# TESTIMONY OF LINDA E. GREER, Ph. D SENIOR SCIENTIST NATURAL RESOURCES DEFENSE COUNCIL

# ON BEHALF OF: NATURAL RESOURCES DEFENSE COUNCIL

# BEFORE THE COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

# AT HEARING ON MERCURY LEGISLATION

MAY 13, 2008

Good morning and thank you for this opportunity to testify on the harm caused by the export of elemental mercury from the United States and legislation to address mercury pollution from this source. I am Linda E. Greer, Ph.D., the Director of the Health Program at the Natural Resources Defense Council (NRDC). I have a Ph.D. in environmental toxicology and have worked at NRDC on environmental health issues for over 15 years. NRDC is a not-for-profit environmental advocacy organization with over 1 million members and activists whose mission is to safeguard the Earth: its people, its plants and animals and the natural systems on which all life depends.

NRDC's Health program focuses on toxic chemical pollutants in air, water, food, shelter and household products. Over the years, we have focused our attention particularly on the "biggest pollutants" in these media, the ones disproportionately responsible for the biggest threats to human health. This has led to successful efforts to substantially reduce diesel air emissions from trucks and buses, for example, and to take a number of dangerous and outdated pesticides off the market. There are more than 70,000 chemicals in commerce, but some are much more toxic than others, and we can make great progress in environmental health protection if we focus on the smaller number of chemicals that have the biggest impact.

Mercury pollution is a top priority for NRDC because it is one of the most serious, if not *the* most serious, toxic contaminant in the U.S. food supply. Even in low doses, mercury

exposure can permanently affect a child's neurological development, influencing attention span, fine-motor function, language, and visual-spatial abilities (such as drawing). In adults, chronic mercury poisoning can cause memory loss, tremors, vision loss, and numbness of the fingers and toes and can contribute to heart disease among other problems. Unfortunately, the U.S. population is widely exposed to mercury, primarily through consumption of contaminated fish. A recent study conducted by the NY City Department of Health, for example, found that fully 25 percent of sampled New Yorkers had levels of mercury in their blood deemed unsafe; the exposure was attributed primarily to consuming fish<sup>1</sup>.

In fact, according to the Food and Drug Administration (FDA), most commercial fish and shellfish in the U.S. contains some mercury, <sup>2</sup> with larger fish such as swordfish and tilefish containing the highest levels. Every state represented by members of this committee has issued fishing advisories for one or more of its lakes or streams, because of mercury contamination. In fact, fourteen of the nineteen states represented on this committee have restrictions banning the consumption of certain fish across *every water body in their entire state* because of mercury problems.

To help people avoid risks, both the Environmental Protection Agency (EPA) and FDA calculations show that not only pregnant women and nursing mothers, but all women of

<sup>&</sup>lt;sup>1</sup> McKelvey, W., Gwynn, C., Jeffery, N., Kass, D., Thorpe, L., Garg, R., Palmer, C. and P. Parsons. 2007. A biomonitoring study of lead, cadmium and mercury in the blood of New York City adults. *Environmental Health Perspectives*, Volume 115, Number 10, October. Available at: *http://ehp.niehs.nih.gov/members/2007/10056/10056.html-* 82.8KB

<sup>&</sup>lt;sup>2</sup> http://www.cfsan.fda.gov/~frf/sea-mehg.html

childbearing age should eat no more than 12 ounces of fish per week, which is only two cans of tuna fish or one fish dinner and a tuna fish sandwich per week, to avoid unsafe exposures to this toxic metal. Children should eat much less. This advice is based on an analysis undertaken by the National Academy of Sciences, which reported on this issue in 2000.

Of course, the solution to this problem of mercury pollution is not to stop eating fish, an otherwise healthy food. The solution is to eliminate mercury pollution. And this mission brings us to today's hearing, and the need for legislation to reduce the amount of mercury that is contaminating water in the United States and around the globe.

The time is ripe for action. The United States and most of the rest of the developed world is already well on its way to eliminating most intentional uses of mercury in industry. However, while policies to further reduce demand for mercury here in our country are important, they should not be the only way to address this issue. To the contrary, we need to also focus attention on the U.S. contribution to the global *supply*. In fact, the single most important step that the U.S. and other developed nations must do to reduce pollution from industrial uses of mercury is to collect and store the surplus mercury we are accumulating as we remove this toxic chemical from our products and industrial processes, rather than "recycle" it by selling it onto the global market. Permanent storage of the surplus we are accumulating will stem the tide of mercury flowing into the developing world, where demand for this toxic metal in industry remains robust and pollution from its use is widespread. Legislation to take this important first step on the global mercury pollution problem was introduced in the Senate and House in 2007. As introduced, both the House and Senate bills would ban the export of surplus mercury from the U.S. Such legislation provides an opportunity for our country to take leadership on reducing mercury in the food supply.

Since the House and Senate bills were introduced, the House bill was the subject of extensive review and negotiation among the most interested parties. The result was an amended bill, which I describe in greater detail below, endorsed by NRDC, the American Chemistry Council, the Chlorine Institute, the National Mining Association, and the Environmental Council of States (ECOS), which passed the House by voice vote last November. We urge this committee to take a close look at the consensus legislation that passed the House, and use the House-passed bill as the vehicle for Senate action.

#### Why should we care about U.S. exports of mercury?

Ask most people to identify the major sources of mercury pollution, and they will correctly point to coal-fired power plants. Mercury is a naturally-occurring ("unintentional") contaminant of coal released during combustion, and power plants comprise the largest remaining source of mercury pollution within the U.S., contributing a little less than 50 tons annually to the global total. However, there are other large and important sources of mercury pollution in the world that stem from the intentional use of mercury as a commodity metal in products and industrial processes. Specifically, 3000-3900 tons of mercury are consumed each year by various industries around the world -- in chemical manufacturing, mining, battery production, and more. And, because of the highly dispersive nature of most of these uses and the poor degree of environmental control where used, much of the mercury "consumed" in these sectors ultimately winds up as air and water pollution, where it becomes available to enter our food chain.

What's worse, mercury is a global pollutant; when released from a source in one country, it readily disperses around the world, often falling far from its source of release and entering distant food supplies. These characteristics have led to surprisingly and disturbingly high concentrations of mercury in places with no significant local mercury pollution sources at all. The Arctic region, in particular, is a global mercury hotspot, acting as a giant "sink" for the pollutant circulating in the Earth's atmosphere. People there are some of the most highly contaminated on Earth.

Scientists have estimated that up to a third of U.S. mercury air pollution has traveled to the U.S. from Asia, where mercury pollution is extensive.<sup>3 4</sup> And, much of the fish that we eat in the U.S., including tuna fish, is caught in the south Pacific, off the coast of China and other Asian countries, and is highly vulnerable to proximate sources of

<sup>&</sup>lt;sup>3</sup> C. Seigneur et al.2004. "Global Source Attribution for Mercury Deposition in the U.S.". Environmental Science and Technology 38: 555-569.

<sup>&</sup>lt;sup>4</sup> U.S. sources of mercury pollution such as from coal fired power plants remain quite important nonetheless, because so much of the mercury emitted from these sources deposits locally and regionally quite heavily.

contamination from immediately adjacent shores. Mercury exported around the world thus returns right back at us, in the tuna fish cans in our pantry and in the air that we breathe.

These facts underscore the need for a *global focus* on mercury to substantially reduce mercury contamination of the U.S. food supply. Unlike diesel pollution or pesticides applied to cracks and crevices in your home, many of the major sources of mercury contamination in our food come from quite a far distance from our shores.

In addition, export of mercury overseas undermines the efforts of state and local governments to collect mercury before disposal to keep it from contaminating the environment. An increasing number of states, alarmed by the ubiquitous high levels of mercury in their lakes and streams, have initiated collection efforts to retrieve mercury from products such as auto switches, thermometers, and thermostats at the end of their useful lives. This collection and separation from the waste stream is important to prevent mercury releases from the almost inevitable product breakage and/or releases from combustion that would occur during incineration or other disposal.

Currently, the mercury that is collected by state and local authorities is consolidated, processed and ultimately sent to companies which trade in mercury as a commodity metal, much like silver or zinc or copper. The problem is that recyclers often sell this mercury to buyers in the developing world, or to traders who resell it to the developing world, for use in highly polluting industries. Recycling mercury for re-use in such sectors is <u>not</u> a step in the right direction for environmental or public health protection.

Fortunately, as a technical matter, the solution is simple: it is quite easy to store mercury, which is not reactive explosive, or otherwise difficult to contain. Storage in flasks or stainless steel tanks in a warehouse will do the trick. Only a very small amount of space is needed for this storage. NRDC has calculated that the typical annual U.S. export of mercury could fit comfortably into one U-Haul rental truck.<sup>5</sup> And we are not talking about something with enormous value: in 2006 our exports (390 tons) were worth roughly \$ 7.6 million<sup>6</sup> -- a bit more than a quarter of the advertising campaign the tuna industry announced in 2005 to encourage people to eat more of its product.<sup>7</sup>

#### Global mercury use and trade

The last 40 years have witnessed a significant increase in mercury emissions from coal combustion around the world. This trend has been offset to some degree by a reduction in industrial uses of mercury worldwide, from more than 9000 tons per year in the 1960's to less than 4000 tons per year today. The overall decline in industrial mercury use has occurred largely because various developed countries including the U.S. have consciously decided to decrease mercury use, by eliminating it in products, such as

<sup>&</sup>lt;sup>5</sup> NRDC calculation is as follows: 390 tonnes of mercury at a density of 13.55 g/cubic centimeter requires 1016.3 cubic feet of storage space. A 24-foot long box U-Haul truck contains 1401 cubic feet.

<sup>&</sup>lt;sup>6</sup> Based on 390 tonnes exported in 2006, at a market value of about \$670 per flask (34.5 kg/flask). See http://minerals.usgs.gov/minerals/pubs/commodity/mercury/myb1-2006-mercu.pdf Table 1

<sup>&</sup>lt;sup>7</sup> San Diego Union Tribune, July 27, 2005. "As canned tuna sales dive, companies plan ad blitz to reel buyers in". by Terry Rogers.

batteries and paints, and by converting industrial processes, such as chlor-alkali plants, to mercury-free technology.

However, the reductions have stagnated in the past 10 years; we are hovering at continued consumption of about 3500 tons per year globally. What's worse, over the past decade, the location and type of demand has shifted to the developing world, into applications that are more highly polluting and dispersive. (Figure 1) As I will detail below, the industrial uses typical of the developing world, such as artisanal and small scale gold mining, pose large local risks to human health and contribute substantially to the total quantities of mercury pollution circulating the globe. Therefore, although we are holding steady in total global use, we are losing the war against mercury pollution, because the types of uses that are occurring are more dispersive than those used in the industrialized world.

Specifically, let us take a look at where U.S. mercury exports went in 2006, the latest year with comprehensive statistics available. U.S. Geological Survey (USGS) statistics show that about 40% of the mercury exported from our country that year went to just two countries: Vietnam (74 tons) and India (80 tons).<sup>8</sup>,<sup>9</sup> Because the mercury was very likely used in poorly regulated and highly dispersive applications, some of this mercury is returned to us in the fish we eat or the air we breathe. Thus, storing mercury, rather than

<sup>&</sup>lt;sup>8</sup> In 2006, thirty percent of our mercury went to the Netherlands, but did not stay there; the Netherlands has a booming business in global mercury trade, with large quantities exported to the developing world annually.

<sup>&</sup>lt;sup>9</sup> USGS Mineral Yearbook 2006. July 2007. Table 2. Found at

http://minerals.usgs.gov/minerals/pubs/commodity/mercury/myb1-2006-mercu.pdf

shipping it abroad for re-use and re-contamination of our waters and food supply is a critical cornerstone to any initiative to reduce global mercury pollution.

#### **Reduction of Mercury in Commerce**

Fortunately, economically viable alternatives to mercury are available for nearly every industrial use. The United Nations Environment Program (UNEP), which has considered mercury a global priority since 2001, recently reported that even under the "status quo," mercury demand in most of the major industrial uses in the world would decrease by 535 tons by 2015. If countries undertake feasible policies to discourage and discontinue mercury use, UNEP predicts demand reduction by 1115 tons by 2015.<sup>10</sup>

# Use in artisanal and small scale gold mining: a clarion call for the need to restrict supply

The positive trend in reduction in demand for mercury in key sectors is a very welcome development. However, in response, it is critical to reduce supply. Otherwise, we will flood the market with excess mercury, lowering prices, and beckoning new and wasteful uses of the toxic metal.

In particular, we are concerned about further promotion of one largely unregulated, extremely dangerous and rapidly growing use of mercury – artisanal and small scale gold

<sup>&</sup>lt;sup>10</sup> UNEP Chemicals. Summary of Supply, Trade and Demand Information on Mercury. November 2006.

mining (ASM). Roughly one-third of global mercury consumption occurs in this sector, a terrible practice for the world's poorest citizens, and a terrible practice for global health.

In ASM, miners with little or no economic capital separate trace quantities of gold from soil or sediment by mixing it with mercury. The mercury amalgamates with the gold, and the mixture of mercury and gold is then heated with a blow torch. The heat vaporizes the mercury, which escapes into the atmosphere, leaving a small trace of the gold for collection and sale.

With few exceptions, these miners do not conserve or capture any of the mercury used in their daily operations; the price of mercury is low enough relative to the value of the gold that its loss is economically inconsequential. Virtually one hundred percent of the mercury is lost to the environment.

An ASM resurgence began in the early 1980s, accelerated by the rising value of gold, and it is booming. The practice takes place all over the developing world, particularly in China and Indonesia, but also in many countries of South America and Africa. The United Nations Industrial Development Organization (UNIDO) estimates that there are between 10 to 15 million artisanal miners world wide in 55 countries, forty percent of whom are women, and 1 million who are children, involved in this practice.

With nearly 100 percent of the mercury used by these miners being dispersed into the environment, the health and environmental impacts of the practice are staggering.

Mercury concentrations at the mining sites are often exceedingly high, and many miners themselves exhibit severe mercury-poisoning symptoms such as tremors, vision loss, and the inability to reproduce simple geometric shapes. In addition, air and local waterways are heavily contaminated, greatly expanding the number of people whose health is affected by these practices.

Notwithstanding focused work by UNIDO and others to address this problem, the scale of the resources available to develop and promote the viable alternatives to mercury for gold mining and/or effective practices to recapture mercury during retorting has to date not been at all proportional to the scale of the global problem that mercury use and release in this sector represents. Experts in UNIDO have therefore recommended that countries of the world decrease the global supply of mercury, thereby increasing its price, so that miners have a natural reason to capture and reuse this toxic metal or to convert to non-mercury based production alternatives.

A recent report by the UNIDO Global Mercury Project, which finds that a 50% reduction in use of mercury in this sector is achievable by 2017 with existing alternative practices, highlights for emphasis to readers:

"The Global Mercury Project calls on nations around the world to achieve the [goal of reducing mercury use in ASM] by reducing mercury supply through export controls and other mechanisms that will encourage the transition to alternative technologies." <sup>11</sup>

<sup>&</sup>lt;sup>11</sup> UNIDO Global Mercury Project. Global Impacts of Mercury Supply and Demand in Small Scale Gold Mining. A Report to UNEP Governing Council. February 2007.

#### The Mercury Export Ban of 2007

In November 2007, the House of Representatives responded to the global mercury crisis by passing on a voice vote the Mercury Export Ban Act of 2007 (H.R.1534), which prohibits the export of elemental mercury from the U.S. by 2010. The bill also directs the Secretary of Energy to designate a long-term storage facility to manage the excess mercury supply that will no longer be exported. This provision -- which was not in the introduced version in the House or Senate -- provides users and generators of mercury with a safe, legal way to manage their mercury once the ban goes into effect. Equally important to all U.S. taxpayers, the House-passed bill requires DOE to collect a fee from users of the storage facility, so that the cost of storage is appropriately borne by the users and generators of mercury, rather than by the U.S. government.

The House-passed bill specifies that the mercury long-term storage facility will be subject to federal and state permitting requirements under the Solid Waste Disposal Act. This state permitting authority will provide the relevant state government a clear role in establishing the parameters of the permit and in overseeing compliance, and will enable the public to monitor the operation of the facility.

The bill also establishes an indemnification mechanism for mercury generators who pay the fee to DOE for long-term storage, and don't otherwise do anything which contributes to a release from the DOE facility. This mechanism was sought by some of the industries who currently sell their mercury for export, as a means of providing them with some certainty as to the cost of the export ban legislation to them, including the cost of storing the mercury. To achieve the compromise bill, NRDC agreed to the indemnification provision because first and foremost, commodity mercury storage is not technically challenging and has been accomplished by both DOD and DOE for many years without incident, thus the risk of release and triggering the indemnification provision is extremely small. Moreover, such indemnification provisions are often provided by commercial facilities in similar transactions. Finally, we note DOE is provided a great deal of discretion in assessing the storage fee, and we anticipate this fee will incorporate the costs associated with adequately preventing and responding to releases as needed, therefore users of the DOE facility will contributing their fair share of the facility's costs.

This storage solution represents a compromise negotiated among the major stakeholders with an interest in resolving the mercury issue, including NRDC, the American Chemistry Council, the Chlorine Institute, the National Mining Association and the Environmental Council of States (ECOS). Attached to this testimony is a letter signed by all of these groups, expressing support for the House-passed bill.

The House-passed bill also addresses several concerns raised about potential unintended consequences of an export ban. First, the bill requires DOE to study and report on any unanticipated impacts on mercury recycling associated with the export ban and with the long-term storage of excess mercury, including proposals to mitigate any negative impacts. The bill also contains a provision that authorizes exemptions from the ban in the

unlikely event mercury is required for "essential uses" in countries where the indigenous mercury supply is inadequate to meet these needs.

Finally, EPA is required to prepare a Report to Congress on the global supply and trade of elemental mercury at least three years after the ban, to evaluate the question of whether the mercury export ban has unexpectedly led to an increase in mercury mining elsewhere. As I discuss below, this is a very unlikely outcome, but the bill ensures that Congress will have adequate information on whether the mercury export ban is working as intended, to decrease the world supply of mercury.

#### Will there be unintended consequences of a U.S. mercury export ban?

Since the introduction of the Mercury Export Ban Act, questions have been raised whether a mercury export ban would be counter-productive, sparking an increase in mercury mining around the world, and/or decreasing mercury recycling domestically.

First, let me address the concern that a ban on U.S. exports will simply increase mining of mercury elsewhere. There is no evidence to support the allegation that a ban on mercury exports will lead new mercury mining. In fact, there is strong evidence to the contrary. Over the past seven years, for example, the price of mercury jumped from \$140 per flask (in 2000-2003) to a peak of \$800 per flask (in 2005) before falling back to

roughly \$550-600 per ton at present.<sup>12</sup> No new mines exporting mercury opened during this period, and in fact several closed as discussed below.

There are at least two reasons why new mining is not likely to be sparked in the coming years either. First, most countries do not have viable mercury deposits; mercury occurs in economically recoverable deposits in only in a handful of countries around the globe. In each of these countries, there is limited remaining capacity to significantly expand output. Specifically, mercury mining for export in recent years has been dominated by only three nations with remaining rich mercury deposits: Spain, Algeria, and Kyrgyzstan. Only the mine in Kyrgyzstan remains in operation. (China mines considerable amounts of mercury but uses it only for its own robust home market.)

- The world's biggest mercury mine, in Almadén, Spain, stopped all mining and processing of primary mercury ores in 2003, and is not expected to restart. In fact, Spain has shuttered this mine as part of the EU's overall initiative to reduce global mercury supplies, which also includes an export ban similar to the Mercury Export Ban Act.
- Algeria's mine has suffered for years with poor operating conditions and closed at the end of 2004, in light of continuing technical problems, notwithstanding increased mercury prices that year.
- The last major mercury mine still in operation primarily for export is the Khaidarkan mining complex in Kyrgyzstan, which has not produced more than 500 tons of mercury per year since 2002. According to the World Bank, the

<sup>&</sup>lt;sup>12</sup> Personal Communication with Peter Maxson, Concorde East/Wast Sprl, May 8, 2008. Mr. Maxson is a leading expert in the mercury trade and is responsible for analysis used both by the European Union and UNEP in their mercury deliberations. A flask = 34.5 kg of mercury.

quality of the deposit is low at this mine, and there are technical problems with the operation of the mine; as a result, the mine has historically required state subsidies to operate. Furthermore, the government of Kyrgyzstan has already recognized the desirability of phasing out mercury mining, and the Swiss government has recently funded the United Nations to conduct a feasibility study for closing the mine, in collaboration with the Kyrgyz government.

Other than Kyrgyzstan, China is the remaining virgin mercury mining location, where more than 1,000 tons per year have recently been produced. Significantly, however, China uses all of this mercury for its own internal market and therefore is not relevant to the supply-and-demand equation for the rest of the world. China has not historically exported much if any mercury into global commerce, and it is not expected to start now. To the contrary, China's largest mine was exhausted several years ago and closed. With its remaining deposits, China is mining mercury largely to service its chemical industry there, which uses a unique process to manufacture vinyl chloride for PVC with a mercury catalyst and for a few other smaller volume needs such as for manufacture of measuring equipment<sup>13</sup>, batteries, and other products. It is thus very unlikely that China will begin to export any of its virgin mined mercury to supplement global supplies.

A second reason that the export ban will not lead to new mining is described in detail in my testimony above: mercury demand for most legal uses is on its way down in the world. The EU and other developed countries have a range of national initiatives

<sup>&</sup>lt;sup>13</sup> Executive Finding of Mercury Investigation in Guizhou, Global Village of Beijing, Beijing, People's Republic of China, 2006, found at

<sup>:</sup>http://www.zeromercury.org/projects/Executive\_Summary\_of\_Guizhou\_Mercury\_Investigation.pdf

proposed or in place to help curb mercury demand, including most notably a voluntary commitment from the chlor-alkali sector there to convert its plants to non-mercury production throughout Europe by 2020 at the latest. In the U.S., a combination of federal legislation, state legislation and industry initiatives will lead to reductions over time in use of mercury in products. India will be phasing out its mercury cell chlor-alkali plants by 2012. In light of these and other efforts, UNEP has predicted that the global demand for mercury will decline, even under a "status quo" scenario where governments take no additional steps to encourage the decline. This trend will clearly work against significant new investment in mining for a shrinking commodity sector. Indeed, international efforts to reduce mercury demand have already led Kyrgyzstan to examine alternative economic growth opportunities for its mercury mine area, as discussed above.

Finally, the UNEP Governing Council has established phasing out primary mining as a priority in order to control the global mercury pollution problem. If there is any uncertainty remaining about the potential for an expansion of primary mercury mining, the United States and other stakeholders truly interested in curbing mercury mining should work towards a binding international agreement to ban additional primary mining.

Questions have also been raised about whether the mercury export ban will discourage recycling. We believe this concern is unfounded for three reasons. First, the voluntary and mercury recycling programs run by state and local governments are driven by the desire to protect local communities from unnecessary mercury pollution that could result from mercury in local landfills and waste incinerators; the programs are not driven by the

monetary value of the recovered mercury. The amount of mercury collected from these programs is relatively small – enough to make a difference to the quality of the local environment, but, at \$20-25 per kilogram on the commodity market, not enough to generate significant revenue.

Second, the cost of storing the mercury, when spread out over thousands of discarded mercury products will be extremely small. Both EPA and CBO have analyzed this issue, and the "high-end" storage fee estimated by CBO is \$3.00 per pound of mercury. The added cost to store the mercury removed and collected from various switches, measuring devices, lamps, etc. is a fraction of a penny for each item even at the "high-range" estimate.

Third, if there is a disincentive to recycling at the present time, it is the knowledge that the recycled mercury now can find its way to the developing world where it will be released to the environment anyway. As described at length in this testimony, our responsibility does not end by simply recycling the mercury to prevents its release here. Our responsibility is to prevent its release globally.

# Mercury pollution is a global problem that requires a global solution

In 2001, the UNEP Governing Council, a group of 58 countries empowered to make environmental decisions related to an international agenda, initiated a comprehensive global assessment of mercury. Two years later, the Governing Council concluded that mercury had "caused a variety of documented, significant adverse impacts on human health and the environment throughout the world, and that further international action was required." Subsequently, UNEP has undertaken workshops and focused on capacity building in developing countries and formed voluntary partnerships to address mercury consumption in key industrial sectors where opportunities presented themselves. Most recently, and most importantly for our hearing today, at the February 2007 UNEP Governing Council meeting, governments including the United States unanimously agreed on the need to reduce supply and demand for mercury in commerce to address the mercury pollution problem.<sup>14</sup>

Concurrently during the past several years, the European Union has taken stock of the problem of mercury contamination in the food supply and developed its own aggressive mercury reduction strategy that reduces both supply and demand within the EU. Most notably, the EU is close to finalizing its own ban on the export of its surplus mercury by 2011, with legislation roughly parallel to what is being discussed here today. The EU has substantially completed its legislative work on this ban. To further reduce supply, they have shut down the world's largest virgin mercury mine, in Almadén, Spain. Meanwhile, to reduce demand, the EU has procured commitments from the chlor-alkali sector to phase out of mercury-based production, and has prohibited the use of mercury in other key products.

It is time for the U.S. to do its part. U.S. mercury demand within our own country is already declining. Thus, although the U.S. would benefit from additional regulations and

<sup>&</sup>lt;sup>14</sup> UNEP Decision 24/3: Chemicals Management. Section IV item 19a and 19b.

policies to decrease our mercury consumption to zero, the benefit pales in comparison to the benefits of curtailing our contribution to global supply. The Mercury Export Ban Act will keep our mercury out of harm's way in the developing world and thereby keep it from coming right back at us from off the coasts of the developing world.

Thank you for the opportunity to testify today.



Figure 1: Commodity Mercury Shipments among World Regions, 2006.

Source: UNEP Chemicals. Summary of Supply, Trade and Demand Information on Mercury. November 2006.

#### Attachment 1. Letter of Support for HR 1534



Re: <u>HR 1534</u>

Dear Representative:

HR 1534, the "Mercury Export Ban Act of 2007", which bans the export of surplus elemental mercury into global commerce, was reported out of the House Energy & Commerce Committee on October 30, 2007, by an overwhelmingly bi-partisan vote of 45-2. The undersigned organizations support this negotiated version of HR 1534 and urge its passage under Suspension of the Rules.

Collectively, our organizations negotiated in good faith to produce the bill as reported, which addresses our individual concerns, advances our shared objective of reducing global mercury pollution, and reflects good public policy.

Specifically, the Committee-reported version of HR 1534 establishes a practical and workable domestic framework for sequestering the elemental mercury prohibited from export under the legislation. To develop this framework, our organizations worked diligently and collectively to reach consensus, each of us agreeing not to raise related mercury matters which may have prevented a successful outcome. Therefore we hope the full House of Representatives will acknowledge the compromises made and approve HR 1534 without further changes.

In closing, the undersigned organizations urge your "YES" vote on HR 1534 in the coming days.

Sincerely,

Frances G. Beinecke, President Natural Resources Defense Council

Jack N. Gerard, President & CEO American Chemistry Council

Kraig R. Naasz, President & CEO National Mining Association R. Steven Brown, Executive Director Environmental Council of States

Arthur E. Dungan, President The Chlorine Institute, Inc.