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Good afternoon Chairman Durbin, Senator Lautenberg, and Members of the Subcommittee. Thank you for the opportunity to address the Subcommittee today on the reform of chemicals management in the United States and the U.S. Environmental Protection Agency's (EPA) authority to assess the safety of flame retardant chemicals under the Toxic Substances Control Act (TSCA). Ensuring chemical safety, maintaining public confidence that the EPA is protecting the American people, and promoting our global leadership in chemicals management remain top priorities for the EPA and Administrator Lisa Jackson.

Chairman Durbin and Senator Lautenberg, I want to thank you both, as well as members of this Subcommittee for your continued leadership on this very important issue and your efforts to bring about reform of TSCA. With each passing year, the need for TSCA reform grows – the importance and prevalence of chemicals in our daily lives increases, and yet there remain significant gaps in our knowledge and understanding of many of these chemicals. The time to bring TSCA into the 21st Century is long overdue. Today, we also want to discuss a prime example of the shortcomings of TSCA – the limited success and long history of the agency's work on brominated flame retardants – that stands as a clear illustration of the need for TSCA reform.

Chemicals are found in most everything we use and consume, and can be essential for our health, our well being, and our prosperity. It should be equally essential that chemicals are safe. Compared to 30 years ago, we have a better understanding of the environmental impacts, exposure pathways, and distressing health effects some chemicals can have – especially on children. While our understanding of chemical safety is constantly evolving, significant gaps in our scientific knowledge regarding many chemicals remain. For these reasons, it is critical that we close those knowledge gaps. Recent press reports on flame retardants highlight the public health risks posed by certain chemicals such as flame retardants. Public understanding of these risks is growing, and that is why the public is increasingly demanding that the government provide an assurance about chemicals, even chemicals like flame retardants that can also provide significant benefits. To date, based on these concerns, the EPA helped negotiate voluntary phase-outs of several of the more toxic retardants, and has also initiated regulatory actions; however, as explained in more detail below, TSCA reform would have given the EPA additional tools to address this serious issue.

Background on TSCA

The EPA's chemical management authority is carried out under TSCA — a law that when enacted in 1976 was an important step forward to protect human health and the environment. But today, TSCA is the only major environmental statute that has not been reauthorized. Over the years, not only has TSCA fallen behind the rapidly advancing industry it is intended to regulate, it has also proven an inadequate tool for providing the protection against chemical risks that the public rightfully expects and deserves.

When TSCA was enacted, it grandfathered in, without any evaluation, the 62,000 chemicals in commerce that existed in 1976. The TSCA Inventory currently lists over 84,000 chemicals, few of which have been studied for their risks, especially to children. Unlike the laws applicable to drugs and pesticides, TSCA does not have a mandatory program where the EPA must conduct a review to determine the safety of existing chemicals.

And the process of requiring testing through rulemaking chemical-by-chemical has proven time consuming. As a result, in the 35 years since TSCA was passed, we have only been able to require testing on approximately 200 of the 84,000 chemicals listed on the TSCA Inventory. The EPA has also relied on voluntary programs to collect data, including through the High Production Volume (HPV) Challenge Program, which resulted in the submittal of screening level data for 1,366 HPV chemicals.

When the EPA determines that a chemical poses a significant health concern, taking action under TSCA to limit or ban a chemical is challenging. For example, in 1989, after years of study and nearly unanimous scientific opinion, the EPA issued a rule phasing out most uses of the cancer causing substance asbestos. Yet, a federal court overturned most of this action because the EPA failed to clear the hurdles imposed under TSCA before existing chemicals can be controlled.

Today, advances in toxicology and analytical chemistry are enhancing our understanding of the implications of multiple pathways of exposure, and a better understanding of the cumulative effects and interactions between the chemicals in the products we use every day. The EPA is working to develop methodology to address potential health effects of multiple chemical exposures and evaluate cumulative risks. When TSCA was enacted, there was not the understanding of the subtle effects chemicals may have on hormone systems, human reproduction, and intellectual development and cognition, particularly in young children.

Essential Principles for Reform of Chemicals Management Legislation

In September 2009, the EPA Administrator Jackson announced a set of administration principles to update and strengthen TSCA. These include that the agency should have the tools to quickly and efficiently obtain information from manufacturers that is relevant to determining the safety of

chemicals. The EPA also should have clear authority to assess chemicals against a safety standard and to take risk management actions when chemicals do not meet the safety standard.

At the same time, Administrator Jackson also affirmed that, while the legislative reform process is underway, the agency is committed to utilizing the current authority under TSCA to the fullest extent to protect human health and the environment.

Work Plan Chemicals

Earlier this year, the EPA developed a screening process to identify chemicals for review based on their combined hazard, exposure, and persistence and bioaccumulation characteristics. This process included criteria specifically targeted at identifying chemical risks to children. Following this initial screen, the EPA identified 83 work plan chemicals for risk assessment in the TSCA chemicals management program, with an initial seven for risk assessment in 2012.

On June 1, 2012, the EPA identified an additional 18 chemicals that the agency intends to review and then develop risk assessments in 2013 and 2014, including three flame retardant chemicals -- Bis(2-Ethylhexyl)-3,4,5,6-tetrabromophthalate (TBPH), 2-Ethylhexyl-2,3,4,5-tetrabromobenzoate (TBB), and Tris(2-chloroethyl)phosphate (TCEP). The EPA is currently developing a strategy, scheduled for completion by the end of this year that will address these three and a broader set of flame retardant chemicals. This effort will assist the agency in focusing risk assessments on those flame retardant chemicals that pose the greatest potential concerns. The EPA anticipates initiating the risk assessments on this category of chemicals in 2013.

Polybrominated Diphenyl Ether (PBDE) Flame Retardant Chemicals

The EPA is concerned that PBDEs are persistent, bioaccumulative, and toxic to both humans and the environment. A critical endpoint of concern for human health is neurobehavioral effects during development, which makes them a concern for children's health. Various PBDEs have also been studied for ecotoxicity in mammals, birds, fish, and invertebrates. In some cases, current levels of exposure for wildlife may be at or near adverse effect levels.

PBDEs are not chemically bound to plastics, foam, fabrics, or other products in which they are used, making them more likely to leach out of these products. Despite the U.S. phasing out the manufacture and import of penta- and octaBDE in 2004, their component congeners PBDEs are still being detected in humans and the environment. Some reports indicate that levels are increasing[1]. One potential source is imported articles to which these compounds have been added. Another is the breakdown of decaBDE in the environment to more toxic and bioaccumulative PBDE congeners. In late 2009, the U.S. manufacturers of decaBDE announced that they intend to voluntarily phase out most uses of decaBDE by the end of 2013.

[1] Shaw SD, Kannan K. 2009. Polybrominated diphenyl ethers in marine ecosystems of the American continents: foresight from current knowledge. *Rev Environ Hlth* 2009**,** *24*, 157-229

Efforts on PBDE Flame Retardant Chemicals

In late 2009, the EPA released an Action Plan for addressing concerns with PBDE flame retardant chemicals and recently issued proposed rules that would require additional testing on these chemicals and require the EPA review any new uses of these chemicals, including imported articles. The EPA also helped facilitate an industry plan to phaseout decaBDE and launched a multi-stakeholder partnership to assess alternatives for this chemical to help move the market to safer chemicals. This follows the EPA's earlier facilitation of an industry phaseout of two other widely-used PBDE flame retardants, pentaBDE and octaBDE in 2004 and an associated partnership to help identify safer flame retardants for use in polyurethane foam.

In its 2009 Action Plan, the EPA committed to support and encourage the voluntary phase out of the manufacture and import of decaBDE. Developed with public participation through the EPA's Design for the Environment Program, the EPA will shortly release the draft alternatives assessment on decaBDE for public comment. This assessment will profile the environmental and human health hazards on 30 alternatives to decaBDE. By providing a detailed comparison of the potential human health and environmental effects of chemical alternatives, the EPA can help manufacturers identify and transition to safer alternative flame retardant chemicals.

The EPA first reviewed a new flame retardant component of several products in 1995 for use in polyurethane foam and was unable to identify that a component of flame retardants was persistent, bioaccumulative and toxic. Later, after the chemicals were in commerce, information became available that showed the chemicals were being found in humans and the environment. This is an example that highlights the critical need for the agency to have greater evidence that new chemicals are safe prior to commercialization and to be able to take effective action after commercialization, when needed. Unfortunately, taking the necessary steps to ensure that chemicals already in commerce are safe can be a cumbersome, involved regulatory process that can take years.

While the latest steps taken by the agency are clearly a step forward, they must be viewed in the context of what has been a long history of actions on flame retardants, a history that has stretched over the course of two decades with a range of voluntary efforts and regulatory actions on flame retardant chemicals in both the EPA's new and existing chemicals programs. The long history of the EPA's action on brominated flame retardants is tied in no small part to the shortcomings of TSCA.

Summary

Simply put, the EPA may have made a different determination in 1995 if TSCA required the submission of more robust hazard, exposure, and use data needed to adequately assess risk, and the EPA may have been able to act more quickly and effectively on the risk information available if TSCA provided more robust tools to deal with chemicals already introduced into commerce. The American public has the right to expect that the chemicals manufactured, imported, and used in this country are safe and the EPA needs an effective law that gives us the tools necessary to provide the public with this assurance. The time is now to fix this badly outdated law. TSCA must be updated and strengthened so that the EPA has the tools to do our job of protecting public health and the environment.

I would be happy to answer any questions you may have.