

## **Senate Democratic Policy Committee Hearing**

### **“An Oversight Hearing on the Administration's Mercury Emissions Proposal”**

July 9, 2004

#### **Hearing Transcript**

SENATOR JEFFORDS: This hearing of the Democratic Policy Committee will come to order. As many of you may know, this committee was created in 1947, along with the Republican Policy Committee. These committees are designed to formulate overall legislative policy of their respective bodies, and to study, research, and analyze policy. I appreciate the willingness of Senator Dorgan, DPC chairman, for allowing us to use the resources of this committee for today's hearing.

Today we will hear testimony from experts who are knowledgeable about the effects of mercury pollution on public health and the environment. We will also explore the inadequacy of the Bush administration's approach to mercury emissions at power plants. Senators will be recognized for their statements and then we will hear from witnesses. My colleagues here should not take this the wrong way, but I would prefer that we were holding this hearing where it clearly belongs, the Committee of the Environment and Public Works, of which I am the ranking member. Unfortunately, a minority EPW hearing request on mercury was denied. As a result, we have been forced to find other ways to perform oversight on this vitally important issue.

Similarly, EPW Democrats and I have asked the administration to fully explain this proposed rule, only to be denied or ignored. We have sought legal justification for the proposal, including documentation. We have also asked for analysis of the environmental, economic, technological, and health effects of the proposal and reasonable alternatives. We have received nothing useful. To this day, Congress and the public do not know whether and how the rule would protect public health. This is unacceptable.

The threat from mercury pollution is real. Americans know that a great deal is at stake. Burning coal releases tiny mercury particles into the air. These particles can deposit into our lakes and streams and oceans and eventually move up the aquatic food chain by accumulating in fish tissue. Eating fish with high mercury levels makes us vulnerable to real health problems. The EPA says that every year 600,000 newborns may face nervous system damage due to mercury exposure at the womb. Plus, the FDA warns pregnant women that eating even small amounts of white tuna every week can endanger their babies' health. Sadly, the Bush administration proposal on mercury pollution from power plants appears to do little to protect the public health, especially in the short term. The proposed administration rule calls for far too long a delay in the reductions and far less cleanup than what is achievable with today's technologies and presently required under the current Clean Air Act.

To make matters worse, parts of the rule were written by industry law firms and lobbyists. Such

concerns prompted my colleagues and I to ask the EPA Inspector General to review the rule and the way in which it was developed. She is looking at that rule now. Over 600,000 public documents, comments on the rule have flooded EPA. This record-breaking number signals widespread concern. I would like to mention some of these comments, which come from diverse sources. Perhaps most notable are comments from EPA's own Children's Health Protection Advisory Committee. In January, this EPA committee warned that the proposal would not protect our nation's children. It urged the EPA to, and I quote, "Elevate mercury's health impacts on children in finalizing this rule," end of quote. The Committee also requested analysis to determine whether the proposal is the most child-protective timely and cost-effective. Instead, EPA ignored its own experts. The agency's political directors demoted the committee's directors. This was yet another all-too-familiar sign of the Bush administration's extreme discomfort with inconvenient science and does not support the polluters' views.

The EPA's docket contains numerous other letters from medical professionals worried that this rule would endanger our children's health. In fact many, many groups have grave concerns. They include: the American Academy of Pediatrics, the American Nurses Association, sportsmen from 470 groups in 31 states, the National Council of Churches, and the Coalition on the Environment and Jewish Life, and the National Tribal Environmental Council. They tell us the administration's mercury rule fails to protect children, neglects wildlife and the environment, ignores tribal needs, potentially threatens our sport-fishing economy, and is morally irresponsible.

Still, there are more legitimate complaints about the rule's doubtful legality and the questionable way in which it was developed. In sum, the rule clearly contradicts Congress' intent that regulation of toxic air pollutants must occur at every listed major source. Cap-and-trade is not an option for toxics. In fact, nearly half of the Senate sent an April letter calling on the EPA to redo the rule so that it could comply with the Act and protect public health. I am the primary sponsor of the Clean Power Act, a tough bill that will back up the Clean Air Act with swift and substantial reductions in utility mercury pollution. If it passes, this will be a major step forward in reducing our domestic and global mercury burden. After all, mercury is a global problem. Although 60% of the mercury pollution deposition in the U.S. comes from U.S. sources, our pollution has the ability to travel by air across the world. Tough reductions at home mean good global citizenship and a safer world. Just think, if polluters worldwide were to reduce their pollution as much as U.S. sources, it would be a far fairer playing field and we would all be healthier. Sadly, this administration does not seem to want real action on mercury, at home or abroad. I hope many public comments will convince them otherwise.

Before we move on I would like to mention that Senator Feingold could not be here today...[INAUDIBLE]...included in the record and it will be. Along with this statement I would like to add the above-cited comment letters to the record, among others. And now, I will turn to my colleague from Vermont, who has been a leader on this subject of reducing mercury pollution for many, many years. More years than I've been here, that's amazing...

SENATOR LEAHY: I'm getting old...we're growing old together, Jim. As the youngster in this crowd, let me say I am glad that we do have this distinguished panel here. I must say Mr. Paul

when somebody in my office saw the line-up he said, "You got the Pope?!" For those who can't see from behind his name is John Paul. It's also interesting the way we're doing this because we find it almost impossible to get answers out of this administration. There are members of the administration when addressing us one-on-one would make short declarative statements, but they don't want to talk about these subjects, and...I'm glad somebody caught that one back there. We don't get answers in the Judiciary Committee on issues from torture to the application of the Patriot Act. And in Senator Jeffords and Senator Lautenberg's committees, we're not getting answers on environmental issues. And the outcry over the administration's decision to ban an aggressive plan to cut toxic mercury emissions from power plants and instead let the industry off the hook for another fifteen years is stunning, it's amazing, there's no other way to describe it. But it's also, because it's happened, it's very obvious why the Republican leadership in both the House and the Senate refused to ask questions about this. More than 600,000 public comments were submitted, that's the most ever for EPA. That's more than the entire populations of some of our states, and in those 600,000 comments, they were overwhelmingly opposed to the Bush proposal. 45 senators, 184 House members, 10 state Attorneys General, almost 500 sportsmen's groups, the National Tribal Environmental Council, state air officials, EPA's own Children's Health Advisory Committee, all believe the Bush proposal falls way short of protecting health and the environment, and still, they don't want to talk about this.

I'll put joint letters from all these groups in the record later on, but the list goes on and on. In fact the only people I can find that are happy with this proposal are the polluters and their lobbyists. In fact some industry lobbyists say they'd hoped it'd go even further, although it's hard to think how it could go much further than this does. In Vermont, all you have to do is look at this map to see why we're especially outraged. That's an EPA map, not one we took up but it's an EPA map that shows mercury levels across the country. And, when you come to the Vermont area you can barely see it. For decades all of us in the Northeast have been the dumping grounds for the coal-fired power plants in other parts of the country. Now EPA's new proposal to reduce mercury emissions for these plants was supposed to bring these power plants into the 21<sup>st</sup> century...clean up the emissions. It doesn't do that. It falls far short of what is possible, and it certainly falls far short of what's necessary. Now I've heard from mothers and doctors, sportsmen, others in Vermont, who are all concerned that the Bush plan will do little to reduce the mercury in our lakes, rivers, and ultimately in our bodies. Each weekend when I'm home, just going to the grocery store to pick up groceries, the number of people who just come up to you and say, "I have children, I'm afraid of what I can feed them." A few days ago a pregnant mother came up and said, "I'm just terrified of what I'm eating." Now this is from the family-friendly administration? This is a complete outrage.

What they're doing is asking everybody to wait, and wait while the corporate polluters, the kind of wealthy special interests that the late Senator Paul Simon euphemistically called the "Financially Articulate" for their robust political contributions, wait while they make billions of dollars and escape from the clear requirements of the Clean Air Act. We're also waiting while more than 630,000 infants are exposed to unsafe mercury levels each year, and wait while 1 in 6 pregnant women is left to wonder if the unsafe mercury levels are damaging their babies. I'm one Vermonter, I'm joined by another Vermonter, who believes this is too much to ask.

In our state, the environment is important. We see Republicans and Democrats join together in our state of Vermont to protect the environment. But what we're seeing down here in Washington is treating this as though it is totally a political matter and not a health and safety matter. We should be asking the administration to follow the Clean Air Act, follow the law as it's written. We should be asking the giant utilities that own most of these dirty plants to clean up their operations. Most of them have had more than 30 years to do it. And we should also ask the Bush administration how sections of industry memos, the industry had written, ended up almost verbatim into the mercury proposal. Now I know it annoys some in the White House when I mention the fact that somehow these memos show up in administration proposals. But they are, they are virtually verbatim. Now I asked why the White House felt compelled to water down the final language in the proposal to downplay the health risk from mercury exposure, why they refused to do analyses of alternatives that could cut it even deeper. Well I hope this hearing will shed some light on this because, I tell you, the American people, the American people, whether Republicans, Democrats, or Independents, they are worried, they have every reason to be worried, and this administration is not doing anything to quell those worries. Thank you.

SENATOR JEFFORDS: Thank you Senator. I would like to now turn to Senator Lautenberg, who has been working on toxic pollution issues for as long as I can remember.

SENATOR LAUTENBERG: We get back to age, huh? Thanks everybody, I'm a freshman here, by the way, I want you to know, and I hold the record for having cast the largest number of votes that a freshman ever cast in the United States Senate, 7,000 votes in my freshman cycle. It's pretty good. In any event, but I haven't ever tired of working on issues that concern the environment, that concern the health and well-being of our families, our children.

If there is one legacy that we can leave that has durability, it's a clean environment. I've got ten grandchildren, the oldest of whom is 10, so there's a whole string of little kids there. And if I take them fishing, and I love Vermont and both of my friends from Vermont know that, and we'll go up there and we'll ski or go fishing or hiking. And when they throw a hook in the water, it's not that we want to catch the fish, it's that we want to communicate with nature. We want the kids to understand what it's like to share a sport that is not harmful to the environment. We throw 'em back, by the way. We don't catch that many but we throw 'em back. So Mr. Chairman, thanks very much for convening this hearing, given the near complete abdication of responsibility by the Congress to discharge its oversight responsibility with regard to the Bush administration's environmental policy distortions. Now I appreciate the fact that the Democratic Policy Committee is stepping in to fill this void. As Senator Leahy said, we couldn't get this done in the Senate and its routine matters, because we're overwhelmed by a majority that says, hey, the environment's not an important problem, the important problem is getting elected, and how you do that depends on whether you can get enough money out of those who want to pollute the environment at a cost they don't share but that families across America pay.

The mercury rule that we're going to discuss today is a classic example of the brilliance of our forefathers when they required the legislative branch to keep its eye on the executive branch. That's the check and balance we talk about and it's needed. The mercury rule represents all of the worst practices of the Bush administration over the last three and a half years. In my previous

eighteen years in the Senate, the environment was a key factor with me, and I worked very hard to try to keep a clean and healthy environment available. But here, Industry lobbyists were brought in to write parts of the rule that we're looking at. Lobbyists...writing law. It's outrageous.

The federal advisory committee and other scientists were ignored when they introduced data that suggested a different sensible policy on mercury. The stakeholder group formed to develop this rule was completely sidelined, science-based health warnings were watered down, and thousands of public comments, as we heard from our distinguished colleagues, were completely disregarded. In today's paper, the *Los Angeles Times* headline says, "Researchers Accuse Bush of Manipulating Scientists." It's datelined Washington, "More than 4,000 scientists, including 48 Nobel Prize winners and 127 members of the National Academy of Sciences, accused the Bush administration Thursday of distorting and suppressing science to suit its political goals. Across a broad range," it goes on to say, "of policy areas, the administration has undermined the quality and the independence of the science advisory system and the morale of the government's outstanding scientific personnel." That was today's paper.

The impacts of this rule that's proposed will have serious and long-lasting health consequences, especially for newborns and small children. The rule the Environmental Protection Agency has proposed will weaken and delay our efforts to clean up mercury emissions from the nation's 400 coal-fired power plants, the largest unregulated source of mercury that we have in our country. From the beginning, the administration turned EPA's established process of rule-making on its head. One senior EPA manager told a member of my staff, and I quote, "It's a lousy rule." Development of this rule has been driven purely by politics, by elections. Crucial decisions affecting human health and our environment have been made not by EPA's top scientists, but by political operatives in the White House.

One of the things that always propelled me to write the laws I have, was to look at the picture of my grandchildren, and understand that every grandfather feels the same way about their grandchildren. They want them to grow up healthy, and they don't want them, in the formation of their bodies and the formation of their development, to be tainted by any outside source. I wrote rules against smoking, taking them out of airplanes and taking them out of buildings where children inhabit, so that these children would not be negatively affected by conditions other than those that their mother produces.

Mr. Chairman, I'm upset by this rule because, regretfully, my home state of New Jersey is among those states with the worst mercury contamination. Fish advisories are posted for all of our lakes and rivers in New Jersey. A million, seven hundred thousand of our children live within 30 miles of a power plant. We're the most densely populated state in the Union, and that's the zone where the health threat is the greatest. Every year, some ten thousand fetuses and newborns in New Jersey are exposed to unsafe levels of mercury because their mothers' bodies are contaminated. These children have a higher risk of spending the rest of their lives struggling with learning disabilities and other complex brain disorders. This isn't the legacy we want to pass to future generations, it's not the one I want to pass and I know it's not the one my colleagues from Vermont want to pass along. And this is a problem we know how to solve,

that's the worst part. Fortunately, in the state of New Jersey we've taken steps to develop regulations to reduce mercury emissions in human exposure. But our state can't do it alone; at least 30 percent of the mercury deposited in New Jersey flows in on the Jet Stream from power plants in the Midwest, outside of our state and outside of our state's control. Other Northeastern states, including Vermont, are suffering the same fate. And that's why it's essential that EPA issue a legitimate mercury rule. The impact of this rule must be to protect the public health, that's what the mission is, that's what our responsibilities are as people in government. Not to reduce the power plant owners' investments in clean air technology.

Mr. Chairman, thank you again for convening this hearing so that the Senate or at least part of it, can carry out our inherent Constitutional responsibility to oversee the Executive Branch. And I know that I speak for the Senators here today and those who wanted to join us but for other reasons couldn't, when I say that I am committed to doing everything in my power to prevent this rule from going into effect. We have excellent witnesses here today and I thank each one of you for appearing with us and for the testimony that I thus far have read. We have Brad Campbell, who heads New Jersey's Department of Environmental Protection, I welcome him here. Brad has had experience in Washington as well as in New Jersey in fighting for a clean environment. And they're going to be able to explain to us how the administration has turned the mercury rule into such an abomination. I look forward to hearing from our witnesses. Mr. Chairman, and thank you again for convening this hearing.

SENATOR JEFFORDS: Well thank you, and thank you both for very, very useful statements. We're going to turn right to Bradley Campbell, and ask you to help us better understand the mess we're in.

BRADLEY CAMPBELL: Thank you very much, Mr. Chairman and members of the Committee. Thank you for your commitment to protecting public health. The control of mercury emissions has been a high priority for my governor, James E. McGreevey, because it is such an important and troubling threat to the health of New Jersey's families, and particularly its children. The science at this point is clear, that mercury is a neurotoxic, that it interferes with the development of developing fetuses and infants, that it interferes with their intellectual development and capacity, their neurological development and capacity, as Dr. Goldman and other health experts will testify. It's also a persistent and vile-accumulative toxic, which means not only is it a threat when it's first emitted, but it lingers and persists in the environment, and as it is consumed by lower animals in the food chain, moves up the food chain, it occurs in ever-higher concentrations. That makes it a particularly significant threat in terms of exposure, particularly to those who consume fish.

In New Jersey, we have documented at the Department continuing deposition of mercury, even as other pollutants are coming under control. Throughout the state we see this deposition of mercury continuing, even in areas that are untouched by New Jersey's industrial past, such as the Pinelands Preserve, untouched by industrial activity, and yet fish advisories for mercury in fish even in what appear to be the freshest of streams. Recently we had to expand our fish advisories for mercury to encompass twenty species across the state. That means there's continuing exposure, and that there's continuing injury. It also means there's continuing detriment to New

Jersey's economy, which depends so vitally on the economic activity that surrounds commercial and recreational fishery.

Yet despite this significant public health threat, despite the significant economic threat, what the Bush administration has proposed is a standard that falls far short of what public health and the Clean Air Act require, a standard that will largely postpone any meaningful mercury reductions for a generation. By any fair assessment, what the law requires and what public health demands would be reductions of 90% in 2007. We in New Jersey have seen that the technology is available to reach those levels of control today, and in fact the technology has been available for nearly a decade. Two of our plants today achieve reductions of 98% or better in mercury reductions, using technology that's a decade or more old. Other coal-fired plants are on their way to achieving similar reductions, because in New Jersey we've not only articulated that we believe that the federal standard should be at that level of control, but we have made it the law in our state that our power plants do have to meet a standard of 90% or better reductions by 2007, and that applies to our municipal incinerators as well. We are employing that standard and enforcing that standard in New Jersey, but nearly a third or more of New Jersey's mercury deposition comes from upwind sources that are beyond the reach of our laws. And that's why a federal standard is so vitally important, because as was pointed out by a number of members of the committee, many of our utility facilities, many of our coal-fired plants, have done the right thing. In some cases for other pollutants, they have stepped up their installing the controls that are getting the reductions we need. Without a strong federal standard, without a standard that meets what the Clean Air Act requires, they will be on an unlevel playing field, in an unfair competitive environment, against the worst laggards, the worst performers in the industry.

Perhaps most troubling of all is that, to get to the result reflected in the Bush administration standard, they've not only ignored the doctors, they've also doctored the analysis. Using analytical approaches that are utterly unprecedented in the decades-long history of articulating maximum achievable control technology standards, the Bush administration time and again has used methods that are unprecedented and appear calculated to reach the least protective result for our families. And for the record, we have done a further analysis of how those numbers were derived, and how they depart from sound science and from sound analysis. And with the permission of the chair I'd like to make that part of the record, and noticing that my time is up, I'll defer to your questions.

SENATOR JEFFORDS: It will be made part of the record. Our next witness is Dr. Lynn Goldman. She is a professor at the School of Public Health at Johns Hopkins University, former assistant administrator for prevention of pesticides and toxic substances of the EPA. Pleased to have you here.

LYNN GOLDMAN: Thank you very much, Senator Jeffords, and also thanks to Senator Leahy and Senator Lautenberg for your interest in this very important issue that is of great concern for our children. I'm going to summarize my written comments, which have been submitted to you for the record. Mercury, as you know, is a toxic metal that's transformed to methyl mercury in water, and of course methyl mercury builds up in the food supply. We have long known that high doses of methyl mercury are quite toxic to children. We learned about this because of

accidents in Minamata, Japan, and with mercury-contaminated sea grain in Iraq. But it was in the 1990s that we learned about the low-level effects of mercury on the developing brains of children, through studies that were conducted in New Zealand, in the Faroe Islands, and the Seychelles. And then to cap it off, in the year 2000, the National Academy of Sciences reviewed all the science that was available to date and developed a recommendation in a report that's called "Toxicological Effects of Methyl Mercury." This scholarly report recommended a "safe level" of mercury in the blood of newborn children, and that "safe level" that was recommended by the NAS is the basis for much of my testimony about where we should be targeting our public health efforts to protect children. At that time, it appeared to the National Academies that there were some 60,000 children born each year at that level. But since that time, the CDC has undertaken surveys of mercury levels in the population. And now we know, as a result of those surveys, that there are far more exposures to women of child bearing age and their babies, as many as 600,000 babies born each year with levels of mercury in their blood that are above the recommended level by the National Academies. Evidence of the toxic effects of methyl mercury has only accumulated since 2000 and the NAS report. We now know that not only do we see effects on intellectual development, but for the children on the Faroe Islands at age 14 that we see neurologic effects on the autonomic enervation of the heart, we see effects on brain stem-evoked responses, which is another neurological measure. We have new studies, of children on Greenland, children on Oswego, New York, that are showing neurological impacts from mercury exposure. And so, although there are studies that are negative, I think that today, just as in the year 2000, that the weight of the evidence very clearly points to low-level effects on neurological development of children development of the brain and intellectual function, from methyl mercury. We also have new studies that indicate that methyl mercury at low levels may be toxic to adults, both in terms of increasing rates of heart attacks, and toxic to the neurologic system of adults. These studies have not been factored in to government risk assessments, and, if anything, would point to the need to be even more protective than was recommended by the National Academies. So what about the coal-fired utility plants? Why are they so important today? In a nutshell, it is that today they account for some 40 percent of the mercury emissions in the United States and are the single largest source. We also know from EPA modeling that the majority of mercury pollution in the United States is from sources in the United States, and we also know that local emissions of mercury are largely responsible for mercury deposition hot spots. Local sources can account for 50 to 80 percent of the mercury deposition in some areas. So these scientific facts need to be taken into consideration when determining what kind of a rule to make. In December 2000, the Clinton administration determined that mercury should be regulated as a hazardous air pollutant under the Clean Air Act, Section 112. That was a very important decision, and what that meant was that the standards, the so-called "MACT standards," should be based on the performance of the top 12 percent of existing units. So, how did EPA go about developing that standard? It actually did a survey of utilities across the country, and did determine that this should reflect about a 91 percent mercury control. The 2003 proposal for the EPA comes nowhere close to this. By 2010 there's only a 30 percent reduction, and by 2018 there's only a 70 percent reduction. There are no direct investments required by the utilities until 2018. All the reductions up to that point in time are to be achieved through co-benefits and from other actions that are already being taken. In addition, this law contains a trading provision that can create local hot spots for mercury pollution. It is conceivable that in many communities in the country there would be no benefits from this rule at all, and it's even conceivable that the

mercury pollution levels could go up in those areas as a result of this rule through the allowance of trading. And so this is a rule that would not be equitable in protecting all the children across the country. In summing up, I have concluded that the evidence does support that we could achieve a single standard to reduce emissions by 90 percent by 2007, and also that the cap-and-trade program, which is of, I understand, dubious legality, but from the standpoint of public health should be eliminated. There is no backstop within this proposal to protect the health across all of the communities in the country, which is not fair when you consider the profound impacts on the neurologic development of children. Under the EPA proposal an entire generation of children will be missed because of the delays in achieving the reductions, and I think that that is another point that is very deserving of your oversight and your attention. I thank you very much for the opportunity to testify today.

SENATOR JEFFORDS: Well thank you for your excellent statement, and concerning statement. We have been joined by Senator Dayton, and we're pleased to have you with us. He has suggested that we probably should go on with the other witnesses, and we will do that. So our next witness will be John Paul, who is the supervisor of the Regional Air Pollution Control Agency, Dayton, Ohio. He is a member of the EPA Clean Air Advisory Committee. Thank you so much for being here, and please proceed.

JOHN PAUL: Thank you, Mr. Chairman and members of the committee. I'm very pleased to see that you're taking this issue seriously, and I'm real pleased to hear your statements. This is an issue of public health, and it's one that we need to address. I've been following the mercury issue, and the issue of power plants, for all 30 years that I've worked in air pollution. In fact in my graduate school days, one of my papers that I wrote was on mercury pollution, so it's something that we've been watching for controls anxiously. I also follow New Source review issues very carefully, and like I say, for 30 years we've been following this issue and we've been waiting for controls for mercury, we've been waiting for good controls on power plants, and just when it seemed as though we were ready to receive those, we've seen these rules that have come out the administration with regard to new source review and with regard to mercury, and quite frankly, it's my opinion that they do not follow the intent of Congress, they do not meet the requirements of law, and they certainly are not protective of public health. One can wonder why it is, just what are the objectives of these, and it seems as though they're more aimed towards the special interests, and protecting the special interests of the utility industry, than they are public health. There are a lot of problems with the proposals that EPA has put forward, the main one being that it fails to protect public health. I've read editorials from all across the United States, I've read lots of docket comments, and everyone agrees that mercury is a problem, and everyone agrees that we have to control it, but the rules that were proposed, the 112 proposal from EPA, takes mercury emissions from 48 tons per year to 34 tons per year, and virtually has no specific controls for mercury – you get to the 34 tons per year by controlling for NO<sub>x</sub> and SO<sub>x</sub> in the Midwest and east of the Mississippi. Now certainly that's something that's necessary to do, but it doesn't even bear a resemblance to what's necessary for protection of public health, from the emissions of mercury. So it's not protective of public health. Second of all, it doesn't follow the law. EPA, in December of 2000, found that it was necessary and appropriate to control mercury as a hazardous air pollutant under Section 112 of the Clean Air Act. When they made that finding, they met with various stakeholders and decided exactly how should they go about doing

this, what kind of help could they get in developing this rule, and they decided to form a working group to serve as an advisory group to them. I served as co-chair of that working group. It was an excellent working group. We had a number of representatives of industry, we had representatives of environmental groups, we had representatives of states and locals. We met over a period of 18 months, we met 14 times, we had all-day meetings, and each time that we met we had excellent participation – we heard from vendors on control technologies, we heard from modelers as to how you could take the results or different levels and model those and see the impacts of those. Some of our early work was actually modeled by EPA, and they brought that back, and it was excellent. They can run a model, they can take the different levels, and they can come back and they can tell you, “Ok, this will be the cost, this will be the levels that will result, this is what it will do to natural gas prices, this is what it will do to coal supplies in the Midwest versus the West.” They have an excellent model to provide all this information. So what the working group did was we went through, we identified different issues. I made sure that rather than arguing, and trying to get to consensus on issues, that we would identify the issues and make sure that all the stakeholders brought their positions to the table so that we would hear a good discussion, you know, what kind of subcategories there should be, what the MACT floor level should be, different things. It was EPA’s intent that we would meet further, that they would take our file recommendations, that they would model those, and then we would meet to discuss those results. However, March 15, 2003, was our last meeting. At the end of that meeting, we decided to get together one more time to look at those modeling results, and EPA abruptly canceled the working group, told us that they would get back to us, and then they never did. In all of the editorials that I’ve looked at, in the public hearings I’ve gone to, I see that the public out there expects EPA to be EPA. You expect EPA to be EPA. And unfortunately, in this instance, EPA is not EPA. It is not recognized as the agency that it has been, with the proud history that they have, and instead of a technical analysis, instead of EPA protecting the environment, we’ve seen the political process here, and it’s something that I’m very pleased that you’ve taken an interest in, and I look forward to working with you to correct this. Thank you.

SENATOR JEFFORDS: Thank you very much, that’s excellent testimony. And now we will turn to David Foerter.

DAVID FOERTER: I’m David Foerter, I’m the Executive Director of the Institute for Clean Air Companies. We’re an organization that has been around for 44 years, representing air pollution control and monitoring companies. We represent all the technologies, not any particular technology, so when we start to put things together you can base a performance on any technology, but a lot of things can come in there and compete. Our industry is very competitive within itself, but we try to provide good information, correct information, that can make better rules. And so, to address the EPA’s own program, I’m just going to summarize my comments since I think you already have them in front of you. We believe, and we’ve stated this with EPA, that we can do a 50 to 70 percent reduction of current mercury emissions by 2008 and 2010. 50 to 70 percent, by contrast to what folks are talking here, is off the current emissions -- 90 percent would be off of the 75 tons original. So we’re talking in the range of about 70 to 80 percent, and in that same ballpark, using the same, apples-to-apples kind of comparison. We say we can do that by 2008, 2010 – that puts you down at a base level of 14 to 24 tons. This is all being done in the context of what EPA has to do under the MACT program. The air pollution industry has the

technology and the resources to exceed the reductions that EPA has proposed, and we can do this basically faster and go further than what EPA has. It's important to remind ourselves, though, that we have used markets as drivers for different types of technologies that come into place. We've used it for acid rain, for the SR<sub>2</sub> program, we've been using it more recently for oxides of nitrogen. And those are programs that work real well because they tend to provide an opportunity for lots of different technologies to compete, technologies that we know about today, and technologies that we don't even know about today, so they can come into the market and start to compete. So we don't necessarily advocate trading, but we advocate some sort of flexibility involved, things that I think EPA has in their purview right now, even with in the Section 112, that allow for advanced early emissions reductions, some sort of trading within the system, you know, plant-wide type trading, but there are already some flexibilities there, that would actually be beneficial to our industry, and be able to deal with every coal type, and every configuration that's out there, because when you start to look at the 1100 different coal-fired power plants out there, there are a lot of different coals that are being used, there are a lot of different configurations. We think we've looked at most of them through the demonstrations that have been done by EPA, by the Department of Energy. They have been doing a number of demonstrations over the last five or six years that have really demonstrated full-scale use of technologies, including activated carbon injection, which I believe Brad was talking about being used in New Jersey. The activated carbon injection is not a new technology, as Brad has said – it's at least ten years old. In fact, we have ten years of operating data with waste energy, and what the demonstration projects with DoE have done, they've really taken that technology and transferred it over to coal, and done it successfully. We continue to get more and more data about it, and not only does it demonstrate that it can be done, it removes all the barriers that we're saying are there, and it enhances the different types of technology. For activated carbon injection, there are some new data just coming out, where they've been using oxidizing agents and other types of things to enhance the performance of the coal. So some of the harder-to-control coals, you put in oxidizing agents like chlorine, you therefore can oxidize it, capture it in the existing control devices, also using different types of fabric filters to collect the oxidized mercury as it comes out. So we've just been enhancing those technologies. And it's important to note that right now, because of different states' regulations and enforcement actions, even by EPA and all, there's a lot of procurement going on of the technology, activated carbon injection, which is a technology that EPA says really isn't ready for prime-time. I'm not sure what the list looks like today, but it's something like 20 to 30 different units are actively procuring activated carbon injection for their sites, and this is a technology completely ignored by EPA's own rule-making. We think it's available today, we think it's just getting better, and we think it can be used even in the future to go beyond the 2008, 2010 time frame. We think that regulatory certainty is one of the key factors, not only for our industry but also for the utility industry. We have heard time and time again, "Set clear, certain, performance-based rules and we will come." Basically, "we will come in as the air pollution control industry, we will satisfy those rules," in fact, in almost every case I can think of that's been documented, we've exceeded the expectations of the rules and gone well beyond those. So we have both the capability and the capacity to do this. I'm summarizing, so I'm jumping around just a little bit here. The ICR data, which has gotten a lot of press lately, it's the 1998 type of data that EPA has been basing their MACT rule on – it has problems with it. One, it pushes a rule into coal-switching, the switch between the different types of coals, bituminous and sub-bituminous and even malignite. If you move beyond

that data, and you should move beyond that data because there is new data through the DoE demonstration project that show exactly what can be done when you try to control mercury. One thing to keep in mind is that the ICR data wasn't based on trying to control mercury. It's what plants were doing without trying to control mercury. And what they were doing was controlling mercury about 30 percent. The existing air pollution devices were doing double duty, basically, and they were picking up mercury. So now we've gone beyond that, and we're using other technologies, enhanced co-benefits or side benefits, activated carbon injection, and you were getting into these levels where we can do, you know, 70, 90 percent for most coals and most configurations. But I want just to underline the fact that flexibility in our industry helps us to make all these coals in all these configurations work, and have a little bit of flexibility to kind of shift things around just a little bit. We have already achieved commercial readiness in mercury control and measurement technologies. Both those technologies are there today, they're being sold as we speak, they're being bought as we speak, and this is all happening even before we even have a regulation in place for mercury. The mercury control technology that's available today based on activated carbon injection gives us a cost of about a tenth to three tenths of a cent per kilowatt hour, and that's in the context of about 8 cents per kilowatt hour as the national average for what we pay. So we're talking about a very small part of that. The technology is also a technology that, for activated carbon injection, you build these systems, very simple systems, put them in place, three years down the road when you actually turn them on, about two weeks before that you buy the activated carbon, which is like a toner, and whatever the best carbon is out there at the time, you use that in your system. You spend about half a million dollars, from the power plant perspective, you will spend about two to three million dollars on a regular operating kind of basis. If something else is out there that is better, then you throw away the technology, a very small investment, and you move to something else that's much better. If you add on a fabric filter, you're going to reduce your particular matter by a much higher degree, you're going to reduce your mercury by a much higher degree, and you're going to reduce the cost of how much activated carbon injection you're actually going to need in the system. So you're going to get higher performance and a lower cost.

SENATOR LEAHY: Mr. Chairman, I've been asked to come to the floor, but I will stay for Mr. Sparlin's testimony because all this has been so helpful. Before I go, what I'm going to want to do to several of you, I'm going to want to either send you letters or something. If you could take time to respond, Mr. Paul and your advisory committee, and Dr. Goldman on matters that you've talked about before, or all of you, and I'll be doing that. I just wanted to say before I slipped out, I wanted to note that for the record, and apologize but unfortunately we have a matter that involves the Judiciary Committee on the floor and that will be calling me over there.

SENATOR JEFFORDS: All right then, thank you Senator. You're certainly excused. David...

DAVID FOERTER: Now I'll just be brief. The end of this story is the fact that when you use these technologies, you actually create new jobs for the U.S. economy. These are strong jobs in construction materials, fabrication, and engineering. Just to close with that, we say we can do a 50-70% reduction of today's levels by 2008, 2010. Thanks.

SENATOR JEFFORDS: Thank you very much. Now we have Scott Sparlin, the president of the

New Ulm Area Sportfishermen, from Minnesota. Tell us your problems.

SCOTT SPARLIN: Mr. Chairman and members of the committee, good morning. My name is Scott Sparlin, and I am president of the New Ulm Area Sportfishermen, a volunteer group of sportfishermen that was started nineteen years ago. I'm pleased to have this opportunity to offer testimony on the impacts of mercury contamination in Minnesota and the Bush administration's mercury emissions proposal. Last week our organization joined nearly 500 other sportsmen's groups from around the country on a letter to EPA Administrator Leavitt urging him to fix his current plan to control mercury from power plants. Sportsmen and women are speaking publicly about the mercury problem because we are personally seeing the effects of it on our families, our livelihoods, and our heritage. Mercury contamination in Minnesota has become so common that all rivers and 14,000 lakes have health warnings urging citizens to seriously limit or avoid fish consumption completely. The effects of these warnings go far beyond the angling public. In Minnesota, close to half of all residents possess a fishing license. For us, it is a part of our assumed heritage. Until recent years, we have regarded eating fish we catch as an individual right with no conditions other than a respect towards the water and the possession of a fishing license. My great-grandfather ate the fish he caught having no health concerns, as did my grandfather and my father. But when it comes to fishing in Minnesota, times have changed. I can no longer without worry bring home the fish I catch and feed them to my family. Our children, who are proudly learning how to fish, are not able to eat a great deal of what they catch. Why must I and the families of this generation, as well as those yet to come, have this as our legacy? Citizens in Minnesota feel let down because our nation's policies have allowed this to happen. The concern among citizens in our region is extremely high. In Minnesota, 1.6 million people go fishing every year, contributing to about 1.3 billion dollars of our state's economy. The health of our huge recreation industry and all the businesses that depend on this industry are at risk when the state's lakes and streams are filled with fish that are contaminated with mercury. Ask any angler, and they'll tell you that they like to be able to eat what they catch, and when they can't, fishing is a lot less fun. Today a sincere nervousness is conveyed among anglers, causing many to practice only catch and release of fish. Other anglers are simply not going fishing, or not as much as they used to because of contamination warnings. They have less desire to go fishing knowing their catch is tainted and potentially harmful. These views are not just shared among anglers in Minnesota; they spread to those who visit our state, affecting our tourism, which depends a great deal on good fishing. But let me be clear, not fishing is not the answer here. It's making sure our fish are clean and safe. In addition to having lots of anglers who go fishing as a favorite pastime or hobby, Minnesota is also home to large populations of different ethnic and low income groups. Many of these residents do not fish recreationally; a large portion of their diet consists of fish caught from our waters. For low income residents, locally caught fish may be all they have to eat. Regular exposure to mercury puts these segments of the population at an even higher risk than sportsmen and the greater angling public. The New Ulm Area Sportfishermen have been engaged in an education and awareness initiative to rally support for the reduction of mercury in our natural resources. Locally, we hosted and facilitated a mercury summit to help outdoor recreation and natural resource groups better understand the mercury problem and what's being done about it. Much concern and many questions have been raised about the ability of coal-fired power plants to reduce emissions of mercury. There's a certain air of dismay and disappointment at the unwillingness of the federal EPA to set strict limits on all

mercury coming from the coal power industry. Maybe weak pollution standards could be justified if the technology to clean it up wasn't available or was too expensive, but neither is an issue in this case. The technology is available at a relatively reasonable cost. What's missing is a federal requirement to push these companies to invest in this new technology. Given the seriousness of the associated health risks, the federal government should be doing all it can to eliminate mercury from power companies in the shortest amount of time. The assurance of clean water is an essential service to be provided and guaranteed by our federal government. It is not a luxury item that we hope to have some day in the distant future. We all depend on clean water. If the water is clean, so too are the fish that swim in it. If the fish are free of pollution, our wildlife and children who eat the fish will be. Clean water should not be left to the mercy of a few decision-makers who hold great power. To continue allowing mercury to contaminate our water is an abandonment of government responsibility to all citizens. Please make sure that the EPA does all it can to clean up mercury from power plants before the end of the decade. Our children depend on it and our national heritage depends on it. Thank you for convening this hearing on this critical issue. [TAPE SWITCH]

SENATOR LEAHY: ...some material about you in the advisory committee that you were on, and the EPA's advisory committee, they were working towards a price of how they handled this whole issue of mercury. Did anybody on that committee, and it's a pretty outstanding committee, did anybody on the committee, maybe other than industry, advise EPA to take this really abrupt change and propose this weaker policy that, in my view anyway, ignores the requirements of the Clean Air Act?

JOHN PAUL: Mr. Chairman and Senator Leahy, no one on the advisory group did, not even industry. There were several times that we discussed, for instance, whether or not trading was an option, and everyone agreed that trading is not an option under Section 112. At no time during our discussions was there ever even a hint that EPA was thinking about something under Section 111.

SENATOR LEAHY: Fascinating. I see heads shaking in agreement on this. Mr. Chairman, and I do apologize for having to leave. I tell you, listening to the testimony here today, I wish everybody in Vermont could hear all of you. I think you'd find a lot of agreement there. Commissioner Campbell, when I pointed to the map, I saw you nodding, and of course as you know, Senator Lautenberg has been an enormous, enormous help to us both in his earlier time in the Senate and now on this issue. We share an awful lot, both in your urban areas, but also you have some of the most amazing and wonderful rural areas, agricultural areas. I bet your farmers are pretty worried about this too.

BRADLEY CAMPBELL: Everyone in New Jersey is worried about this issue and concerned that some of the most important sources are beyond our control and depend on the federal leadership that's been lacking.

SENATOR LEAHY: Mr. Sparlin, I've been out fishing there in Minnesota. I don't admit this when I'm back home, but I remember then-Vice President Mondale invited me out and I had to learn to fish in Minnesota in one heck of a hurry, and it was wonderful. But I know what you're

saying, we hear this from anglers everywhere, and it doesn't make any difference what their political background might be. They're just worried about doing the same thing that my parents did with us when my brother and sister and I were kids, and what we did with our children, and be able to feed it to them. Thank you Mr. Chairman.

SENATOR JEFFORDS: Thank you. Senator Dayton.

SENATOR LEAHY: Doctor, thank you.

SENATOR DAYTON: I'll be willing to go skiing in Vermont every time you go fishing in Minnesota, how does that sound? Isn't that called trading?

SENATOR LEAHY: Different times of the year, I hope.

SENATOR JEFFORDS: Thank you. Senator Dayton, did you...?

SENATOR DAYTON: No, go ahead.

SENATOR JEFFORDS: Senator?

SENATOR LAUTENBERG: Thank you, Mr. Chairman. What we hear from our witnesses lends fuel to the fire that we see burning in our society. When we look at what the feeble attempts are to escape the rigors of the law, that leaves us all shaking our heads and saying, "What are they trying to do?" Would we stand for a cap-and-trade process that traded mercury instead of reducing everyone's exposure to this toxic metal? Why don't we set up a system to trade diseases and maybe we can push them off to poor areas that don't have the same representation that others do. It's so outrageous. When one thinks of the moments before a wife gives birth, or a child is born, what you do is, no matter whether you're religious or not, you issue a little prayer that this child is healthy and in good form when he or she is delivered. And when you think of the fact that some of these children are going to be dysfunctional for reasons other than what the mother did to take care of these developing fetuses *in utero*, it's shocking. What's the cost to our country, Mr. Chairman, of these neuro-developmental problems that occur, of attention deficits, of other problems, auto-immune disease, which is not a natural occurrence, but can happen as a result of contamination introduced when fragile systems are developing. It's shocking. I, for one, again with three daughters, a son, and a daughter-in-law, each one of them having delivered children, and I'm not an untypical father -- I like to give advice, too much probably -- but if I were to advise them on what to eat, we're avoiding meats with too much fat, so we turn to fish. Now we worry about the fish being contaminated. Where do we go? Don't we see the effects that are taking place within our society? Who wants to run the risk of a child born unable to function normally for their the rest of its life? What's the cost to society, not just the financial cost, but the reduction of functioning and the degraded morale that may come with that? I ask this question. When we describe the effects that mercury poisoning brings about in terms of thousands of tons, or whatever it is, it doesn't have the same meaning. Can any one of you describe in short form, how toxic mercury is? How much does it take, you don't have to take it by the spoonful, what does it take to present a precarious health situation?

LYNN GOLDMAN: Well, I can address that. We're talking about very small quantities. We're talking about quantities measured in blood in the part per billion range, which is very small.

SENATOR LAUTENBERG: Someone once used an example of mercury in a teaspoon put into a reservoir or lake. Is that an exaggeration of the toxicity of this material?

LYNN GOLDMAN: That's not an exaggeration at all. That might be one way that one could, it would have to be a large reservoir, but that's one way that one might explain what a part per billion is. I mean, if you have, if you can imagine having a billion white balls in this room and one of them is a red ball, that's a part per billion. It's even difficult for us to imagine that. So it's very toxic, and it's because even though these are small quantities, the mercury goes into the brain and when it goes into the brain, it stays there and does a lot of damage there. So it doesn't take very much, and especially during the time in life when the brain is developing, and there are things that are occurring that can only occur once in your life, that your brain develops appropriately, all the right connections are formed, and the connections that you don't need are taken away. It's a very complicated process, and if there's an error in that process, it's there for your life.

SENATOR LAUTENBERG: Mr. Chairman, we are all aware of the threat that lead in paint brings to our families and our children. I don't know how one would compare something like lead poisoning to the exposure to mercury. But at least with lead, one can control it in a fairly limited arena: paint on the walls, we've taken it out of gasoline, but mercury requires a national effort. Mr. Sparlin, I noticed in your biography that you're also a member of a guide group, is that true? Fishing guides?

SCOTT SPARLIN: Yes, I own a guiding business.

SENATOR LAUTENBERG: I always wanted to be one of those, but luck never permitted me that good fortune. You see it, and when I hear about Atlantic salmon, working their way up the Hudson River, the river that separates New York and New Jersey, or rockfish or bass, striped bass, they're getting more plentiful, but they're not good for one to eat. They contain so much mercury and other poisonous substances, that you should avoid them. What a pity it is. We were given this God-given bounty, and now many seek to destroy it. It's a pity, and I hope, Mr. Chairman, that with this committee hearing that we will somehow sound an alarm, because we must do that. That's our responsibility, and we'll fight to the end. I would ask Brad Campbell one question, Mr. Chairman. Do you see this as a violation of law that might be adjudicated in the courtroom?

BRADLEY CAMPBELL: Absolutely, and we certainly intend to challenge the standard, and my Attorney General Peter Harvey joins me in that because, simply put, the law is clear, first of all that this has been regulated under Section 112, not the sleight of hand that led the administration to Section 111. Secondly, we believe the law is clear and the regulations are clear in terms of what a MACT standard would require in this instance, and frankly the record provides the documentation that they're not meeting the 12% best-performer standard and that they're using criteria analysis that simply can't withstand judicial scrutiny. It's our hope that EPA will think

better of this regulation before we get to court, but it's certainly our intention to challenge it if they stay on their current course.

SENATOR LAUTENBERG: You were in federal government. Is it appropriate for OMB or any department of government to delete or change the language on health effects in a rule, without clearing first with EPA scientists?

BRADLEY CAMPBELL: Well, both Dr. Goldman and I had the pleasure of serving on the task force that helped develop the mercury determination, the MACT determination. I think in that context, there was always a clear recognition that where issues of economics or cost were involved, the EPA had an appropriate role. But when it came to doctoring the science or manipulating the analysis, that was really something where EPA had to maintain its integrity and its independent voice. Sadly, that division of responsibility and that integrity seems to have been completely lost in this process.

SENATOR LAUTENBERG: Thank you Mr. Chairman. Thank you, all of you, for participating today.

SENATOR JEFFORDS: I'm going to try to follow up a little bit here. Dr. Goldman, I understand that the American Medical Association just issued a new report urging doctors to educate their patients about mercury risk in line with the most protective advisory applicable. Could you tell us a little more about the significance of this action?

LYNN GOLDMAN: I think it's very important. Just this year was the first time that the American Medical Association has adopted policies related to methyl mercury exposures to women of childbearing age. Basically what they concluded as a policy is that all women of childbearing age need to be informed about mercury fish advisories, and where their advisories are in conflict with each other, that the most stringent advice should be given, the most protective advice should be given. They also concluded that there needs to be an examination by the Food and Drug Administration of the issue of tuna fish and whether information should be there, near where tuna fish is sold, for women of childbearing age and pregnant women about tuna fish. Some states have done this, others have not. There's inconsistency, there's confusion, and quite frankly, when you look at the levels of mercury in certain forms of canned tuna fish, not all of it but certain forms, they're right on par with levels that in wild-caught sportfish would cause us to say women shouldn't eat it.

SENATOR JEFFORDS: Mr. Foerter, before my first question to you, I'd like to clarify the record that your institute is non-partisan, is that correct?

DAVID FOERTER: That's correct.

SENATOR JEFFORDS: Mr. Foerter, it certainly sounds as if we could get 70% or greater mercury emissions reductions with very little added cost by 2010 or maybe even earlier. How much would getting to that level or even lower add to the average consumer's electricity?

DAVID FOERTER: I was mentioning, if the average consumer's electricity bill is 8 cents per kilowatt hour, and I think it's right around that number, then going with the most advanced technology we have right now, which is activated carbon injection, the most advanced and demonstrated, it would be a tenth of a cent to three tenths of a cent per kilowatt hour. So it's very minimal and also, put that in context with the cost/benefit of this whole program. I don't know what EPA is touting now, but it's something like every dollar spent, you get 22 dollars back in health costs.

SENATOR JEFFORDS: Mr. Sparlin, I appreciate your making this trip here today, and I am heartened to see that so many sportsmen are concerned about environmental quality. Why do you think there is such widespread recognition of the mercury problem, as evidenced in the rule comment letter?

SCOTT SPARLIN: Well I think that there's, Mr. Chair, Senators, I think that there has been a groundswell from the outdoor sporting participants, and I think that is due in part to some of the national media coverage that there has been. A forum like this here today, this will certainly go a long way to shedding light to those individuals that feel that EPA is taking care of this. So, this is something that most anglers, outdoor recreation enthusiasts can identify with. They want to eat what they catch. I was discussing earlier with Mr. Paul, old people--old, myself included--people that get to the age of retirement, let's say, especially in Minnesota, they look forward to the days that they can leisurely go fishing, bring some fish home with no worry, fry it up, eat it, and say, "This is really great." Just even the thought that their catch is tainted takes a little something away from people. See what I'm saying?

SENATOR JEFFORDS: I sure do.

SENATOR LAUTENBERG: Mr. Chairman, may I just paraphrase something that Mr. Sparlin said?

SENATOR JEFFORDS: Sure.

SENATOR LAUTENBERG: He used the term "anglers." Now we have them fishing around the White House, and, Man, did they land big fish over there, at the expense of the entire public.

SENATOR JEFFORDS: I'm trying to see the relevance. [LAUGHS] Good comment, good comment. Mr. Paul, I agree with you that the agency has no authority to regulate mercury emissions from utilities using a cap-and-trade approach under Section 111. According to EPA, that approach will leave about 200 power plants with no advanced controls for SO<sub>x</sub>, NO<sub>x</sub>, or mercury in 2010. These plants will simply buy their way out of reductions. What are your views, and any of the other witnesses, to make your concerns about toxic hot spots and localized effects near the power plants.

JOHN PAUL: Mr. Chairman.

SENATOR JEFFORDS: Yes.

JOHN PAUL: From what we heard, oftentimes there's considerable deposition nearby a power plant, within 20 miles of a power plant, and so there would be concern with hot spots. If I lived in the West, I would be really upset over this proposal. Under the MACT proposal, the West gets no mercury controls at all. All of the controls come purely as co-benefits from controlling NO<sub>x</sub> and SO<sub>x</sub> in the East. So there would be a real concern from people west of the Mississippi on this. You'll see that people take this local concern seriously, for instance the state of Wisconsin has passed their own state legislation to control mercury. Obviously, they don't believe that this federal rule with the cap-and-trade is sufficient to protect their citizens with regard to localized effects. There are other state legislatures that have moved on this too, I think Connecticut, Massachusetts, and New Jersey, so I think that the evidence is there that people do not feel that the national rule as proposed by U.S. EPA will protect their own citizens. I also would comment briefly that in Wisconsin I saw a survey of fishermen—and I grew up in Wisconsin, I grew up in Osh Kosh, Wisconsin, and fished every day—and they were asking them, they had some cost estimates, I think it was around 20 dollars a year that controlled mercury, what that would cost. It was interesting, one response I read, the person said, "Well I pay 17 dollars for a fishing license, so obviously I've already said it's worth 17 dollars a year for me to fish, it's worth another 20 dollars a year for me to be able to eat those fish that I catch.

SENATOR JEFFORDS: Senator Dayton?

SENATOR DAYTON: Thank you, Mr. Chairman. Well, Mr. Sparlin, I've always been certain that on the basis of the number of hours spent fishing and the number of fish caught, I was in the lowest percentile possible. Because I realized when I got older that my father didn't know how to fish and he didn't admit to us that he didn't know how to fish, so we spent hours, especially on Lake Vermillion in northern Minnesota, fishing and catching nothing. I've always been sort of angry about that, but I guess now I should be grateful. I guess I'm one of the healthier fishermen in Minnesota, but not for the intended reason. It is something, as you pointed out, really, really tragic when people can't do things like go outside without massive clothing or sunscreen. I remember when the worst part of the smog era, and I arrived here in Washington back in 1975, '76 as a legislative assistant to then-Senator Mondale...[MEDICAL SITUATION OCCURS]

SENATOR JEFFORDS: We'll stand at ease for a few minutes here.

LYNN GOLDMAN: Is that why you asked me to testify today?

SENATOR JEFFORDS: Yes, right, yes, right. Thank you for your assistance.

LYNN GOLDMAN: This used to happen to me on airplanes. I'm a pediatrician, so that one was young enough that I felt okay, but when they're about twice that age, then I start hoping that maybe there's a second pediatrician so that maybe the two of us together can deal with it. Anyway.

SENATOR DAYTON: Thank you very much, Dr. Goldman. I worked three summers in high school at a hospital in Minneapolis as an orderly in surgery, and they would let me scrub in and watch, before the days of liability practices being so what they are, or help do a few things, or

whatever. I remember one time I was standing quite a bit and had a mask on and I suddenly just fell faint and passed out, fortunately falling backwards and not forwards. The nurses all kidded me and said that was a sure sign of pregnancy.

LYNN GOLDMAN: That happened to me in medical school, as well, but I wasn't pregnant at the time.

SENATOR DAYTON: Well, neither was I. [LAUGHTER]

LYNN GOLDMAN: I was hoping that was the case.

SENATOR DAYTON: I sympathize with having that happen. Well, it sounds like, very tragically, the EPA, or Environmental Protection Agency, should now stand for "Every Polluter's Ally." It's really just disgraceful how something that is supposed to protect people has become an advocate or an ally, and an apologist for the very practices that it's supposed to regulate and protect people from. I am, frankly, really fed up with people who seek public office with the ideology that government does everything badly, and then if they're elected, they go out to prove themselves correct. Nothing destroys the public faith in government worse than when they believe that government is supposed to be doing something and then they find out that it's not, and they have direct consequences to themselves, their children, their families, their lives. This is just shameful beyond description, that with the knowledge we have of the effects of mercury poisoning—and I remember since I was pre-med being in the chemistry lab in college and one of the men who'd been working there for many, many years had mercury toxicity was very noticeable, and I mean, it is irreversible as I understand it. To think that we're exposing people in this country to this when we know that we can do something about it, and particularly with utilities, which used to be before they became deregulated, profit-making, investor-owned they call themselves, they used to be public, they were monopolies, but they were publicly regulated and still are in Minnesota with the intent that they were a public franchise and also that they had the ability, at least in Minnesota, that if they had additional cost factors to pass those additional costs on to the consumers. If the one tenth of a cent per kilowatt hour to three tenths of a cent per kilowatt hour is the norm across the country with this kind of technology operating, that is certainly something I think that most Minnesotans and most Americans would certainly be willing to accept. So I understand, though, that is the advertised cost of the investment and the ongoing operating?

DAVID FOERTER: That cost is what we've based on performance of activated carbon injection, which has emerged as sort of one of the leading technologies for reducing mercury above, what we've been talking about, co-benefits. The EPA's regulation is primarily co-benefits. When you take SO<sub>2</sub> out of the stream, when you take NO<sub>x</sub> out of the stream, you end up getting mercury out of there also. The control technologies are very effective at doing that, but these are intentional controls to reduce mercury.

SENATOR DAYTON: So that intentional control to reduce mercury with the best available technology would be an additional one tenth to three tenths cent per kilowatt hour on average across the country?

DAVID FOERTER: Right. Now, and some configurations...

SENATOR DAYTON: Yes or no?

DAVID FOERTER: The answer would be, for most configurations. Yes, I mean.

SENATOR DAYTON: Well, what?

DAVID FOERTER: Because you have different configurations. What we've been building for the last thirty, forty years are different power plants with different control units on them. So some of them sell their ash, and they would like to put a fabric filter in the system so they can continue to sell ash and still do things. So there is no simple yes or no on this one.

SENATOR DAYTON: Well, you gave me a range, and that's what I'm trying to understand, at least. Because one of the principal arguments against this is it's cost prohibitive to the investors and also to the consumers.

DAVID FOERTER: I'll make this easy. If we do activated carbon injection on the systems, then it's one tenth to three tenths of a cent.

SENATOR DAYTON: And what is the cost of installing one of those systems?

DAVID FOERTER: They're about half a million dollars.

SENATOR DAYTON: Dr. Goldman, you mentioned the EPA figures about the reduction of, the figures you cited, of 30% by 2010 and 80% by 2017? Mr. Foerter you mentioned here reduction of, I think you said, 80% by, sorry I've got my notes here, 70-80% reduction by 2008-2010. But are those apples-to-apples comparisons, they're talking about, as you said, indirect benefits from other procedures?

LYNN GOLDMAN: I don't think that they are strictly apples-to-apples, but I think that Mr. Foerter is probably the expert on that. I think what I know is that, based on what the law says, that the target that EPA should have chosen would have been a 90% reduction by 2007. Then within that, if they're shooting for that target, they may need to figure out ways to include some flexibility so that they could encourage new technologies, encourage pollution prevention. If you can fault the old EPA for anything in the past is that it was very slowly moving in that direction of really encouraging innovation. If you can fault the EPA of the present, it's that they seem to have abandoned the goal that Congress set in terms of providing a health-based protective standard, which is really fundamentally their job.

SENATOR DAYTON: Well, this is, I'm trying to stay mostly non-partisan here, but this is an administration that talks about exporting democracy abroad, but they don't practice it here at home. They don't think that the laws written by Congress are really there to be ignored if they don't happen to like them, and we have that all the time.

LYNN GOLDMAN: I should say that the standard is to be based on technology, but it's to be

based on the technology, not the technology that every single entity can incorporate and survive. When EPA regulated mercury emissions from medical waste incinerators, a lot of the tiny ones had to close down; they were not able to continue to operate. Hospitals had their own incinerators, in some cases. Now instead of burning those in dirty incinerators right in people's communities, those go to clean incinerators that are elsewhere and don't emit huge amounts of mercury. Medical waste incinerators used to be the number one domestic source; they're not anymore. Part of why we're talking about utilities is this is the last sector that has really been difficult because of the technical issues that Mr. Foerter was talking about and now, during this administration, I think, an unwillingness to grapple with the issue.

SENATOR DAYTON: Mr. Sparlin, are sportsmen and women of America united on this, or broadly concerned, or is this localized in certain geographical areas?

SCOTT SPARLIN: Mr. Chair, Senator Dayton, I would say that, without speaking for all sportswomen and men, I would say that there's a pretty good united front here to do something now. I would say that that is probably one of the top issues among that group of people.

BRADLEY CAMPBELL: All of New Jersey's sportsmen's organizations have filed comments in the record opposing the Bush administration's proposed mercury standards as well.

SENATOR DAYTON: Mr. Chairman, why don't you go ahead, I may have something else.

SENATOR JEFFORDS: Sure. Mr. Paul and Mr. Campbell, you both have been critical of the analysis EPA used to develop the mercury reduction targets. It appears EPA used industry analysis in setting those targets. What effect, do you think, that had on the rule?

JOHN PAUL: Mr. Chairman, we've asked among ourselves, and I've talked with Bill O'Sullivan, you know, from Brad Campbell's staff, about this issue. Bill O'Sullivan was on the working group, the advisory group, with me. It appears as though the way you get to 34 tons per year is that you start at 34 tons per year, and then you work backwards and you manipulate the data to produce that result. We were talking about annual standards, we were talking about dealing with variability in coal. They did these analyses, which basically, I'm not a statistician, but they talk in terms of 97% competence intervals, that at any point when you measure you will reach this standard that they set, but we're talking about an annual standard. So for instance, states and locals, the way we dealt with variability was we took the average of the best performing 12% and then we put some slack in there to set the 0.6 pounds per trillion BTU standard or 90%. We felt that from our experience in dealing with industry and dealing with standards that that was something that they could meet. The standard that EPA came out with, I believe it was 17 times our analysis. Clearly someone said, "Make it come out to be 34 tons per year," and then they worked backward and came up with that.

BRADLEY CAMPBELL: I completely agree, and I would only add that the methods they used to get back to that number are highly suspect, as we analyze in the report we've put in for the record. For example, categorizing based on chlorine content of coal, which in our view is not justified by the science. Looking at a different way of defining performance in terms of

reductions of coal emissions than had been used in prior MACT analysis. Chapter and verse, they went through and wherever there was an opportunity essentially to cook the books through some novel form of analysis that had not been seen by the public, had not been discussed by the FACA work group that had been convened, and frankly couldn't withstand scrutiny. They did that and in some cases, taking language wholesale and verbatim from the consultants' reports that were submitted for the record from some of the worst-polluting utilities. I think that's perhaps one of the more troubling aspects of this process.

SENATOR JEFFORDS: This question's for all of you. State and local governments increasingly seem to be ahead of the federal government in controlling mercury, greenhouse gas emissions, MTBE, and all sorts of air-related environmental problems. Why do you think that's happening?

BRADLEY CAMPBELL: Well, I think I can answer pretty readily that it's happened because there's been an utter absence of federal leadership on these issues. It increasingly has fallen to the states to step in, whether it's on mercury reductions, other air pollutant reductions, global climate change – these are areas where consistently the Bush administration has denied the scientific consensus and shortchanged public health in a manner that favors some of the laggards in the most polluting industries in the country. And I think that's troublesome from our perspective as an individual state not merely because a third or more of our mercury deposition and other pollutants comes from upwind sources, but also because we've held our utilities to tough standards. We're adopting the standard we believe the federal government should adopt domestically in our state, and yet the second largest emitter of mercury in the country is next door in Pennsylvania, not subject to a strong federal standard. At some point, it's enormously difficult to hold our utilities, hold the bar high for our utilities as they watch their competitors upwind continue to profit at the expense of our residents' public health. It's enormously troubling in that sense; it's the reason we need a tough federal standard. This issue of mercury fits into a pattern, as John Paul discussed, of other standards. One reason why I would ask the Committee to tread carefully on the issue of cost is that in the presence of a strong new source review rule, which the Bush administration has been in the process of gutting, there were additional mercury reductions that would have occurred through the implementation of selective catalytic reduction, low NOx burners, other technologies that would have been forced by a strong new source review rule, or the existing new source review rule, and strong enforcement of that rule, which had begun under the Clinton administration. Those potential benefits have been taken off the table, and the actual cost of achieving a protective mercury emissions standard would be far less if we saw enforcement of the Clean Air Act's requirements for those other pollutants, so that we would be getting more of those co-benefits that Mr. Foerter described.

SENATOR JEFFORDS: Any other comments?

LYNN GOLDMAN: Just one comment, as an ex-state person as well, I worked for the state of California. It's an abdication of responsibility. Even though some states can step in and put in place standards to control climate gases or mercury or other pollutants, not all states have the technical resources and the capacity to be able to do that kind of complex regulation. It really is the job of the federal government to provide a strong presence in this area and to lead in terms of bringing all the states up to a protective standard when it comes to environmental pollutants. It

does also then lead to a situation that can be quite confusing for industry. And I think that it really cuts into the competitiveness of our industry, and I'm not talking as an ex-regulator. When they have to deal with a variety of standards, state by state, different kinds of cars, different kinds of pollution controls, it is not good for US industry and for the US economy to have that kind of situation, but it will evolve if the EPA continues to not take the leadership here.

SENATOR JEFFORDS: Other comments?

JOHN PAUL: Senator Jeffords...

SENATOR JEFFORDS: Mr. Paul.

JOHN PAUL: It is a case of one thing building on the other, as Mr. Campbell said. The new source review rule is especially important here. As I said, we've been waiting for years to see these utilities controlled. I believe 68% of the coal-fired boilers are 30 years old or older. They should be making decisions right now as to whether they are going to rebuild those boilers or whether they are going to shut them down and replace them with newer, more efficient boilers. The new source review rules as they existed prior to this administration would have required best available control technology when they either rebuilt or put in new boilers. With that being taken off the table, we're now dependent upon other sections of the Clean Air Act to get these boilers controlled. For them to now walk away from the Section 112 requirements also, it's just inexcusable. We've been waiting; this is our big opportunity to control these boilers, to finally get good controls on the coal-fired boilers in this nation. I think we're lucky to live in a country that can afford to do that; we can afford to do this. But for some unknown reason, right now we have an EPA which is just apparently not interested in making sure the law of the land is carried out.

SENATOR JEFFORDS: Is that concern shared by the rest of you, have they have walked away from enforcement?

BRADLEY CAMPBELL: Absolutely. I'll give you a concrete example. Just across the river from New Jersey in Pennsylvania, there is a power plant that contributes significantly to emissions in our state, a coal-fired power plant. We had to negotiate the shutdown of that plant, which we believed was in violation of the new source review provisions of the Clean Air Act, without any help from EPA, even though we had sought an investigation under the new source review provisions of the Clean Air Act. The same is true for a second coal-fired facility in our state that we just recently achieved a 2007 shutdown agreement with. That's in cases where we've had good leadership, frankly, and good environmental stewardship on the part of utilities that are willing to recognize their public health responsibilities. But in the main, states have been left to fend for themselves and the public has been left for themselves to a large extent because of the failures of federal enforcement and protection.

SENATOR JEFFORDS: Other comments?

SCOTT SPARLIN: Mr. Chair, I would say that this, as I stated earlier, it appears to be an

abandonment, just a total abandonment, and something that the federal government, if they do not set these standards, you're not going to get across the board levels that we need to have, because they have to be the most stringent, and they have to be what technology will allow, and I just don't see any other way out of it. I don't see leaving this up to the states, it would just be a big mess. I mean I think this has to be done as a national policy, a national thing, that we all recognize as extremely important, and a health risk.

SENATOR JEFFORDS: Those are some fine comments. Anybody else want to make one? If not, I will. You wanted to? I agree with you. I think at this time when this nation is spending billions of dollars on possibilities of things that may happen by virtue of enemies from afar, we don't spend even billions on things we know we can control by our own rules by just enforcing them, with thousands of lives being lost and babies having problems with their lives and all that. They don't enforce them even though the laws are there to enforce. I think that's a crime in itself. Did I really say that? Yeah, okay.

SENATOR DAYTON: You did, and you've been heroic in your pursuit and vigilance in this for many, many years. Thank you very much. You're right, you're correct. I misuse the word "right" these days. Correct. I have one last question if I could. I agree with what Senator Jeffords said and others of you that this needs to be comprehensive and also we need to do it successfully and as fast as possible, but feasibly. Could you, in say a minute's worth or so, just the main elements, what should the policy be? Is the previous one under the Clinton administration sufficient? Should it be more stringent? What do we need to put in place here to make this, if we could write it today right here among ourselves, make it complete, comprehensive, successful, and how quickly could we realistically ask the utilities and others to carry it out?

DAVID FOERTER: If you're dealing with just the MACT process, the Section 112 process, I think you're somewhat constrained in that. What we've come up with is based on a conservative approach, technology based...

SENATOR DAYTON: Wipe all that stuff out, please. Just, what should we do if we were writing this right now without all the other stuff?

DAVID FOERTER: If you didn't have that in place, I mean, you'd go for the 70%, provide some flexibility with early reductions, those types of things. Avoiding the hotspot kind of issues, but still getting everybody to do something, and those that can do more...

SENATOR DAYTON: No, I want everybody to do what they need to do, all together, because otherwise we get into these nuances and contradictions where we say if you're going to partially retrofit, then it's this and that and everything. I want to just wipe the slate clean and say incremental reform is an oxymoron here. What do we need to do with the best technology, everybody's required to do it, if they can't pay for it, we'll work on that later? When would we have that done?

DAVID FOERTER: We're talking about 2008, 2010 because of the timeline set up for this.

SENATOR DAYTON: And what would we get?

DAVID FOERTER: We're still talking about 50-70%

SENATOR DAYTON: Okay, thank you. Others, you want to address that, please?

BRADLEY CAMPBELL: I think in some sense, the model has been drafted. Senator Jeffords' Clean Power Act, other bipartisan vehicles that have been pending in the Senate that really approach this in a comprehensive way, achieve the levels of mercury reduction that we say are required under the current Clean Air Act and through appropriate enforcement of the new source review provisions of the Clean Air Act. If the slate were clean, that would certainly be one very appealing model in terms of getting the reductions that public health demands. In the absence of that, states, public health advocates, anglers are faced with the second best, of going to court and trying to get the Bush administration to comply with the law under each of these individual programs, the MACT standard, new source review, and so forth.

SENATOR DAYTON: I'm a co-sponsor of Senator Jeffords' legislation, I guess I'll have to read it, then, and find out what it's about. Anyone else?

JOHN PAUL: I might add that EPA in 2001 had an analysis of what they called a straw proposal, it was an internal document but a lot of people have it. That showed a 90% reduction—a little bit less than that, seven and a half tons per year—emissions by 2015 that also had a cap. That cap came into play in 2012, and that required about 90% reduction and no less than 70% reduction on any individual plant. I believe the cost-benefit ratio, actually the benefit-cost ratio, of that was about 18.4:1 in 2020. They have, internally a very, at least in my mind, an acceptable proposal. It's longer in term because it goes out to 2015, but it gets to seven and a half tons, which is probably a very good cap.

SENATOR DAYTON: Yes, Dr. Goldman?

LYNN GOLDMAN: If I may, I think that, I also agree that the Clean Power Act is the way that, certainly if I were at the EPA, that I would like to see Congress go. That's an opportunity to address the mercury issue within a broader context of all the major pollutants that need to be controlled. We know that there are efficiencies and cost savings from addressing them as a group instead of one at a time, so it's common sense to do that. And it would provide a consistent and national approach that would also give industry the predictability that they need to be able to plan. The Clean Air Act is a good piece of legislation, but I think in the case of mercury, trying to take on the pollutant as a single issue will miss opportunities that you would have through legislation like the Clean Power Act to go after a number of other very important pollutants.

SENATOR DAYTON: Are we allowed to use common sense in Washington? Anything else? I want to get mercury out of the fish before my grandkids start growing up. I'm impatient.

SCOTT SPARLIN: I am too. We do have a joke in Minnesota that I'd like to tell you quickly

about how we can get mercury out of the fish. All you do is you take your catch and you go into the walk-in cooler, and you hang it up there by its tail, and then when the temperature starts to drop, you cut the head off.

SENATOR JEFFORDS: Thank you.

SENATOR DAYTON: We're going to have a Minnesotan at every hearing. Thank you, Senator Jeffords, thanks. I've got to go catch a plane, so excuse me.

SENATOR JEFFORDS: All right, well thank you very much, Senator. I'd like to, for my absent Senators, let them know that the record will remain open for any statements from those that couldn't make it today. But I want to thank you most sincerely for excellent testimony and raising our awareness and our concern, but also letting us know that there are ways to solve these problems, and this government has to get busy doing that. That's why we're here today, and I'm going to continue that pressure for as long as I'm around, and I'm going to be around awhile. Thank you very much.