Written Statement of

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Submitted for the Record

Subcommittee on Energy and Minerals
Committee on Natural Resources
U.S. House of Representatives

On

Toxics Release Inventory Rule: Costs, Compliance, and Science

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I am pleased to submit this written statement to assist the Subcommittee on Energy and Minerals' oversight of the U.S. Environmental Protection Agency (EPA) and my office commends your attention to the plight of small employers concerning regulatory burden. My name is Thomas M. Sullivan and I am the Chief Counsel for Advocacy at the U.S. Small Business Administration (SBA). The Office of Advocacy is an independent office charged with representing the interests of small business before state and federal lawmakers. As Chief Counsel for Advocacy, I am charged with monitoring federal agencies' compliance with the Regulatory Flexibility Act (RFA), as amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA). As such, the views expressed in this written statement are my own and do not necessarily reflect the views of the Administration or the SBA.

The Office of Advocacy has worked with the EPA in the development of toxics release inventory (TRI) rules since the first rule was issued in 1988. In the past sixteen years, my office has developed substantial expertise in the TRI and other right-to-know programs, and has identified several opportunities for reducing paperwork burdens while preserving the right-to-know.

A. Introduction.

The right-to-know provisions set forth by the Emergency Planning and Community Right-to-Know Act (EPCRA) are a cornerstone of modern day environmental protection. EPCRA requires facilities to provide information on toxic chemical releases, waste management activities, and chemical inventories. Under the right circumstances, the information acquired through community right-to-know requirements can lead to environmental improvements without the need to resort to the traditional prescriptive regulatory approach.

The Office of Advocacy believes that the right-to-know objectives can be achieved in a manner that is small-business friendly. Let me provide two examples where Advocacy

worked with EPA to improve its right-to-know regulations, at no cost to environmental protection:

> 1) In 1994, EPA adopted "Form A," the short form for TRI reporting that provides significant burden reduction. Adopted as a less burdensome alternative to the "Form R," Form A saves small businesses millions of dollars annually.
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> 2) In 1999, EPA eliminated the TRI requirement for reporting gasoline at hundreds of thousands of gasoline stations under sections 311 and 312 of EPCRA. Gas station owners convinced EPA, with Advocacy's help, that local authorities know they have gas onsite without the requirement of paperwork to document the obvious.

While we have had successes on TRI burden reduction, EPA included chemical and petroleum wholesalers under the TRI reporting requirements in 1997 despite Advocacy's opposition on the grounds that their releases to the environment were insignificant. Subsequent data releases have confirmed that releases for the chemical and petroleum industry were inconsequential. In 2001, they accounted for 8.5% of all TRI reports filed but only 0.4% of all toxic releases to the environment.

More recently, in Advocacy's September 2, 2003 comment letter to EPA Assistant Administrator for Environmental Information Kimberly Nelson (attached), Advocacy made recommendations to expand the availability of the Form A and other short form reporting.[1] Currently, the Form A is available to a narrow portion of the total TRI reports. By a small revision in the eligibility requirements for the short form, EPA could make relief available for thousands of currently ineligible facilities and tens of thousands of reports.

Since 1998, EPA has been working with the Office of Management and Budget (OMB) and Advocacy to address burden reduction for TRI reporters. EPA has yet to propose significant revisions to the reporting rules or the Form A eligibility requirements. The

[1] The letter is also available at http://www.sba.gov/advo/laws/comments/epa03_0902.html and a Fact Sheet summarizing the letter is available at http://www.sba.gov/advo/laws/comments/factsepa03_0902.pdf.

reporting burden has increased substantially since 1994, due to the addition of new reporting industries and the lowering of reporting thresholds for persistent bioaccumulative toxic (PBT) chemicals. EPA has been reluctant to provide additional burden relief citing concern about potential "data loss" being too large. Advocacy continues to urge EPA to define quantitatively what constitutes a significant loss of data to craft significant burden relief to thousands of facilities without data loss.

To address EPA's concerns, Advocacy recommended in our September 2 comments that EPA either substitute the Form A with a form that can be used by a larger universe of facilities or modify the Form A to provide for additional data. In other words, EPA can make use of the Form A for a much wider number of forms, or alternatively, modify the Form A to include additional details that EPA would prefer to preserve, such as the amount of chemical released to air or water. Advocacy also recommended that EPA propose a new "Form NS" denoting no significant change to a baseline report in a Form R. This option could be applied to tens of thousands of reports, or thousands of facilities, with considerable savings accruing for each year a Form NS is filed. Under this option, a facility could simply note that its production changed by, for example, less than 10% from the previous year, and a Form NS would be filed for that year. These are examples of the types of burden reduction options that Advocacy urges the EPA to consider.

Additional information is provided below on the large number of reports that involve zero or minimal releases to the environment. Advocacy believes further burden reduction is warranted because of the large number of reports compiled at great expense to the regulated facilities, without accompanying public benefit. Advocacy is encouraged that EPA is preparing an issue paper outlining burden reductions for the public to review and comment in the near future. We welcome the EPA's release of the issue paper, and will work with the EPA with the goal of achieving regulatory relief for the July 2004 reporting period.

B. Regulatory Burden Reduction is Appropriate Where TRI Reporting Imposes Significant Costs Without Significant Right-to-Know Value.

There are over 23,000 TRI reports that account for less than 0.08% of the total wastes reported (of a universe of 78,000 reports in reporting year 2000), not including the 13,000 reports submitted on Form A. It is our belief that such reports do not warrant the 110 burden hours that EPA estimates that a facility filing a report for the first time would take. As discussed below, Advocacy believes the most immediate need for burden reduction relates to EPA's reduction of the threshold for lead to 100 pounds from the current 10,000/25,000 pound thresholds for reporting year 2001.

By tightening the reporting thresholds in 2001, the revised threshold led to a greater than 400% increase in the number of lead and lead compounds reports (8,560 in 2001 from 2,025 in 2000), many of which were filed by small businesses reporting for the first time. Many of the newly affected small businesses are unfamiliar with the TRI reporting process, unlike large firms that may file multiple reports for various chemicals every year, and thus many small firms take longer to file their reports.

Since the almost 6,600 first-time reports for lead and lead compounds in 2001 were nearly all initiated due to the reporting threshold reduction, most of these new reports were from facilities that use, and likely release, relatively low levels of lead into the environment. The data on 2001 reporting reveals that the majority of the reports were for very small or zero onsite releases of lead or lead compounds into the environment (see attached Appendix A). The median reporting firm reported a total release of only 1 pound. Specifically, 38% of all reports documented zero releases to the environment, while an additional 25% of all reports were for very small releases to the environment, with less than 10 pounds of lead or lead compounds. Thus, 63% of all reports filed for lead and lead compounds likely would have no discernable effect on the environment. The majority of those reports were filed by small businesses, each of which devoted nearly three full weeks of staff time to generate these reports, according to EPA estimates. The total environmental releases of lead and lead compounds represented by those reports accounted for only 0.001% of all releases in 2001. Up to 500,000 staff hours were required to create these reports in 2001.

The burden of complying with TRI reporting for lead and lead compounds falls most heavily on firms in the manufacturing sector, comprising 84% of all reports in 2001. However, only a few manufacturing industry sub-sectors contributed significantly to total environmental releases (attached Appendix B shows reports and releases for all two digit Standard Industrial Classification (SIC) code industries). Overall, manufacturing produced just 5.3% of all environmental releases of lead and lead compounds, with the primary metals industry (SIC 33) accounting for 83% of all manufacturing releases and 16% of manufacturing reports. Two manufacturing industries were disproportionately burdened by lead reporting while producing only very small environmental releases: electronics manufacturing (SIC 36) and fabricated metal products (SIC 34). These two industries comprised 33% of all manufacturing reports, or 27% of all 2001 reports, but only 0.9% of manufacturing environmental releases, or just 0.05% of all releases. The predominance of small firms in these industries is evidenced by the fact that the median report in each industry had zero total releases. Consequently, the majority of firms reporting had zero or negligible releases yet still bore the same reporting burden as firms that accounted for releases that were several orders of magnitude larger. Advocacy believes EPA's commitment to reduce the reporting burden is also warranted by the large proportion of lead reports with low to zero right-to-know value.

C. EPA Did Not Properly Establish Whether Lead Was a Persistent Bioaccumulative Substance Nor Did EPA Implement the Required Peer Review Process.

In the January 17, 2001 final rule, EPA designated lead as a persistent bioaccumulative toxic (PBT) chemical and lowered the reporting threshold for lead for the TRI reporting requirement. As discussed in my June 13, 2002 written statement for the Regulatory Reform and Oversight Subcommittee of the House Committee on Small Business, Advocacy believes that EPA did not establish an adequate factual basis either for designating lead as a PBT chemical or for lowering the reporting threshold for lead to

100 pounds. [2] According to a report prepared for the Office of Advocacy, small businesses pay 60% more per employee than their larger counterparts in regulatory expenditures.[3] Advocacy, therefore, has a direct interest in agencies making sound regulatory decisions because poorly made policy will disproportionately hurt small business.

Advocacy provided our views on this issue in a letter to EPA dated April 9, 2001, which articulated that the scientific basis of the rule was not borne out in the peer-reviewed literature and ran counter to international scientific consensus documents on lead.[4] In short, Advocacy found that EPA's treatment of the bioaccumulation of metals was inappropriate scientifically. As a result, we urged, at a minimum, that EPA submit the science issues underlying this rule for peer review before promulgation. EPA has asked the EPA Science Advisory Board (SAB) to review this work, which will be addressed further below.

D. The Agency Did Not Establish a Proper Scientific Basis for the 100-Pound Lead PBT Reporting Threshold.

Advocacy's April 9, 2001 letter to EPA and our June 2002 testimony stated in detail our view that EPA failed to establish a proper scientific basis for a lead threshold determination. EPA argues that lead is a PBT substance, applying the same methodology for identifying PBTs as the methodology originally developed for organic substances. Consequently, using the methodology employed by EPA, other metals such as zinc, copper and iron would similarly be subject to the PBT reporting rule, although there is no evidence that lowering the reporting thresholds for those metals would contribute to the goals of the right-to-know program.

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[2] Advocacy's June 2002 written statement is available at http://www.sba.gov/advo/laws/test02_0613.html .
[3] *The Impact of Regulatory Costs on Small Firms* (SBAHQ-00-R-007) was conducted by Drs. W. Mark Crain and Thomas D. Hopkins and was published in 2001. The research report is available at http://www.sba.gov/advo/research/rs207tot.pdf .
[4] Advocacy's April 2001 letter is available at http://www.sba.gov/advo/laws/comments/epa01_0409.html.

EPA assumed that once a metal bioaccumulates, it will create a hazard. While this is valid for organic chemicals, there is no evidence that it is valid for metals. Metals can be accumulated by organisms, but there is no one bioconcentration factor (BCF) that can be used to assess the bioaccumulation potential, as is done for organic chemicals.

E. Latest Discussion of Science by External Scientists Advising EPA Reconfirms the Lack of Scientific Basis of TRI Lead Rule.

In a draft *Issue Paper on the Bioavailability and Bioaccumulation of Metals* (*Draft Issue Paper)* released by EPA on September 22, 2003,[5] a panel of independent scientists, including two EPA scientists, have reconfirmed that the TRI framework used by the agency was unsound. As discussed above, the TRI methodology relies on the determination that lead is a PBT, using a methodology that was created for analysis of organic chemicals. As part of the ongoing effort to develop an integrated framework for metals risk assessment, and part of the SAB review promised by EPA in the preamble to the January 2001 final lead rule, EPA commissioned outside experts to develop issue papers on state-of-the-art approaches in metals risk assessment for several topics.

The *Draft Issue Paper* addresses the state of the science and in various parts of the paper the authors assert that a single bioaccumulation factor should not be used to classify for general hazard classifications of metals, contrary to the TRI approach described above. Advocacy believes the paper refutes EPA's finding that lead is a PBT by showing that the approach taken by EPA was not scientifically sound.[6]

The Office of Advocacy is pleased that the EPA will be drafting a new metals assessment framework based on issue papers and public comment over the next few months. After the draft framework is reviewed by the EPA Science Advisory Board, EPA will redraft

[5] *Issue Paper on the Bioavailability and Bioaccumulation of Metals (Draft Issue Paper)*, funded by EPA through its Risk Assessment Forum under contract 68-C-98-148 to Eastern Research Group, Inc. The *Metals Issue Paper* is available on the EPA website at http://cfpub.epa.gov/ncea/raf/recordisplay.cfm?deid=59052.

[6] See Appendix C, attached to this statement, for relevant excerpts from the *Draft Issue Paper*.

the final metals assessment framework, and perhaps some related guidance for agency policymakers.

F. Conclusion

Advocacy welcomes the EPA's efforts to obtain peer review of the TRI PBT methodology, and urges the EPA to take immediate steps to bring its rule into line with the state-of-the-art science. In the meantime, EPA should design burden relief for all TRI reporters, including appropriate relief for reporters of all PBT chemicals, including lead. We look forward to continuing to work with EPA on this important small business matter.

Attachments:

Appendix A: 2001 Number of Toxics Release Reports: Lead and Lead Compounds: Released per Facility

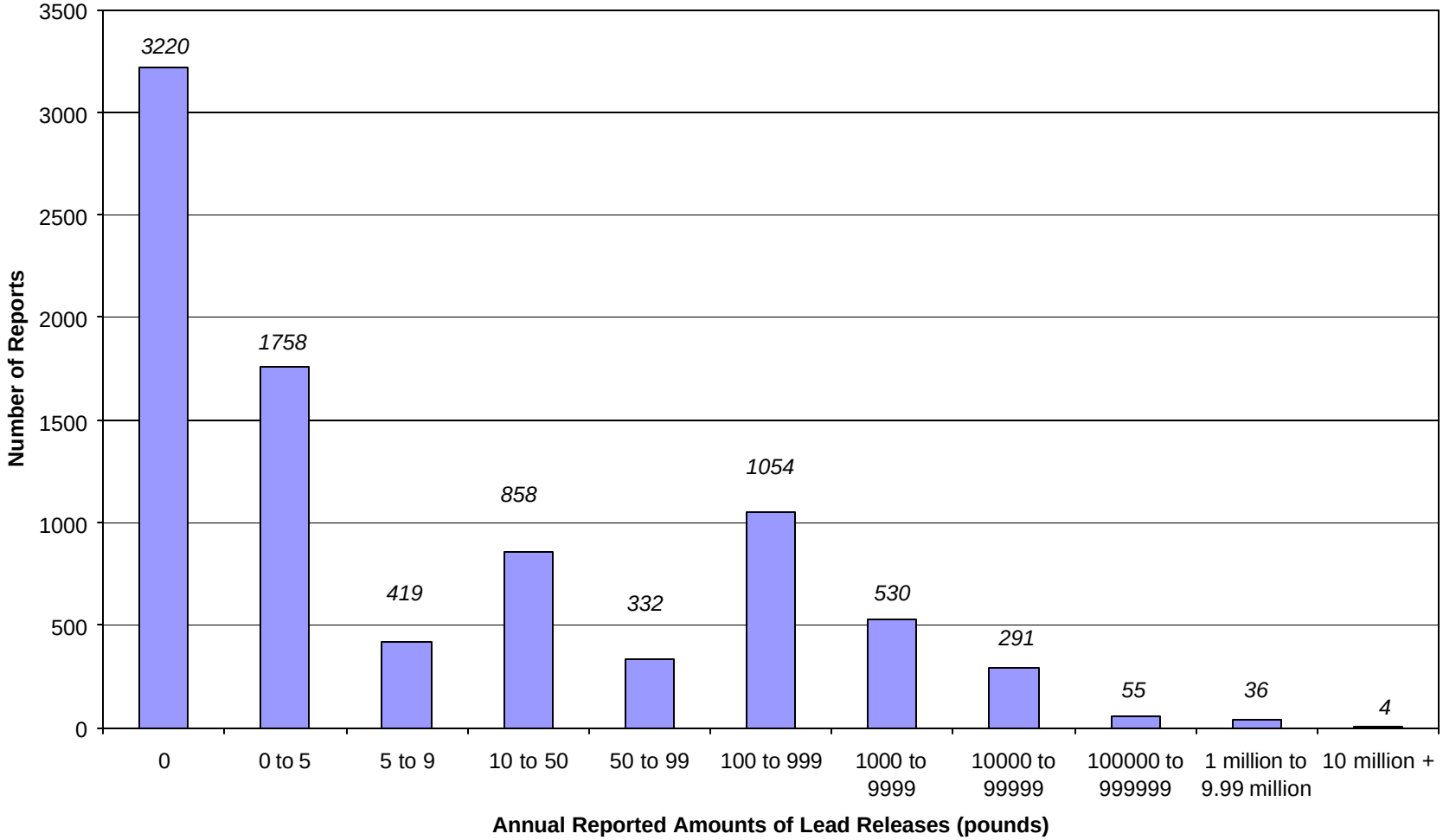
Appendix B: 2001 Toxics Release Inventory: Lead and Lead Compounds: Industry Distribution

Appendix C: Quotes from EPA's draft *Issue Paper on the Bioavailability and Bioaccumulation of Metals*

Advocacy's September 2, 2003, comment letter to EPA Assistant Administrator for Environmental Information Kimberly Nelson.

Appendix A

Number of Toxics Release Reports for Lead and Lead Compounds by Annual Amount Released per Facility, 2001



Source: Advocacy compilation of data from EPA Envirofacts database (August 2003).

Appendix B

2001 Toxics Release Inventory: Lead and Lead Compounds: Industry Distribution

SIC Category*	Total On-site Releases**	Total Number of On-site Release Reports	Average On-site Release per Report**	Median On-site Release per Report**
Manufacturing				
20	25,015	76	329.1	113.4
22	6,678	53	126.0	4.0
23	75	2	37.5	37.5
24	75,212	389	193.3	7.1
25	4,664	110	42.4	2.2
26	351,427	259	1,356.9	186.8
27	496	44	11.3	0
28	1,909,807	591	3,231.5	2.2
29	45,763	188	243.4	8.5
30	48,788	362	134.8	0.5
32	814,195	592	1,375.3	3.0
33	16,941,249	1175	14,418.1	6.0
34	130,924	1054	124.2	0
35	29,486	327	90.2	0
36	54,774	1283	42.7	0
37	35,117	397	88.5	0.8
38	10,463	174	60.1	0
39	1,320	72	18.3	0
Mining				
10	337,419,756	82	4,114,875.1	186,533.1
12	1,354,759	66	20,526.6	982.1
14	51,835	13	3,987.3	90.0
Electric Power				
42	1	1	1.0	1.0
45	0	1	0	0
49	26,289,093	640	41,076.7	823.7
Wholesale				
50	18	3	5.9	0
51	956	281	3.4	0
Services				
72	0	1	0	0
73	291	81	3.6	0
79	726	2	363.2	363.2
82	8,003	4	2,000.7	115.0
87	5,439	9	604.3	20.0
89	167	1	166.6	166.6
Government				
91	1,441	5	288.2	0
92	107,314	4	26,828.4	15,773.0
95	15,612	6	2,601.9	280.0
96	9,132	10	913.2	3.2
97	1,916,123	140	13,686.6	1,317.0
99	136	2	68.0	68.0
Total	**387,666,253**	**8500**	**45,607.8**	**1.0**

* Reports that included multiple SIC Codes for a single facility within a single entry were truncated to the first 4 digit code.

** In pounds.

Source: Advocacy compilation of data from EPA Envirofacts database (August 2003).

Appendix C

Excerpts from

***Issue Paper on the Bioavailability and Bioaccumulation of Metals* funded by EPA through its Risk Assessment Forum under contract 68-C-98-148 to Eastern Research Group, Inc.**

Page 32: "It must be noted that BCFs [bioconcentration factors] for metals can be highly variable and are inversely correlated to exposure concentration [citations omitted], making representative single value BCF for a metal meaningless."

Page 78: "In these cases [the vast majority of the metals/organisms addressed], the latest scientific data on bioaccumulation does not currently support the use of BAF [bioaccumulation factors] and BCF data when applied as generic threshold criteria for the hazard potential of metals."

Page 29: "The principle [sic] theoretical features of the BAF/BCF model that make it applicable to neutral organic substances also make it inapplicable to inorganic metal substances."

Page 32: "Based on the inherent assumptions of the BCF and BAF model and on the environmental and toxicological behavior of the organic substances from which they were developed and validated, for the vast majority of inorganic metals evaluated, the scientific basis for broad application of the BAF/BCF model is lacking in the context of hazard assessment."

Page 32: "The approach of using one simplified bioaccumulation model (BCF and BAF) and applying it to inorganic metals ignores the basic physical and chemical differences between organic and inorganic substances and is not supported by theoretical and empirical weight of evidence."