

**Testimony of Meghan Purvis**, Environmental Health Associate  
on behalf of the  
U.S. Public Interest Research Group (U.S. PIRG)

House Resources Committee  
Subcommittee on Energy and Mineral Resources  
Oversight Hearing on  
"The Toxic Release Inventory and Its Impact on Federal Minerals and Energy"

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Thank you for the opportunity to testify today on the Toxic Release Inventory program and the mining industry. My name is Meghan Purvis, and I am an Environmental Health Associate for U.S. Public Interest Research Group. U.S. PIRG is the federal advocacy office for the State PIRGs. State PIRGs are nonpartisan, nonprofit, state-based public interest advocacy groups with a strong stake and history in advocating for public Right-to-Know issues.

We support the subcommittee's attention to expose the mining industry's continued efforts to claim exemption from the TRI program. Their schemes would keep the public in the dark about the billions of pounds of pollution the mining industry is responsible for every year. Despite the fact that in the year 2000, mining companies released 3.4 billion pounds of toxic chemicals into the environment, or nearly half of all the releases reported to the TRI program, the companies and industry organizations have time and again fought to claim exemption from one of the nation's most successful public information programs.

**BACKGROUND OF TRI**

Congress established the Toxics Release Inventory program in 1986 as a part of the Emergency Planning and Community Right-to-Know Act (EPCRA). The TRI requires industries to disclose releases of toxic compounds into the air, water, and land, as well as provide the public with information about toxic chemicals in their community on an annual basis. According to the Conference Report from the passage of EPCRA, Congress intended to "provide the public with important information on hazardous chemicals in their communities."<sup>1</sup> Clearly, the purpose of the TRI program is to allow citizens access to information about the toxic chemicals being released into their environments that could potentially have a devastating effect on their public health.

The mining industry was added late to the TRI program, and has been required to report their releases since 1998. Since then, however, the mining industry has quickly established themselves as the nation's biggest source of reportable toxic releases, releasing 2.8 billion pounds of toxic chemicals in 2001. The mining industry was one of the top industrial polluters of lead, mercury, and arsenic in 2001. In addition, according to the TRI program, the top ten worst polluting facilities for all releases were all from the mining industry.

**STRONG PUBLIC SUPPORT FOR TRI**

Since the inception of the TRI program, the public has expressed overwhelming support both for the program itself as well as the general principle of community right-to-know. From the Christ the Servant Lutheran Church in Nevada, to the Gray Panthers of Wisconsin, to the SEIU Local 100 in Louisiana, a wide range of constituencies have recognized the importance behind the public's right to know about toxic chemicals released into their air, water, and land. In fact, when legislation was introduced in Congress in 1997 to greatly expand the right-to-know program to include consumer products, chemicals in the workplace, and the impact of toxics on children, more than 700 groups in total spoke out about the importance of right-to-know and expressed their support of the TRI program.

In addition, the public readily believes in their right to know about toxic releases in their communities. In public opinion research conducted by the Pew Charitable Trusts, respondents

articulated they felt strongly about their right to pollution information. One man from Carson City, Nevada reported: "I think that I would just like to be informed about things that could be potential problems, so that at least I would have the knowledge to make a decision to do something about it or not...I would just like to have information about what the government is doing, just so I can make my own decision."<sup>ii</sup>

### **HIGH SUCCESS OF THE TRI PROGRAM**

The TRI program is often considered one of the most successful programs at the Environmental Protection Agency. This is a model piece of legislation for states and cities that wish to expand their citizen's right-to-know about toxic chemical releases. The TRI program has been credited with initiating a voluntary decrease in toxic releases reported to the program, may have subsequently protected public health, and has been praised by public interest advocacy groups and industry leaders alike.

### *PROTECTING PUBLIC HEALTH*

The dramatic drop in releases reported to TRI should have a positive impact on the health of the American public. More science is emerging every day linking the growing rates of chronic disease in this country with environmental exposures to toxic chemicals. A groundbreaking 2000 study, for example, published in the *New England Journal of Medicine*, found that the environment played "the principal role in causing sporadic cancer." This same study attributed 25% of the causation of breast cancer to the environment. In addition, the National Academy of Sciences found that toxic exposures cause at least 3% of all developmental disorders and learning disabilities facing our nation's children, and may play a role in an additional 25%.

According to a U.S. PIRG Education Fund study of TRI data released, releases to air and water by the original TRI industries (not including the mining industry) of carcinogenic chemicals listed over that entire period declined by 41 percent between 1995 and 2000. Developmental toxicant releases were down by 47 percent, reproductive toxicant releases by 49 percent, releases of suspected neurological toxicants by 31 percent and releases of suspected respiratory toxicants by 23 percent.<sup>iii</sup>

Unfortunately, once the mining industry began reporting the public heard of the large amounts of harmful chemicals it has been releasing into the environment that have been linked to cancer, developmental and reproductive problems, and neurological problems. Three of the primary toxic chemicals released by the mining industry, according to their reports to TRI, are arsenic, mercury, and lead. These chemicals are highly toxic, with well-proven ties to harming human health. We hope that the mining industry could follow the lead of other industries that report to TRI and eventually find ways to reduce the amount of its releases.

In 2001, the mining industry released 335 million pounds of arsenic, a readily recognized poison, known human carcinogen, and developmental toxicant, into the environment. Some arsenic compounds readily dissolve in water, and easily contaminate rivers and lakes. The Agency for Toxic Substances Disease Registry warns that soil around mining sites contains elevated levels of arsenic, and that people that live near elevated soil levels may be exposed to arsenic through their drinking water.<sup>iv</sup>

Arsenic can cause a range of illnesses and even death if exposure is in a high dosage. In lower continuous exposures, as is often the case with releases over time due to hard rock mining, arsenic can damage the circulatory and peripheral nervous systems. The Department of Health and Human Services, EPA, and National Toxicology Program have all found that arsenic is a known human carcinogen. Arsenic has been linked to cancer of the skin, bladder, and lungs, and may be linked to cancers of the liver, kidney, and colon. Workers that are exposed to arsenic in mines have an elevated risk of developing lung cancer, as do people who live near waste sites that contain arsenic. Arsenic can also cross the placenta of a pregnant woman, causing exposure and harm to the fetus.

Also in 2001, 4 million pounds of mercury were released by the mining industry. Mercury is a potent neurological toxicant, and if present in the blood of a pregnant mother, can harm the development of a fetus. Mercury from mines can contaminate groundwater, making its way into fish, where it accumulates in the fat tissue. The primary route of human exposure to mercury is through eating contaminated fish. According to a report by U.S. PIRG and Environmental Working Group, if an American woman ate 12 ounces of fish a week, recommended by the Food and Drug Administration, they would expose nearly one-fourth of all babies born each year to potentially harmful levels of mercury.<sup>v</sup> In addition, one out of every twelve women of childbearing age in the United States already has mercury blood levels high enough to trigger an increased risk of neurological damage to any children they may have.<sup>vi</sup>

The dangers of another neurotoxicant, lead, have been known for centuries, and the metal mining industry is a leader in lead releases. The mining industry released 335 million pounds of lead in 2001. Exposure to lead has been linked to reduced IQ and cognitive development in children, as well as behavior alterations, even at extremely low levels. Children are both more vulnerable to lead exposure as well as more sensitive to the effects of lead than adults.<sup>vii</sup>

Lead has been found at elevated levels in the blood of humans through the tool of biomonitoring. The *Second National Report on Human Exposure to Environmental Chemicals*, released by the Centers for Disease Control and Prevention in January of 2003, reported that 2.2% of children ages 1-5 had blood lead levels that exceed the CDC recommendations. These blood levels are associated with an increased risk for neurocognitive disorders. Blood lead levels of 1-5 year olds were the highest of any other age group in the U.S. population, although among adults, blood lead levels do increase with age.<sup>viii</sup> Most of the lead in the human body accumulates in bone tissue, where it can remain for several decades after exposure.<sup>ix</sup>

Some communities are all too familiar with the negative health consequences of the mining industry. Libby, Montana, is a community plagued with negative health effects due to vermiculite mining activities near their town. The vermiculite deposits in Libby contained asbestos, which was released during the vermiculite mining process. Inhalation of asbestos fibers has been linked to the development of a variety of lung diseases, including asbestosis, mesothelioma, and cancer.<sup>x</sup> In fact, community activists report that an overwhelming number of people that live in the town suffer from lung abnormalities, and called for a government health study.<sup>xi</sup> ATSDR conducted a mortality study of the community from 1979 to 1998, and found the residents had an increased mortality rate resulting from asbestosis of approximately 40 to 60 times higher than expected.<sup>xii</sup> Clearly the community of Libby, Montana knows firsthand the devastating impacts of the mining industry on human health.

By continuing to include all of the releases the mining industry is responsible for in the TRI program, the public will continue to be better informed as to how to protect their own health.

#### *TOXICS USE REDUCTION*

Since the establishment of the program in 1986, toxic emissions continuously reported since that time has dropped by nearly 50%. There are many reasons that could explain this reduction in toxics released to the environment, including the fact that between 1995 and 1998, for example, the number of companies reporting releases to TRI declined by nearly 6 percent.<sup>xiii</sup> An even greater impact, illustrated by numerous examples, is the fact that companies and industries have bowed to public pressure and begun to actually reduce their releases. For this reason, the mining industry cannot be let off the hook and evade its public responsibility to let the communities know what it is releasing into our environment.

Many corporations and facilities have responded positively to their inclusion in the TRI program. AK Steel Company's Butler Works plant is a perfect example of the power of public information. In 1999, PennPIRG released a report that highlighted the high levels of nitrate compounds in the Connoquenessing Creek in Pennsylvania, by using data made available by TRI.<sup>xiv</sup> In 2000, the Butler plant was reportedly the worst water polluter in the country. As a result of its appearance

at the top of the charts in the TRI data, and public pressure, however, AK Steel changed its processes to restrict the use of nitric acid, and reduced its nitrate discharges by 72.9 percent. Within one year, the facility dropped from first to third on the list of the nation's largest water polluters.<sup>xv</sup> Even more remarkable is the fact that this change by a single actor caused releases in water in Pennsylvania to drop by over 58 percent from 2000 to 2001. In the case of AK Steel, the TRI provided the incentive to clean up, greatly reducing the amount of toxic chemicals released in Pennsylvania, and protecting public health.

#### *INDUSTRY SUPPORT AND PRAISE*

Time and again, leaders in other industries that are required to report their emissions to TRI have publicly spoken out in support of the TRI program. The chemical industry in particular has praised the success and intention of the program. In 1990, Tom Ward, a representative of Monsanto Corporation, was quoted in Iowa recognizing that "the law is having an incredible effect on industries to reduce emissions, and that's good. There's not a chief executive officer around who wants to be the biggest polluter in Iowa."<sup>xvi</sup>

Other executives have recognized the positive impact the TRI program has had for their businesses. Ciba Geigy's Corporate Environmental Report released in 1993 reported that: "The initial demand for environmental reporting came from the public. But in responding, we have discovered that the information is extremely useful to our own management. We have learned about our successes, our inadequacies and the gaps in our knowledge. It's a good example of the way in which external pressures ultimately prove to benefit both the environment and to industry."<sup>xvii</sup> Randy Hinton, of Vinings Industries in Marietta, Georgia, even admitted in 1991 "in the long run it [the TRI program] has saved us money."<sup>xviii</sup>

In addition, many companies use their progress in toxics use reduction documented in the TRI program as a public relations tool. Many companies now include an environmental report on their websites, as they recognize the positive image and public popularity a good environmental record brings them. Boeing Company includes TRI data on its website, reporting how overall releases have been declining. Boeing then makes a pledge to "invest and innovate in pollution prevention programs," and lead the progress of all industry in the reduction of pollution.<sup>xix</sup> Whether this statement is true, or not, is not the point. Rather, many corporations recognize and highlight the success of the TRI program and their part in it.

It is rather surprising, then, that the mining industry has taken the opposite reaction to their inclusion in the program of other polluting industries. Instead of working to reduce their emissions and recognizing the benefits the program could have to their businesses, specific companies and industry representatives have challenged the basis of the program itself, through lawsuits and other public records. In 1998, the National Mining Association challenged the TRI program in a lawsuit against EPA, and in 1999 Barrick Goldstrike Mines, Inc. sued Administrator Whitman in an attempt to limit the amount of toxic release information the public can access.

Instead of claiming the program provides a burden to the industry, mining companies should be looking for ways the program provides benefits to their industry. Mining companies should stop fighting these popular right-to-know initiatives, and instead recognize the public approval they could win by complying with the law.

#### **THE TRI PROGRAM AS A COMMUNITY TOOL**

Communities across the country have been able to use the information provided through the TRI program to protect their own health from toxic pollution. In 1994, the Working Group on Community Right-to-Know published a list of nearly 200 published reports using TRI data, most released by community groups.<sup>xx</sup>

In Louisiana, community members have used TRI data to highlight potential health risks in two regions of the state: the Mississippi River corridor, known as "cancer alley," and the Lake Charles region. A collection of small community organizations in these two regions have been able to

employ the data to confront industries and companies responsible for the health-threatening pollution. In 2000, some of these community groups released a report entitled *Breathing Poison: The Toxic Costs of Industries in Calcasieu Parish, Louisiana*. Without access to this information, these community organizations would be unable to study potential causes of health problems in their communities.<sup>xxi</sup>

In Massachusetts, Massachusetts Public Interest Research Group (MASSPIRG) used the TRI program to launch a public accountability campaign in 1990 against Raytheon Corporation. TRI data reported that Raytheon was responsible for releasing the largest amounts of CFCs and methyl chloroform in Massachusetts. Later, Raytheon promised MASSPIRG it would switch the chemicals it used to those options less harmful to the environment and to public health.

### **PAINTING A BETTER PICTURE: THE LEAD RULE**

In January 2001, the EPA lowered reporting thresholds for lead and lead compounds. In response to the potential dangers lead poses as a substance to the environment and human health, the EPA lowered the reporting threshold from using 25,000 pounds to releases 100 pounds. In 2001, 443 million pounds of lead were reported released by every industry (the mining industry released 335 million pounds, or 76 percent of all lead releases), up from 374 million pounds in 2000. Lowering the lead rule triggered more facilities to report their lead releases, informing more people of the issue of lead released in their community.

Many industry groups, however, have complained about the “burden” of the lead rule, and claim it puts too much of a strain on their companies to comply with the lowered reporting threshold. The EPA and the NMA are currently involved in a rulemaking dialogue about the burden of various changes in reporting requirements, with the NMA claiming the burden reduction proposed by the EPA is actually an “increase in burden.”<sup>xxii</sup> It is often difficult for public interest groups to quantify in dollars the benefit the public gains from something as abstract as the direct impact as the lead rule. It may be pertinent to point out, however, that while NMA claims the ICR renewal is underestimated, and will cost industry more than the \$7.56 million the EPA has estimated it will cost, health care costs for many of chronic diseases linked to chemicals reported in the TRI program are soaring. The Center for Disease Control and Prevention reports that health care for chronic diseases costs the nation \$750 billion annually.<sup>xxiii</sup>

### **CONCERN OVER THE MINING INDUSTRY**

It is with great concern that we watch individual mining companies and the mining industry overall challenge the public’s right to information about the environment that could have major impacts on their health.

The mining industry has a long history of attempting to reduce this overwhelmingly popular Right-to-Know program, and has repeatedly sued EPA over their inclusion in the program. Specifically, and perhaps most alarmingly, the National Mining Association has submitted comments on the Information Collection Request renewals challenging EPCRA’s definition of what constitutes a release of toxic chemicals. NMA, despite vast scientific proof of its impact on public health, wants to exclude land releases from EPA’s proposed definition of uncontained releases.<sup>xxiv</sup>

Mining officials will constantly tell you, they merely “move rock,” and do not change any of the naturally occurring toxins in that rock. This simple “movement,” however, initiates a release into the environment of toxic chemicals that would have never been exposed to our waterways or the air if it had not been for the process of mining. The disposal of waste rock and subsequent release of toxic chemicals can be compared to the everyday example of making coffee. If whole coffee beans are used, the coffee in the pot is very weak. If these same beans are ground up in a grinder, however, and the grounds are used in the same process, the resulting coffee is much stronger. Unfortunately, however, the mining industry does not leak coffee from its ground-up waste rock. Instead toxic chemicals like arsenic, lead, mercury, iron, copper, aluminum, and cadmium are all exposed during the grinding process and subsequently become bioavailable.

These chemicals have been linked with serious health effects, and the public should always know about their releases.

### **SUGGESTIONS FOR RULEMAKING**

As the EPA launches into a proposed rulemaking surrounding the mining industry and its continued challenges to TRI, it is critical to continue to hold to the goal of the TRI program: to “empower citizens, through information, to hold companies and local governments accountable in terms of how toxic chemicals are managed.”<sup>xxv</sup> The issues at stake should not be focused on the complaints of the “burden” of the reporting program by the worst industry included in the program; the issues are about the public’s right-to-know what is released in their communities and the burden that mining pollution imposes on.

Specifically, two key points must be addressed by the EPA rulemaking later this year: first, the EPA must clarify that the ‘de minimis’ exemption does not apply to chemicals that add up to large quantities, as is the case with the chemicals the mining industry releases. Hundreds of millions of pounds of some of the most toxic chemicals known to science is hardly a trivial matter, and the mining industry must report every pound of these immense amounts.

Second, every section of the process of mining must be included in the activity that is covered under EPCRA. As previously stated, disposing of waste rock causes the release of toxic chemicals not previously available to escape into the environment, and into our communities. Every action the mining industry takes in its mining process disturbs the environment, and potentially causes harm to those living around it. Because of this, the communities that surround mines have an explicit right to know about every chemical the mining industry is responsible for causing the release of, and the TRI program applies to every action the mining industry takes.

### **CONCLUSION**

In conclusion, the issue we are here to discuss today is really not complicated. Even though many witnesses will argue about procedural details, and complain about burdens to industry, it is important to hold forthright the main purpose of the TRI program. The program, and this hearing, should be about the public’s right-to-know about the toxic chemicals released by the worst polluting industry in the country.

The mining industry has led the country’s polluters in releases reported to TRI for four years in a row. Clearly, this is not an accomplishment the industry is proud of. The mining industry, however, should look for ways to protect public health and reduce its releases, instead of spend endless energy and resources in fighting the TRI program.

In addition, the TRI program must continue to inform the public about toxic releases in communities across the country. EPA has worked to expand the program to give the public, citizen groups, environmental organizations, industry, the press, regulators, the government, and international bodies pertinent information about their communities. EPA and Congress must work to continue to protect the public, and expand the TRI program at every level.

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<sup>i</sup> H.R. Conf. Rep. No. 962, 99<sup>th</sup> Cong., 2dSESS. (1986), “Joint explanatory statement of the Committee of Conference.”

<sup>ii</sup> “Public Opinion Research on Public Health, Environmental Health, and the Country’s Public Health Capacity to Adequately Address Environmental Health Problems,” conducted for the Pew Charitable Trusts by the Mellman Group, Inc. and Public Opinion Strategies, Inc, May, 1999.

<sup>iii</sup> “Toxic Releases and Health,” US PIRG Education Fund, January 2003.

<sup>iv</sup> Agency for Toxic Substances and Disease Registry, “Public Health Statement for Arsenic,” September 2000.

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- <sup>v</sup> U.S. PIRG and Environmental Working Group, “Brain Food: What Women Should Know About Mercury Contamination in Fish,” April, 2001.
- <sup>vi</sup> Centers for Disease Control, “Second National Report on Human Exposure to Environmental Chemicals,” January 2003.
- <sup>vii</sup> ATSDR, “Public Health Statement for Lead,” August 1997.
- <sup>viii</sup> Centers for Disease Control and Prevention, “Second National Report on Human Exposure to Environmental Chemicals,” January 2003.
- <sup>ix</sup> ATSDR, “Public Health Statement for Lead,” August 1997.
- <sup>x</sup> ATSDR, “Vermiculite Overview,” available at [http://www.atsdr.cdc.gov/asbestos/vermiculite\\_overview.html](http://www.atsdr.cdc.gov/asbestos/vermiculite_overview.html).
- <sup>xi</sup> Benefield, Gayla, Lincoln County Asbestos Victim’s Relief Organization. Reply to questionnaire solicited by Meghan Purvis, 4 November 2002.
- <sup>xii</sup> ATSDR, “Health Consultation: Mortality from Asbestosis in Libby, Montana, 1979-1988,” available at [http://www.atsdr.cdc.gov/HAC/PHA/libby/lib\\_p1.html](http://www.atsdr.cdc.gov/HAC/PHA/libby/lib_p1.html).
- <sup>xiii</sup> EPA, *Summary of 1998 Toxics Release Inventory Data*, downloaded from [www.epa.gov/tridata/tri98/data/1998datasumm.pdf](http://www.epa.gov/tridata/tri98/data/1998datasumm.pdf), 15 October 2002.
- <sup>xiv</sup> “Protecting Pennsylvania’s Waterways,” Pennsylvania Public Interest Research Group, 1999.
- <sup>xv</sup> Roebuck, Karen, “AK Steel cleans up pollution record,” *Pittsburgh Tribune-Review*, July 14, 2003.
- <sup>xvi</sup> Ward, Tom, Monsanto Corporation; *Quad City Times* (Iowa), June 8, 1990.
- <sup>xvii</sup> Ciba Geigy, *Corporate Environmental Report*, 1993.
- <sup>xviii</sup> Hinton, Randy, Vinings Industries; *The Atlanta Constitution*, August 22, 1991.
- <sup>xix</sup> Boeing Company, “People Reaching Solutions: Measures and Results: Boeing Company Facts...” available at [http://www.boeing.com/aboutus/environment/eval\\_results.htm](http://www.boeing.com/aboutus/environment/eval_results.htm).
- <sup>xx</sup> Working Group on Community Right-to-Know, “Reports Using Toxic Release Inventory Data,” July 1, 1994.
- <sup>xxi</sup> TRI Program Division, EPA, “How Are the Toxics Release Inventory Data Used?” May, 2003, 8.
- <sup>xxii</sup> NMA Written Comments RE: Docket ID No. OEI-2003-0025, September 2, 2003.
- <sup>xxiii</sup> Center for Disease Control and Prevention, “Chronic Disease Overview,” August 30, 2002, <http://www.cdc.gov/nccdphp/overview.htm>.
- <sup>xxiv</sup> NMA Written Comments RE: Docket ID No. OEI-2003-0025, September 2, 2003.
- <sup>xxv</sup> EPA, “What is the Toxic Release Inventory Program?” available at <http://www.epa.gov/tri/whatis.htm>, June, 2002.