

Utility Mercury Rulemaking Final Adoption Testimony

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My name is Indra Frank. I am a physician and my specialty is pathology. I serve on the board of directors of the Hoosier Environmental Council. Three years ago, I volunteered to represent HEC in the mercury rulemaking process, so I have testified for you several times before. Today, I am going to use my time to update information I have provided in the past including summarizing the information I found over the summer and sent you in a letter two weeks ago. I will talk about mercury deposition, mercury uptake by fish, data on fish consumption in Indiana, and recent health studies.

Mercury deposition is higher in Indiana than in much of the rest of the country. This summer the US Geologic Survey published data on actual mercury deposition. The USGS collected precipitation samples at four stations around Indiana and numerous other stations around the U.S. They found that deposition at Indiana's stations was higher than at 60% of the stations nationwide. The monitoring station near the Clifty Creek power plant had the tenth highest deposition in the nation for 2003.

Monitoring studies have also calculated that Indiana gets higher deposition than much of the rest of the country. I have referred to the EPA's CMAQ model before. It shows not only that Indiana's deposition is high, but that there would be a dramatic drop in Indiana's deposition if utility mercury emissions stopped.

More recently a new modeling study commissioned by the EPA was published. It also shows the uneven deposition of mercury around the U.S. and the heavier deposition in Indiana. This study went on to calculate the position in the state that receives the highest deposition. For Indiana, the position with the highest calculated deposition is about 20 miles east of Evansville. The study determined that more than 50% of the deposition at that point comes from Indiana sources and of those Indiana sources 93% comes from the Rockport Power Plant nearby. This study clearly illustrates the significant local effect power plants can have.

So both measurements and modeling studies show that Indiana has higher mercury deposition than much of the rest of the country. Does that deposition affect Indiana's fish? A very interesting study was published this summer looking at the connection between mercury deposition and mercury in fish. The researchers deposited isotopically enriched mercury into test lakes. The isotopic enrichment allowed them to track the mercury and show that it was converted to methylmercury and present in the fish within five to ten weeks. They were also able to show that the amount of mercury deposited correlated with the amount that got into the fish. The more mercury was deposited, the higher the mercury concentration in the fish.

These recently published studies confirm the information on mercury deposition and mercury in fish that we have seen in many other studies previously. They show that Indiana has high mercury deposition and that mercury deposition leads to mercury in fish. The next important piece of information is whether Indiana citizens are eating locally caught fish.

According to data collected by the Indiana Department of Natural Resources and the U.S. Fish and Wildlife Service, between 540,000 and 850,000 Indiana citizens fish locally. Purdue surveyed anglers in Indiana and found that more than 60% of them eat their catch on a regular basis. So there are several hundred thousand Indiana citizens who eat locally caught fish.

On the health side, I want to mention two recently published reports. The first looked at blood mercury levels at birth for 233 infants and compared that to development at one year of age. The researchers found that those with higher mercury levels at birth were at higher risk for developmental delay. The second study examined infant cognition and maternal fish consumption during pregnancy. Fish consumption raised cognition, but mercury lowered it, so the benefits of eating fish during pregnancy were undone if the fish contained mercury. These two reports confirm the findings in the other eleven reports from the medical literature that I have brought into these discussions - methylmercury can cause neurologic effects in children even in microgram quantities.

I am also going to briefly mention a report that appeared in the papers last week, stating that no association was found between mercury from vaccines and developmental delay in children. I am only bringing this up to point out that the article does not apply to our discussion. Mercury deposition accumulates in fish as methylmercury whereas the mercury that used to be used in vaccines is a chemically different form, ethyl mercury, and a number of studies have shown that ethyl mercury exits the body more quickly and has less effect on the brain than methylmercury.

Many voices have been raised in opposition to the federal mercury rule, calling for stronger mercury control. Opposition to CAMR is unanimous among environmental groups, as one might expect, but on this issue health and medical organizations have also joined the call for stronger mercury controls. At the national level, those calling for stronger controls include the American Medical Association, the American Academy of Pediatrics and the American Public Health Association. Here in Indiana the following have also called for a stronger rule: the Indiana Chapter of the American Academy of Pediatrics, the Indiana Public Health Association, the League of Women Voters, the Central Indiana Land Trust, the March of Dimes, and the Interfaith Alliance as well as most of the state's environmental groups.

Individuals have also weighed in. HEC collected approximately 15,000 signatures on its petition and over 6,000 HEC members wrote letters asking for stronger mercury control.

To conclude, these additional studies confirm previously available information showing that Indiana has higher mercury deposition than much of the rest of the country and that deposited mercury gets into fish rapidly. The data on fishing in Indiana show that hundreds of thousands of Indiana citizens eat locally caught fish. Indiana is therefore justified in adopting strong limits on mercury emissions in order to protect its own citizens. Moreover, significant and timely reductions would also mean that Indiana, which has the fourth highest mercury emissions in the U.S., was taking responsibility for its contribution to mercury deposition elsewhere. I am asking you to please amend the draft rule to make it stronger and more protective by moving the phase 2 deadline up and by reducing the final emissions cap.

Though the Hoosier Environmental Council originally proposed a more protective rule, we would certainly support the compromise from Improving Kids Environment over a CAMR based rule since the compromise would save thousands of pounds of mercury emissions.

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