



Alliance of Nurses for
Healthy Environments



January 30, 2024
The Honorable Michael S. Regan
Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, DC 20004

Re: Comment on U.S. Environmental Protection Agency's (EPA) Revised Technical Guidance for Assessing Environmental Justice in Regulatory Analysis, Docket # - EPA-HQ-OA-2013-0320; FRL-11531-01-OA

Dear Administrator Regan:

On behalf of the undersigned public health, medical and nursing organizations, we thank you for the opportunity to comment on EPA's "Revised Technical Guidance for Assessing Environmental Justice in Regulatory Analysis" (Revised Guidance). We commend the administration for its commitment to advancing environmental justice (EJ), and we wholly support efforts to integrate EJ into the earliest stages of the rulemaking process. Historically, communities with higher proportions of people of color, low-income populations and indigenous peoples have borne disproportionate environmental and human health impacts, from living in closer proximity to where polluting industries site their business, to having more limited access to clean air, clean drinking water and lead-free housing. When coupled with the accelerating impacts of climate change, which will have its most profound impacts on the most vulnerable in society, a renewed commitment to environmental justice becomes all the more urgent.

The Revised Guidance includes much-needed additions to the Technical Guidance published in 2016, including expanded discussions of cumulative impacts and multiple stressors; the addition of climate change as a factor of vulnerability; consideration of the role of monitoring, compliance and enforcement in exposure and susceptibility; and enhanced discussions of meaningful involvement and the value of participatory science. With additional improvements, EPA can foster greater consistency, predictability and transparency in regulatory analyses of environmental justice concerns and more meaningfully involve communities to address systemic disparities and disproportionate impacts.

Remediating decades of inaction and injustice in environmental regulatory decisions will require thoughtful, sustained action from EPA and other federal agencies. The Revised Guidance is a step in the right direction. Significant data gaps and limitations persist, including limitations in EPA's methods for assessing cumulative impacts, undermining analysts' ability to comprehensively assess EJ concerns. Ultimately, the Revised Guidance offers a set of recommended practices that analysts *should* follow but are not required to follow in regulatory actions. While a thorough analysis of EJ concerns informs how decisions are made, it is ultimately decision-makers who determine how a regulation is finalized and implemented. For this reason, we urge EPA to ensure that EJ is considered from the outset of all regulatory actions, make clear that any agency implementing EPA regulations has a duty to consider EJ in the implementation process and use the full extent of its authority to hold polluters accountable.

We offer the following comments and recommendations for EPA on specific topics within the Revised Guidance.

1. Develop further guidance to support holistic assessments of cumulative impacts.

- a. Analysts should incorporate alternative approaches to evaluating cumulative impacts in Human Health Risk Assessments.

Air pollutants and other harmful environmental toxins do not exist in isolation. We appreciate the enhanced discussion of the limitations of the Human Health Risk Assessment (HHRA) in Section 5 of the Revised Guidance and the recommendation that analysts consider other frameworks to evaluate cumulative impacts. However, EPA's current application of frameworks for assessing cumulative impacts and risk to human health are limited in their ability to capture aggregate exposures from multiple sources, cumulative risk from multiple pollutants and underlying factors of vulnerability.

In Section 5.4, the Revised Guidance acknowledges that "HHRAs often focus on characterizing risk from a single stressor or contaminant" and recommends analysts incorporate other approaches to evaluate potential implications of cumulative exposures from chemical and non-chemical stressors in the HHRA, including the Cumulative Risk Assessment (CRA), Cumulative Impact Assessment (CIA) and Health Impact Assessment (HIA). Here, we encourage EPA to *strongly* recommend analysts incorporate all of these cumulative impacts into risk assessments. We also encourage EPA to explicitly recommend analysts incorporate the impacts of climate change into the HHRA. Within Chapter 5, climate change impacts are mentioned only in passing in Text Box 5.4: "Health Impact Assessment."

EPA should also include an updated version of Text Box 5.5: "Examples of Models, Tools, and Technical Resources for Evaluating Potential EJ Concerns within a Human Health Risk Assessment" from the 2016 Technical Guidance, which is notably absent from the Revised Guidance.¹ An updated text box should include more granular data from state and county databases to inform EJ analyses, as well as resources such as California EPA's CalEnviroScreen 4.0. Additionally, EPA should include links to resources on cumulative impacts assessments, including the updated [Guidelines for Cumulative Risk Assessment Planning and](#)

¹ EPA's [Technical Guidance for Assessing Environmental Justice in Regulatory Analysis](#) (June 2016).
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[Problem Formulation](#), once published. Clear, specific guidance and examples of best practices, models and resources in the Revised Guidance will better equip analysts to produce thorough, consistent analyses of EJ concerns.

As with HHRAs, CRAs are limited in their ability to capture the complete picture of cumulative impacts. The Revised Guidance notes: “applications of CRA at EPA have mainly focused on chemical mixtures and/or single chemicals from multiple sources.”² As the Lung Association noted in comments on EPA’s draft Guidelines for CRA Planning and Problem Formation, in the context of National Ambient Air Quality Standards (NAAQS), EPA’s current risk assessment strategy is not responsive to cumulative risk factors such as other pollutants that co-occur with criteria air pollutants. In her analysis of what EPA considers in setting primary NAAQS, law professor Deborah Behles observed more than a decade ago:

“Inhaling air pollutants can lead to a variety of adverse respiratory and cardiovascular health effects. This potential risk for health impacts is likely greater when the mixture of pollutants that exists in ambient air, rather than isolated pollutants, are inhaled. Despite the evidence of potential cumulative impacts, EPA has continued to focus its analysis of health impacts on isolated pollutants instead of the actual mixture we breathe.... EPA should evaluate and consider cumulative health impacts when it sets national ambient air quality standards under the Clean Air Act... Consideration of cumulative health impacts is consistent with the Act’s requirement to set standards at a level requisite to protect public health, could translate into a more accurate way to estimate risks, and could provide a tool for prioritization of emission reductions in the most heavily impacted communities.”³

In its Cumulative Risk Assessment (CRA) Guidelines, EPA notes:

“CRAs have been performed to inform decisions on some of the National Ambient Air Quality Standards. The NAAQS, as standards for ambient air, reflect consideration of the cumulative concentrations of various pollutants in ambient air, which result from emissions from many sources.”⁴

But this is only partly true. In setting primary (human health-based) NAAQS, EPA considers the cumulative risks (in Health Risk and Exposure Assessments) of criteria air pollutants only among chemically or physically related groups (for which individual NAAQS are set) but not across the different pollutants.⁵

As a CASAC member, Ed Avol, clearly articulated in his assessment of EPA’s draft policy assessment for the 2022 ozone NAAQS reconsideration:

“A recurring shortfall of virtually all NAAQS reviews has been the lack of acceptance and strategy to address multi-pollutant co-exposures. Rarely do real-world ambient exposures occur one pollutant at a time... Acknowledgement of this more realistic

² EPA’s [Technical Guidance for Assessing Environmental Justice in Regulatory Analysis](#) (Draft 2023). Page 45

³ Behles, D. N. (2010). [Examining the Air We Breathe: EPA Should Evaluate Cumulative Impacts When It Promulgates National Ambient Air Quality Standards](#). 28 Pace Env’tl. L. Rev. 200, pages 2 (1)

⁴ EPA’s [Guidelines for Cumulative Risk Assessment](#) (May, 2023). Appendix A-6

⁵ EPA. (Aug, 2014). [Health Risk and Exposure Assessment for Ozone - Final Report](#); EPA-452/R-14-004a; This REA for ozone NAAQS is an example of EPA’s REA that does not include cumulative risks.

exposure scenario would seem appropriate. In the regulatory context of reviewing individual criteria pollutants under the Clean Air Act, one approach to address multi-pollutant exposures might be to consider other contaminants as potential risk factors that could elevate or decrease exposure risk, much as SES, occupation, life stage, race, pre-existing disease, et cetera are considered in assorted reviews.”⁶

A comprehensive assessment that includes cumulative impacts of non-chemical stressors, including socioeconomic and sociodemographic factors, would more clearly define the “adequate margin of safety to protect vulnerable populations” requirement of the Clean Air Act in setting NAAQS.⁷

- b. Develop guidance on how CIA and HIA should be incorporated into rulemaking, and prioritize research aimed at characterizing and reducing cumulative impacts.

The Revised Guidance references CIA and HIA as approaches to evaluating cumulative impacts that take into consideration a wider set of chemical and non-chemical stressors beyond the purview of CRAs, including social factors such as access to health care, neighborhood quality, housing conditions and access to fresh foods. However, CIA and HIA have their own set of limitations. The Revised Guidance notes: “EPA currently does not have guidance on the use of CIA in the context of rulemaking,” and to date EPA has not used the HIA in support of a national regulatory action. Section 5.4 could benefit from an expanded discussion of the strengths and limitations of these assessments, as well as guidance on how analysts should incorporate CIA and HIA in HHRAs. This section should include a link to [EPA’s Cumulative Impact Research: Recommendations for EPA’s Office of Research and Development](#). Additionally, EPA should prioritize research aimed at characterizing interactions between chemical and non-chemical stressors, improve methods for measuring and modeling cumulative impacts to communities and update the Revised Guidance as new tools become available.

- c. Consider cumulative impacts of multiple policies at once.

Just as pollutants and stressors do not impact health independently, single policies do not affect communities in isolation. As EPA notes in its “Cumulative Impact Research: Recommendations for EPA’s Office of Research and Development” report:

“Environmental decisions are rarely made in a vacuum. A new emissions permit, for example, can be issued in the same community in which another new emissions permit was recently issued, thus producing two new stressor sources in quick succession. Adding onto this, the full landscape of decisions in question often includes multiple decision-making authorities, such as permitting decisions alongside regulatory and community investment decisions. Cumulative impact assessments ought to capture the impacts of each of these decisions individually as well as the combined impacts, which may not simply be additive.”⁸

⁶ Clean Air Scientific Advisory Committee. (June 9, 2023). [Review of the EPA’s PA Draft Version 2 for Ozone NAAQS Reconsideration](#). Page 60

⁷ Clean Air Act. 42 U.S. Code § 7409, Section 109 – [National primary and secondary ambient air quality standards](#)

⁸ EPA’s [Cumulative Impact Research: Recommendations for EPA’s Office of Research and Development](#) (Sept 2022). Page 18.

A proposed regulation may only deal with one piece of the puzzle. It is essential that analysts consider the interplay of multiple policies in analyzing EJ concerns and acknowledge the full impact of all sources of pollution and other environmental toxins that already exist in a community.

- d. Emphasize the importance of analyzing life stage in assessments of exposure and susceptibility.

Executive Order 14096 identifies several population groups of concern that face greater risk of disproportionate and adverse human health and environmental effects based on race, ethnicity, national origin, low-income, disability status and tribal affiliation. Section 2.2 of the Revised Guidance notes: “Beyond the population groups identified in E.O.s 12898 and 14096, analysts may also want to consider other economic and social factors associated with increased vulnerability to environmental exposure such as linguistic isolation, occupation and employment status, among others.” While Chapters 4 and 5 make note that higher exposure and susceptibility may be related to life stage (“For example, object-to-mouth behavior and crawling are behaviors associated with infants and toddlers that could increase exposure to contaminants that accumulate on floors or carpets such as lead dust”⁹), the Revised Guidance should place greater emphasis on the need for analysts to incorporate life stage, including infancy, childhood, pregnancy and older age, into risk assessments.

The Revised Guidance should also provide more examples of unique exposure pathways and potential differences in vulnerability based on life stage and provide resources related to exposure assessments by life stage.

One small, additional note: footnote 10 in Section 2.2 which refers users to EPA’s Early Life Stages website currently follows the sentence: “Tribal affiliated and Indigenous Peoples, and those engaged in cultural or subsistence practices are also explicitly mentioned.” However, it would be more aptly placed after the following sentence later in the paragraph:

“It may be useful in some contexts to analyze these population categories in combination or to evaluate additional aspects of diversity within the population groups of concern (e.g., by life stage, gender), particularly when some individuals within specific population groups may be at greater risk for experiencing disproportionate and adverse effects due to greater exposure or vulnerability, including via unique exposure pathways (see Chapter 4).”¹⁰

2. Improve guidance on meaningful involvement and public outreach.

- a. Provide greater guidance around how to meaningfully involve impacted communities.

As noted in the Revised Guidance, communities have unique knowledge of their needs and vulnerabilities. Allowing impacted communities to have a voice in the rulemaking process is essential to just decision-making. The Revised Guidance should include greater discussion and

⁹ EPA’s [Technical Guidance for Assessing Environmental Justice in Regulatory Analysis](#) (Draft 2023).
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¹⁰ EPA’s [Technical Guidance for Assessing Environmental Justice in Regulatory Analysis](#) (Draft 2023).
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examples of best practices to meaningfully involve communities. Best practices should include technical assistance and resources such as townhall type meetings with scientists, engineers and technical experts who are directly involved in the process and/or are known in the field to explain and help the public understand the issues. The Revised Guidance should refer analysts to EPA's updated "Meaningful Involvement Policy" once published and consider how the two documents can be integrated and complement one another.

In comments on EPA's "Meaningful Involvement Policy," we encouraged EPA to:

- Develop a standard framework of best practices to guide public engagement across EPA.
- Provide opportunities for public participation, including both virtual and in-person listening sessions, scheduling public hearings/comment opportunities outside of normal working hours, providing easy-to-use interfaces for individuals to register to participate in such sessions.
- Make accommodations for non-English speakers and those with different abilities.
- Provide a calendar with the timeline of the regulatory process along with deadlines for public engagement.
- Prominently list all current rulemakings on a single webpage.
- Provide a summary of all substantial comments EPA receives from the public at each stage of rulemaking.

Additionally, EPA should actively seek input from EJ communities in the review process for the Revised Guidance and expand outreach efforts to enable impacted communities to participate in every step of the rulemaking process. The regulatory process is often both intimidating and confusing and the public cannot participate if they do not know of or understand an agency action. As the OMB Guidance Memo on Broadening Public Participation¹¹ indicated,

“(E)ven if individuals are aware of the regulatory process, they might not be aware of specific regulations or issues that agencies are considering if agencies publicize opportunities only in the Federal Register... Furthermore, it may be challenging for members of the public to understand which regulations agencies are currently considering, what stage of regulatory development a proposal is in, and how the proposal may affect them.”

Therefore, pre-rule engagement by the agency in a clear, transparent, and consistent approach to inform and educate the public on both the content and the process is essential for their participation. Moreover, because a regulation is expected to evolve with each listening session, public comment period and interagency consultation/review, it is imperative that the public stay engaged throughout the process starting with pre-rule engagement.

- b. Provide specific guidance around how analysts should integrate qualitative assessments, including lived experience and perspectives of impacted communities.

We commend EPA for highlighting the value of qualitative analysis and participatory science in the Revised Guidance. However, EPA should provide more specific guidance on how qualitative information will be integrated into risk assessments and analyses and how it will be weighed in

¹¹ Revesz (OMB). (Jul 19, 2023) [Memo on Community Engagement in the Regulatory Process](#). Page 7

decision-making. Qualitative assessments and participatory science can be particularly useful when recent, high-quality quantitative data are not available and quantitative assessments are not feasible or those quantitative assessments don't fully capture the consequences. Participatory science is a means of meaningfully engaging impacted communities in data collection to identify community and EJ concerns that may otherwise be masked in quantitative assessments alone. Additionally, EPA should highly recommend that analysts seek community involvement in HHRA's.

- c. Require analysts to justify with written documentation why a regulatory option does not require EJ analysis.

We appreciate that the Revised Guidance encourages analysts to be transparent about data gaps and limitations and clearly document decisions on what data is included and where data limitations affected the scope of the analysis. As part of this transparency, the Revised Guidance should be explicit that in any case where an analyst determines there is an absence of EJ concerns, the analyst must clearly document and justify this determination. Data limitations should not be sufficient justification for the absence of an EJ analysis.

3. Improve resources and information provided to analysts and guidance users.

- a. Improve resources and examples provided to users.

Overall, the resources and examples provided to analysts in the Revised Guidance could be improved. For instance, Appendix C "Examples of Analyses of Potential EJ Concerns from Regulatory Actions" from the 2016 Technical Guidance is notably absent in the Revised Guidance.¹² The Revised Guidance should include an updated version of Appendix C. Additionally, in Text Box 2.1: "Characterizing Differences in Effects for a Regulation," it is unclear how users should interpret the examples provided and if these are examples of best practices of various terminology analysts should use in characterizing differences in effects. EPA should make clear the intention of the examples provided in the text box.

In Section 2.3, which outlines meaningful involvement considerations as defined in Executive Order 14096, the information in footnote 22 that details ways federal agencies should seek out and encourage meaningful involvement should be included in the main text of Section 2.3, including providing information in a way that can be meaningfully accessed by a diverse set of populations, including individuals with limited English proficiency. The full footnote from the Executive Order provides crucial information that analysts should consider when involving communities.

Additionally, the term 'heterogeneity' is not currently defined in the Revised Guidance. A definition should be included in the Glossary. Furthermore, since many of the research priorities and data gaps identified in the 2016 Technical Guidance persist and remain the same as those identified in the Revised Guidance, Chapter 7 would benefit from a table or text box outlining what progress has been made since the last iteration of the guidance and what gaps remain.

¹² EPA's [Technical Guidance for Assessing Environmental Justice in Regulatory Analysis](#) (June 2016).
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b. Provide training on EJ analysis to EPA staff.

EPA should provide training to staff to ensure that analysts are familiar with best practices and requirements. Training will help ensure that EJ analyses are conducted from the outset of rulemaking.

4. Make clear that agencies implementing EPA's rules should consider EJ and cumulative impacts in the implementation process.

We appreciate EPA's emphasis on integrating EJ analysis early in the rulemaking process. However, as with any other EPA guidance, the Revised Guidance notes in the disclaimer on page vi:

"This document is not a rule or regulation and it may not apply to a particular situation based upon the circumstances. This Guide does not change or substitute for any law, regulation, or any other legally binding requirement and is not legally enforceable."

Thus, the success of EJ efforts will depend on EPA's ability to ensure that EJ guidance also applies to implementation of the rules. We encourage EPA to highlight in the Revised Guidance that agencies implementing EPA's rules should also consider EJ and cumulative impacts in the implementation process and develop consistent guidance for states on how states should incorporate EJ and cumulative impacts in permit actions.

Thank you again for the opportunity to provide input on this important guidance. We applaud this administration for its leadership in advancing environmental justice in EPA's practices, policies and programs, including integrating environmental justice into the earliest stages of rulemaking. We look forward to seeing the final Revised Guidance.

Signed,

Alliance of Nurses for Healthy Environments

American Lung Association

American Medical Association

American Public Health Association

Medical Society Consortium on Climate and Health

National Association of Pediatric Nurse Practitioners

Physicians for Social Responsibility