February 19, 2025

Mr. Charles Lee
U.S. Environmental Protection Agency
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Re: Comments of the American Chemistry Council on EPA Interim Framework for Advancing Consideration of Cumulative Impacts; Request for Comments (Docket ID EPA-HQ-OLEM-2024-0360; 89 Fed. Reg. 92125, Nov 21, 2024).

Dear Mr. Lee:

The American Chemistry Council (ACC) appreciates the opportunity to provide the following comments to the U.S. Environmental Protection Agency (EPA or the Agency) on its draft Interim Framework for Advancing Consideration of Cumulative Impacts.[1] ACC is committed to continual improvement in areas addressing environmental, health, safety, and security performance. As part of that commitment, ACC and its members recognize the importance of the general issues outlined in the draft Interim Framework and we encourage EPA to approach any related cumulative impact considerations by following the science, promoting transparency, and advancing fair treatment and meaningful involvement throughout the Agency's activities.

ACC members play a foundational role in U.S. economic production and performance. Our member operations apply the science of chemistry to make innovative products, technologies, and services that grow our nation's economy and contribute to its overall security. ACC also has a long-standing research program focused on proactively advancing scientific understanding and developing innovative scientific approaches, including advancing the science of cumulative impacts. As such, ACC is uniquely positioned to provide comments on the Agency's Interim Framework to inform EPA's future consideration of these issues by noting our perspective and separate contributions to the development of scientific information in this area.

ACC recognizes the value of the important role that industry and chemical manufacturing play not only to our nation, but also to our facilities' surrounding communities as corporate stewards of the local environment. ACC member facilities are subject to numerous existing local, state, and federal statutory and regulatory requirements, including permit conditions approved by state regulators and administered under key

[1] ACC represents the leading companies engaged in the business of chemistry. ACC members apply the science of chemistry to make innovative products and services that make people's lives better, healthier, and safer. ACC is committed to improved environmental, health and safety performance through Responsible Care®, common sense advocacy designed to address major public policy issues, and health and environmental research and product testing.

environmental statutes like the Clean Air Act, Clean Water Act, Resource Conservation and Recovery Act, and others. Additionally, we support strong sustainability goals and environmental/health and safety policies. As discussed later in this letter, one example of this is our members' commitment to ACC's Responsible Care® program, which requires our members to continually improve their systems for addressing health, safety, and environmental performance, including creating a process to effectuate facility responses to community concerns about local operations.

I. Several key principles must inform any future EPA activity on these issues, including transparency, consistency, and best available science, among others.

As EPA considers the important issues addressed by the draft Interim Framework, ACC encourages the Agency to consider any related decision in a way that preserves our members' continued progress and environmental performance while future administrative decisions are science-based, efficient, effective, and allow for adequate time for compliance where necessary. It is critical that any future Agency activity informed by the draft Interim Framework avoids the creation of opaque regulatory decision-making structures that lack a basis in sound science, which would only serve to hinder an already cumbersome administrative process. To help ensure constructive options, ACC offers the following overarching principles that should guide activity related to the Agency's considerations of cumulative impact analysis (CIA) and its associated issues:

- EPA should ensure that any future activity that incorporates CIA considerations prioritizes consistency, best available science, appropriate risk characterizations, and an efficient regulatory process.
- EPA should provide ample opportunity to engage with all stakeholders, including regulated entities (as discussed further below). This engagement can promote an open dialogue that allows EPA to thoughtfully consider the full scope of impacts of its regulatory activity, which can help enhance transparency and meaningful involvement in governmental decision-making processes.
- As EPA advances these issues, the Agency must ensure that it consistently applies scientifically sound risk assessment principles and tools in its decision-making at all levels, particularly with regard to CIA. A rigorous approach based on best available science can help ensure that the stressors that may impact communities (physical, chemical, biological, and socio-economic) are considered objectively. In any EPA attempt to address environmental impacts through regulation, the Agency should evaluate all potential and more likely causes of an individual health circumstances as well as any relevant stressors through scientifically valid tools and modeling processes. EPA must use a robust, science-based methodology to identify relevant impacts on public health or the environment with clear standardized criteria and definitions that articulate, and transparently characterize and communicate, scientifically credible risks.
- In future activity related to these issues, EPA should continue to provide detailed general guidance, and comprehensive technical procedures and practices guidelines that address aspects of related

program initiatives. These resources are key to the creation of programs that establish transparency and certainty for the regulated community and all stakeholders so that the public has ample opportunity to review and provide comments on EPA's considerations and future actions.

II. ACC strongly encourages EPA to reference the robust universe of scientific information related to CIA, including recently published studies.

As EPA moves forward, it is critical that the Agency give full consideration to the wide universe of scientific literature that continues to be published on these emerging issues. While many areas of research on cumulative impacts are under development, there have been significant recent steps forward in published research available for reference by EPA and the broader public. Specifically, we strongly encourage EPA to reference the January 2025 published study on "Multidisciplinary perspectives on cumulative impact assessment for vulnerable communities: expert elicitation using a Delphi method" by authors Ann Verwiel and William Rish.[2] In direct response to EPA's promotion of cumulative impact analyses, the study notes that understanding the impact of "all stressors on responses to environmental exposures requires multidisciplinary input from social scientists, economists, and others not traditionally involved in chemical risk assessments." As such, the authors of the study gathered a group of 13 independent experts with perspectives on CIA across disciplines including social sciences, economics, and public health to obtain their perspectives regarding key aspects of these assessments.

The study consolidates independent expert opinions on key relevant issue areas like screening tools and indexes, role of nonchemical stressors in cumulative impacts, and uncertainties. As detailed further in the study (attached as Appendix 1), the experts' recommendations highlighted priority objectives necessary to advance development of cumulative impact assessment, including things like: thorough regulatory impact analyses on these issues; appropriate use of screening tool information and indexes; the role and measurement of nonchemical stressors; relevance of a risk modifier approach; inclusion of uncertainty and causality; metrics to assess effectiveness of interventions; and methods for community communication, among others. These objectives are reflected in the study's expert recommendations to improve CIA methods and assessments, reproduced below:

1) Clearly prioritize measures of impacts to health, well-being, and quality of life and the related chemical and nonchemical stressors to be considered (universally and specifically);
2) Investigate five nonmarket methods (contingent valuation, contingent ranking, travel cost method, hedonic price method, and production function method) to quantify nonchemical stressors;
3) Further evaluate the role of nonchemical stressors as an effect modifier, mediator, or independent causal driver of health outcomes, which are critical considerations for developing interventions and

[2] https://academic.oup.com/ieam/advance-article/doi/10.1093/inteam/vjae051/7951302.

identifying where and what regulatory processes may result in improvements. Broaden understanding of interactions and interdependencies among stressors.

4) Develop more information on causality rather than associations with respect to adverse health outcomes;
5) Develop practical approaches to giving explicit treatment to uncertainties and determine the extent to which uncertainties can be tolerated, particularly considering the combined effect of multiple sources of uncertainty;
6) Evaluate health-state-dependent utility functions for health risks, income, etc. Methods or case studies should be considered to evaluate the utility of DALYs, QALYs, and YLL as potential measures for CIA, evaluate using social utility function models to address shifts in environmental burden, etc.;
7) Identify clearly disproportionate impacts related to health, well-being, and quality of life and the related chemical and nonchemical stressors to be considered (universally and specifically). This could streamline efforts and prioritize interventions that have the greatest potential to make a difference. Without focus, there could be too many factors to possibly consider;
8) Develop metrics for assessing costs and benefits of particular actions in the context of CIA in real-world examples;
9) Identify the socioeconomic determinants of health (independent of environmental exposures) and develop appropriate metrics for them, which may lead to more effective interventions to improve health;
10) Consider shifts across time and space in environmental conditions, exposed population groups, and the burden of pollution;
11) Develop CIA guidelines that include best practices for maximizing community participation considering that community participation is critical for developing CIA frameworks, problem formulation, integrating community-specific knowledge and preferences, and developing relevant and successful interventions;
12) Develop CIA guidelines that include best practices for maximizing community participation considering is critical for developing CIA frameworks, problem formulation, integrating community-specific knowledge and preferences, and developing relevant and successful interventions; and
13) Conduct regulatory impact analysis to understand where and when implementing CIA would provide significant benefit.

III. EPA should consider the role of industry as it advances any future consideration of these issues.

As mentioned above, ACC generally supports EPA's efforts to strengthen the science of cumulative impact assessment with full consideration of the updated universe of published scientific literature on these issues. Separately, ACC has also sponsored research in this area. In the draft Interim Framework, EPA states that

to "*operationalize community impacts, EPA will learn by doing, in conjunction with community-based organizations, governmental partners at all levels, academia, and other interested parties*."

ACC notes that industry is also an **interested party as well as a resource for education, workforce development, community engagement, and research.** ACC encourages EPA to consider that industry can be a source not only of high-paying jobs, but also important social initiatives to support education, workforce development and employment, in addition to environmental protection initiatives. These initiatives include industry-sponsored avenues for access to healthcare, workforce training, advancing education, and preventing nutritional deficiencies in communities, all of which can improve the quality of life of individuals. For ACC's part, in 2020 we launched the Future of STEM Scholars Initiative (FOSSI)[3] with the American Institute of Chemical Engineers (AIChE), the Chemours Company, and the HBCU (Historically Black Colleges and Universities) Week Foundation to help create pathways to entry and success in the chemical industry. FOSSI continues to advance this goal through providing $40,000 worth of scholarships - $10,000/year for four years - to students pursuing relevant STEM degrees at HBCUs, as well as separate opportunities for internships, mentoring and leadership training.[4]

Additionally, as stated earlier, through implementing Responsible Care®, ACC member companies demonstrate their commitment to the health and safety of their employees, the communities in which they operate, and the environment as a whole.[5] Responsible Care is the chemical industry's initiative to drive continual improvement in safe chemicals management and environmental, health, safety and security (EHS&S) performance. Participation in Responsible Care is mandatory for ACC member companies, who undergo regular third-party audits to confirm they are fulfilling the program elements, which include enhancing performance in key areas, such as community awareness and emergency response; security; distribution; employee health and safety; pollution prevention; and process and product safety.

Finally, through both the Foundation for Chemistry Research and Initiatives (FCRI, a 501(c)(3) tax-exempt organization established by ACC) and ACC's Long Range Research Initiative, health and environmental research, including research to inform Environmental Justice, is being funded.[6] Together, industry efforts like FCRI, FOSSI, and Responsible Care help demonstrate industry's commitment to acting as a constructive solutions provider on the priority issues that will inform future activity related to CIA methods and assessments.

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[3] https://futureofstemscholars.org/fossi.
[4] https://www.americanchemistry.com/chemistry-in-america/news-trends/press-release/2021/more-than-7-million-raised-in-inaugural-year-of-chemical-industry-s-equity-diversity-inclusion-initiative.
[5] https://www.americanchemistry.com/chemistry-in-america/responsible-care-driving-safety-industry-performance.
[6] https://www.americanchemistry.com/chemistry-in-america/research.

Thank you for your consideration of these comments. If you have any questions or would like more information, please free to contact us via phone at (202) 249-7000 or email at Brendan_Mascarenhas@americanchemistry.com or Jessica_Ryman@americanchemistry.com.

Sincerely,

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