

COMMONWEALTH OF PENNSYLVANIA
SENATE OF PENNSYLVANIA
SENATE ENVIRONMENTAL RESOURCES AND ENERGY COMMITTEE
PUBLIC HEARING ON MERCURY EMISSION REDUCTION

Before:

SENATOR MARY JO WHITE, Co-Chairman
SENATOR RAPHAEL J. MUSTO, Co-Chairman
SENATOR EDWIN B. ERICKSON
SENATOR JOHN R. PIPPY
SENATOR J. BARRY STOUT
SENATOR DONALD C. WHITE
SENATOR ANTHONY H. WILLIAMS

Staff:

Patrick Henderson, Executive Director
Richard Fox, Executive Director

Date: April 25, 2006 10:00 a.m.

Place: Hearing Room No. 1, North Office Building, Harrisburg, Pennsylvania

By: Cindy L. Reilly, Notary Public
Registered Diplomat Reporter

Pennsylvania Department of Environmental Protection
SECRETARY KATHLEEN A. MCGINTY

United States Environmental Protection Agency
ROBERT J. WAYLAND, Ph.D.

Electric Power Generation Association
DOUGLAS L. BIDEN, President

PennEnvironment
NATHAN WILLCOX, Energy and Clean Air Advocate

Pennsylvania Federation of Sportsmen's Clubs
MELODY ZULLINGER, Executive Director

SENATOR MARY JO WHITE: That puts us on to the next item, which is our Public Hearing on Mercury Emission Reductions. Senator Musto, did you want to make an opening statement?

SENATOR MUSTO: Madam Chairman, we certainly do appreciate the opportunity that you have given us to call this hearing. Mercury emissions certainly is a very important issue out there and needs to be discussed fully, and we certainly appreciate it.

SENATOR MARY JO WHITE: Thank you. As you know, there are a number of different approaches that have been put forward to regulating mercury in the Commonwealth of Pennsylvania. Principally it's an issue affecting power plants, coal-fired power plants. There is a lot of misinformation about mercury. For example, you're not exposed to it by inhaling it. The principal pathway in humans is through ingestion, and that is by eating fish, particularly certain fish. Not farm-raised fish but other fish. There are a lot of differences of opinion as to how to do this, and so the purpose of today's hearing is to clear the air as it were and hear the various proposals that are being put forward. We obviously are considering the Senate Bill of which Senator Musto and I are co-sponsors that would adopt a particular approach, but we are interested to hear everyone's ideas on this topic this morning, so the first witness to testify is the Honorable Kathleen A. McGinty, Secretary of the Pennsylvania Department of Environmental Protection.

SECRETARY MCGINTY: Good morning, Madam Chair, Mr. Chairman, members of the Committee. Thank you very much for the opportunity to appear before you on this timely and important subject and to present a discussion of the rule to regulate mercury that Governor Rendell has presented. Several things. Let me present first a short summary of what Governor Rendell's rule would do, talk about our concerns about the Federal rule, and then also talk about some of the issues as you suggest, Madam Chairman, that have been a matter of discussion where there has been some misinformation. First of all, and briefly, in terms of Governor Rendell's rule, it would do three things: It would very effectively protect Pennsylvanians from toxic mercury pollution. Second, and it makes a priority, of preserving and growing our bituminous and waste coal economy and coal jobs. And third, it minimizes expenses to utilities because it is premised on the technology that is at issue and otherwise is subject of another Federal rule, the Clean Air Interstate Rule. Now, that's a summary of our rule. The concerns with the Federal rule are two-fold: First, in terms of adverse economic impact on the Commonwealth; and second, in terms of environment public health. Three reasons why economically the Federal rule is not advantageous for Pennsylvania: First, as suggested previously, it poses a very serious threat to bituminous coal and very strongly encourages switching away from bituminous coal. Second, it very and most severely disadvantages waste coal in setting the toughest standards in the United States of America for waste coal, threatening the three new waste coal plants we have now permanent and hope to see built in Pennsylvania. And, third, it gives incentive for energy investment dollars to leave Pennsylvania and construction jobs to leave in allowing and indeed encouraging power plants to pay for upgrades in plants outside of Pennsylvania, and here, if past is prolog, Pennsylvania rate payers will be paying to upgrade plants in competitive states. The reason I say if past is prolog, because to date, Pennsylvania power companies, more than power companies in any other state, have deferred upgrades in Pennsylvania power plants and more than power companies than any other state have purchased those upgrades that other states are investing in. So for three reasons bad

for our economy. Also bad for the environment. Madam Chairman, you were pointing to the adverse health effects of mercury. EPA data shows that oxidized mercury, which is the most prevalent form of mercury from bituminous coal, falls out locally. More than 70 percent of it rains down, if you will, in our backyard, creating hot spots obviously of toxic mercury pollution. Second, in terms of environmental public health, just last week EPA released their annual tally of toxic releases, and the news for Pennsylvania is not good. We move from having been third in the nation in terms of the amount of mercury pollution from power plants now to being second in the nation. In both cases Texas was first, and Texas remains first, but Pennsylvania is now second in the largest amount of mercury coming from power plants. I quickly want to address two things that have been a matter of discussion where I think there is some misinformation. First, it's been asserted that the Federal rule would achieve 86 percent reduction in mercury pollution in Pennsylvania. First, because of trading, you can't assert even a single ounce of mercury would be guaranteed to be reduced in Pennsylvania from the Federal rule, but second, and importantly, EPA doesn't assert or back up that 86 percent number. In the preamble to EPA's rule, EPA nationally now predicts about a 50 percent decrease maybe in the year 2020, where, as you know, Governor Rendell's rule would provide a 90 percent decrease in Pennsylvania in 2015. The independent Congressional Research Service reaches a similar conclusion. They look at whether or not maybe 70 percent reduction could be hoped for nationally from EPA's rule, and they indicate 70 percent could be realized but probably not until 2030. Now, again, this is in contrast to the 90 percent reduction that we would achieve and in Pennsylvania in real terms. Second, a question has arisen about, well, mercury controlled technology doesn't exist or it's enormously expensive, and here I just wanted to call your attention to the United States Department of Energy even just last week on a TV program here in Pennsylvania underscoring that mercury technology is available, it is demonstrated, and it is cost-effective. In fact, the gentleman representing DOE indicated that mercury control technology is some fifty times cheaper than the scrubbers that have been required, for example, under the Acid Rain Program. Having said that, we don't in our rule require the use of that mercury specific technology anyway, because again, we've premised our rule on the Clean Air Interstate Rule. Last, I wanted to share with the Committee some information that has come to our attention yesterday afternoon. Many of you as I have talked to you about our concern about the adverse impact of the Federal rule on bituminous coal and on Pennsylvania coal interests I think understandably have said to me, well, if that's the case, why is the Pennsylvania Coal Association and the United Mine Workers appearing in the Legislature on behalf and in support of the Federal rule? And I have to admit, this has been a matter of concern and curiosity to me as to why that would be the case. Yesterday we became aware that not only has the Pennsylvania Coal Association and United Mine Workers worked with DEP early on in this process to underscore their concern about the adverse impact on Pennsylvania's coal economy of the Federal rule, but also has ongoing litigation in Federal Court with filings currently before the Federal D.C. Court to the effect -- and I'll just read two parts of it, although I'll provide the full filings for the record. In filings in ongoing legal proceedings before the U.S. Court of Appeals for the District of Columbia Circuit, PCA and UMWA are claiming that EPA's rule will, quote, result in a vast wealth transfer from bituminous coal users to sub-bituminous and lignite users and further will, quote, have adverse and irreversible impacts on the bituminous coal coalition member operations, mine 0 production, mine workers and local economies dependent on coal mining operations. They further characterize EPA's rule as illegal, arbitrary and capricious, wholly unwarranted and flawed, and they advise the Court that the EPA rule will, quote, harm

producers of bituminous coal, workers in bituminous coal mines and local economies supported by bituminous coal mining. Now, obviously when you file something in a Federal Court of Law, it's got to be true, but this is obviously also very much in conflict with what PCA and UMWA seem to be saying in the Legislature. So it's a grave concern obviously, and we can only ask how these statements might be reconciled. But I underscore it because again coming back to the top, part of the reason that Governor Rendell feels so strongly that we need a state-specific rule is exactly for the reasons that PCA and UMWA are currently even as we gather today representing to Federal Court. The Federal rule will very severely and adversely impact our bituminous coal economy. Thank you, Madam Chair, and members of the 1 Committee.

SENATOR MARY JO WHITE: This coal question is very interesting, because you are correct. My understanding is the United Mine Workers and Pennsylvania Coal Association support our legislation that would in fact adopt the Federal rule, and my understanding is that they believe that your role with its preference to giving initial allowances to those who use eastern bituminous coal is a tremendous incentive for plants to switch fuel, because West Virginia and Kentucky coal has significantly less mercury, if I'm correct, than Pennsylvania coal, isn't that correct?

SECRETARY MCGINTY: No. Actually, in Greene County, where there is very substantial coal mining, obviously the mercury content of that coal is as low as or lower than any other bituminous coal. It is the case or at least was the case that there have been coal deposits in the southern part of West Virginia that were lower than the roughly -- the number is eight, but I'm forgetting what the units are in terms of the amount of mercury in Greene County bituminous coal. 2 So in southern West Virginia there were deposits that were less than that, but those deposits apparently have been pretty well mined out to the point where it led a Federal I think the U.S. Geological Survey to begin to look overall at coal supplies because those reserves had been so mined out. The other thing that I think is important there and a distinction between the very legitimate concerns that PCA and UMWA are raising in Federal Court has to do with ownership structures where you have commonality of ownership of mined coal reserves between Pennsylvania mining companies and, for example, West Virginia mining companies, in both cases CONSOL and Foundation Coal being leading producers of coal, so it's not the same situation where you have a completely separate company that, for example, might be predominant in western coal and the incentive there to switch where that mining is happening being much greater in that case. But I think the real problem is the one again that PCA and UMWA very graphically and dramatically are presenting in Federal Court even as we speak about the devastating impact of the Federal rule on bituminous coal.

SENATOR MARY JO WHITE: But isn't it a bit disingenuous to think that we can have a state rule? Coal is traded in a global economy.

SENATOR MCGINTY: Right.

SENATOR MARY JO WHITE: Do you really think a state rule can protect Pennsylvania coal? I mean, coal is going to be traded and purchased and burned in whatever is the most economic fashion, and that's just the way the marketplace works.

SECRETARY MCGINTY: Right. Well, I think that's a very legitimate point, and the way I think about it is if the Federal rule represents devastation for bituminous coal, as PCA and UMWA are saying, and our rule represents some staving off of that, even if not complete reversal of that adverse impact, I think that our inability as one state completely to provide an antidote to the bituminous poison that's in the Federal rule isn't an argument to nonetheless then consume the poison. It is true we're one state. What we can do is try to provide that incentive, and we're not just any one state obviously in this regard because we are one of the most substantial coal consumers and power producers in the nation. 4 So, yes, we are only one state, but our market is important, and if we can ensure that our market will remain bituminous, to me that is obviously worth investing in and especially when we have the other benefits to public health, the environment, and are not foisting on the utilities an undue burden to use mercury control technology.

SENATOR MARY JO WHITE: Well, to put this whole debate in perspective, if I'm correct, I recall reading that the United States is responsible, our entire coal-powered generating, it accounts for one percent of the global mercury in the world.

SECRETARY MCGINTY: Well, it may be the case, but my concern is that 75 percent of the mercury pollution in Pennsylvania comes from power plants, and 70 percent of that doesn't go globally. It comes right down in our rivers, our streams and our backyards, so once generated, we're stuck with it.

SENATOR MARY JO WHITE: I think there is legitimate differences of opinion on migration of this.

SECRETARY MCGINTY: Well, this is EPA science that I am quoting, including their most 5 recent study from Ohio, Steubenville, Ohio, which would be I think a very good indicator for us given that the geography in Steubenville is similar to ours and it is bituminous coal, as we're looking at here, and there, in keeping with other science, 70 percent of the oxidized mercury rained out locally.

SENATOR MARY JO WHITE: Well, I'll be interested to hear EPA's take on that, but if anybody watches the Weather Channel, they can see which way the air is moving. The air currents across the United States typically move from west to east. My understanding is much of the mercury pollution and pollution generally in Pennsylvania's air is coming from the power plants along the Ohio River in Ohio.

SECRETARY MCGINTY: Well, for pollutants that disperse regionally that is true. For pollutants like mercury, however, that don't disperse as significantly either regionally or globally, once it comes out the stack, we're stuck with it.

SENATOR MARY JO WHITE: Doesn't it have to come in contact with water? Aren't we talking 6 about mercury that is in water, not in air?

SECRETARY MCGINTY: Well, in terms of bituminous coal, the mercury that is in bituminous coal when it is fired in a coal-fired power plant, most of it or much of it becomes oxidized.

When it's oxidized, it becomes water-soluble. So the good news is that our coal, bituminous coal -- which is part of the reason why the EPA rule just doesn't add up. If you want it to be clean, you would favor bituminous coal, because scrubbers grab the mercury out of bituminous coal much more effectively than out of sub-bituminous coal because more of our mercury, much more of it, oxidizes and becomes water-soluble. For that mercury that is emitted into the atmosphere, you are correct. The real problem is whether mercury gets converted into something called methylmercury, and that doesn't happen exclusively but preponderantly when the mercury rains out into a water body, and the reason for that is because of microbes that live in river systems are the microbes that convert oxidized mercury into methylmercury, and it's methylmercury that bioaccumulates.

SENATOR MARY JO WHITE: Questions, Senator Musto?

SENATOR MUSTO: Thank you. Madam Secretary, we're hearing an awful lot this morning about the Federal rule. When does the Federal rule actually trigger in?

SECRETARY McGINTY: It is final now, Mr. Chairman, and that's an important point, too. With the proceedings that I have been quoting from before the Federal Court, these are proceedings challenging the final rule, so that rule is now final, and it is incumbent upon the State of Pennsylvania either to adopt it or to put in place an equally or more stringent regime by November of this year.

SENATOR MUSTO: Since there is a Court action filed against the Federal rule --

SECRETARY McGINTY: Yes.

SENATOR MUSTO: -- wouldn't that hold up its implementation?

SECRETARY McGINTY: Well, there's been no Supersedeas or no Order of the Court to suspend the effectiveness of the rule pending the legal proceeding, so in this instance, no, the clock keeps ticking even as the legal proceedings are underway.

SENATOR MUSTO: Well, when does DEP intend to propose its mercury emission rule?

SECRETARY McGINTY: We have presented that to our Advisory Committees, and the Air Quality Technical Advisory Committee approved it on a seven to two vote to be presented to the Environmental Quality Board, which it will be in May as a proposed rulemaking.

SENATOR MUSTO: Well, the proposed rulemaking takes an awful long time. When, in your opinion, does the rule have to be finalized?

SECRETARY McGINTY: Yes, well, it needs to be finalized so we can report to U.S. EPA, I think the exact date is November 17th. If we present the rule in mid May, as we are now scheduled to do, then, as you know, that would start a 60-day both public hearing and public comment clock, so that brings us into July. That gives us a couple of months to comment and respond to the questions that get raised during the public comment period, and then it would be

our intention in the September time frame to bring a proposed final rule back to the Environmental Quality Board and therefore be able to be in compliance with that November deadline.

SENATOR MUSTO: That's a tight timetable.

SECRETARY McGINTY: It is indeed.

SENATOR MUSTO: What would happen if we took no action?

SECRETARY McGINTY: If we take no action, and EPA can comment on, this, too, but I believe the Federal rule would automatically apply in Pennsylvania if we didn't take contrary action.

SENATOR MUSTO: Well, is it necessary for Pennsylvania to have its own rulemaking?

SECRETARY McGINTY: I would say emphatically so because of the very severe adverse consequences for our economy and the inadequacy in terms of public health protection that is represented in the Federal rule.

SENATOR MUSTO: There seems to be a difference of opinion.

SECRETARY McGINTY: There is, but I am very happy now to have before me with sworn filings before a Federal Court that there must not be a difference of opinion though between DEP and the Pennsylvania Coal Association and the United Mine Workers, however, anymore on this question.

SENATOR MUSTO: We don't always agree with what the Federal tells us in the first place.

SECRETARY McGINTY: Well, that might be, but as you know, at least as the Chairman knows, Chairman White knows as a lawyer, there's something called Rule 11 of the Federal Rules of Civil Procedure, which means you can't file anything that's not true, so I know this is true, and I'm glad to be back on the same page with my friends at PCA and UMWA.

SENATOR MUSTO: Subject to interpretation.

SENATOR MARY JO WHITE: Well, and to timing. My understanding is those comments were filed in 2004, and I believe the rule has changed since then. What is the date on that?

SECRETARY McGINTY: No, these were filed post final rule. The rule was final in May of 2005, and these comments -- it is a series of Court filings that were filed beginning in August of 2005, continuing into the fall of 2005, so these are very definitely filings not subject to much interpretation here -- they are quite explicit -- on the final Federal rule.

SENATOR MUSTO: Will DEP's rule define what a hot spot is?

SECRETARY MCGINTY: I don't believe that we offer a definition of hot spots, but what we do is to -- the rule is designed on a control technology basis, and what requires the institution of control technologies at each power plant does not create the opportunity for hot spots to be produced.

SENATOR MUSTO: Have we identified any mercury hot spots in PA?

SECRETARY MCGINTY: Yes. And we can share with you the maps that show where there are high concentrations of mercury. Now, those maps are limited, however, because I think they only track one form of mercury, wet mercury, not the full types of mercury, but you can see very high concentrations of mercury pollution. In fact, I think as you know, almost every major water body in Pennsylvania now is subject to a mercury advisory. Some 80 water bodies in Pennsylvania have mercury advisories on them.

SENATOR MUSTO: Thank you.

SENATOR MARY JO WHITE: If your rule were to be implemented, would that do away with advisories?

SECRETARY MCGINTY: I think it would very dramatically reduce the problem, as also recent studies further confirm. You know, for how troubling mercury pollution is and how obviously concerning it is that it bioaccumulates, it's been very encouraging to see, for example, as cited in my testimony, this recent experience in Massachusetts mimicking the experience in Florida that showed dramatic declines in the amount of mercury pollution ambient in the environment in the immediate aftermath of local controls being instituted. In Florida it was 60 to 70 percent increase in the amount of mercury detected in aquatic species and in Massachusetts it was 30 to 40 percent decrease. So the good news is that, yes, when you put those controls on locally you see in real time improvements and pretty dramatic improvements locally in terms of the reduction of mercury pollution.

SENATOR MARY JO WHITE: Well, I remember one of DEP's studies showed high levels of mercury in the fish in Forest County. We don't have any plants in Forest County.

SECRETARY MCGINTY: Well, we have to look in terms of what the radius is. The EPA study I think said something to the order of 25 kilometers is the area where 70 percent of that mercury pollution would rain out. I'd have to check those numbers for you, but we'd have to look at what that radius is.

SENATOR MARY JO WHITE: You claimed that emission trading of mercury is illegal, and yet, the DEP regulation you are proposing would retain a portion of these allowances in-house but to be given to those power plants that install certain technologies and yet still emitted too many pounds of mercury. In addition to destroying the incentive for large power plants to overcomply, which is what the emissions trading thing is all about, how is your plan any different from the State-run trading program?

SECRETARY MCGINTY: Our program is completely technology based. It is not a trading program at all. It requires the institution of controls on each plant sufficient to meet a precisely defined mercury budget that each plant needs to meet. Now, the second thing that we as a state though need to meet is all of that needs to add up to meeting or exceeding the budget that the Federal rules sets for the State as a whole, and as 4 indicated, our rule would very substantially exceed, overperform, if you will, very substantially control mercury more than what our budget is from EPA, but there's no allowances that can be traded under our program.

SENATOR MARY JO WHITE: But you would have credits that you could use?

SECRETARY MCGINTY: We would not have credits. We do have a budget, and we do have emissions that need to be reduced at least adding up to that budget, but the way our rule is designed is that each plant needs to institute those controls such that it meets the number that that plant will be assigned in part from data that they would be required to report to the Department. Our rule does allow if for some reason after institution of those controls the experience is that the expected performance isn't realized, for some reason all of that mercury is not reduced as expected, that the plant would be able to petition the Department not to be held in noncompliance if they did everything that they could do, and because we'd have additional daylight between our State budget and what they have been able to achieve, we would have been able to 5 accommodate that and not find noncompliance.

SENATOR MARY JO WHITE: Well, I know waste coal plants, for example, one of the reasons they are not supporting your plan is that they believe they would be a net owner of credits because they run so clean and that these credits would be marketable and they are, in fact, being deprived of their opportunity to benefit from a trading program, which, in fact, they would.

SECRETARY MCGINTY: Well, they would need to look pretty carefully at the EPA rule, because in setting the standards for waste coal plants at the toughest level, tougher than any other plant in the United States will have to meet, that's the problem. That natural inherent advantage of a circulating fluidized bed plant using waste coal is almost completely obviated. If they were held to the same standard as any other plant, that advantage would be there, and that's what we do. In fact, we more than do that in our rule. We provide an incentive for the use of waste coal, but the Federal rule is very prejudicial to the use of waste coal.

SENATOR MARY JO WHITE: We have obviously 6 significant disagreements on the cost of your proposal. You have repeatedly stated that the Clean Air Interstate Rule requires them to install this pollution technology anyway. Well, if that's the case, why are we even talking about a mercury rule?

SECRETARY MCGINTY: What I have stated is that we do not require mercury-specific control technology in our rule, even though the Department of Energy advises that that control technology is fifty times cheaper than acid rain technology. The rule is premised 100 percent on the co-benefits of the scrubbers and precipitators that are the subject of the Clean Air Interstate Rule, and that's been our testimony on this, that we are not -- we rejected -- for example, the petition that was before us called for levels of mercury reduction that would have required the institution of mercury-specific control technology. It also urged us to adopt a time frame that

would push these requirements much more quickly than the Clean Air Interstate Rule. Instead, we have structured this such that the technology required is the technology that power companies are used to using. It is not the new 7 mercury technology, and the time frame is the same time frame as the Clean Air Interstate Rule.

SENATOR MARY JO WHITE: Any questions?

SENATOR Stout, any questions?

SENATOR STOUT: Thank you, Madam Chairman. Madam Secretary, would you explain to me, I have waste coal generating facilities in my legislative district, and I thought that they would be less polluting type of generating facilities. Can you explain this whole thing, how it will impact the waste coal generating facilities?

SECRETARY MCGINTY: Yes. Thank you, and your premise is exactly right. Waste coal is some of the cleanest, provides some of the cleanest electricity of any fossil-derived electricity anywhere in the country, and second in line would be bituminous coal because of the way that a scrubber works and the more efficient removal of mercury from bituminous as opposed to sub-bituminous coal. The Federal rule turns all that on its head, and it says basically if any power plant switches to western coal, sub-bituminous coal, then they essentially have met their obligation. It's compliance coal. They won't need to do anything 8 else in terms of its instituting control technologies. Further, it sets different standards for different types of coal, and it enables more mercury pollution if you're using sub-bituminous coal. It enables vastly less or allows vastly less mercury pollution if you're using our coal, and then it allows the very least amount if you are using waste coal. So it sets the playing field dramatically against waste coal, second in line to by the Federal is bituminous, and sub-bituminous gets off very easy. I have to say this is unprecedented in the Clean Air Act. The Clean Air Act is what comes out the stack. It cares about is it clean or not clean. I've never before seen a rule that sets a standard for what's going in. Now, there are certain standards for different boilers and technologies, not different feedstocks. The bottom line is bituminous coal is cleaner as it relates to mercury because of the efficiency of the scrubber than sub-bituminous, and if an environmental agency were to step out and prefer one feedstock over another it would seem that they would prefer the 9 cleaner one, and that's bituminous coal, and that's what the Governor's rule would do.

SENATOR STOUT: In your study, what is the prediction if the utilities switch to sub-bituminous coal in a switch to make it compliant, what would be the projected loss of bituminous coal projections in the Commonwealth?

SECRETARY MCGINTY: Well, Senator, I guess on that point I think that again the Pennsylvania Coal Association, United Mine Workers filings are very helpful. They try to address that point with the Federal Court, and what they do is point to the experience where Pennsylvania did lose out under the Acid Rain Program, because bituminous coal has more sulfur than sub-bituminous coal, and the picture that they paint is that the fuel switching costs, quote, tens of thousands of eastern mining jobs, a shift of more than a hundred million tons of coal production from eastern to western states. So that's the evidence that UMWA and PCA are citing in their opposition to the Federal rule, and we have the same situation presented here. And

I do want to say just to be full on the record here, bituminous coal has more mercury in it than sub-bituminous coal. The point is that since it oxidizes, it is water-soluble, and it is vastly more efficiently cleaned out of the flue gas than the mercury that comes from sub-bituminous coal.

SENATOR STOUT: Thank you, Madam Chairman.

SENATOR MARY JO WHITE: I don't want to be speaking for UMW or the Coal Association, but I think it is a bit of a jump to imply that because they are not completely happy with the Federal rule or because there are things in the Federal rule they dislike that then they would love the DEP rule.

SECRETARY MCGINTY: Well, I agree with that, but I think if I might from my perspective, when you have this vehement of a position pending before the U.S. Federal Court in taking issue with the Federal rule, even if there are questions and concerns about our rule, that's fine, but I think that the proper course of action then would be not to foist a rule that you so strongly oppose in Pennsylvania but rather to engage in the Pennsylvania process to shape or change our rule. That to me is a legitimate course of action. It doesn't seem to me to be legitimate to be taking this kind of a position in Federal Court and nonetheless lobbying to see this Federal rule imposed in Pennsylvania. That to me doesn't add up.

SENATOR MARY JO WHITE: Well, my understanding is that there will be some reconsideration of the Federal mercury rule at some point in the future. In the summer I believe. And I think I heard that the waste coal issue was one of the issues that will be addressed in that reconsideration.

SECRETARY MCGINTY: Well, I would hope, but I will tell you, Madam Chair, that we just fought vigorously with U.S. EPA on a very similar issue, another very serious adverse impact on waste coal presented in the Clean Air Interstate Rule, and the situation is to date the Acid Rain Program has not applied to waste coal power plants. In the Clean Air Interstate Rule EPA has changed that and for the first time has told waste coal plants that they, too, need to comply with the Acid Rain Program. Now, quite frankly, that in and of itself is not that big of a problem, because the waste coal plants are so much cleaner than other coal-fired power plants. The problem is that the waste coal plants now subject to the Acid Rain Program are the only 2 plants that U.S. EPA has given zero allocation of allowances for sulfur and nitrogen to, and under the Clean Air Interstate Rule I am prohibited from otherwise reslicing the sulfur pie and giving the waste coal plants some allowances so they can continue to operate. So under the Clean Air Interstate Rule, if other power plants don't find it in the kindness of their heart to sell sulfur credits to the waste coal plants, they will be out of business, and we petitioned and we filed, and I went to Washington personally and met with EPA on this, and they just resoundingly rejected all such arguments and, in fact, reached their final conclusion on this about two months ago. So again, I'm not very hopeful that given how prejudicial the rule is and given what they have just done under the Clean Air Interstate Rule, I'm actually quite concerned about where this is going to go in terms of waste coal plants, and I don't understand it given that they are so clean and not only the air emissions clean, but as we know in Pennsylvania, the operation of those waste coal

plants does yeoman's service for our environment in cleaning up mountains of waste coal 3 that otherwise are an acid mine drainage problem.

SENATOR MARY JO WHITE: Well, when you talk about the economics, aren't you concerned that the absence of a cap-and-trade program is really going to impact the small generators who do not have the generating capacity to spread these costs over? If we lose our small generators, we're losing our in-state market for coal.

SECRETARY MCGINTY: I am concerned about the cost of the Clean Air Interstate Rule, and I have testified to that before, and we visited about that. By some estimates the Clean Air Interstate Rule might involve costs up to \$15 billion for power plants in Pennsylvania. Part of the reason though that we have structured the mercury rule, so that it is borrowing from the technologies at issue in CAIR and not saying you have to do mercury-specific control on top of that. So I think you raise a legitimate concern. But I think the real price tag here is involved in the Clean Air Interstate Rule, which is also a final rule and which is incumbent upon us now to be putting in place in Pennsylvania.

SENATOR MARY JO WHITE: Cap-and-trade 4 gives you a safety valve there?

SECRETARY MCGINTY: Yes.

SENATOR MARY JO WHITE: My concern is that if your rule goes through, we're going to do the same thing to electric generators that we did to oil refiners, put all the small plants out of business.

SECRETARY MCGINTY: It must be something in the air in this room.

SENATOR MARY JO WHITE: It's called pollen. If we put all of these small generators out of business, we are going to severely impact our electric prices for consumers. We're going to impact our markets for coal. I'm very concerned. The large generators, they can sell those with those credits.

SECRETARY MCGINTY: Right.

SENATOR MARY JO WHITE: Then you can keep these plants alive.

SECRETARY MCGINTY: Well, and I should be clear on this point, too, that there's nothing in our mercury proposal that would change the situation or any way adversely impact trading as it relates to the sulfur and nitrogen, the Acid Rain Program which has been in place.

SENATOR MARY JO WHITE: We're talking mercury today.

SECRETARY MCGINTY: Exactly. So the ability to make money in trading emission reductions upon the institution of technology under our rule, if you put a scrubber on because you've got to under the Clean Air Interstate Rule, for example, a power company would be able to trade any sulfur or nitrogen excess emission reductions that they achieve, but they would not

be allowed to trade mercury units, but the revenue-raising ability of scrubbers as it relates to sulfur and nitrogen we would not change in any way.

SENATOR MARY JO WHITE: Senator Erickson?

SENATOR ERICKSON: Thank you, Madam Chairman. I apologize for being a bit late. Secretary McGinty, the state-specific rule that you're proposing, is that based on risk assessment data?

SECRETARY MCGINTY: It is based on the following. The answer is it is a technology based rule as opposed to a risk based rule, although it derives from a dose limit for mercury that was derived by EPA and I think reviewed by the National Academy of Sciences, so it starts from a health based risk assessment, but then what we're requiring is technology based and specifically acid rain type technology based.

SENATOR ERICKSON: I would be most interested to see some risk based data --

SECRETARY MCGINTY: Sure.

SENATOR ERICKSON: -- at some point.

SECRETARY MCGINTY: I'd be happy to.

SENATOR ERICKSON: Thank you.

SENATOR MARY JO WHITE: Are there any other questions for the Secretary? Thank you, Madam Secretary.

SECRETARY MCGINTY: Thank you very much.

MR. HENDERSON: Our next witness is Dr. Robert Wayland of the U.S. Environmental Protection Agency.

SENATOR MARY JO WHITE: Good morning, Dr. Wayland.

DR. WAYLAND: Good morning. Thank you, Madam Chairman, Mr. Chairman, members of the Committee. The U.S. Environmental Protection Agency would like to thank each of you for giving us an opportunity to come here today to the State of Pennsylvania and to discuss our two recently finalized rules: The Clean Air Interstate Rule and 7 the Clean Air Mercury Rule. These two rules are statutory attempts to implement a national cap-and-trade program which we tried to do for the U.S. Congress as the Clear Skies Act of 2003. That attempt was unsuccessful, so we went back to the 1990 Clean Air Act as amended, and we came up with these two rules to provide the same level of coverage and benefit. I would like to remind you today that the Clean Air Mercury Rule represents the first ever attempt by EPA to regulate mercury from coal-fired power plants, and it is a dual-pronged approach. It is based initially, as Secretary McGinty has said, on the Clean Air Interstate Rule under the controls required to meet those nitrogen and

sulfur levels, which is followed in the latter phases with the clean air mercury-specific requirements that get us to the levels of mercury that we deem are safe for our people. In your briefing packet -- it's rather large. I don't intend to go through all of those pages today. I'm on Page 4 now. I'll call the pages out as I go through. Those other materials were provided to you for background. If you have 8 any questions, feel free to contact me outside the hearing. I'll be happy to answer any questions related to those. As you can see on Page 4 of our testimony, EPA is very concerned about mercury emissions in the United States. Starting in the left-most corner of the graph you see that mercury is emitted into the atmosphere in several ways. It can be naturally released through volcanic eruptions. It can also be released from man-made activities: Coal-fired power plants, other industrial sources, steel production. Once admitted into the atmosphere, as Senator White has pointed out, it travels long distances. We estimate that the half-life for elemental mercury is somewhere between six and twelve months that it can cycle the globe. The oxidized form of mercury does readily deposit near field. However, oxidized mercury is water-soluble, so we have the technologies available to us today to remove a large percentage of that as it comes out of the stack. Once it's deposited into the lakes it goes through a biological process known as methylation, which takes place in the sediment through biota and 9 other critters that live in those sediments, and this is the form of mercury that we're most concerned about. As Senator White pointed out in her opening remarks, we're not talking about inhaling mercury, inhaling mercury like you would break in a thermometer or manometer. It is an ingestion problem, and it goes without saying that the majority of this ingestion comes from the consumption of fish in this country. However, the largest portion of fish consumed in this country is not caught domestically, it's caught out in the open waters of the North Atlantic or the Pacific, tuna, salmon, dolphin, wahoo, all those nice sport fish that we like to eat over the weekends. But we do have domestic fish. We have subsistence fishermen, and we have populations that eat a lot of fish, and, therefore, we are concerned about the deposition of mercury, the methylation into methylmercury, because it does bioaccumulate, but the underlying premise for the Clean Air Mercury Rule was to protect women and children, women of child-bearing age and the young developing fetus, because they are most susceptible to the 0 toxic effects of methylmercury. Turning to Page 6, this is a simplified cartoon that I developed to try to help you understand the processes we deal with in the atmosphere. There are three forms of mercury emitted: Elemental mercury, which is not water-soluble, travels the globe for six to twelve months. We have the oxidized mercury which we've already heard a great deal about today which is water-soluble and does wet and dry deposit very readily; and then we have particulate mercury. Particulate mercury is easily captured in existing power plant control systems. There is some particulate mercury that forms once in the atmosphere as oxidized mercury particles attach to other soot particles in the atmosphere. Moving to the right, you have re-emission and natural releases of mercury. We mentioned volcanoes. Probably the largest source of mercury in the world today. Volcanic eruptions emit large portions of mercury from the earth's crust. You have to remember mercury is a naturally reoccurring element in the earth, so it's there, and when a volcanic eruption occurs, it is thrust into the 1 atmosphere. What we're here today really is to deal with the far right corner, local anthropogenic or manmade mercury which comes from plants and factories. We have regional manmade mercury which blows into this area in Pennsylvania from the Ohio River Valley and others. Senator White is correct, the prevailing wind pattern in this part of the country is from west to east, so what occurs upwind of you should be of importance to you. We have recycled anthropogenic mercury, mercury that's already in the atmosphere, deposits on forest and leaf litter. We have forest fires. It gets re-

emitted back into the atmosphere. That's something we can't control. And, of course, the natural sources, volcanoes and the like. If you look at the bottom right-hand corner, you see that most of the deposition is from the red arrow, which is oxidized mercury, which makes sense, followed by a smaller portion of particulate mercury, followed by an even smaller portion of elementary mercury simply because it is not water soluble. Turning to Page 7, you see that the U.S. does not control its own destiny in this effort to reduce mercury emissions. U.S. power plants represent about one percent of the global pool. All other U.S. sources represent about two percent. So as a Federal agency, we can control about 3 percent of the mercury that's in the global pool. The other 97 percent we have to look outside of our boundaries for help in getting those numbers down. If you look at slide 9, this is a picture of the current coal-fired power plant status in the United States. There are over 1300 units fired at over 500 coal-fired power plants that provide about 300 gigawatts of electricity for our nation. Existing coals under the new source performance standards, NSR, New Source Review, Prevention of Significant Deterioration rules, we have fairly significant particulate matter, sulfur control and nitrogen control on these units today. As we move forward as part of CAIR, the Clean Air Interstate Rule, and the Clean Air Mercury Rule, we expect that about two-thirds of this capacity in the east will implement scrubbers. Scrubbers remove oxidized mercury before it's emitted to the air. And about half of the 3 eastern capacity will install Selective Catalytic Reduction to meet nitrogen emission requirements. Again, in the presence of a scrubber a selected catalytic reduction system further oxidizes mercury, which increases the performance of the scrubber in removing those mercury molecules downstream. I want to take you on a little bit of a history lesson on how we got to this multi-pollutant co-benefit approach. If you turn to Page 12, this is an assessment of the world in 1999. In 1999 the EPA required every coal-fired power plant in the United States larger than 25 megawatts to sample its coal for an entire year, and in that assessment we found out there were 75 tons of mercury going into these units. Lo and behold, when we stack tested them, we tested 81, because it was infeasible to test all 1300 units. We tested 81 that represented the rank and file capacities and configurations, and we applied those control efficiencies to all 1300 units. We came up with a total being emitted of 48 tons, so 75 tons were going in, 48 tons were coming out. What happened to those remaining 27 tons? There were no mercury regulations in 1999. There was no attempt by Federal or State agencies to reduce mercury. We found that 37 percent reduction was an artifact of co-benefits, the scrubbers, the SCRs, the precipitators, the bag houses. We were essentially removing 36 percent of the mercury, not really, but I'll say without trying. There were no regulations to force it. As has been pointed out previously in today's hearing, if you look at the left-most graph you will see bituminous coal, the blue dots representing the level of control, the red bars indicating the variance around it. As you can see, we did very well with existing controls, with scrubbers, SCRs and bag houses. As you move to sub-bituminous coal, you see the overall control go down. You see the variability around those control numbers go up, and as we move to lignite, the lowest rank coal burned in this country, you see the numbers are way down and the variability is very high. So it is a fact bituminous coal, we know a lot about it. We know how to get the mercury out of it, and we know how to get it out very efficiently, so those statements on the record are true facts. 5 But in 1999 when we realized that there was a co-benefit effect for regulating mercury, the Agency began to shift toward looking at ways to reduce all three pollutants in a common venue, thus the Clear Skies Act of 2003, which would have regulated NOx, SOx and mercury for all power plants in all fifty states. If you look at Page 13, there is very promising mercury-specific technology on the horizon. This is a project from the Gaston

plant. It is a Southern Company facility where they tested activated carbon injection, and as you can see, they average about 90 percent removal. Unfortunately, that plant is no longer running this technology in their plant. This was a Department of Energy pilot scale demonstration. Once the demonstration was over, they ceased to run the equipment at this time. But there are technologies like this which the Clean Air Mercury Rule does intend to take into account. We've worked exclusively with the Department of Energy. Our Office of Research and Development submitted its own White Paper in March of 2005. The Department of Energy's National Energy 6 Technology Lab in Pittsburgh likewise submitted a White Paper in March of 2005, and those two White Papers are in agreement. We believe that mercury-specific control technology will be available, it will be commercially viable and commercially demonstrated, but not before the 2012, 2013 time frame. Therefore, in putting together the Clean Air Interstate Rule and the Clean Air Mercury Rule, we phase these controls in. The first phase, a 38-ton cap in 2010, relies solely on known technologies, the co-benefits approach. It relies on the level of mercury that can be achieved through the installation of scrubbers and selected catalytic reduction and particulate matter controls. In the mid teens when these mercury-specific technologies come on line, then we ratchet down that cap in 2018 in Phase 2 to 15 tons. Secretary McGinty is correct, we do not hit that cap in exactly 2018 because of banking in the early years. But what that banking signifies is that your larger dirtier power plants control early and they overcontrol and they bank these credits to make viable these smaller units that are on the fringes of the dispatch curve who may not have the capital today to retrofit for all of these programs. It allows them to very cost effectively get to the same environmental goal while not putting people out of business and losing jobs. If you turn to Page 16, CAIR sets the stage for CAMR. Had the Clear Skies Act of 2003 gone forward -- and for the record, the Agency still very much supports national legislation along these lines -- this picture would have been for all fifty states. However, when required to do it within the statute of the 1990 amendments, we have to show upwind, downwind contribution, and there is a little piece of geography out west called the Rocky Mountains which sits over a mile high in the sky, and it makes it difficult to demonstrate upwind, downwind contributions. Therefore, CAIR is restricted to the eastern third or eastern half of the country, and as you can see, there are selected controls here that build on the highly successful NOx SIP Call to reduce ozone-forming nitrogen oxides in these regions. 8 Once these controls are installed, then CAMR comes in, or the Clean Air Mercury Rule comes in, and builds on top of that. If you look at Page 17, it is not a Christmas tree. It's a dot map. If you look at the Ohio Valley and the eastern Pennsylvania and western Pennsylvania, you see a preponderance of green dots. Those show you the plants that based on our modeling will install SCRs and scrubbers as part of the CAIR and CAMR programs. These are the very plants that impact mercury deposition in this state, and EPA is confident that with the installation of these controls we will meet the mercury deposition goals that are set forth in this rule. As you move out west, there is another important area there. You see all the blue dots coming in. These are scrubbers that are going in place on low sulfur sub-bituminous coal units previously not required to do any type of scrubbing, but because of the WRAP controls, remember CAIR is not out in that part of the country, but to meet sulfur controls of the WRAP and other state-based programs, these units will install scrubbers to further reduce sulfur. 9 If you look at Page 18, this kind of puts the CAIR/CAMR approach in perspective for you in terms of mercury. On the left-most panel you see deposition from the U.S. in 2001 from power plants. If you look to the upper right panel you see what this looks like in 2020 with CAIR alone, so this picture is even more dramatic when you add in the Clean Air Mercury Rule and the Clean Air Visibility Rule, but absent in the

upper right-hand corner are the dark blues and the blacks that you see in the other maps. CAMR and CAIR are very sufficient at reducing mercury deposition from coal-fired power plants. What you also notice in the bottom right corner in 2020 the nonpower plant sources. Even with CAIR and CAMR in place, you see we have a large amount of mercury coming in from other sources outside of the power sector. So you might say in Pennsylvania, turning to slide 24, what does it do for you? If you look at the darkest blue bar, that represents the base case or 2001 from which our analyses started. The lighter blue bar in the middle represents what we anticipate will be realized through CAIR, and then the lightest blue bar 0 represents what we anticipate to realize from CAIR, CAMR and the Clean Air Visibility Rule in 2010. And as you look at Pennsylvania and you look at your neighboring states, these three rules have a significant impact on the amount of mercury being released. The State of Pennsylvania goes from almost six tons per year down to about one and a half tons per year in 2010, a very significant reduction under the Federal program. Some people prefer on Page 25 not to look at what's coming out of the stack but look at what's falling to the ground, and again, this is just a similar way of looking at some of your neighbors and looking at the amount of deposition. This is deposition in terms of tons, and again, as you move from total deposition on all sources, the dark green to the lighter green for utility attributable deposition, emissions from mercury from utilities in 2001 or the base case, to what we anticipate it to be in 2020, again you see a very precipitous fall in the amount of deposition from these two programs. Slide 26 simply puts it in a terminology that the biologists like to look at it in terms of micrograms per square meter. You see the same 1 general distribution on the graph, but what this shows you is the amount of mercury per set geographic area that's being deposited, and again, in 2020 based on CAIR, CAMR and CAVR you see that there is very little utility attributable deposition in these states in the eastern United States. Turning to Page 27, and I'll stop and try to answer your questions. This is the thinking that's behind the Federal rule. The red line indicates what the mercury emissions would be without the Federal rule on a national basis. You see they will tend to level off and dip and then they tend to grow again in the 2025 time frame due to projected growth. If we only went with CAIR alone and did not have a mercury-specific rule, you would see by 2025 we approach about 34 tons. Basically where we are at the Phase 1 cap. However, if we institute both the CAIR and the CAMR approaches, by 2025 we estimate to be in the vicinity of the 15-ton cap. The thing to remember with the declining cap-and-trade program, like CAIR and CAMR, these are not-to-be-exceeded caps, so if you choose to bring on line new generation, once these caps are in place, you have to get reductions elsewhere in your budget. These are not-to-be-exceeded caps, so once they're in place and adopted, if you bring on new generation, you have to find reductions elsewhere in your system or buy credits from somewhere else in the country. In terms of closing, the Agency did grant legal reconsideration on several aspects of the Clean Air Mercury Rule. We are in the process of finalizing that reconsideration. We anticipate completing that by the end of May, at which time the litigation which has been held in abeyance will be reactivated, and from that point forward we will work with the D.C. Circuit Court to move through any following proceedings as they come available. Thank you for your time.

SENATOR MARY JO WHITE: Do you anticipate that that reconsideration will look at all of the waste coal issue or at what the Secretary calls the disadvantages imposed upon Pennsylvania bituminous coal?

DR. WAYLAND: Yes, ma'am. I'm not at liberty to discuss the findings of the reconsideration because it is not finalized, it is not public, but the issue of the New Source 3 Performance Standards, the limits apply to the bituminous coal, sub-bituminous coal, lignite at ECC facilities and waste coal facilities. That was an area the Agency granted reconsideration on. The waste control industry participated in the public hearing and has submitted information to us for us to take under advisement as we finalize the reconsideration, so, yes, ma'am, it will be taken under consideration.

SENATOR MARY JO WHITE: Senator Musto.

SENATOR MUSTO: In the Secretary's testimony she mentioned that a number of states are developing a state-specific mercury rule. What would happen if several states opted out of the cap-and-trade program and is there a critical mass of states needed to have a program?

DR. WAYLAND: That's a very good question, Mr. Chairman. We are in the process now of looking at states that we are aware of that may or may not choose to adopt our Federal trade program, and we are using all of our modeling resources to assess that very question, is there a critical mass that we have to achieve to make a successful trading program? I think we are aware of maybe a half dozen 4 states at this point that may decide not to adopt the Federal rule, and our preliminary assessment is that, while it will impact the allocation market, it's not going to prevent it from being successful, but these are preliminary findings at this time.

SENATOR MUSTO: In other words, your program is well on the way, and to me it seems as though you are hard-fast set for the program, you're going to move forward with or without the states?

DR. WAYLAND: Yes, sir. We have spent a large part of the last year going to the different states who have requested assistance doing outreach. We have ten regional EPA offices, and we worked with them and with their constituents in each of the regions to roll out what our intent is. It came up in the earlier testimony, what happens if a state does nothing? Mid summer we will be putting out what we call the Federal Implementation Plan, which is the backstop. If a state fails to do anything, then EPA will step in in November and implement the Federal Implementation Plan, which will set the mercury requirements for any state that does not submit an approvable plan.

SENATOR MUSTO: I'm getting a reading you're not listening to the states.

DR. WAYLAND: Contrary. We are listening to the states through the reconsideration process.

SENATOR MUSTO: I'm not convinced. I hope you will give the states some consideration of what they're doing. I think it's very important and especially what we're hearing here today. The mercury issue is an important one. States do have a real problem and they're trying to give EPA a message, and I hope EPA is listening.

SENATOR MARY JO WHITE: Senator Stout or Senator Williams?

SENATOR STOUT: I have no questions.

SENATOR MARY JO WHITE: Senator Williams.

SENATOR WILLIAMS: You said there are a half dozen states that may not be prepared to opt into the program?

DR. WAYLAND: Give or take two or three, yes.

SENATOR WILLIAMS: What would that mean if they didn't opt into the program?

DR. WAYLAND: If a state -- in any Federal regulation, whether it's this or whether it's New 6 Source Performance Standard or any type of regulation, a state has the freedom under the Clean Air Act to go its own route as long as it is at least as stringent as what the Federal rule maintains. So as long as a state meets whatever the budget, the cap that they were assigned through these rules, they can choose to do that however they want. So they can go there own. They have to submit a plan to EPA, and it has to be approved by EPA.

SENATOR WILLIAMS: Are we one of those states?

DR. WAYLAND: No, sir, Pennsylvania has not submitted any plan to the Federal Government at this point.

SENATOR WILLIAMS: And if of the twelve states that are in that category of maybe not opting in, are they concentrated in a given area or are they dispersed across the United States?

DR. WAYLAND: They are dispersed.

SENATOR WILLIAMS: So the eastern region of Pennsylvania is not necessarily one? The State of New York, Delaware, Ohio, Pennsylvania would necessarily be identified as those in that category 7 of twelve?

DR. WAYLAND: Well, New York, New Jersey, no, they are not in there. We are aware that Pennsylvania has its own proposal that Secretary McGinty has laid out for us today. We are aware that the State of Illinois has ongoing legislation on its own. We are aware the State of Michigan is contemplating that. We are aware of the State of Massachusetts has its own state-based regulation. When I say we are aware of it, no one has actually filed --

SENATOR WILLIAMS: I understand.

DR. WAYLAND: -- anything with us saying that's what they are going to do.

SENATOR WILLIAMS: There seems to be a number of states.

DR. WAYLAND: Yes.

SENATOR WILLIAMS: And the consequence to the program as described by the Federal Government would be what if there were significant number of northeastern states that chose not to opt in?

DR. WAYLAND: As I responded to Mr. Chairman, we are in the process of evaluating that. Until we have a handle on exactly how many are dropping out and how many power plants are contained within the states that choose to go their own way, we're not able to assess that right now, but we are in the process of gathering that information.

SENATOR WILLIAMS: Would that affect the ability to have such a program as it's currently constructed, as the program is designed, if those states which are identified, and Pennsylvania is included in that, and maybe Ohio is included in that, would that affect the ability for the program to go forward?

DR. WAYLAND: We don't have that answer at this time. We're trying to gather that information, run the analyses, but we have not made a conclusion of what, as Senator Musto said, what the critical mass that's required. We're trying to understand that.

SENATOR WILLIAMS: And a closing observation, the question would be, if you're not able to analyze such, if you don't know what the critical mass is and you're ruling it out, I don't understand how you rule something out and not have an understanding of what the critical mass would be. That is a little concerning.

DR. WAYLAND: We do know what that would be, but until states start to submit plans and we know which ones are in, which ones are out, we can't answer the question on what the bottom line is. We have to have some indication on who's in and who's out.

SENATOR WILLIAMS: Well, if it would seem that if you knew what the critical mass number was, it is a simple calculation, and that if Pennsylvania was not in, Michigan was not in, Ohio was not in, Massachusetts was not in, sir, that would lead to a specific number and, therefore, would determine whether it would work or whether it wouldn't work. Maybe I'm comparing apples to oranges, I don't know, but it would seem to me that if you have the critical mass number, it's determined already, and that's the only program, if that's the case, then it's not difficult to step back and say: These are the ones that are in play, these are the ones not in play, and, therefore, we can't go forward. That's not accurate?

DR. WAYLAND: No. We are running those scenarios now, and we have some of that information.

SENATOR WILLIAMS: Before you come before a state such as us and say that, I'm not quite clear why you would come and not be prepared to say: We need A, B and C. Pennsylvania's here. Especially when you're talking to Pennsylvania. That doesn't -- I'm not quite clear what that means -- it makes me suspicious, and I sort of come with no agenda with regard to this, but it makes me suspicious when someone sits there and says: I can't give you an answer to that. We're rolling out a program. We have a critical mass number, but we have to calculate if you

decide to drop out. It's either yes -- I mean, you can say five in the northeast are in or they're out. That's my opinion. But thank you, Madam Chairperson.

SENATOR MARY JO WHITE: Thank you,

SENATOR. Isn't it true though that some of those states, if you don't have a significant number of power generators, coal-fired power plants in your state, whether you're in or out isn't a big deal?

DR. WAYLAND: That's correct.

SENATOR MARY JO WHITE: So it's the big players, and Pennsylvania is one of the big players.

DR. WAYLAND: Yes, Pennsylvania is a big player. Ohio is a big player. The southeast Gulf Coast are all big players. Tennessee Valley Authority. So those -- I'm sorry I can't answer your question. We just don't -- I don't have that answer with me today. I can try to get that for you and get it back to you, but I don't have it today. Yes, ma'am, it's dependent on the number of sources impacted in the state as to the criticality of being in or being out.

SENATOR MARY JO WHITE: The Secretary in her statement made this statement: Technology control mercury emissions from coal-fired power plants is readily available and inexpensive. I think she's referring to scrubbers. I thought I heard your testimony to say that the technology out there was being -- there was a pilot on technology and that it's down the road a piece.

DR. WAYLAND: Yes, in terms of scrubbers, Selected Catalytic Reduction, precipitators, bag houses, those technologies have been around the last 15 to 20 years. They're tried, true, tested. We know down to the tenth of a percent the level of removal you can get with those devices, and power plant operators have been using them for the past two decades. When it comes to mercury-specific control technology, as I indicated earlier, the Department of Energy, as well as the EPA's Office of Research and Development, have assessed these technologies, and we put out White Papers in the final rule, they're in the rulemaking docket, which document the level of removal and the availability of these technologies for power plants to choose. In our deliberations through the interagency process with the Department of Energy we are all in agreement that these technologies are not commercially available and readily off the shelf installable technologies. Yes, there have been numerous pilots. DOE has funded a three-phased program. The data I shared with you is from Phase 1. Phase 2 is on the way right now, and Phase 3 will be implemented later this fall. Until we get this information back and understand exactly what these controls can do, what they cost on all forms of coal, not just bituminous, but sub-bituminous, lignite and blends of all three coals, we don't feel we are in a position to mandate their installation to every facility across the country.

SENATOR MARY JO WHITE: On the cap-and-trade issue, my understanding of the reason the Secretary is objecting to this is that she makes again a statement in her testimony: Unlike other air contaminants that disperse broadly, mercury deposits locally and tends to concentrate,

creating toxic hot spots of contamination. In what I've been reading that doesn't appear to be the case. Do you have hot spots? Are you concerned about hot spots in the cap-and-trade program where a plant doesn't have to provide credits and therefore you've got a big pocket, if you will, of mercury contamination?

DR. WAYLAND: Well, I'll answer that in two pieces. Based on our experience both with high nitrogen oxides and the sulfur dioxides from the NOx SIP Call and the Acid Rain Program, we did not see hot spots as a result of those cap-and-trade programs. In fact, we saw the largest sources put the controls on, odor control, and we saw that they got to the goals we set for them quicker, and they got to those goals with less cost than we had anticipated in the beginning. When it comes to mercury, you know, the science surrounding mercury is evolving. We learn new information on a daily basis. We don't have the historical knowledge with mercury we had with nitrogen oxides and ozone and PM and sulfur. It is an evolving science. We are learning a lot, enormous amounts each day we learn about it. Based on the current level of science and understanding before the Agency, when we did the final Clear Air Mercury Rule, we did an assessment using our state-of-the-art modeling system, the fish tissue data we had available to us and the best science, and when we crunched all those numbers and mapped the United States, we did not find any utility-attributable hot spots, hot spots that were directly attributable to coal-fired power plants. In that final rule, we cited the uncertainty associated with using models and using new data and using this evolving science, and we clearly stated that if in the future there were to be identified utility attributable hot spots the Agency would take the appropriate action, but based on the analysis we did, we did not find any utility-attributable hot spots in the contiguous United States.

SENATOR MARY JO WHITE: Thank you. Any other questions? Senator White?

SENATOR WHITE: No. Thank you, Madam Chair.

SENATOR MARY JO WHITE: Thank you very much.

DR. WAYLAND: Thank you.

MR. HENDERSON: Our next witness is Douglas Biden, President of the Electric Power Generation Association.

SENATOR MARY JO WHITE: Good morning, Mr. Biden.

MR. BIDEN: Madam Chairman White, Chairman Musto, members of the Committee, good morning, and thank you for giving the Generation Association this opportunity to present its views on this important issue. As EPGA views the subject of today's hearing, there are two policy questions before this Committee, one of substance and one of process. The substance question is essentially, should Pennsylvania adopt a go-it-alone approach to regulating mercury emissions from power plants or follow the requirements of the Federal Clean Air Mercury Rule? The process question involves whether this type of policy issue with potentially significant economic consequences for the Commonwealth should be addressed by the General Assembly. Before I address those questions, I want to emphasize that EPGA's members, along

with our labor and business partners, support the common-sense approach to reducing mercury emissions from power plants in the Senate and House Legislation, because it will not only reduce mercury emissions from Pennsylvania power plants by 86 percent, but also give power plants an incentive to over-control emissions in a cost-effective way that protects jobs and electric customers in the Commonwealth. Now, I know there's been a lot said about that 86 percent figure being misleading, and I'll be happy to take questions on that subject at the end, but Dr. Wayland just addressed that question. There is really only two ways that we will not achieve an 86 percent reduction in the year 2018, either by overcontrol early or by purchasing emission allowances from sources upwind, and since the prevailing winds are west to east and the only way we can purchase emission allowances from sources upwind is if they overcontrol their emissions relative to their regulatory requirements, and we know that mercury emissions travel hundreds, even thousands of miles, Pennsylvania's environment could well be better off if we choose that option, but I certainly invite questions on that subject as to whether or not that 86 percent is, in fact, a misleading number. In considering whether Pennsylvania needs more stringent regulations, it's important to know what the Federal environmental regulations require of Pennsylvania power plant owners. The Clean Air Interstate Rule, or CAIR, and the Clean Air Mercury Rule, or CAMR, work in tandem to achieve emission reductions more cost-effectively than in the past. CAIR requires a 70 percent reduction in sulfur dioxide emissions and more than 60 percent reduction in nitrogen oxide emissions in two phases, with Phase 1 2010 and Phase 2 in 2015. On a nationwide basis, CAMR requires a 20 percent reduction in mercury emissions by 2010 and a 70 percent reduction by 2018. However, because Pennsylvania coals have a higher mercury content than the national average, Pennsylvania has 8 more stringent requirements than the national average. For Pennsylvania, CAMR requires a 64 percent reduction in mercury emissions by 2010 and an 86 percent reduction by 2018. The Phase 2 compliance deadline for CAMR is intentionally later than CAIR. The emissions control equipment plants are using to comply with CAIR, for example, sulfur dioxide scrubbers and Selective Catalytic Reduction technology for NOx, also reduce mercury emissions, an effect referred to as co-benefits. Power plant owners will have sufficient time to determine how much they can reduce their mercury emissions via co-benefits under CAIR before meeting their final emission reduction requirements under CAMR. Achieving these emission reductions will be challenging, particularly for mercury, because they are steeper for Pennsylvania under CAMR than for any other state. Consequently, Pennsylvania's power plants face the highest marginal cost of compliance for mercury control under CAMR. As a result, Pennsylvania would be the greatest beneficiary of an interstate trading program and has the most to lose if interstate trading is not allowed. The DEP is opposed to mercury emissions trading because of concern about hot spots around power plants that choose to buy emission allowances rather than install control technology. This concern is misplaced, particularly in the case of Pennsylvania's power plants. Opponents of trading assert that Pennsylvania generators will simply buy emission allowances from generators in other states and take no direct action to control mercury emissions. We disagree and would like to explain why this will not occur. Because the required levels of reduction are so great, no affected plant in Pennsylvania will be able to comply simply by purchasing allowances from others. In fact, the DEP itself has stated that it expects 90 percent of the coal-fired generating capacity in Pennsylvania will install scrubbers and/or SCRs simply to achieve the emission reductions required by EPA's CAIR. Sources in Pennsylvania have already begun installing controls to meet CAIR requirements, and a number of additional sources are planning to install controls. 0 These scrubbers and SCRs will also achieve significant mercury

reductions. Knowing the Department's oft-stated concern about hot spots being fundamental to its opposition to permit trading for mercury emissions, EPGA wrote to DEP last November requesting answers to questions related to this issue, and I've attached a copy of that letter to this testimony. I won't repeat all the questions. However, some of them were we asked the DEP to define what a hot spot is. We asked where these hot spots are located in the state. We also asked if the DEP had any information linking power plant emissions, particularly Pennsylvania power plant emissions, to any such hot spots. We believe these are legitimate questions that should be answered before ruling out a cost-effective and environmentally sound trading allowance program. As you can see from the attached reply to our letter, which we have also attached to our testimony, we have not received any responses to the question that we asked of the Department. Rather, we were referred to two studies, one by the Brookhaven National Lab and one by EPA, 1 and I'd like to point out that both of those organizations had concluded that a cap-and-trade approach is a perfectly acceptable means of controlling mercury emissions. I'd also like to refer the Committee to the testimony of Dr. Terry Sullivan of the Brookhaven National Lab, who presented testimony before the House Environmental Resources and Energy Committee. The Secretary of the Committee has repeatedly pointed to CAMR's favorable treatment of western sub-bituminous versus eastern bituminous coal as a source of competitive disadvantage for Pennsylvania and a reason why we need a Pennsylvania rule. She has also mentioned on several occasions that we need a state rule to protect Pennsylvania coal related jobs. If Pennsylvania coal is better off with the DEP's proposed rule, why are the Pennsylvania Coal Association, the United Mine Workers of America and the International Brotherhood of Electrical Workers all part of the coalition opposed to the DEP rule? The EPGA is also concerned about the competitive disadvantages, but we believe the DEP rule will only compound the competitive 2 disadvantages for Pennsylvania. Given that any state rule can be no less stringent than a Federal rule, the only way Pennsylvania can address the disparities between western versus eastern coal is to allow generators to participate in the Federal emissions trading program. In addition to the competitive disadvantages sources face due to the differences between western versus eastern coal, resulting in the highest mercury emission reduction requirements in the nation, Pennsylvania plants must compete in the wholesale electricity market against generators located in other states that do not have more stringent regulations than the Federal rule. Also, Public Utilities Commissions in states where generation is still a regulated monopoly allow generators to pass the cost of their investments in emission control equipment on to their captive rate payers. Generators in electric choice states like Pennsylvania do not have a regulatory endorsed recovery method for these investments, thus generators in Pennsylvania face higher risks of nonrecovery and higher risk premiums from these capital investment costs. 3 The point is that while some other states appear to be taking steps to help their generators maintain or even lower their compliance costs and, therefore, be more competitive in the wholesale power market, the DEP's proposed rule would work in the opposite direction, to the detriment of Pennsylvania's generators. By forbidding emissions trading the DEP rule would be deliberately inducing yet another and, in our view, more damaging source of competitive disadvantage. This prohibition would prevent Pennsylvania sources from minimizing their high and marginal cost of compliance and compound the negative impact on power plant output, jobs and local energy costs. Regarding the process question, this issue originated in a petition filed by PennFuture and others to the Pennsylvania Environmental Quality Board. DEP formed a working group in which EPGA and three of its member companies participated. We respect that Secretary McGinty has convened these meetings before submitting a proposed rule and that she

has permitted industry to present expert analysis. That said, we submit that throughout this process we have heard no 4 compelling evidence why the Commonwealth should adopt its own mercury rule different from the Clean Air Mercury Rule. In fact, neither the DEP or any other group has presented any information to demonstrate that DEP's proposed rule would result in any measurable additional benefits over those resulting from the Federal regulations. On the contrary, EPA's analysis has shown that if you eliminate all mercury emissions from all U.S. power plants and compare the result with the requirements in the Federal rules, there is very little difference in mercury deposition. If a stringent state-specific mercury rule, with significant impact on the Commonwealth's economy, is to be considered, we strongly recommend that it be addressed through the legislative process to allow for careful and thorough scrutiny. We believe and submit to this Committee that there is not a good case to be made for a piecemeal state-by-state approach to regulation of mercury emissions. We now know a great deal more about the DEP rule scheduled to be sent to the EQB for proposed rulemaking in May. While purporting to be flexible and 5 protective of Pennsylvania bituminous coal, without a trading program the draft rule will achieve neither of these goals. I'm going to summarize the next two paragraphs of my testimony and simply say that, in our view, we feel that the DEP-proposed rule will result in significant displacement of Pennsylvania coal by out-of-state lower mercury coal suppliers. Simply stated, we can trade emission allowances or we can trade coal. In the face of overwhelming evidence that a market-based system for mercury control will have as much benefit on mercury exposure as a more stringent command-and-control emission cap approach, we support the market-based approach of the Clean Air Mercury Rule and Senate Bill 1201. While some have criticized the Legislature's involvement in this issue, we commend this Committee for its interest and we'd welcome the introduction of Senate Bill 1201. It is not only appropriate but necessary for the Legislature to be closely involved in the resolution of an issue that has such broad ramifications for Pennsylvania. If this state is to adopt its own mercury 6 rule, there should be hearings like this one so that the relative merits of a state-specific rule versus the Federal rule can be fully explored before a rule is promulgated. This matter involves complex and important energy, environmental and economic development policy issues which should be carefully weighed with thoughtful input from the General Assembly upfront, not just at the back end of the regulatory review process. Now, I have appended to my testimony some additional information concerning health effects, whether or not the Clean Air Mercury Rule is in fact illegal, some of the charges that the 86 percent is misleading and if we have a cap-and-trade program we'll have no mercury emissions reduction in Pennsylvania. I won't go into those now, but I'll be happy to take any questions from the Committee.

SENATOR MARY JO WHITE: Senator Musto.

SENATOR MUSTO: Thank you, Madam Chairman. Good morning.

MR. BIDEN: Good morning, Mr. Chairman.

SENATOR MUSTO: How many states participate in the PJM regional market? 7 MR. BIDEN: Fourteen I believe.

SENATOR MUSTO: Fourteen states. Do you know how many of those states are considering the state-specific mercury rule?

MR. BIDEN: New Jersey passed its own state-specific mercury rule. Maryland just passed legislation which included mercury. I understand that the General Assembly of Maryland is going to revisit that next year. They have a very compressed legislative session. And Illinois I believe is right now going through a regulatory development process. And I had recently -- I'm sorry, Michigan is not part of PJM. So I believe there are three in PJM.

SENATOR MUSTO: And many are considering?

MR. BIDEN: I'm not aware of any other states in PJM. None that I can think of.

SENATOR MUSTO: At this time we do not have sufficient information to make any comments on it.

MR. BIDEN: I don't have any information that other states are seriously considering moving forward with their own mercury rule. I would add, if I may, Illinois, of course, had done an analysis of the Illinois EPA and discovered that Illinois, which is now a net exporter of electric power, feels that as a result of adopting their proposed mercury rule that Illinois will change to a net importer of electric power as a result of their proposed mercury rule, so there is a lot of deliberation going on in Illinois over that fact.

SENATOR MUSTO: Your message is very clear that we here in Pennsylvania should not adopt a more stringent rule than Federal.

MR. BIDEN: Well, Pennsylvania has the most coal-fired generating capacity of any state located in PJM, so the impact on Pennsylvania's economy would be several orders of magnitude greater than any other state located in PJM.

SENATOR MARY JO WHITE: Mr. Biden, I have a question. I heard the Secretary say that there really -- and I'm paraphrasing here, but that there isn't a significant incremental cost to the generators because they're already installing scrubbers and other pollution equipment as a result of CAIR. Is that a true statement?

MR. BIDEN: Well, we asked to be able to come in and evaluate that, and at first we were told that, yes, come in, because the first phase of the DEP rule takes effect in 2010, and there is an assertion that the power plants are going to overcomply with the mercury requirements by virtue of their investment under CAIR, overcomply with their mercury requirements by virtue of their investment pursuant to the CAIR requirements, so we wanted to go in and verify that, but we hadn't been able to schedule that. At first we said we could, and then the offer was withdrawn. So we haven't been able to verify that.

SENATOR MARY JO WHITE: So we don't know what their state-specific mercury rule would cost, is that the answer?

MR. BIDEN: Well, that sort of information competitive generators do not share with one another. We know what investments have been publicly announced. We all know about PPL's

announcement of their scrubbers. We know that the owners of the Keystone Commonwealth or the Keystone plant intend to install scrubbers there. I've heard recently that there are plans to install scrubbers at I believe Cheswick out in Western Pennsylvania. Homer City intends to add another scrubber. Bruce Mansfield plant intends to upgrade their scrubbers. So there have been a number of publicly announced plans, and there's no way that we can meet the CAIR requirements without in fact making substantial investments in scrubbers and Selective Catalytic Reduction technology to meet the requirements of CAIR, and, of course, there will be substantial co-benefits in mercury remission reductions to go with that. Now, whether or not all of that will take place by 2010 to enable us to fund this pool that DEP talks about by 2010, we don't know. We don't know if their information completely comports with firm plans that had been made by electric generators or not. That's why we want to go in and compare notes.

SENATOR MARY JO WHITE: Is our real concern -- because you state in your testimony that DEP itself has stated that it expects 90 percent of the coal-fired generating capacity in Pennsylvania will install scrubbers and/or SCR simply to achieve emissions reductions required by EPA's CAIR. Is it that other 10 percent that we're worried about? Are we concerned about the marginal producers, the smaller generators that perhaps I can't generate the capital to do that?

MR. BIDEN: Yes. And granted, I don't know what that 90 percent is based on. I don't know if they're based on conversations with power plant owners or if they're simply based on projections that came from EPA reports. I suspect that maybe the latter. I have seen and heard some of the EPA projections where they have made statements to the effect that only 5,000 megawatts are expected to be retired as a result of the Clean Air Interstate Rule and Clean Air Mercury Rule. My personal opinion is that that number is low, because I think that there are going to be more megawatts than that retire as a result of the combination of those two rules, and if we have a significant number of states adopting their own more stringent rules that go beyond that, that number is going to go up materially, because particularly when you have a rule like the currently drafted Pennsylvania rule that creates so much uncertainty for sources that cannot afford to put scrubbers on. We verified in the Air Quality Technical Advisory Committee that sources that will put on this technology the DEP says is so cheap, which I believe they're referring to activated carbon injection, it is indeed a low capital cost option, but we were told that sources that can't afford to put scrubbers on and for whom no investor would loan the money to put scrubbers on, if they put activated carbon injection in, they're going to be at the back of the line in terms of getting these state-controlled allowances. So if you were an investor, would you loan the money to that company to put in activated carbon injection with no assurance that you're going to get the shortfall of allowances if you need them from DEP? Because activated carbon injection has not been widely tested on eastern bituminous coals, and where it has been, it's been very low in terms of its ability to remove mercury emissions. Much lower than it has been on western coals.

SENATOR MARY JO WHITE: Well, I think we heard from the EPA that the technology is not there yet, it's not proven in commercial -- MR. BIDEN: We're starting to test it, but the only study that I have seen, the activated carbon injection technology has shown a range of 70 to 90 percent removal on western coals, western sub-bituminous coals, but eastern coals it's been more in the 50 to 70 percent range. That falls way below the DEP requirement. If you have an emissions trading program that you can count on, you at least have some hope that someone out

there at some price will sell you emission allowances, but DEP has already told us you're in the back of the line if you put this technology in, the very technology that they're saying is so cheap.

SENATOR MARY JO WHITE: Any questions? Senator Stout.

SENATOR STOUT: Yes. For the generating industry, what's the projection if the fuel source was switched from bituminous to sub-bituminous, what impact would the times be and the economic effect of that be?

MR. BIDEN: The only thing that we're saying now is we believe significant volumes of coal that is presently being burned in our boilers is going to be displaced, whether that coal can be found in the eastern bituminous coal regions or whether that coal is going to come from the Powder River Basin. How much of that might come from the 4 Powder River Basin I can't tell you at this point. All I can say is, and I said it as emphatically as I can, we can trade emission allowances or we can trade coal. There may in fact be some lower mercury coals available within the confines of the Commonwealth, but I've been told by some of my member companies that a lot of that coal is going to come from out of state. But we have not tried to quantify that, and as competitors, you know, back when we were part of the monopoly utility fold we might share that information with one another, but we just don't do that anymore.

SENATOR STOUT: You mentioned the scrubbers and so on. What is the cost for a unit to put a scrubber system in place?

MR. BIDEN: It can vary depending on the size of the unit, but it's hundreds of millions of dollars. It depends on the size of the plant. My recollection is that -- and I believe there are people here from PPL. They just announced that they're putting scrubbers on the Brunner Island plant, which is just down the road on the Susquehanna, and the Montour plant, which is way up the river, and I believe that the cost of those two 5 scrubbers -- and I believe they are also putting in SCR on one of the plants and new electrostatic precipitators, and the total cost, capital cost is in excess I believe of \$1.2 billion. If someone's in the audience from PPL that wants to correct me, they can speak up.

SENATOR MARY JO WHITE: Thank you, Mr. Biden.

MR. BIDEN: That's just one plant. There are two plants.

SENATOR WHITE: Mr. Biden, I missed part of your earlier presentation. I did hear you make a statement that Illinois was considering some legislation that would potentially take it from being an energy exporter to a generation importer; is that right?

MR. BIDEN: Yes. And that study was conducted by the Illinois EPA.

SENATOR WHITE: Do you have the same kind of statistical data in relation to Pennsylvania what this legislation would do to us?

MR. BIDEN: No, we haven't conducted any cost analysis ourselves. We have seen a cost analysis done, but it was a generic study done of a strict 90 percent removal efficiency requirement for Pennsylvania. The incremental capital cost was estimated at a billion dollars with annual O&M of 180 million. That's all I've seen. That is not our cost, EPGA's cost study, and again, I run into problems, because it's very difficult to get competitors to share information even with me because there is a concern that if they share it with me I may share it with others, and it's not like it was when we were all one big happy utility family.

SENATOR MARY JO WHITE: Now you're competitors.

MR. BIDEN: We are competitors, and there is reluctance to share that kind of information with one another, so by the time I could pull that information together this issue will probably be over. I can't either substantiate that cost estimate or not, but I know it was done by a third party and it was done I think close to a year ago. That's the only thing that I've seen in terms of it. Now, would this mercury rule change -- Pennsylvania is, what, we're fifth in population. ⁷ We are number two in the country in the production of electricity. I'm not going to stand here and tell you that this mercury rule is going to change Pennsylvania into a net importer of electricity, but it certainly will I think force the retirement of more coal-fired generating capacity than it otherwise would, and I think that's a public policy issue worth discussing, particularly due to the fact that in jurisdictions where rate caps are coming off, we're seeing 70-plus percent increases in retail electricity cost.

SENATOR WHITE: And you mentioned a couple of eastern Commonwealth land and the Homer City plant. You've been made aware that there is potential for investment in scrubbers on both those facilities?

MR. BIDEN: Yes.

SENATOR WHITE: Additional scrubbers at Homer City. With the size of those facilities, they're both 40-plus years old. Large megawatt. Would they be considered large producers, correct?

MR. BIDEN: Oh, yes.

SENATOR WHITE: Size. So that's one heck of an investment by these companies, correct?

MR. BIDEN: Yes.

SENATOR WHITE: And did you say -- it depends on the size, anywhere from in excess of 200 million and potentially \$300 million?

MR. BIDEN: Yes.

SENATOR WHITE: That's all I have. Thank you.

MR. BIDEN: And I have one on the cost issue, one company, and this is admittedly at one of the largest coal-fired power plants in the Commonwealth, tell me that between 2010 and 2017 the inability to trade emissions will have cost them a hundred million dollars during that time interval at that one plant because of the inability to optimize their emissions and the cost of controlling their emissions over their fleet, just the cost at that one plant, so it gives you an idea of how important the emissions trading issue is to the industry, and a number like that would never show up in EPA's cost estimate, in DEP's cost estimate or anyone's cost estimate. It is vitally important, particularly when the vast majority of your competitors in PJM, which is arguably the most competitive power market in the country, the vast majority of your competitors can minimize their cost by availing themselves of the Federal program.

SENATOR MARY JO WHITE: Thank you, Mr. Biden. Senator Williams.

SENATOR WILLIAMS: I don't believe I have a question. It is a comment. I really was not going to comment, but -- and I'm one who is sensitive to the issues of the competitors, and I am in sympathy to what the association pointed to. But I would say given we are in the public talking about this and given the fact the public is concerned about certain costs to those places, but as a commercialist, it is well put, the cost of this thing may be hundreds of millions, but the cost of a child's life is priceless, and so I would hope that we would shape our comments in that regard, because I'm listening to how much it costs to put the scrubbers in, and the context that we're doing this is we're going to preserve life and make it healthy for generations to come, and so I would hope that we would be sensitive in how we would describe that that it's so much onerous on that company as it may be onerous on the community. That said, I am very sensitive to what you are describing today and hopefully we will be in the right place when we make decisions about that. I had to say that since you were talking about cost.

MR. BIDEN: Do you want me to respond to what you just said?

SENATOR WILLIAMS: If you choose to, yes.

MR. BIDEN: Everything that I have read -- and your question gets to the issue of exposure, and the exposure pathway is through the consumption of fish, and the vast majority of the fish that people consume is oceanic fish, which what we're talking about here today is not going to change that one little bit. We're talking about freshwater fish, and if you're talking about subsistence fishermen, people who depend on eating fish that they eat virtually every day, then that small subset of the population could be affected by something like this, but there again, even EPA's analysis said that the difference between their rule, and if we completely eliminate it, power plant emissions, the difference in terms of deposition and exposure is virtually indistinguishable, and they have that in their regulatory impact analysis of this rule. So I appreciate your point, but it is wholly inaccurate as we have seen in some of the news releases for people to say that supporting the Federal rule versus supporting a more stringent state rule amounts to killing babies.

SENATOR WILLIAMS: Let me double back. My comment has nothing to do with what you reacted to. And I make this observation. Come visit. Many of the people who are testifying today I don't see. I'm on this Committee. I'd like the opportunity to express my views about that.

I'm concerned about that. And if you follow me, you'll understand that I understand the difference between the air and the water. I have a district which is disproportionately impacted by some of these issues. That being said, like I said earlier in my comments, I'm very sensitive to the issue of the economics and I'm very sensitive to what's being proposed in front of us today, but there is a context in which it's being proposed that I always respond to, and that is to the quality of life. I don't care what the method is. And I understand what -- I listened to you, and you clearly study this on Friday nights and Saturday nights when I don't, so I understand that. But that being said, I'm going to follow the process, 2 and I'd be able to talk to you privately about that.

MR. BIDEN: Thank you.

SENATOR MARY JO WHITE: No other questions. Thank you, Mr. Biden.

MR. HENDERSON: Our next witness is Nathan Willcox from Penn Environment.

SENATOR MARY JO WHITE: Mr. Willcox,

SENATOR Williams just asked if you were going to read this whole thing.

MR. WILLCOX: I will not read the entire thing, I promise you all. Thank you, first of all. I will summarize a lot of what I have here. Thank you, Madam Chairman, and the members of the Committee for the opportunity to testify today. As you may know, Penn Environment is a statewide nonprofit nonpartisan environmental advocacy organization with more than 18,000 citizens members across the state. We have been active on mercury pollution issues, and most recently, we have been involved in DEP's Mercury Rule Workgroup, and Penn Environment was one of the original petitioners signed on to the petition submitted by PennFuture in 2004 urging the State to take state-level action to cut mercury pollution 3 from Pennsylvania's coal-fired power plants. In summary, given the public health and environmental threats posed by mercury pollution from Pennsylvania's coal-fired mercury plants, the Bush Administration's weakening of the Clean Air Act, Federal mercury pollution reduction requirements and the availability of mercury pollution control technologies, Penn Environment supports a state level mercury rule requiring 90 percent reductions from the state's coal-fired power plants. Penn Environment is supportive of the DEP's state-level proposal, and thus, we also oppose any legislative efforts to block implementation of DEP's proposal, including House Bill 2610 and Senate Bill 1201. My testimony today will focus on the public health impacts of mercury, the Bush Administration's so-called Clean Air Mercury Rule, and the issue of mercury hot spots. My written testimony also walks through the environmental impacts of mercury pollution and mercury control technologies. Regarding the public health impacts of mercury pollution, mercury is a bioaccumulative 4 toxin that builds up in body tissue. The primary way that people in the U.S. are exposed to methylmercury is by eating contaminated fish, which absorb mercury from the water through their gills and eating plants, organisms and other fish. As of 2003 Pennsylvania was one of 19 states with statewide freshwater fish consumption advisories due to methylmercury. These advisories were on people, especially children and women of child-bearing age, to limit their consumption of certain types of fish or fish from certain water bodies. Mercury can also pass through the human placentas to developing fetuses and through breast

milk to nursing infants. A potent neurotoxin, mercury poses significant human health hazards. Mercury can affect multiple organ systems, includes the nervous, cardiovascular and immune systems throughout an individual's lifetime. In 2000, the National Academy of Sciences Committee on Toxicological Effects of Methylmercury found, "Chronic, low-dose prenatal exposure from maternal consumption of fish has been associated with more subtle end points of neurotoxicity in children. Those end points include poor 5 performance on neurobehavioral tests, particularly on tests of attention, fine motor function, language, visual-spatial abilities, and verbal memory." The panel concluded, "The population at highest risk is the children of women who consumed large amounts of fish and seafood during pregnancy. The Committee concludes that the risk to that population is likely to be sufficient to result in an increase in the number of children who have to struggle to keep up in school and who might require remedial classes or special education." Infants and children are at higher risk of problems associated with mercury exposure because their nervous systems continue to develop until about age 14. EPA scientists estimate that one in six women of child-bearing age has enough mercury in her body to put her child at risk should she become pregnant. This figure is a doubling of previous estimates based on increasing evidence that methylmercury concentrates in the umbilical cord, exposing the developing fetus to higher levels of mercury than previously understood. Adults exposed to mercury may experience 6 neurocognitive defects similar to those seen in children exposed prenatally, as well as adverse effects on fertility and blood pressure regulation. Mercury exposure also is associated with increased risk of heart attacks. These public health problems also carry with them economic costs. For instance, the Harvard Center for Risk Analysis has estimated that a national cap on mercury emissions from power plants of just 15 tons annually could save upwards of \$5.2 billion each year due to reduced cardiovascular and neurovascular problems. Regarding the Bush Administration's so-called Clean Air Mercury Rule, reducing mercury from power plants is critical to reducing toxic mercury in the environment and in fish and thus protecting public health. Unfortunately, the Bush Administration has promulgated regulations, the so-called Clean Air Mercury Rule, that give power plants until at least 2018 before having to make even modest mercury reductions and even then allow these plants to buy mercury credits rather than install controls to reduce their mercury reductions. Under the Clean Air Act, sources of 7 hazardous air pollutants, including mercury, are required to reduce these toxic emissions by the maximum achievable amount within a three-year time frame. Working closely with the utility industry, the Bush Administration has sought to avoid this requirement by removing power plants from the list of sources subject to this technology-based standard and promulgating a cap-and-trade system for mercury emissions instead. Specifically, in 2005, the EPA rescinded the Agency's prior determination that it was appropriate and necessary to regulate power plant mercury emissions under Section 112 of the Clean Air Act. Under Section 112 hazardous air pollutants, including mercury, are regulated using a maximum achievable control technology, or MACT, standard. Section 112 also requires that certain determinations be made before an industry may be removed from the list of sources subject to MACT standards, including that no industry source, such as a single power plant, emits hazardous air pollutants in amounts that adversely affect public health or the environment. EPA, however, did not even attempt to make 8 these determinations before removing power plants from the source list. Rather, the Agency simply asserted that, "EPA in its expert judgment, concludes the utility emissions do not pose hazards to public health." This cleared the way for the EPA to adopt the broader so-called Clean Air Mercury Rule. This rule allows power plants to delay even modest mercury emission reductions until at least 2018. EPA promulgated this rule pursuant to Section

111(d) of the Clean Air Act, which has never been used to regulate a hazardous air pollutant. The so-called Clean Air Mercury Rule sets national caps on mercury emissions from power plants of 38 tons per year in 2010 and 15 tons, touted as a 70 percent reduction, in 2018. The EPA's own analysis, however, projects actual emissions of 24.3 tons as late as 2020, less than a 50 percent reduction. Moreover, the Congressional Research Service has concluded that, "Full compliance with the 70 percent reduction must be delayed until 2030," or beyond, due to the rule's banking provisions. By comparison, compliance with the Clean 9 Air Act as written would have resulted in mercury reductions on the order of 90 percent nationally down to five tons per year by 2008. In addition to its weak and delayed national caps, the rule permits power plants to buy and trade mercury pollution credits rather than requiring every plant to make emissions reductions. Trading mercury credits is very risky according to prominent scientists and would likely contribute to mercury hot spots, areas with high levels of mercury deposition that I will discuss momentarily. The so-called Clean Air Mercury Rule is the subject of numerous legal challenges. To date, 16 states, including Pennsylvania, have challenged the Administration in Court regarding their rules or petitioned the EPA for reconsideration of the new listing rule. Numerous environmental advocates have also challenged the rules, as have four national public health groups. Lastly, and perhaps most importantly, there have been many claims made by representatives from the utility industry and others that the Pennsylvania power plants will be required under the so-called Clean Air Mercury Rule and/or House Bill 2610 and Senate Bill 1201 to achieve an 86 percent reduction in mercury reductions. This is simply not true. Because Pennsylvania power plants will have the ability to avoid reducing their mercury emissions by purchasing mercury credits from power plants in other states, it is impossible to guarantee how much or how quickly Pennsylvania's plants will or will not reduce their mercury emissions under the so-called Clean Air Mercury Rule. But, if Pennsylvania's utilities' actions in similar trading programs for other pollutants is any indication, Pennsylvania's power plants will be the plants buying credits from other states, not the plants reducing their emissions. Specifically, DEP's finding that Pennsylvania facilities are using the credit trading program for sulfur dioxide to emit roughly 460 tons of sulfur dioxide above what the state is allotted offers little hope that Pennsylvania's power plants will be the plants exceeding the minimum requirements for mercury reductions under the so-called Clean Air Mercury Rule. Finally regarding mercury hot spots, Pennsylvania's coal-fired power plants emitted roughly 6,700 pounds of mercury in 2004, ranking Pennsylvania second among states nationally for the highest power plant emissions. In 2003, Armstrong and Indiana County ranked first and fourth, respectively, out of all counties nationwide for the highest power plant mercury emissions. Four other Pennsylvania counties made the top 100 list nationally. These statistics provide the appropriate backup for the discussion of mercury hot spots and emphasize why it is imperative that we consider hot spots in our discussion of the need to cut mercury pollution in Pennsylvania. Mercury hot spots are those areas with mercury deposition higher than surrounding areas, and there is both significant evidence that hot spots exist and that coal-fired power plants create hot spots in nearby communities. It follows that the communities near or in a mercury hot spot will face an increased public health threat due to the increased mercury levels. Countering the claim by some that global deposition accounts for most of our mercury pollution problem, many studies suggest that in places where there are large local sources of mercury pollution, such sources account for 50 to 80 percent of mercury deposition. Even the Electric Power Research Institute has said less than 20 percent of mercury deposition within Pennsylvania originates from outside of the United States. Other studies reinforce that the deposition of mercury in the areas surrounding coal-fired

power plants and other large sources can be very localized. Dr. Mark Cohen of the National Oceanic and Atmospheric Administration has presented findings that upwards of 50 percent of the ionic mercury emitted from a stationary source can be deposited within 310 miles of the source. Perhaps most significantly, an ongoing EPA study shows that 67 percent of the mercury in rain collected at a monitoring site in Ohio originated from coal burning power plants within 400 miles of the site. Studies have also shown that when mercury emissions are reduced from a source, the surrounding environment shows lower mercury levels. Specifically, a 2003 study found levels of mercury in largemouth bass and other wildlife in the Everglades declined about 80 percent after State and Federal agencies required incinerators to cut their mercury emissions. More recently, mercury levels in Massachusetts fish from lakes near a cluster of incinerators were found to have dropped by over 30 percent since Massachusetts enacted strict mercury pollution standards seven years ago for nearby incinerators. The threat of hot spots means that the communities surrounding Pennsylvania's coal-fired power plants, and even those up to 400 miles away from a power plant, are at an increased risk of high mercury levels in their environment. The environmental and public health communities have strongly opposed the mercury trading program and so-called Clean Air Mercury Rule because power plants in Pennsylvania and elsewhere can avoid reducing their mercury emissions by buying credits from other plants in different locations. PennEnvironment thus feels that a state-level mercury rule for Pennsylvania's coal-fired power plants is needed that does not allow for mercury trading. In conclusion, given the serious environmental and public health threat posed by mercury pollution in Pennsylvania, the availability of pollution control technologies to significantly reduce this mercury pollution, and the Bush Administration's weakening of mercury protections at the Federal level, PennEnvironment is supportive of state-level regulations that will achieve 90 percent mercury reductions from Pennsylvania's coal-fired power plants, and while the timetable for mercury reductions is not as short as was requested by the environmental community, we applaud DEP's state-level mercury rule proposal, and we oppose any and all legislative efforts to derail DEP's proposal. Thank you, and I would be happy to answer any questions at this time.

SENATOR MARY JO WHITE: The press release you put out recently objecting to Senate Bill 1201 essentially say that the General Assembly has no business engaging in this debate because DEP has set up a stakeholder process. Is that your opinion?

MR. WILLCOX: We feel that the public process that has been engaged by the EQB is perhaps the most open way of addressing the mercury pollution issue. There will be a public comment period that DEP will hold on this issue later on in the summer in which any Pennsylvanian can comment on this issue, and obviously utility and business and environment and public health representatives can also weigh in on this. We also mention in the release that utility and coal and business industries have been present at the stakeholder meetings throughout DEP's formulation of this rule as well, so, yes, we feel at this time that the public process that has been engaged by DEP and EQB is sufficient and that the Legislature should not derail this ruling in process.

SENATOR MARY JO WHITE: Well, I'm going to obviously disagree with you. I mean, I think this is a very appropriate topic for the Legislature to be engaged in, serious public policy issues that go beyond the EQB. Some issues have been entirely excluded from discussion in that stakeholder process, specifically trading, which I think is open to discussion and debate, and I think it's completely appropriate. Last year you supported a resolution in Congress that would

have overturned the EPA's mercury rule, so why is it okay for Congress to be involved and not the Legislature of the State of Pennsylvania?

MR. WILLCOX: Well, the bottom line for PennEnvironment is protecting the public health and environment of this state, and the reason that we are supportive of Congress's resolution is obviously because we are not supportive of EPA's rule, and so if it's the Legislature, if it's Congress, anything that can be done to actually put in place the strongest possible mercury regulations, that's what we think should be done at this time.

SENATOR MARY JO WHITE: Well, it's interesting. Unless we're going to put a dome over Pennsylvania, I don't know how you clean up Pennsylvania's air. I think these are very much Federal issues that should -- this air is moving. This is not Pennsylvania air that sits here and stays here. And I think it is completely appropriate to have all the electric generators in the country operate under the same set of rules.

MR. WILLCOX: I would completely agree that the ideal situation is one in which all power plants have to comply by the same rules, but the EPA rule that has been proposed is a rollback of the Clean Air Act and we feel is not protective of the public health or the environment, and, therefore, anything we can be doing in Pennsylvania, especially given the large number of power plants that we have in the state --

SENATOR MARY JO WHITE: At any cost? Anything we can do in Pennsylvania, and I'm saying at any cost? Because basically if we're cleaning up the air in Pennsylvania, we're cleaning it up for our neighbors in the east. We are still going to be getting power plant air out of Ohio.

MR. WILLCOX: We don't deny that, but --

SENATOR MARY JO WHITE: Is the game worth the gamble?

MR. WILLCOX: At the same time, if you look at some of the power plants specifically in Pennsylvania, the Keystone Power Plant alone emits over 1200 pounds of mercury each year. Doing something in Pennsylvania to reduce mercury pollution from our plants will benefit Pennsylvania, as well as down-eastern states. We have not ever tried to say that the Pennsylvania rule will do anything about Ohio power plant emissions, but the fact of the matter is we can be doing something here in Pennsylvania to reduce mercury pollution from our power plants, and we should be taking that action.

SENATOR MARY JO WHITE: Well, there is a lot of disagreement over the issue of hot spots and transport of mercury, and I would suggest that your study you cited concerning Massachusetts incinerators is not necessarily translatable, if you will, to coal-fired power plants.

MR. WILLCOX: Well, I think the basic methodology would be transferable. You're talking about a large local source of mercury pollution that is decreasing its mercury pollution and then looking at the mercury levels in the surrounding environment. That's the basic concept. The types of mercury that are emitted may be slightly different between power plants and --

SENATOR MARY JO WHITE: They might be very different.

MR. WILLCOX: But at the same time, I would think the same general trend is in place. We would love to have data from Pennsylvania power plants that reduced their mercury emissions to compare, but, unfortunately, that's simply not the case in Pennsylvania at this point.

SENATOR MARY JO WHITE: Senator Musto?

SENATOR MUSTO: We heard all about hot spots this morning, including your testimony. We also heard that many states, other states surrounding Pennsylvania, are not considering a state rule. Will that still create a hot spot if they do not consider a state rule?

MR. WILLCOX: If they don't consider a state rule, obviously there is pollution coming in from Ohio that would affect Pennsylvania, and that very well could lead to hot spots in Pennsylvania. But the chance of hot spots is greatly decreased if we are reducing pollution from Pennsylvania's power plants, which is what we are advocating for.

SENATOR MUSTO: Because you say that communities up to 400 miles away are impacted, all of Pennsylvania could be a hot spot according to you.

MR. WILLCOX: I would absolutely agree that all of Pennsylvania is a hot spot right now, and that's the problem, and that's why we need to be reducing mercury pollution from the largest sources, and we have some of the largest sources here in Pennsylvania. We can't control what Ohio does obviously, but we can control what we do in Pennsylvania.

SENATOR MUSTO: You're suggesting that we here in the Legislature stay out of the mercury emissions issue and leave it up to DEP is what you're telling this Legislature, and DEP is requesting a reduction of 90 percent of mercury emissions. What if they suggested 80 percent? Would you favor 80 percent?

MR. WILLCOX: If it was 80 percent without mercury trading -- and again, I hate engaging in hypotheticals.

SENATOR MUSTO: Are you speaking for yourself or your organization?

MR. WILLCOX: I am speaking for PennEnvironment.

SENATOR MUSTO: I don't think PennEnvironment would be willing to reduce the proposal by one percent.

MR. WILLCOX: I'm not sure what --

SENATOR MUSTO: You see, whatever we do is not enough. Whatever we do to clean up this environment is not enough for you, and that's exactly what you're telling us today. Well, for your information, this Legislature is going to address the mercury emissions issue, and we're

going to make it right for Pennsylvania with or without you, so you can take that message back from

SENATOR Musto.

MR. WILLCOX: I will definitely do that, and I would clarify my earlier remarks to say that if the Legislature wanted to intervene and propose a proposal that would forbid trading for Pennsylvania power plants that would go beyond the Bush Administration's weak mercury rule, obviously we would not have any problem with the Legislature intervening in that.

SENATOR MUSTO: You have a problem with the Legislature because we're not singing your tune.

MR. WILLCOX: I have a problem with the Legislature in that you are supporting the Bush Administration's weak mercury rule. That's the problem with the legislative proposals that have been put forward. It's not about you agreeing with us all the time or you not agreeing with us. It is about the Bush Administration's mercury rule. That's the issue on the table. The legislative proposals that we have seen right now would have Pennsylvania correspond to that as opposed to follow a stricter state rule, and that's why we objected.

SENATOR MUSTO: You're totally in favor of the DEP's proposal, which is not a rule yet. It must go through the process.

MR. WILLCOX: Understood, but we are supportive of it.

SENATOR MUSTO: You are supportive of it?

MR. WILLCOX: Yes.

SENATOR MUSTO: In its present form?

MR. WILLCOX: Correct.

SENATOR MUSTO: Should it be amended in any way you may have reservations?

MR. WILLCOX: Always. It would completely depend on the --

SENATOR MUSTO: It doesn't go far enough.

MR. WILLCOX: -- on any changes obviously.

SENATOR MUSTO: I understand. For someone here who chaired the Environmental Committee for over 20 years, I understand exactly where you're coming from. We do not do enough to please you, but we do our best.

SENATOR MARY JO WHITE: Could I read you a study, a comment here? This is from the American Council on Science and Health, and it has probably on its Advisory Board several hundred Ph.D.s and M.D.s from virtually every university in the country, and they state, "While some of the mercury released from coal-burning plants into the air is washed out by rain and deposited close to the emissions source, most of it is transported across the globe by air currents before it is deposited. This makes it very difficult to determine which individual mercury sources are responsible for the mercury levels in a particular location." Would you agree with that statement?

MR. WILLCOX: Again, I haven't seen the study. I would not agree with the statement, because some of the studies that I referenced in my testimony suggest otherwise, and specifically looking at the Steubenville study and the study by Dr. Mark Cohen suggested there is a lot of local deposition from mercury pollution.

SENATOR MARY JO WHITE: There might be local deposition, but one of the things that would be very interesting to know, before you can make a decision like that, don't you have to have some information on background levels?

MR. WILLCOX: Absolutely.

SENATOR MARY JO WHITE: And do we have that information?

MR. WILLCOX: The details of the studies that were carried out by Dr. Cohen and the Steubenville study --

SENATOR MARY JO WHITE: Is that a published study? Because I notice you refer to the slides that you have given us. Is it published anywhere? Has it been peer evaluated?

MR. WILLCOX: At this point I'm not aware that it has, but this is a EPA study ongoing, and that's what the attachment was I submitted.

SENATOR MARY JO WHITE: It's an ongoing EPA study?

MR. WILLCOX: Correct. From Steubenville.

SENATOR MARY JO WHITE: And you did attach a reference to it?

MR. WILLCOX: Yes. There are two PowerPoint slides attached.

SENATOR MARY JO WHITE: Two PowerPoint slides?

MR. WILLCOX: Correct. Or not slides but entire presentations.

SENATOR MARY JO WHITE: Thank you. Any other questions?

SENATOR WILLIAMS: Some of my comments will be technical, and some are just various kind of comments. Your name is Nathan Willcox, and you are an advocate I understand. Does your organization have positions, titles, folks who have titles in your organization?

MR. WILLCOX: Yes. I am the Energy and Clean Air Advocate. That is my official position within the organization.

SENATOR WILLIAMS: So when you say you are speaking on behalf of them, when the Senator was saying, et cetera, you had that position?

MR. WILLCOX: Yes, I do.

SENATOR WILLIAMS: And your background is technical in nature or just one of a concerned person? Do you have a background in this stuff?

MR. WILLCOX: Yes. I don't know how detailed credentials you want, but I have been working on mercury issues for the past five years. I went to school for environmental policy. We also have a network of organizations in states across the country that have been working on similar issues involving mercury legislation.

SENATOR WILLIAMS: Do you have a degree in science of any sort?

MR. WILLCOX: Environment policy is my degree.

SENATOR WILLIAMS: Specific hard science?

MR. WILLCOX: What's that?

SENATOR WILLIAMS: Specific hard science. An advanced degree, Doctorate or anything?

MR. WILLCOX: No, I do not.

SENATOR WILLIAMS: I would have to -- and I try to come to these proceedings to gain information so I can make my decision, and I'm struck by your testimony. Yours was kind of unique, to be frank with you. You kept talking about the Bush Administration, used words such as "derail," "clear the way," and when people come to hearings, it's to be persuaded, and you're before a legislative body that's going to make an opinion one way or the other, so I'm not quite sure what the objective was, either to suggest to us that we were irrelevant or we were wrong. I'm not quite clear what you were trying to do, but it came across as incendiarily nice. I don't know if that was by design or that's just the way you talk or that's just the way you chose to communicate, so could you enlighten me? I was kind of like surprised, it was sort of like, bam, just because I'm here, so I wasn't sure what was going on.

MR. WILLCOX: With regard to some of the things that you specifically referenced, the reason we called it the Bush Administration so-called Clean Air Mercury Rule from the Bush

Administration is because it is a rollback of the Federal Clean Air Act, and we have been opposed to it ever since it came out as a proposal from --

SENATOR WILLIAMS: We're sitting here taking testimony saying: Hey, come give us your opinion. And what I got was: Why are you guys even talking about it?

MR. WILLCOX: It was not my intention to portray that, but it was my intention to portray very clear that we are opposed to the legislative proposals on the table right now.

SENATOR WILLIAMS: Let me suggest to you this, and I'm not a part of your organization. You have a right to talk, do whatever you choose to do, but when somebody tells me, you know, "You're derailing something," the last time I checked, it was three arms of government. That just sort of goes back to sixth grade civics class: Judiciary, executive body and us. And it is the balance for a purpose, and for somebody to come before us and tell us we're derailing something before they even have a formal process themselves and we have a formal -- I mean we have legislation. Whether it's good or bad from your perspective, we're in the game, and it would seem to me that bodies such as yours should work with us, not degrade us, overraid us for the best of intentions, and maybe one might learn from both sides of the queue on this that what we're trying to achieve is certainly something I want to preserve for my daughters or my grandchildren, just as I'm assuming you want to preserve for yours. And so I would suggest that, one, you come back from the edge of the cliff and sort of walk into an office such as mine -- to my knowledge, you've never walked and I've never met you to my knowledge -- to talk about these issues so that you can hear where we're coming from as opposed to where you think we have arrived. I don't have a predetermined destination, and so I understand what it is to not have gray hair and to be young and advocate for something, but I also understand that you have to persuade people. People don't have to be judged or feel like they're judged in that process, and that's just a suggestion. The details of your testimony, the hot spot issue is of great consequence. I don't think it's a hard science. It's kind of clear to me that to make judgments with regard to that about we're wrong, they're right, et cetera, when, with all due respect, the Secretary of her own admission and her own writings refers to the studies that sort of support there is no hard evidence in Pennsylvania is any worse or any better than anybody else when it comes to this issue of hot spots, so I'd be careful about how far out on that limb I'm going to crawl given that you are 100 percent advocating for something that's not supported by hard science or data. Those are my observations. If you want to make comments, I'd be happy to hear them.

MR. WILLCOX: Yes. First regarding the tone of my testimony, the reason that we chose the word specifically "derail" is because a lot of the communication that has been put out to the public and to legislators about the specific legislative proposals, House Bill 2610, Senate Bill 1201, have not mentioned that the State was considering a state-level proposal, and so we wanted to make it very clear to everyone that if the Legislature passed this, it would essentially block the State from implementing rules that go beyond the Bush Administration's rule. That was the purpose of that clarification was that because if you read some of the press releases and some of the language that has been circulated, there is no mention of the fact that DEP has been engaging in a rulemaking process to develop a state-level rule, and obviously we are in favor of that rule as compared to the Bush Administration's rule, and that's why that we wanted to make it clear that that's in effect what this legislation would do. And with regard to the technical aspects of it, I

obviously do not want to overreach the balance of what the evidence is before me. That's why I referenced all of my statements in the different studies that I was referring to, and obviously if there are specific questions regarding any of those, I would be more than happy to follow up with you.

SENATOR WILLIAMS: Thank you.

SENATOR MARY JO WHITE: Any questions? The final witness. We're behind schedule, but we'll move on. We'll make it in time for Session.

MR. HENDERSON: Melody Zullinger, Executive Director of Pennsylvania Federation of Sportsmen's Clubs.

SENATOR WILLIAMS: Did he say Sportsmen's Club? They don't look like men to me.

MS. ZULLINGER: Sports persons.

SENATOR MARY JO WHITE: Good afternoon.

MS. ZULLINGER: Good afternoon. Thank you, Senator White, Senator Musto, Committee members. My name is Melody Zullinger. I'm the Executive Director of the Pennsylvania Federation of Sportsmen's Clubs. With me today is Felice Stadler from the National Wildlife Federation. Thank you for the opportunity to testify here today on behalf of our 100,000 members and NWF's approximately 55,000 members in Pennsylvania and on behalf of the over 2 million hunters, anglers and trappers in Pennsylvania. PFSC has been concerned about mercury contamination in Pennsylvania for many years but became increasingly so when the state issued its first statewide advisory back in 2001. At that time, PFSC and ten of its clubs sent a letter to the Federal Government urging them to issue a Federal mercury rule that would guarantee reductions of this harmful pollutant by the end of the decade and in a manner that would guarantee reductions occur in our state that so we could realize the full benefit of those reductions. We do not believe the final rule developed by the Federal Government goes far enough to do either of these things, and that is why our organization chose to become more involved in this issue. Because of the failure of Federal leadership in 2004, PFSC joined with 50 other state sportsmen, environmental, public health, religious and other state organizations to petition the Environmental Quality Board to take measures that will protect Pennsylvania's fish, wildlife and people. Last month, 105 clubs representing over 33,000 individual sportsmen joined PFSC on a letter to the State Legislature calling for swift action to reduce mercury pollution in Pennsylvania. The signatures came from club representatives from across the state whose lives and livelihoods are being affected by mercury contamination and who are concerned about the future health of Pennsylvania's natural resources, as well as human health. Anglers, some who fish year-round, and who would like to eat the fish they catch, signed the letter. Hunters and trappers signed the letter, because they are concerned that mercury over time is affecting the reproduction and overall health of wildlife like waterfowl, mink and otter. These concerns are not without scientific basis. I bring today a report that summarizes the findings of 30 separate scientific studies all documenting the impact of high mercury levels on wildlife, even our song birds. So why should we care if fish like walleye can't school properly, making them more

susceptible to predation? Or why should we care if mercury-laden mink and otter don't reproduce as well because their offspring have weakened immune systems and higher mortality rates? Or why should we care what happens to our duck populations, whose reproduction and overall survival skills diminish with increased mercury levels? Here's why: Hunting, fishing and trapping are integral to our life and our economy here in the Commonwealth. 1.3 million people in Pennsylvania fish. Many of these are women and children. Over one million people hunt and trap. We have a recreational fishing industry that contributes 1.6 billion to the Commonwealth's economy every year. More Pennsylvanians hunt and fish each year than attend Pittsburgh Steelers, Philadelphia Eagles and 76-ers games combined.

SENATOR WILLIAMS: Hey, slow down. Slow down.

MS. ZULLINGER: Annual spending by Pennsylvania sportsmen is more than the cash receipts from dairy products, which is the highest grossing agriculture commodity in the state. Hunters and anglers create a \$3.8 billion ripple effect on the state's economy. Our commercial fisheries are also significant, generating millions of dollars and putting catfish and many other varieties of fish on people's plates in restaurants and stores across the state. Catfish, by the way, is one of the many species of locally-caught fish that people eat that is heavily contaminated with mercury. Some argue that there is no urgency with reducing mercury pollution in our state borders because it is a local problem and PA's pollution isn't affecting anyone's health in Pennsylvania. They argue that the only fish that people eat is canned tuna, and for their mercury we should blame China, but that's not the entire case. We do like to eat the fish we catch. Yes, many anglers today are catching and releasing, but many anglers still want to bring some home to share with their families and friends. And you know who likely keeps all of their catch? The folks who have lower incomes and who rely more heavily on locally caught fish to stretch their grocery dollars. So that's why we care about mercury in our fish and in our wildlife. Now let me tell you about why the debate is unfolding in your halls and in the Rachel Carson Building and about how to best address this problem. We want to see Pennsylvania take quick action to clean up our mercury problem, and I believe you do, too, for no one can support the continued unchecked release of a dangerous pollutant into the environment where it only builds up and never goes away. But here's our fundamental difference. We want a guarantee that mercury pollution is going to go down significantly right here in our own backyards in Pennsylvania. Studies show that reducing mercury from local sources will have a near-immediate impact on the amount of mercury that falls downwind of that source. At least four different studies confirm this. And we want to realize the benefits of in-state pollution reductions before today's toddlers are as old as me. This seems to be where we disagree. We believe that your legislation and the bill that was introduced in the House, like the Federal rule, will not guarantee that we will see reductions in Pennsylvania. We're not quibbling here about whether 90 percent by 2015 or 86 percent by 2018 is the right amount by the right date. Instead, it's whether the state should require power companies here at home to actually reduce their mercury to these levels. We agree that power companies can likely get significant mercury reductions by installing control equipment that's also going to get rid of other troublesome pollution like sulfur dioxide, but again, we want assurances. Without specific requirements, there's no guarantee that plants in Pennsylvania will install pollution controls, either for sulfur dioxide or mercury. The end result is that the fish and wildlife in Pennsylvania will see little, if any, relief. So the difference lies in whether we make the 86 percent or 90 percent mercury reduction level a hard emissions cap or a target that we may

or may not ever meet. Under your plan, like the Federal plan, we may not meet this reduction level until 2030, because by allowing plants to buy pollution credits rather than install pollution control equipment, power companies and the state are never obligated to meet this target. Why? Because neither the Federal Government, nor your bill, sets a date by when the 86 percent target needs to be met, and to us that's unacceptable. Is it really okay to delay getting real mercury reductions from Pennsylvania's power companies? When we have the technical means to start doing it today, why shouldn't we? We will not be sitting in the dark or be without air-conditioning because of the Governor's proposed rule. We will not see the coal industry in Pennsylvania go belly-up because of the Governor's proposed rule. What we will see instead is the environment getting better, getting healthier for all of us while giving companies a much needed nudge to clean up their operations once and for all. Either we pay now or we'll pay even more in the future. In closing, we urge you to work with the administration to finalize a rule that works for all of us right here in Pennsylvania and one that guarantees real reductions in mercury emissions from Pennsylvania's power companies. Thank you again for providing PFSC the opportunity to testify. I and my colleague, Felice Stadler, from the National Wildlife Federation, will be happy to answer your questions.

SENATOR MARY JO WHITE: Senator Musto?

SENATOR MUSTO: Do you have a communication with sporting organizations in neighboring states?

MS. ZULLINGER: To some degree, yes.

SENATOR MUSTO: Do they realize that some states are not going to have a state-specific rule on mercury emissions?

MS. ZULLINGER: I'm sure if their state's not working on one currently then --

SENATOR MUSTO: Are your sportsmen organizations just working Pennsylvania or other states? Because we heard here by some environmentalists telling us that if other states do not opt in we would become a hot spot here in Pennsylvania, so your work is not only here in Pennsylvania, it's in neighboring states, also.

MS. ZULLINGER: Our work specifically for the Pennsylvania Federation of Sportsmen's Clubs is just here in Pennsylvania, but Felice, working with the National Wildlife Federation, works with all the other states that are affiliated with --

SENATOR MUSTO: I may not be reading it properly, but in looking at and digesting your testimony, your testimony is solely opposed to the coal industry. The coal industry is your big problem, am I correct?

MS. ZULLINGER: Not necessarily. Just the mercury pollution is.

SENATOR MUSTO: Well, I mean, you will have to explain that to me if it isn't.

MS. ZULLINGER: We're just concerned about the mercury that's produced --

SENATOR MUSTO: By the coal industry?

MS. ZULLINGER: Yes, and we're asking for them to be cleaned up.

SENATOR MUSTO: I wonder if all your sportsmen have that same position.

MS. ZULLINGER: Do sportsmen ever agree on everything?

SENATOR MUSTO: I guess not.

MS. ZULLINGER: I can only speak for the majority of our organization that supports this.

SENATOR MUSTO: Well, it's a very complex issue, and you could understand why we here in the Legislature, especially in the Senate, are very concerned about it.

MS. ZULLINGER: Yes, sir, I do.

SENATOR MUSTO: And we certainly want to do what's right, and we're hearing testimony today that would give us a tremendous amount of information, of good information, and we will do what's right.

SENATOR MARY JO WHITE: We'll try. You seem to be expressing a concern that with the cap-and-trade program there is no guarantee that we're actually going to see mercury reductions in Pennsylvania. Did I understand you?

MS. ZULLINGER: That's our feelings, yes.

SENATOR MARY JO WHITE: But doesn't DEP's own data, when they state that 90 percent of the generator capacity will have SO_x, NO_x and mercury controls by 2015, some already have the scrubbers in, and we're talking about that sort of -- I can't remember what it was called, halo effect. When you put on your scrubbers to reduce other things you're seeing mercury reductions as well. We heard that from EPA today. So isn't that not well founded? We are already seeing mercury reductions even without the rules having gone into play.

MS. ZULLINGER: Right. I won't disagree with that at all, but we just feel that we want assurances that those plants that are not willingly going ahead with these reductions, that we will be able to see it from those other plants.

SENATOR MARY JO WHITE: Well, I mean, you're talking maybe 10 percent that might not install the scrubbers right away. It's like we got 90 percent over here and 10 percent over here. 90 percent reduction to me is pretty darn good. I mean 90 percent of the plants.

MS. ZULLINGER: It's better than none, correct.

SENATOR MARY JO WHITE: Maybe we just have a different perspective. I heard EPA here today say that a mercury-specific technology was not commercially viable, we don't have one that was effective and commercially proven, so it doesn't sound like to me that we're there yet for a mercury-specific control technology. Did you hear that testimony?

MS. ZULLINGER: Yes, I heard that, and I just recently have spoken with a representative from the Department of Energy who had questioned some releases that had went out, and he did explain it that, yes, in the case of specific mercury-alone technology they have not completely developed technology that is currently available, but he admitted, too, that the things like the scrubbers and the other technology that takes up the other pollutants will take out --

SENATOR MARY JO WHITE: So if 90 percent of them are going to have scrubbers and other types of pollution control equipment, how can you say that we don't have any guarantees that we're going to see any mercury reduction in Pennsylvania?

MS. STADLER: I participated in the stakeholder process with PFSC, and the sense that I got is that the projections of which plants are going to install scrubber technology or SCRs for NOx, those are projections, but still we don't have any real guarantee besides those that have already signed contracts that they are going to install it.

SENATOR MARY JO WHITE: So I guess all we've got is death and taxes, and no one will give you a real guarantee.

MS. STADLER: Well, but I think the notion here is that if plants do install technologies that can get us reductions in sulfur dioxide and nitrogen oxides, we are going to see significant reductions in mercury.

SENATOR MARY JO WHITE: Yes, that's my point.

MS. STADLER: I don't think anyone's arguing that, but again, what we'd like to see is a guarantee that we're going to see those reductions. We want to see reductions in sulfur dioxide emissions. We want to see reductions in nitrogen oxide emissions. We want to see reductions in mercury emissions, and from past experiences and just also some rumblings that we heard in the stakeholder group, that some plants might not put on controls. One plant is buying coal already from Wyoming to bank their sulfur dioxide credits so that they don't have to put on a scrubber by 2010.

SENATOR MARY JO WHITE: I think what you're going to see from the record and the testimony is that the large plants are ready to install this technology, the large generators, and right away you're getting a big hit, because those are the big guys, so we get down to the marginal plants that are the ones that might have to buy credits because they simply are not economically viable to support the level of investment they would have to put in. And I'll tell you what worries me. I watched us do this to refining in the United States. We shut down all the small refineries. There were hundreds of them. My company had four of them in Pennsylvania at one time. None of them are operating anymore. Individually these plants do not produce a lot of gasoline, but collectively they were pushing when refining got tight. We haven't put a new

refinery in this country since 1974, and that plant is closed, and I'm telling you, you shut down all the small producers of electricity and somebody's going to feel the pinch. I saw when somebody was making reference to the faith-based people support this wonderful rule. I'll tell you what, these faith-based people were in my office telling me they were having to shut their churches down because they couldn't afford to heat them, and they were having one church service a month, because the churches were big places, and their heating bills have gone through the ceiling. Now, it's amazing to me they don't see any connection or any disconnect in looking at the economic impacts of electric-generating costs not only on industry and not just on the electric industry, but on all the people that have to heat their churches, heat their homes, heat their schools. When the caps come off our electric rates can't be ignored. We have to protect our investment in our electric supply in the state or we're going to be in big trouble. So if you have a handful of little marginal plants that can't install the technology, to me it makes perfect sense to let the big guys overregulate, overcompensate, have extra credits to sell these guys. Your net impact on your state is still a win-win. It's still a positive reduction in mercury to the very high levels. You know, let's face it, this stuff's coming around the world from China. They're not doing anything to reduce their mercury emissions. But and I'm not saying we shouldn't do it. I absolutely believe we should reduce mercury emissions. I just think we have to be very careful how we go about it.

MS. STADLER: Could I just make a small comment?

SENATOR MARY JO WHITE: Sure. That was my speech. You're entitled to yours now.

MS. STADLER: As Melody mentioned, we are working in a number of different states. We are wrestling with a lot of the same issues. How do you deal with the big companies? How do you make accommodations for the smaller ones who might not have economic means to make these upgrades? And many states are trying to figure out how to provide flexibility without going to the cap-and-trade route. They firmly believe that there is a fundamental problem with allowing the trading of a toxic pollutant like mercury. So what they're saying is: We don't want to allow Federal trading. We don't want to sell our credits to a state like Ohio that's just going to blow the mercury back into our state, but we will come up with a plan that will work for our particular state within our state borders so that maybe it's providing the ability for some averaging over some plants or maybe there's some additional time given to the smaller companies. Again, there's a lot of different things that can be done, and states are wrestling with how to come up with the right amount of flexibility without going immediately to a national cap-and-trade program, which does create local, regional and national hot spots. I mean, it is an issue. It does blow across state borders, and state air directors are really trying to figure out how they can work with it within their state without exporting the problem to upwind states or downwind states. And, Senator Musto, I'm speaking for National Wildlife Federation. We are not anti- coal. We firmly believe coal can be burned in a cleaner, more efficient way, and we are trying to work again in Pennsylvania and in other states to make sure that coal is burned in a cleaner, more efficient way. We have confidence in the industry. We've seen the industry. I have watched the industry get cleaned up over a decade, and so again, National Wildlife Federation really wants to see the industry as a whole move in that direction.

SENATOR MUSTO: I understand. But your testimony is certainly addressing the coal industry, your total testimony, and I just was under the impression you are anti-coal industry, and I appreciate your explanation.

SENATOR MARY JO WHITE: Senator Williams?

SENATOR WILLIAMS: Thank you. This is the last person to testify?

SENATOR MARY JO WHITE: Yes.

SENATOR WILLIAMS: First to the chair people who are working on this, this is one of the best public hearings I ever attended. It really was well put together, and I appreciate you doing all the work. And to the last witness slash witnesses, this was well done, I got to tell you. Your testimony was to the point and straightforward, and I think it really speaks to the heart and minds on both sides of this. I think there's not a person who's from Pennsylvania that doesn't appreciate what we have as a strength, that's the outdoors. Our streams, our mountains are -- I'm not a hunter by fear, and I'm not an angler because I'm not good at it, but I do appreciate being out there, and I really think this is back and forth, but our witness really is where we're sort of stuck, because it's not an exact science, unfortunately. The consequences are real on both sides. If we don't clean this up, we won't have generations of fish to go after, but children and generations to come. The other side is if we are not tempered in our approach we won't have people who go out hunting, because they're pursuing scrap to live. That's the hard cold fact of it. And I do think really to get to the point, and that's a fact, more guarantees. You want us to face the reality that with the best of intentions you want to have something that relates to a cap of some sort, and I think for me, out of all the stuff we're talking about, goes to that. I am not necessarily persuaded, not necessarily by you all, but those folks who don't think a trade system would work given the fact that I think you can get through some guarantees. It won't be a perfect process, but it certainly can lead to measurable reductions, and then there are steps to getting those who can't afford to put that technology in place, that's our next step. I think we're taking a major step here in Pennsylvania to get that, and I think, frankly, the work of this Committee speaks to that. I'm not sure that everybody necessarily knows that. We're going to get to that. That's not your problem, it's ours, but I do want to thank you for coming today, because I think your testimony was spoken in very simple terms in a very complicated and very difficult process. I think that we are clearly not anti anything. You're sort of pro environment that promotes sports people, sportsmen on some occasions, sportswomen on others, sports children on other occasions, and I appreciate you doing that. I really do. Thank you.

SENATOR MARY JO WHITE: I want to thank all the witnesses who testified today. We're looking at this from a number of different perspectives. We have another hearing on this same issue scheduled for next Tuesday with a different cast of characters, and I invite you to come and participate and listen and learn, as we are, and the hearing is adjourned. Thank you.

(Whereupon, the hearing was concluded at 12:47 p.m.)