November 12, 2013

The Honorable Fred Upton
Chairman
Committee on Energy and Commerce
2125 Rayburn House Office Building
Washington DC 20515

The Honorable Henry A. Waxman
Ranking Member
Committee on Energy and Commerce
2322A Rayburn House Office Building
Washington DC 20515

Dear Chairman Upton and Ranking Member Waxman:

We the undersigned scientists and researchers thank you for your interest in reforming the Toxic Substances Control Act to achieve its original purposes. We are pleased to submit this letter for the record for the Environment and the Economy Subcommittee's hearing, "S. 1009, The Chemical Safety Improvement Act." The Toxic Substances Control Act, passed in 1976 with bipartisan support, was intended to create a system to protect the public from the effects of harmful chemicals. It is widely acknowledged to have failed and to require an overhaul. We are concerned that the current bill to reform TSCA (S. 1009) does not adequately address the most important deficiencies in U.S. chemical regulation.

Since World War II, chemical production and use in the U.S. has increased dramatically. There are currently more than 80,000 chemical substances registered for use in U.S. commerce; several thousand of them are manufactured or imported in excess of 1 million pounds each every year.

We have good reasons to be concerned about widespread human exposure to chemicals in use. Scientists have developed the ability to detect trace chemicals in the human body and have shown that many Americans are exposed daily to dozens of chemicals linked to potentially harmful health effects. The federal Centers for Disease Control and Prevention sponsors the National Health and Nutrition Examination Survey.[1] It is a nationwide representative study of the population that measures chemicals in blood and urine and consistently finds hundreds of chemicals in Americans, particularly in pregnant women and children.[2]

Dozens of pollutants are now known to cross the human placenta from mother to child during pregnancy, some at concentrations known to adversely affect neurological and reproductive systems. It is also clear that subtle damages to individual children can result in major consequences at the population level. One study has estimated that three common pollutants

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[1] Centers for Disease Control. 2013. Report on Human Exposure to Environmental Chemicals. National Health and Nutrition Examination Survey, http://www.cdc.gov/exposurereport/.

[2] Woodruff TJ. 2011. Environmental Chemicals in Pregnant Women in the United States: NHANES 2003-04. Environmental Health Perspectives. 119(6): 878-85

alone – mercury, lead and organophosphate pesticides – result in a total decrease of 40 million IQ points among American children ages 0 to 5 years as a group.[3] Laboratory and observational studies suggest that scores of other widely used chemicals may also cause toxic effects, but in many cases the extent of the risks to children has not been adequately determined.

Many of the chemicals detected in people's bodies are released from industrial sites into air and water and ultimately reach the food supply. Thousands more are intentionally added to consumer products. While regulatory programs for air and water have made improvements, TSCA has failed to protect Americans from chemicals. Modeling suggests that chemicals used in household consumer products can pose a more direct exposure risk for the general population than chemicals with only industrial uses.[4]

Many chemicals have not been adequately studied for their effects on human health, primarily because TSCA does not require manufacturers to ensure the safety of the chemicals they produce. The U.S. Environmental Protection Agency (EPA) has insufficient authority to require health and safety data, and insufficient resources to conduct the testing itself.

EPA leadership recently declared that "absent statutory changes, the Agency will not be able to successfully meet the goal of ensuring chemical safety now or in the future."[5] As scientists and public health researchers, we urge you to create a modern and robust system that will allow EPA to fully assess chemical hazards and protect public health. A reformed TSCA should also be harmonized with chemical regulations in Europe, Japan, Canada, and Australia; the U.S. does not need to reinvent the wheel.

Specifically, we urge you to address the following principles in any effort to update the Toxic Substances Control Act:

- **Chemicals cannot be considered "innocent until proven guilty"**

Currently under TSCA EPA lacks health and safety data for many widely used chemicals, which poses a catch-22 because the agency must have information to suggest a chemical poses health risk or probability of widespread exposure in order to compel manufacturers to test their chemicals for safety. In this way the system considers chemicals to be "innocent until proven guilty".[6] This flawed approach has meant that highly toxic chemicals are legally produced in large quantities unless data can be generated to demonstrate that they pose health risks. Manufacturers must take responsibility for ensuring the safety of the chemicals they produce, and should be required to produce health and safety data. Furthermore EPA must have the authority to mandate health and safety data for new chemicals, or a trigger for additional data to

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[3] Bellinger DC. 2011. A Strategy for Comparing the Contributions of Environmental Chemicals and Other Risk Factors to Neurodevelopment of Children. Environmental Health Perspectives 120(4):501-07.
[4] Wambaugh JF, et al. 2013. High-Throughput Models for Exposure-Based Chemical Prioritization in the ExpoCast Project. Environmental Science and Technology. 47:8479-88.
[5] GAO. 2013. Toxic Substances: EPA has increased efforts to assess and control chemicals but could strengthen its approach. U.S. Government Accountability Office. GAO-13-249.
[6] Lohmann R, et al. 2013. Science Should Guide TSCA Reform. Environmental Science and Technology. 47(16):8995-6.

be produced and a second safety review completed once the chemical reaches widespread production.

- **Congress must authorize EPA to restrict chemicals that threaten human health**

EPA is currently only authorized to address the "unreasonable risks" that chemicals pose to human health or the environment. When a chemical fails even this weak safety standard, the agency faces unreasonably burdensome requirements when it attempts to restrict the chemical's use. Efforts to improve TSCA must provide a greater degree of public health protection, as is legally mandated in the laws governing food packaging, where a chemical must be "safe for the intended use". Furthermore, EPA must be directed to explicitly evaluate and protect the groups most vulnerable to chemical contaminants. Many pollutants are most harmful to the developing fetus, young children or people suffering from chronic diseases. Exposures to chemicals are not evenly distributed across the population, but differ based on employment, community of residence, race and socioeconomic status.[7] As a result, certain sub-groups of Americans bear a disproportionate burden of chemical exposure.[8,9] The proposed TSCA reform bill (S. 1009) will not equip EPA with the information nor the authorities to fully control hazardous chemicals, nor ensure protection is equitable.

- **Secrecy claims should be accepted only if substantiated and not be permanent**

EPA's Inspector General has found that EPA's practices of shielding confidential business information are "predisposed to protect industry information rather than to provide public access to health and safety studies."[10] Recent reviews by the agency have revealed that companies overuse provisions designed to protect trade secrets.[11] EPA should have the power to require periodic re-substantiation of secrecy claims, with the goal of providing the maximum amount of information to scientists and researchers who study chemical behavior, toxicity and human exposure. All secrecy provisions should sunset after a few years. After this time, information should be publicly available, including site-specific production data.

As part of the reform of chemicals policy, open data sharing should be considered an integral goal. Many businesses, particularly secondary users of chemicals and retailers, are seeking more sustainable products and using more sustainable practices. These steps are stymied when data about chemicals and other materials are not available. Open disclosure of health and safety data, or the lack of health and safety data, will support these efforts and help businesses, as well as consumers and labor, to take direct steps to reduce their own exposure to hazards and risks. The

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[7] Tyrrell J, et al. 2013. Associations between socioeconomic status and environmental toxicant concentrations in adults in the USA: NHANES 2001-2010. Environ Int. 23(59C):328-335.

[8] Morello-Frosch RM, et al. 2013. Understanding the Cumulative Impacts of Inequalities in Environmental Health: Implications for Policy. Health Affairs 32(8): 879-887.

[9] Landrigan PJ, et al. 2010. Environmental Justice and the Health of Children. Mount Sinai Journal of Medicine. 77(2):178-87.

[10] EPA OIG. 2010. EPA Needs a Coordinated Plan to Oversee Its Toxic Substances Control Act Responsibilities U.S. EPA Office of Inspector General http://www.epa.gov/oig/reports/2010/20100217=10-P=0066.pdf

[11] EPA. 2013. Declassifying Confidentiality Claims to Increase Access to Chemical Information. U.S. EPA http://www.epa.gov/oppt/existingchemicals/pubs/transparency-charts.html

reform effort should include provisions for data disclosure for all chemicals in ways that are usable by outside audiences. The approach should also include use and development of metrics that allow for comparison of different chemicals with regard to attributes of health and safety.

- **EPA must comply with modern scientific principles in its assessments of chemical risks.**

EPA risk assessments should be required to conform to the recommendations of the National Academy of Sciences (NAS).[12] The NAS has urged EPA to better assess the scientific weight of evidence on chemical toxicity, and characterize data gaps and uncertainty around its decisions. EPA must assess human variability in both exposure to chemicals and sensitivity to toxic effects. This should explicitly include the aggregate effects of chemical mixtures.[13] Furthermore NAS has called for a unified approach to considering cancer and non-cancer hazards. This would mean that EPA should assume that low levels of exposure to chemicals are associated with some level of risk unless sufficient data is available to contradict this assumption.[14] Previous bills to reform TSCA have called for EPA to comply with the recommendations of the NAS, but that language has been stripped from the current bill.

- **EPA must move quickly to screen new and existing chemicals**

EPA's previous efforts to evaluate the hazards posed by high production volume chemicals, potential endocrine disruptors, or, most recently, to assess risks of 83 high priority chemicals, have been subject to numerous delays. Without clear authority, statutory deadlines and funding, EPA scientists will be unable to efficiently review and assess the thousands of industrial chemicals produced in high volumes. For example, the U.S. Government Accountability Office (GAO) found that at the current pace it could take EPA at least 10 years to assess just 83 chemicals of high concern, not to mention hundreds of other widely used and poorly studied chemicals.[15] Any new legislation that charges EPA with conducting chemical safety evaluations must also equip the agency with financial and personnel resources to perform the task adequately and in a timely manner. It must also include clear deadlines for chemical prioritization and assessment.

- **Scientists are willing to help**

As scientists, researchers and public health professionals, we have dedicated our professional lives to better understanding chemicals' effects on human health and the environment. On the basis of this research we conclude that TSCA must be reformed to provide EPA with the authority it needs to fill data gaps and to restrict chemicals that pose clear risks to people and the environment. The scientific community has valuable expertise and must be at the table as TSCA

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[12] National Academy of Sciences. 2009. Science and Decisions: Advancing Risk Assessment. National Research Council of the National Academies.

[13] Lohmann R, et al. 2013. Science Should Guide TSCA Reform. Environmental Science and Technology. 47(16): 8995-6.

[14] Woodruff TJ, et al. 2011. The Need For Better Public Health Decisions On Chemicals Released Into Our Environment. Health Affairs. 30(5):957-967.

[15] GAO. 2013. Toxic Substances: EPA has increased efforts to assess and control chemicals but could strengthen its approach. U.S. Government Accountability Office. GAO-13-249.

is rewritten. With scientific input, we can learn from past mistakes and benefit from decades of research on chemicals' environmental fates and effects. Only then will we collectively be able to protect public health from these chemical hazards.

Sincerely,

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