

House Research & Technology Subcommittee Hearing: “Benign by Design: Innovations in Sustainable Chemistry”

Written Testimony of Anne Womack Kolton, Executive Vice President, Communications, Sustainability & Market Outreach, American Chemistry Council (ACC)

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Biography – Anne Womack Kolton
Executive Vice President, Communications, Sustainability and Market Outreach
American Chemistry Council

Anne Womack Kolton serves as the Executive Vice President of Communications, Sustainability and Market Outreach at the American Chemistry Council, which represents the \$526 billion United States business of chemistry. Ms. Kolton is responsible for the development and execution of domestic and international strategies to advance industry's advocacy priorities, sustainability practices, marketplace relationships with manufacturers and retailers, as well as environmental, health, safety and security performance through oversight of Responsible Care®, the industry's signature environmental, health, safety and security (EHS&S) performance initiative.

In this capacity, Ms. Kolton manages marketplace, policymaker, stakeholder and industry interests to develop collaborative programs to support sustainability progress. Currently, Ms. Kolton is leading the development of the first-ever chemical industry sustainability metrics, which will measure and report the U.S. chemical industry's sustainability performance. Through these responsibilities, Ms. Kolton is helping the chemical industry demonstrate its commitment and contributions to help address and overcome society's environmental, social and economic sustainability challenges, now and in the future.

Ms. Kolton joined ACC in 2010 after serving in two global public affairs consulting firms where she provided strategic communications and government relations counsel to a range of clients, primarily from the energy and financial services sectors. During the administration of President George W. Bush, Ms. Kolton led communications for the United States Department of Energy, served at the United States Department of the Treasury and Securities and Exchange Commission and as Assistant Press Secretary in the White House Press Office. Ms. Kolton began her career working in Texas and Presidential politics.

Ms. Kolton is a native of Nashville, Tennessee, a graduate of Southwestern University in Georgetown, Texas, and now lives in Alexandria, Virginia, with her husband, three children and two dogs.

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Chairman Stevens, Ranking Member Baird and members of the subcommittee, thank you for inviting me to testify this morning. My name is Anne Kolton, and I am Executive Vice President of Communications, Sustainability and Market Outreach at the American Chemistry Council.

ACC represents the leading companies engaged in the business of chemistry, a \$526 billion enterprise and a key element of our nation's economy. Our members apply the science of chemistry to make the innovative products and services that help make people's lives better, healthier and safer.

ACC and our members strongly support the "Sustainable Chemistry Research and Development Act of 2019," H.R. 2051, and share the desire to dedicate research and development efforts to identify and enhance sustainable chemistry products and technologies. We welcome and support the establishment of an interagency sustainable chemistry workgroup to promote and coordinate federal sustainable chemistry research, development, educational and training activities. This legislation will play a key role in supporting and enabling technology and tools that can help advance the sustainable chemistry innovations our members are developing.

Chemistry is the "Science behind Sustainability." Harnessing the power of chemistry to enable sustainability progress is embedded in our industry's values and central to the business strategies of many of our members. Our companies are making significant investments—more than \$12 billion a year—in research and development to help advance sustainability solutions.

Even before the trends of sustainability and corporate social responsibility became the movements they are today, ACC members and leaders of the global chemical industry had committed themselves to continuously improving environmental performance, safe operations and open communication with communities that are home to chemical facilities, through Responsible Care®, the chemical industry's signature environmental, health, safety and security (EHS&S) performance initiative and a requirement of ACC membership.

Since the program began in 1988, Responsible Care companies have reduced hazardous releases to the air, land and water by 84 percent. They have improved energy efficiency by 19 percent since 1992. And they have reduced recordable injury and illness rates by 79 percent since 1990. In the United States, working in a Responsible Care chemical plant is five times safer than the U.S. manufacturing sector as a whole, according the Bureau of Labor Statistics. And, recognizing the growing need to enhance cooperation among chemical manufacturers, our

customers and even our customers' customers, we adopted the Responsible Care Product Safety Code to further enhance product stewardship and promote safe use of chemicals in products people use every day.

In 2017, ACC's Board of Directors approved a set of Sustainability Principles that captured our members' commitment to promote the safe use of chemicals; address the environmental impacts of our products and operations; and build an innovation pipeline of products and technologies that contribute to lower greenhouse gas emissions, increased energy efficiency, less waste, improvements in health and wellness, food security, access to clean water, modern sanitation and safe, comfortable shelter.

The truth is, without innovations in chemistry, a sustainable future will be an unattainable goal. Let me share just a few examples of ACC member company innovations that are addressing sustainability challenges:

- **The Chemours Company** developed a refrigerant that uses hydrofluoro olefin (HFO) technology—with its very low global warming and zero ozone depletion potential—as an alternative to hydrofluorocarbons (HFCs). By the end of this year, replacing HFC refrigerants with HFOs will help reduce nearly 68 million tons of carbon dioxide, equivalent to taking around 15 million cars off the road.
- Agriculture films made from performance polymers developed by **ExxonMobil Chemical** can help preserve crops in changing weather conditions, prevent damage to crops in the field and during handling, and reduce waste and spoilage.
- Scientists at **Covestro** developed a catalyst that makes it possible to convert waste carbon dioxide into flexible polyurethane foam used in everyday products, like mattresses and furniture. This foam is comparable in quality to conventional foam, and has a lower environmental footprint because less solvents and energy are required to make it.

These examples also demonstrate the diversity and dynamic nature of sustainable chemistry solutions. The concept of sustainable chemistry must be viewed as multi-dimensional—to define it by a single attribute or outcome would mean foregoing opportunities to advance progress toward a variety of sustainability goals and fails to acknowledge that sustainability priorities in one geography, industry or community may differ from priorities in others.

Consider this: in recent years, some have asserted that we should move toward a future where the only acceptable chemical is one that is “non-toxic” or “hazard-free.” Under this perspective, performance, societal value and overall contribution to sustainability made by chemicals and the products they enable would be inconsequential. The scientific determination of actual risk—based on use, exposure, potency and the ability to manage those risks—would be irrelevant.

Decades of scientific research have shown that the products of chemistry, both natural and synthetic, can be used safely in a wide variety of applications. Determining the “sustainability” of a chemistry based on the presence of a hazard alone would jeopardize many technologies that provide far greater benefits than the minute risk presented by a chemical’s use. Think of the many chemical-enabled products that are transforming our economies and communities, such as:

- Paint and glass that reflect light to help keep buildings cool and reduce energy needs;
- Lightweight plastics in cars and trucks that reduce emissions and improve fuel efficiency;
- Flexible and lightweight plastic packaging that preserves and protects food;
- Powerful yet fully rechargeable lithium-ion batteries that have expanded the reach of technology to remote areas of the globe;
- Silicon ink that helps to make solar power more affordable and more efficient; and
- Powdered cleaning technology, containing ferric sulfate and calcium hypochlorite that helps millions of people in disaster zones make dirty, dangerous water clean and drinkable.

When we focus on a single criterion for assessing the benefits of a technology, it’s very likely that we’ll overlook significant, hidden costs, impede new innovations or overlook the environmental benefits of tried-and-true technologies.

The chemical innovations being developed by ACC member companies will also play a key role in our industry’s success and a critical role in the American economy overall. The United States is the second-largest chemical producing nation. With exports of nearly \$130 billion, American chemistry is among the largest exporters in the world.

By continuing to apply the sustainability innovations made possible by chemistry, U.S. manufacturing companies can enhance their competitiveness, produce a large and growing trade surplus, and become better positioned to succeed in the global arena.

At the same time, we know that the products and processes of chemistry can have an impact on people and the planet. As mentioned earlier, ACC's Responsible Care initiative encourages continuous environmental, health, safety and security improvement. We're also supportive of bipartisan legislation just introduced in the House and Senate—the Clean Industrial Technology Act (CIT Act)—that advances research and development in technologies to cut greenhouse gas emissions and creates a technical assistance grant program to help states, local governments and tribal organizations use those technologies. The chemistry industry creates a variety of products and technologies that help save energy, enable renewable energy and lower the emissions intensity of industrial processes, all of which serves to help strengthen competitiveness in U.S. industry while helping our nation achieve its climate goals.

Our companies are continually working to drive solutions to address ongoing global sustainability challenges, including one of the most visible and compelling issues facing us today: the challenge of unmanaged plastic waste in the environment.

ACC members believe that plastic waste does not belong in our environment. That's why many ACC members are participating in the **Alliance to End Plastic Waste**, a new CEO-led, cross-sector, nonprofit organization dedicated to developing, accelerating and deploying scalable solutions to minimize and manage plastic waste. The Alliance aims to catalyze public and private investment and engage communities and governments at all levels to help end plastic waste in the environment.

This is an ambitious undertaking. Alliance members, including plastics manufacturers and processors, brand owners and waste handlers, are committed to deploying \$1.5 billion to fund initiatives that help develop the systems, knowledge and infrastructure needed to reuse, recovery and repurpose plastic waste.

Projects currently under way include:

- **City Partnerships** to design integrated waste management systems in areas where infrastructure is lacking—especially along rivers that can end up transporting vast amounts of plastic waste to the ocean.
- Supporting innovation through **The Incubator Network**, launched by **Circulate Capital** and **SecondMuse** to develop and promote technologies and business models that help prevent ocean plastic waste and improve waste management.

- Supporting **Renew Oceans' Renew Ganga** project, to aid local investment and engagement along the Ganges River to capture plastic waste before it reaches the ocean.
- Collaborating with the **United Nations** and other intergovernmental organizations to identify and pursue effective, locally-relevant solutions.
- Developing an open source, science-based **Global Information Project** that provides reliable data, metrics and standards to help support waste management efforts and prevent plastic waste from entering the environment.

I'd like to close by reiterating that sustainable chemistry research and development is the instrument that will make solutions to global challenges possible. Our industry is developing the chemical alternatives and reformulations that can improve product quality while using less materials, divert materials traditionally considered waste into new and innovative uses, and design packaging and products so it can be more easily recycled and reused.

Thank you, and I am happy to take any questions.