this issue this month, we will be
5 told by the federal authorities what to do about it.
6 There are, as you know, rules, not just guidelines for
7 handling the transport and disposal of hazardous
8 materials. If that occurs, then we will have wasted
9 our time and taxpayer money having these hearings.
10 What worries me more about the coal ash problem is
11 that the site of the massive spill in Tennessee was
12 not considered a high-risk storage site. There are 44
13 high-risk storage sites in the United States,
14 including one in Pennsylvania. So what are the risks
15 of these ordinary storage facilities?
16 Most of the coal ash in Pennsylvania is
17 simply placed in piles or ponds like the one in
18 Tennessee, or dumped into abandoned coal mines. There
19 is no consistent effort at containment of this
20 material, and fewer than half of the storage sites are
21 lined. Where nearby water has been tested, it has
22 usually been found to be unfit for human consumption
23 because of the levels of mercury, lead, arsenic and
24 other heavy metals. I suspect that the water it not
25 very good for farm animals or wildlife either.

1 What should be done? I am not so naïve
2 as to think that we can shut down our coal-burning
3 power plants tomorrow. At some point we should be
4 able to burn less coal because of more efficient
5 energy use and alternate sources of electricity. Then
6 the problem may lessen. Meanwhile, we must deal with
7 a large amount of waste from coal combustion. And I
8 have some ideas how we should proceed.
9 First, coal ash disposal must be
10 regulated by the Department of Environmental
11 Protection. I am aware that the industries that burn
12 coal do not think they need government regulation.
13 This attitude is similar to that of the Wall Street
14 financial wizards and will reap similar results if we
15 allow them to be unregulated.
16 Second, we must dispose of this waste
17 responsibly. There is an old Latin saying in medicine
18 which is apropos. Primum non nocere, first do no
19 harm. The only way that we can be reasonably sure
20 that coal ash does no harm is to place that material
21 in lined, secure locations far from watersheds. The
22 linings are designed to prevent leakage and leaching
23 into surface wells and surface water. This storage
24 method is not cheap. The storage facilities must be
25 monitored frequently and systematically. This will

1 also expensive, but our health and the health of our
2 environment depends on these safeguards.
3 Last, if we can't store coal ash
4 securely, please don't put it in my backyard. Put it
5 in Western Pennsylvania as far away from my family as
6 possible. Or better yet, do what they are doing in
7 Tennessee in the wake of the December 2008 toxic
8 spill. Ship it to Alabama. Thank you for your
9 attention. Thanks for the opportunity to address this
10 meeting.
11 CHAIR:
12 Thank you. Mr. Sinclair was the last
13 witness on the sign-up list. If there's anyone else
14 who desires to give testimony, you're welcome to come
15 forward now and give comments.
16 SHORT BREAK TAKEN
17 CHAIR:
18 With no other witnesses present, on
19 behalf of the EQB, I hereby adjourn this meeting at
20 2:15 p.m. Thank you for attending.
21
22 * * * * * * * *
23 HEARING CONCLUDED AT 2:15 P.M.
24 * * * * * * * *
25

CERTIFICATE

I hereby certify that the foregoing proceedings, hearing held before Thomas Callaghan, P.G., Chair was reported by me on 12/9/2009 and that I Lori A. Behe read this transcript and that I attest that this transcript is a true and accurate record of the proceeding.

Lori A. Behe
Court Reporter