NEW JERSEY'S NEW MERCURY EMISSION REGULATIONS
Princeton November 4, 2004

I am privileged to speak in support of the regulations that Commissioner Campbell has just announced. I had the good fortune of serving for three productive and informative years as the Chair of New Jersey's Mercury Task Force.

Many stakeholders, including representatives of the regulated community, participated in our deliberations. And we benefited from the experienced, talented, and dedicated staff of DEP, particularly the Office of Science, Research and Technology, who did much of the research work for the Task Force.

I know the Commissioner appreciates being able to rely on them.

I am pleased to participate in this environmental event. And it was a great disappointment to me that both presidential candidates assiduously avoided any mention of the environment----as if to say it is a non-issue or a dangerous issue politically.

But environmental concerns are alive and well in New Jersey, and our studies in other states indicate that we are not alone in wanting a healthful place to live, work, and raise families.

Before giving my remarks on mercury, I want to comment that our research at EOHSI supports the lowering of arsenic in drinking water to what radiation scientists call ALARA----as low as reasonably achievable. Although some risk remains, it is lower at 5 ppb than at 10 ppb, and certainly lower than 50 ppb which is the current US regulatory level until the new national standard of 10 ppb becomes effective in 2006.

As you have heard mercury is a serious and pervasive ecologic and public health threat.

Its hazards have been known since antiquity. Writers of the Graeco-Roman period, such as Pliny the Elder (whose scientific curiosity eventually got him too close to Vesuvius), described clearly the symptoms of mercury poisoning in miners two millennia ago. Criminals were sentenced to those mines as a death sentence. It worked.

I personally got involved in mercury research in the 1960s shortly after the disaster at Minamata Bay, Japan, called world attention to methylmercury poisoning. Fortunately we don't see severe Minamata disease today; it is the more subtle neurodevelopmental aspects of mercury poisoning that concerns us.

And that concern inevitably involves fish.

Fish is a wonderful, tasty, and generally healthful source of proteins and fatty acids, relatively low in cholesterol.

And fishing is a popular past-time for people throughout our state (including in many urban areas).

Our health conscious nation has increased its seafood consumption overall, and some individuals have increased intake so extensively (10 or more meals a week), that we actually have seen cases of mercury poisoning from fish consumption in our clinic.

We now have to specialize in helping people choose what kinds of fish and how much can be safely consumed.

But our public concern is not so much for the health conscious adult, but for the conscientious mother.

We focus attention on the developing fetal nervous system which is subject to disruption by mercury. Mothers-to-be who should be

consuming fish as part of a healthful diet during pregnancy, need to be attentive to how much and what kind of fish they can safely consume. Ironically, there are constituents in fish which are beneficial to fetal development.

Studies in different parts of the world provide slightly (and I emphasize slightly) different data on how much mercury can be tolerated during pregnancy.

Balancing risks versus benefits is always a challenge and we at EOHSI grapple with this in many dimensions.

About 85% of the mercury in the environment comes from man-made sources.

We have had substantial success in removing mercury and mercury products from waste streams, and we have the know how to remove it even from coal.
We now know how mercury gets from the smokestack into the atmosphere and what to do about interdicting that source. The regulations you have heard about are a major step.

We know about long-range atmospheric transport, and deposition, and biotransformation of inorganic mercury into methylmercury in the aquatic ecosystem.

We know a lot about bioamplification of mercury in the aquatic food chain and ecosystem and human health risk.

And like many states, New Jersey issues advisories to limit consumption of recreationally caught fish from different water bodies. However, the vast majority of fish we eat comes from supermarkets. And we are just beginning to get data on mercury and PCB levels in commercial fish.

But as a physician, environmental toxicologist, and member of the public who enjoys eating fish, I believe that

The long-term solution is not to discourage fish consumption but to discourage mercury pollution.

Unfortunately, the national approach to regulation has been replaced by the travesty which some people call the “Clear Skies Initiative” which does too little, too late, and lets polluters (including mid-western powerplants) off the hook at least until 2018.

Once again we see New Jersey having to take the lead. As with Superfund in the 1970’s and right-to-know in the 1980s, New Jersey is once again in the forefront of developing and demonstrating preventive and cost-effective strategies for protecting public health. We have right to be proud of this tradition.

It won’t happen overnight, but I am confident that many other states and perhaps even a recalcitrant federal government will take our lead.

As an example of the efficacy of such regulation, New Jersey has already seen the great success in reducing mercury emissions from municipal waste incinerators, following the recommendations of an earlier Mercury Task Force.

With the new regulations proposed today, which we already know are achievable, we will see that MSW source decline further. Attention to emissions from other major sources, power plants and metal smelters, is thus a logicalstep.

Finally, It is gratifying to see the product of the Task Force-----not just words on paper----translated into governmental action to protect our environment.

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