

**Testimony by Felice Stadler
National Wildlife Federation**

Before the U.S. Environmental Protection Agency

Docket No. OAR-2003-0056

Proposed National Emission Standards for Hazardous Air Pollutants, Proposed Standards of Performance for New and Existing Sources: Electric Utility Steam Generating Units

February 25, 2004



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My name is Felice Stadler and I am the director of the National Wildlife Federation's national mercury campaign. I am here on behalf of the National Wildlife Federation's members and supporters who are concerned about the impact of mercury contamination on people and wildlife. Thank you for the opportunity to provide comments on this important rulemaking.

Over three years ago, in the summer of 2000, over one hundred citizens from around the country descended upon Chicago, Illinois to urge the U.S. Environmental Protection Agency to develop national mercury controls for coal-fired power plants. At that time, there was ample

evidence that children in the U.S. were at risk, that wildlife exposed to elevated mercury levels were exhibiting reproductive problems, that technology was being developed to effectively control mercury from power plant flue gas. When the EPA announced in December 2000 that it would begin the rulemaking process that would culminate in a national Maximum Achievable Control Technology (MACT) standard, we praised the EPA and the administration for finally taking appropriate steps to address this country's widespread mercury problem from the largest unregulated source.

Imagine our collective disappointment and frustration when EPA issued its long-awaited proposal. Rather than issuing a MACT standard that is consistent with the spirit and obligations of the air toxics provisions of the Clean Air Act, the EPA issued a weak mercury rule and an alternative cap and trade option that is inconsistent with the Clean Air Act.

What have we learned about mercury contamination and power plants over the past three years that supports our position that stiffer reductions than what EPA recently proposed is appropriate and necessary?

First, we know children are at risk in the United States. More than 600,000 children are born each year who may suffer IQ loss, behavioral and learning problems and other impairments because they were exposed to mercury in the womb. That's equivalent to the total population of Washington, DC, or the entire state of North Dakota.

Second, we know that fish contamination is widespread. Health departments in 43 states have issued warnings to residents about the dangers of eating locally caught fish. Ten million lake acres and 400,000 river miles are under a mercury advisory. Mercury contamination is presenting a special health risk for subsistence fishermen and for the 44 million people who fish recreationally the U.S.

Third, we know that reducing emissions directly benefits local watersheds. Studies completed in Florida, Wisconsin and New Hampshire show a direct correlation between reduced mercury emissions, less mercury deposition, and lower mercury levels in fish. The recovery is

occurring in a matter of years, not decades as scientists previously believed. Research underway in Canada illustrates that mercury emitted today makes its way faster into the aquatic food chain than mercury that has been in the environment six months or one year, suggesting that mercury emitted today has an immediate impact on local fish populations.

Fourth, we have proven and existing technology to capture mercury from power plant flue gas. Current technology—equipment used to capture particulates and sulfur dioxide—is very effective in capturing mercury in flue gas (70 to over 90 percent control for nearly all coal types). Mercury-specific technology—activated carbon injection—has been used successfully for years by the incinerator industry and is proving to be similarly effective for power plants, achieving up to 90 percent control. Major equipment manufacturers are ready to move their technology to commercial development when the demand arises, which will occur with the issuance of stringent regulations.

Fifth, states are imposing stringent mercury limits on coal burning power plants, given that it's technically feasible and action is long overdue. Eight states have specific plans to reduce mercury from power plants, five of which have proposed or finalized 90 percent reduction limits to be met in the coming decade. Another state recently issued a permit that will require a newly built coal plant to meet an 83% mercury control limit using activated carbon. This plant will be on line in 2007.

Despite all this newly gathered information and research, the EPA proposed a rule that does not reflect what is technically feasible—and what would constitute maximum achievable reductions. In fact, the proposal falls significantly short of that.

There are two fundamental problems with EPA's proposal:

1. The emission limits proposed do not represent MACT. In some cases the limits are 10 to 20 times higher than what some plants achieve today. The proposal would result in nearly seven times more mercury emitted than if the MACT limits reflected what was, in fact, achievable

using best available controls. The proposal would result in over 300 times more mercury emitted by 2020 than if reductions on the order of 90 percent were required.

2. The Clean Air Act does not allow for the trading of toxic air pollutants like mercury. This option, preferred by EPA, will lead to extensive delay. Litigation will be likely, which will delay implementation of the statutory requirements. In the event it withstands legal challenge, the EPA's proposed levels and timelines would delay cleanup for 20 years, until 2030 because of banked emission credits.

More than 20 representatives from environmental organizations, electric utilities, state agencies and EPA met for two years to discuss in great detail all the technical intricacies that were relevant for developing a mercury MACT rule: how to subcategorize the 430 coal plants; how to account for variability; whether existing and mercury-specific pollution control equipment was effective and available. A detailed set of recommendations was submitted to EPA staff in October 2002, with the express purpose of helping inform EPA's MACT proposal. All this effort expended to result in a rule whose stringency was determined not by what's technically feasible, but by the Bush administration's competing Clear Skies legislative agenda.

The National Wildlife Federation is a nationwide organization with four million members and supporters—anglers, hunters, birdwatchers, and outdoor enthusiasts. As a leading voice for conservationists nationwide, we have been appalled by the environmental policies being promoted by the Bush administration. The mercury rule is just the latest example of this administration's blatant disregard for our nation's treasured places, and for the people and wildlife who depend on and value pristine wildlands, clean water and clean air.

The EPA's proposed mercury rule for coal-fired power plants threatens people and wildlife. It threatens our nation's \$44 billion recreational fishing industry. It threatens the 10 million children and 9 million women who fish in the U.S., and who eat what they catch. It threatens the health of minority and urban anglers who depend on locally caught fish as a major staple in their diet.

With modern technology we can address the problem of mercury pollution from coal-fired power plants in a meaningful and timely manner. A problem of this magnitude demands such action.

We urge that by year's end, the EPA strengthen its mercury proposal to better reflect what's technically possible, what's legally required and what's necessary to protect people and wildlife.

We stand ready to work with the EPA and the administration to make this happen.

February 25, 2004

Administrator Mike Leavitt
United States Environmental Protection Agency
EPA Docket Center (Air Docket)
U.S. EPA West (6102T)
Room B-108
1200 Pennsylvania Avenue NW
Washington, DC 20460

***Re: Proposed National Emission Standards for Hazardous Pollutants;
and, in the Alternative, Proposed Standards of Performance for New
and Existing Stationary Sources: Electric Utility Steam Generating
Units; Docket ID No. OAR-2002-0056***

Dear Administrator Leavitt:

On behalf of the National Wildlife Federation (NWF) and its members and supporters, I am pleased to have the opportunity to comment on the rule options for reducing mercury emissions from coal-fired power plants recently proposed by the U.S. Environmental Protection Agency (EPA). NWF is a national conservation education and advocacy organization with over four million members and supporters around the country. NWF affiliates in 47 states represent a network of thousands of hunting, fishing, conservation and environmental groups in communities across the nation. Through our Great Lakes field office in Ann Arbor we have been involved for many years in efforts to address the releases of persistent, bioaccumulative, toxic (PBT) chemicals – including mercury – in the Great Lakes region.

Some of the anglers who are our members, in Michigan for example, have been living with fish consumption advisories for three decades. So what brings us here now? We're here for two reasons. First, because we are deeply concerned over the recent evidence that underscores the dangers mercury poses to fish, wildlife and human health, and to the recreational fishing industry which is important to the economy of many states. Second, we are here because it is now possible to solve this problem. It is clear that the knowledge and technology exists today to dramatically reduce mercury emissions from coal fired power plants, the largest single source of the mercury air pollution in the US, and the predominant source in many of our Midwest states. We are also here to express our concerns over the current proposal which falls far short of what is necessary to protect wildlife and human health – it also falls far short of what we know can be achieved, even in our heavily coal reliant states.

Here in the Midwest we treasure our outdoor traditions and we see firsthand the impacts of mercury pollution: We have statewide mercury fish consumption advisories in 7 out of 8 states in the region, covering either all lakes, all rivers, or both. This means that even for popular sportfish like walleye and northern pike, catch and release often isn't a choice but a necessity.

Nationwide, 44 million people fish – more than play golf and tennis combined. According to the U.S. Fish and Wildlife Service, more than 10 million anglers fished in the Great Lakes states in 2001, spending \$6.7 billion dollars. Mercury contamination threatens not just this economically important industry, but a treasured family pastime.

As the National Wildlife Federation, we are further concerned that mercury threatens not just our fishing industry, but the fisheries themselves, and the wildlife that depend on fish. Mercury can cause reproductive and other impairments in animals as diverse as river otters, raccoons and alligators and a wide array of shorebirds. One study found that loons with high mercury levels hatched 50% fewer young than other pairs and also had other impairments.

In addition to mercury's impacts on fish & wildlife, we are also deeply concerned about mercury impacts on children and adults. As a leader of a large state conservation group said recently, "we just don't believe that the proper method of recycling mercury is through people." Recent evidence is alarming. Based on the most recent data on blood mercury levels obtained by the Centers for Disease Control and Prevention, an EPA researcher recently revised upward to 630,000 the number of U.S. newborns born annually at risk for neuro-developmental problems (including problems in memory, attention, and language development) due to mercury exposure they receive in the womb. In addition, recent research has indicated that mercury exposure may diminish the cardiovascular benefits of eating fish in men, and another recent study showed links between high blood mercury levels and infertility in both men and women.

People here in the Midwest have concerns over the current rule proposal not just because it is too weak to meaningfully address environmental and public health concerns, but also because in addition to valuing the outdoors, we also value our manufacturing ingenuity. Both the gravity of this pollution threat, and the Clean Air Act itself require that the best modern technology be employed to control mercury pollution. Whether that means optimizing existing mercury controls or adding new mercury specific controls, we see that it is possible to achieve up to 90% mercury reductions on power plants burning all kinds of coal. Many of the tests of these new technologies have been implemented or are currently going on right here in the Midwest, and have achieved or are expected to achieve reductions in the near term, that exceed what this proposal requires at the end of the next decade. In addition, we see at least one new coal-fired power plant (the Council Bluffs plant in Iowa) already permitted with a requirement to use activated carbon injection to control mercury, further evidence that this technology in particular, is at the stage where it can be applied on a broader scale.

Leading manufacturers and developers of mercury control equipment are also based here in the Midwest – and recent studies show that investing in cleaner energy technologies promises jobs and economic growth for our heavy industrial states.

And let's talk for a moment about cost: Even without offsetting in the financial benefits to our communities (of reducing learning disabilities and other neurological damage to our children, or

of bolstering the health of our fishing and tourism industry, for instance) the cost of achieving stringent mercury reduction is reasonable. Estimates suggest stringent mercury reduction will be little different in cost than current upgrades to address nitrogen oxides emissions – in other words, affordable for both industry and consumers.

We see that meeting a stringent mercury reduction goal is technically and economically feasible. Recent studies also show that we should expect to see results from these reductions. Local and regional sources of mercury are the major contributors to mercury loading in our lakes and streams. Measurement and computer models as part of the Lake Michigan Mass Balance study indicated that the Chicago-Gary area alone contributed nearly one-fifth the mercury loadings from the air to Lake Michigan. Other computer modeling has indicated that over 40 percent of the mercury falling on Lake Michigan comes from sources within 60 miles of the lake. Recent unpublished EPA data indicates that nearly 80 percent of the mercury falling in southeastern Michigan comes from Michigan sources, and similar predictions were made for other Midwestern states. Limited sampling of precipitation done by NWF has confirmed findings in other studies that urban areas can have higher precipitation concentrations of mercury than more rural areas. Recent studies in Florida, New Hampshire and Wisconsin also prove that there is a direct correlation between reducing mercury at the source and a near term reduction in mercury in nearby fish and wildlife.

Unfortunately, the rule options that EPA has proposed to address mercury emissions from coal fired power plants are not adequate to address mercury pollution in the Midwest or the nation as a whole.

First, the EPA's rule should accomplish what is mandated by the Clean Air Act: emissions reductions from all plants equivalent to the level that can be achieved by the most up-to date pollution controls. Based on data collected by the EPA, that would result in at least a 90 percent reduction in power plant mercury emissions nationwide. The current proposals do not even approach these necessary and feasible levels of reduction.

Sub-categorization and the trading provisions under the proposal only make matters worse for communities in the Midwest. Sub-categorization is likely to mean even lower overall reductions for states like Minnesota, Wisconsin, Michigan, and Illinois, whose plants use a significant amount of western coal, while trading is likely to result in ongoing mercury hotspots around selected plants. Midwest states have numerous power plants, many of them located right on our lakes and rivers and in many of our largest communities –thus, continued high local emissions would mean that many communities and wildlife areas would face ongoing mercury contamination problems.

The EPA should revise the mercury MACT to meet the Act's obligation to require the most up-to-date pollution controls on all power plants – regardless of the type of coal that they use – and by so doing achieve stringent and rapid reductions in emissions of this toxic pollutant. The EPA should also reject the alternative 'standards of performance' option and all mercury trading proposals.

It was not that long ago in this region that we had rivers which caught on fire, and smog that choked our cities. Sportsmen in the Midwest have a vivid understanding of how effective the Clean Air and Clean Water Acts have been in restoring our wild areas and improving our quality of life – but we still can't eat the fish, and mercury still threatens the health of our children. We urge the EPA to maintain a rigorous implementation of the Clean Air Act; to greatly strengthen its proposed rule and issue a protective maximum achievable control technology standard for mercury reduction under section 112. We respectfully urge the EPA to adopt a rule which moves rapidly and effectively to protect human health and the health of our fish, wildlife and environment.

Thank you.

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*Testimony of Catherine Bowes
National Wildlife Federation*

**EPA Public Hearing Re: Utility Mercury Reductions Rule
Docket No. OAR-2002-0056
Philadelphia, Pennsylvania
February 26, 2004**

My name is Catherine Bowes and I am speaking on behalf of the National Wildlife Federation and our one million members across the United States. We are deeply concerned about the rule you have proposed for regulating mercury emissions from power plants, and will be submitting detailed written comments on many aspects of the proposal.

National Wildlife Federation does not support the use of a cap and trade program for mercury – or any other toxic. In suggesting this approach, EPA has taken a significant step backwards in what has been a 14-year long effort to finally address this serious issue. Sadly, this proposal was hardly worth waiting for.

We oppose the use of a mercury trading program, simply because it will not require sources of this toxic pollution to go far enough in reducing emissions. EPA's plan not only falls short of what is necessary to protect us from mercury, it also falls short of what is required under federal law. When Congress revised the Clean Air Act back in 1990, it specifically called for the "maximum achievable" clean-up of major sources of toxic air pollution, including mercury. The law requires each and every source to reduce emissions to the greatest extent possible.

With this proposal, EPA has blatantly ignored the intentions of Congress and instead is pursuing an approach that will allow the nation's worst polluters to pay for the right to keep emitting toxic mercury into our air for many years to come. What's worse, there's cost-effective technology available today to dramatically reduce mercury emissions. EPA is simply not requiring all polluters to use it. This is an unacceptable and irresponsible interpretation of the Clean Air Act's hazardous air pollutant provisions.

We agree that market based incentives can be useful tools for achieving overall reductions of some pollutants. But emissions trading makes no sense for toxics such as mercury. Under such a plan, many plants will not have to reduce emissions, and some will even increase. This strategy has never been used for toxics, and given the mounting evidence of mercury's dangers to people and wildlife we see no reason why it should be tried now – especially when there is so much at stake.

Many of the other speakers have spoken eloquently about the human health impacts of mercury exposure and the many incentives we have to reduce the risks we face from mercury contaminated fish. In addition to these serious health risks, we also must not ignore the impact of this mercury contamination on our economy.

Recreational fishing is a major contributor to the economy at the local, state, and federal level. The estimated 44 million people who fish in the U.S. generate nearly \$42 billion dollars in retail sales *each year*. Yet, EPA is attempting to delay mercury reductions at a time when at least 43 states have local or statewide advisories against eating certain fish because of high mercury levels. Fourteen states warn the public to restrict their consumption of fish in **every** lake and stream because of mercury contamination. This problem is intensifying, and it seriously threatens the future of this popular and lucrative activity in this country.

In addition to threatening the viability of fishing, mercury contamination of fish poses a grave danger to one of my organization's key concerns – wildlife. Mercury impacts wildlife health in many of the same ways it affects people – specifically impairing development and reproduction. However, no amount of fish consumption advisories will do anything to protect wildlife from mercury exposure. “Catch and release” is simply not an option for a great blue heron – or an otter – or an alligator. Mercury levels are building up in wildlife at astounding levels, and the northeast is particularly vulnerable. In fact, a loon tested in southern New Hampshire recorded the highest blood mercury levels ever found in a loon in the U.S.

While we should be outraged about this, we should not be surprised. The most recent rain data available shows that precipitation in the northeast contains mercury at levels consistently above that which EPA says is safe. Until mercury levels in the rain are reduced, we will not see relief from the widespread problems of mercury exposure for both people and wildlife. That is why it is so critical that we take meaningful steps **today** to significantly reduce the amount of mercury we allow to be emitted into the air. That decision is in your hands.

It will make a difference. Reducing mercury emissions at the source will greatly benefit local watersheds. If every power plant in America were to use the maximum achievable control technology, we'd soon see a dramatic improvement in mercury levels in the fish downstream. Recent studies in Florida, New Hampshire and Wisconsin prove there is a direct correlation between reducing mercury at the source and a reduction in mercury in nearby fish and wildlife.

We can do this. Technology exists today that could cut mercury levels up to 90% for all coal types by the end of the decade. EPA was on the right track when it announced it would set standards based on the use of this maximum achievable control technology. Asking anything less of each and every source of mercury pollution would be to make a mockery of the Clean Air Act.

A problem of this magnitude demands swift and aggressive action. Unfortunately, EPA's current proposal does neither. You are pursuing a strategy you do not have the authority to pursue. We urge EPA to strengthen your rule to better reflect what's technically possible, what's legally required, and what's necessary to protect current and future generations of people and wildlife from mercury.

For more information contact:

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