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on behalf of the AMERICAN CHEMISTRY COUNCIL
before the SENATE ENVIRONMENT AND PUBLIC WORKS COMMITTEE
on CLEAN AIR ACT RESIDUAL RISK
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I. INTRODUCTION

Good morning Chairman Smith, Chairman Inhofe, Senator Baucus, and Members of the Committee. My name is Lee Hughes and I am Vice President of Corporate Environmental Control for Bayer Corporation. I have responsibility for environmental matters for Bayer's United States (U.S.) operations, including compliance with the Clean Air Act (Act).

I am here representing the American Chemistry Council (Council). The Council represents the leading companies engaged in the business of chemistry. Our members apply the science of chemistry to make innovative products and services that make people's lives better, healthier and safer. As we conduct our business, we are committed to: -- improved environmental, health and safety performance through Responsible Care(r), -- common sense advocacy on major public policy issues, and -- health and environmental research and product testing.

The business of chemistry is a $435 billion-a-year enterprise and a key element of the nation's economy. The chemistry industry is the nation's largest exporter, accounting for ten cents out of every dollar in U.S. exports. This industry invests more in research and development than any other business sector.

I commend Chairman Smith, Chairman Inhofe, and Senator Baucus for holding this hearing on the important subject of residual risk under the Act. The Council supported the 1990 Clean Air Act Amendments, and for more than a decade has actively and collaboratively worked with the Environmental Protection Agency (EPA) on its development of many air toxics programs. We are proud of the tremendous progress we have made reducing air toxics. For example, American Chemistry Council members led all other U.S. businesses in cutting emissions of 30 key hazardous air pollutants (HAPs) reported under the Toxics Release Inventory (TRI) since 1990. While all U.S. manufacturing facilities reduced emissions of these HAPs by 52 percent, Council members cut our emissions of these substances by 64 percent.

Our industry supports the Clean Air Act's approach for regulating air toxics, which first requires technology-based controls and then looks at any remaining or "residual" risks. We believe the residual risk effort can build on air toxics reductions to date and evolve into a scientifically credible and effective regulatory program that characterizes, prioritizes, and manages identified risks.

There are some early warning signs, however, that barriers exist to achieving this goal. Your attention to this program, contemplated by the Act, is an important step toward identifying, understanding, and addressing these challenges. I would like to talk today both about the progress we have made on air toxics as well as the issues we need to address to ensure that the residual risk program gets off on the right track.

II. THE CHEMICAL INDUSTRY HAS SIGNIFICANTLY REDUCED AIR TOXICS UNDER THE CLEAN AIR ACT

The Act establishes a phased process for reducing air toxics emissions from various industry sectors. Companies first implement technology-based air toxics regulations, which are designed to establish a common level of superior air pollution control across each industry. This soon to be complete Maximum Achievable Control Technology (MACT) program is expected to reduce annual HAP emissions from stationary sources by over 1.5 million tons from 1990 levels.

The chemical industry was one of the first industries subject to MACT regulations. The result has been dramatic air toxics reductions from chemical sources according to EPA's own numbers. We are proud of

this achievement, as well as the many voluntary efforts our industry has underway, such as Responsible Care(r), to continuously improve our environmental and community performance. Responsible Care(r) represents our commitment to respond to public concerns about the safe management of chemicals and has rapidly become the single most important performance improvement initiative within the chemical industry.

III. KEY ELEMENTS OF A SUCCESSFUL RESIDUAL RISK PROGRAM

Eight or nine years after an industry's technology regulations are promulgated, the Clean Air Act requires EPA to evaluate whether air toxics risks from the regulated processes remain. If risks are identified, EPA must promulgate new standards to provide an "ample margin of safety" to protect public health and the environment from those risks. EPA is now evaluating the chemical and other industries subject to MACT standards to determine if their emissions pose unacceptable remaining risks. If regulations are needed for the chemical industry, they are due in 2003 under the Act's timeframe.

This means that many important decisions are being made now about how the residual risk regulatory program will be designed and carried out. The American Chemistry Council and its members are working collaboratively with EPA on this effort. We believe that the residual risk program must build on the emission reductions and successes of the MACT program. In addition, our experience to date indicates that the following key principles must be a part of the residual risk program to ensure its success:

-- Prioritize real and scientifically validated risks. We support the use of prioritization techniques to rank remaining risks posed by pollutants and sources within each evaluated industry category. A prioritization approach to residual risk will screen out negligible risks and focus regulatory efforts where risk reduction will produce the greatest public health benefits. EPA already has taken this approach in some of its work on the lead smelter industry, and we support this effort.

-- Use the flexibility provided in the Act to reduce risks in innovative and effective ways. We support the risk management process endorsed in the Act, which sets out key issues that must be considered in designing this program. These include the scope of remaining risks, the public health significance of HAP emissions, the cost of further controls, and what risks are acceptable in the world in which we live. The Act endorses a risk management process that considers an acceptable level of risk based on health considerations, and then sets an "ample margin of safety" based on cost, feasibility, and other factors. EPA is not required to set a bright line that all sources must meet regardless of other factors. This means the residual risk program can be flexible, realistic, and encourage innovative approaches to risk reduction.

-- Use high-quality data and peer-reviewed methods to realistically assess risk and make regulatory decisions. We believe EPA must use realistic exposure assumptions to accurately characterize residual risks. This approach will place risks in context and avoid overly conservative risk estimates. Also critical are validated risk estimation methods and health benchmarks that fully account for all currently available information. We believe a transparent and open peer-review process also is an essential part of risk assessment. Where there are gaps in our knowledge, we support Congress providing the mechanisms, time, and research to fill these gaps.

IV. KEY LIMITATIONS IN PRESENT INFORMATION, DATA, AND METHODOLOGIES TO ASSESS RESIDUAL RISKS WITHIN THE STATUTORY DEADLINES

To accomplish these important goals and design a successful and realistic residual risk program, we must heed some early warning signs. Our collaboration with EPA to date and other experiences, such as with state air toxics programs, reveal some key limitations and shortcomings in EPA's present information, data, and methodologies to assess residual risks. EPA itself alludes to many of these troublesome areas in its March 1999 Residual Risk Report to Congress. The Agency's Science Advisory Board goes into more detail on present limitations in its May 2000 Advisory on EPA's Draft Case Study Analysis of the Residual Risk of Secondary Lead Smelters. We are concerned that, without attention, these limitations will jeopardize the success of this evolving regulatory program. Our concerns include the following:

-- Outdated health information. The President's Commission on Risk Assessment and Risk Management, created under the Act, has said that "data to assess the health risks of most hazardous air pollutants for regulatory purposes are lacking" and "the status of exposure data collection is no better." EPA's IRIS (Integrated Risk Information System) database, broadly perceived as the primary source of health information on hundreds of chemicals, is critically out of date and contains information of varying quality. IRIS' widely acknowledged weaknesses are a true hindrance to the development of accurate risk assessments.

The American Chemistry Council is dedicated to studying and improving our collective knowledge of the health effects of chemicals. Through our Long-Range Research Initiative, our members will spend more than $100 million on health and environmental research related to chemical use and exposure during the next five years. In addition, our High Production Volume Chemical Testing program for screening and testing thousands of chemicals, launched in 1998 as a partnership with EPA and Environmental Defense, will require investments of at least $500 million. These efforts and others, such as the current program at the Chemical Industry Institute of Toxicology to develop a risk assessment for formaldehyde using EPA's new cancer guidelines and the latest science, are aimed at filling the IRIS gaps. Many of our companies also have submitted or are preparing new IRIS assessments. We strongly endorse EPA's recent efforts to open up the IRIS program to such submissions, and encourage the Agency to further expand this initiative.

However, these efforts alone are not enough. Staff and dollars for IRIS must be increased. The process for updating IRIS also must be expedited so new information on chemicals can be integrated or used in regulatory decisions without requiring that the entire IRIS evaluation process be repeated. IRIS is stuck in the last century, and we urge that it be modernized and expanded before its limitations lead to more erroneous risk assessments. Erroneous assessments may result in unfounded public concern about air quality as well as waste limited resources. Our experience shows that using the best science will significantly reduce the uncertainty in making residual risk decisions and assure that this evolving regulatory program addresses real risks in the most effective manner.

-- Non-peer reviewed data, models and methods. Good risk assessments depend on high-quality science. We commend EPA for presenting its preliminary secondary lead smelter case study to the Science Advisory Board. This exercise, however, highlighted EPA's data problems and showed that many of EPA's risk evaluation methods are not peer-reviewed. We believe it is absolutely critical that EPA commit that the data, models, and methods used for regulatory decision-making will be consistently and comprehensively subjected to a transparent scientific review process. This process must be balanced and engage academics, industry, states, scientists, and non-governmental organizations in an open process. Adequate time, funding and resources for follow-up to recommendations is also important so scientific input can be fully incorporated and addressed.

-- Incomplete emissions data and site characterization information. Good risk assessments depend on a highly credible source of post-MACT emissions data for the many sources to be evaluated. Good risk assessments also depend on accurate information about facility locations, distance to neighbors, stack heights, and other important details. EPA's most recent emissions data set is from 1996, which for our industry represents pre-MACT emissions levels. Since this data was not collected for risk assessment purposes it also contains other significant limitations. Our industry is voluntarily providing EPA with better information about the chemical sources now under review, but the task is immense. More effort is needed by all parties in this area to do a better job collecting, categorizing, and assessing such data.

-- Flawed fugitive emissions estimation methods. Good risk assessments also depend on accurate estimates of "fugitive emissions"-low-level emissions from, for example, piping connections or valves. More simplistic methods currently in use were not intended for risk assessment purposes and tend to grossly overestimate fugitive emissions. Companies have developed new and more accurate ways to estimate these emissions. To reduce uncertainty in risk assessment, these improved methods need acceptance and use by EPA and other regulatory agencies.

-- Statutory time constraints. We are concerned that these significant limitations can not be addressed under the present statutory time clock. As noted by the Science Advisory Board, EPA must conduct over 170

residual risk assessments and these "data gaps are likely to be even more of a problem" in future assessments. To add to the challenges, the Act requires compliance with new residual risk standards within 90 days of promulgation-a near impossibility for most sources. Despite our best efforts, it will not be long before a residual risk standard deadline is missed. Unless action is taken now, this program may end up operating under court ordered deadlines and in settlement discussions, hindering our ability to make good decisions founded on science.

IV. CONCLUSION We are convinced that there is a better way for this program to be carried out, provided we heed these warning signs and keep the key elements for a successful program outlined here in the forefront of our minds. Our industry is committed to working with you, EPA, and other stakeholders to ensure that this regulatory program gets off to a solid start.

In closing, we must strive to prioritize risk reduction efforts and maximize the effectiveness and resources of all stakeholders to achieve cleaner air. To accomplish these goals and design an effective residual risk program, we need to base regulatory action on prioritized environmental challenges, use peer-reviewed and state-of-the-art scientific methods, and generate accurate health and emissions data. I reiterate our commitment to work with you and all stakeholders to achieve these goals.

Chairman Smith and Members of the Committee, thank you for hearing my testimony today. I appreciate the opportunity to provide you with our views on this important topic. I would be happy to answer any questions you may have.