

Community-based exposures and susceptibilities – a social justice challenge for TSCA implementation

Jeff Morris, former director of the US EPA's Office of Pollution Prevention and Toxics, says that considering the potential exposures and susceptibilities of communities near areas of high chemical-related activity is consistent with TSCA and sound public policy

18 August 2020



We are at an important point in the history of social justice, both globally and in the US. Individuals and organisations across the country are finding ways to be positive agents of change for a more just society. As we enter the fifth year of the [Lautenberg Act amendments to TSCA](#), it is worth considering how those of us involved in chemical safety can play our part. The country is looking for leadership in improving the safety, health, and overall well-being of people. One place for those of us in the chemicals arena to start is in communities where there may be exposures and susceptibilities not captured in assumptions made about the general population.

TSCA requires the US EPA to consider potentially exposed, or susceptible, subpopulations in chemical risk evaluations. Considering the potential exposures and susceptibilities of people living in communities located near areas of concentrated chemical-related activity, is consistent with both TSCA and sound public policy. Meanwhile work to understand the potential exposures and susceptibilities of people in such communities can lead to productive stakeholder dialogue around advancing social justice through enhancements to chemical management.

In order to focus discussion and encourage action, in this article I propose a number of leadership opportunities

for TSCA stakeholders who I believe are committed to improving the well-being of all Americans, and are therefore open to efforts aimed at maximising the overall societal benefits associated with chemical production and use in the US.

Community impact

In response to its [draft scope](#) documents for 20 high-priority chemicals, the EPA has received comments raising concerns about a lack of discussion of the impacts of chemicals on communities located close to high-volume chemical facilities.* In not considering the exposures these communities face, coupled with non-chemical stressors that make their populations susceptible to adverse effects from chemical exposure, the EPA is not meeting TSCA's requirement to consider potentially exposed or susceptible subpopulations in its evaluation of a chemical's risk to people and the environment, the commenters argue (Gartner, et al., p3). These comments are a challenge to all of us in the industrial chemicals area to explore how these exposures and susceptibilities could be considered in TSCA risk evaluations.

Residents of the types of communities cited by the commenters may meet the exposure element of the "potentially exposed or susceptible subpopulations" definition in a similar way as do workers in chemicals-

related activities, in that their potential for exposure is due to their continual, long-term proximity to a chemical substance. Unlike workers, however, community residents are not subject to personal protective equipment requirements or other exposure protections, nor do they have choice in, or control over, (or often knowledge of) their chemical exposure.

Those who work in chemical-related activities, and also live in these communities, present even more complex considerations regarding the aggregation of exposures across occupational and nonoccupational scenarios, as well as accounting for any susceptibilities they may have as residents of the community.

Regarding susceptibilities, consistent with the scope document comments, it is important to understand the nature of any health, environmental, or other conditions in communities near highly concentrated chemical-related activity that may increase susceptibility to health impacts from exposure to a chemical undergoing TSCA evaluation. It may be neither possible nor advisable to generalise across, or even within, some communities regarding the presence of non-chemical stressors (or stressors from chemicals other than the chemical subject to a TSCA evaluation). However, to not explore the existence of such stressors and if they are present, their impact on a population that may fall under TSCA's "potentially exposed or susceptible subpopulations," seems inconsistent with TSCA's intent and sound chemical risk evaluation practice.

The comments on the scope documents identify potentially substantial information needs for the [20 high-priority chemicals](#). That said, the three-year period (with a possible six-month extension) that TSCA allows the EPA to complete a risk evaluation provides a relatively short period of time to fully articulate any such exposures and susceptibilities for the 20 chemicals. The risk evaluation process includes issuing a draft scope document for public comment; finalising the scope document; developing a draft risk evaluation, issuing it for public comment, and putting it through independent peer review; and, informed by comments from the public and peer reviewers, issuing a final risk evaluation. To complete these process steps within three years, information on a chemical, including information on potentially exposed or susceptible subpopulations, ideally would be generated and available to the EPA before the agency begins drafting the scope document.

To make progress on this issue with these and future chemicals, I highlight below two key areas that should be addressed: regulatory nexus and stakeholder leadership.

Regulatory nexus

Regulatory nexus refers to TSCA's role in relation to other statutes that regulate chemicals, such as the Clean Air Act, Clean Water Act, Safe Drinking Water Act, and Resource Conservation and Recovery Act. It was introduced into the EPA's scoping of its [first ten](#) risk evaluations and continues in the current 20 chemicals, reflecting a position that TSCA should not duplicate the chemical evaluation and management activities pursued under other statutes that regulate chemicals. Underpinning regulatory nexus is the idea that laws should work together to advance the well-being of American society. Central to the debate around regulatory nexus is the question of whether TSCA serves as a gap filler to complement chemical analyses done to support other statutes, is the primary and overarching statute for chemical evaluation, or functions somewhere in between.

A strong case can be made that evaluating potential exposures and susceptibilities of people in communities near high levels of chemical-related activity is a role given explicitly and specifically to the EPA under TSCA as those exposures and susceptibilities relate to the chemical substance under its conditions of use. If the extent and nature of these ... are not captured in modelling of the general population, then addressing this information gap would appear to fall squarely within the TSCA section 6 requirement to consider potentially exposed or susceptible subpopulations.

However, regulatory nexus need not be a barrier to evaluating community-based exposures and susceptibilities under TSCA. A strong case can be made that evaluating potential exposures and susceptibilities of people in communities near high levels of chemical-related activity is a role given explicitly and specifically to the EPA under TSCA as those exposures and susceptibilities relate to the chemical substance under its [conditions](#) of use. If the extent and nature of these exposures and susceptibilities are not captured in modelling of the general population (for TSCA or any other statute), then addressing this information gap would appear to fall squarely within the TSCA section 6 requirement to consider potentially exposed or susceptible subpopulations. In addition, section 26(h) of TSCA mandates that the EPA conduct chemical evaluations "in a manner consistent with the best available science," and section 26(l)(3) indicates the need to consider potentially exposed or susceptible subpopulations when determining TSCA information needs.

It is consistent with a sound, risk-based approach to chemical evaluation to consider whether activities in a particular type of setting present exposure potential

specific to place-based activities, as well as whether in these locations non-chemical stressors create susceptibilities to adverse effects from chemical exposure under a chemical's conditions of use. Thus a strong argument can be made that community-based exposure scenarios and non-chemical stressors, to the extent they affect chemical risk under the conditions of use, are appropriate for consideration in TSCA risk evaluations. Therefore, regarding regulatory nexus, section 6 and section 26 requirements support the argument that in many instances TSCA will be the statute best suited for considering these exposures and susceptibilities in chemical risk evaluation.

Stakeholder leadership

A second issue concerns how to put work on this issue into operation. Since the enactment of the [Lautenberg Act amendments](#), the EPA has initiated and led every element of TSCA implementation. This model made sense in setting up the infrastructure for administering the TSCA amendments. But now that is done, and with the EPA's existing chemicals workload more than doubling in 2020, consideration should be given to a new model where stakeholders initiate and lead specific implementation activities. While some functions are inherently governmental and must be performed by the EPA, there are many activities involving data gathering and analysis that can be done by stakeholders prior to the information being used by the agency in its evaluations and decisions. Stakeholders' leadership on how to consider the potential exposures and susceptibilities of people in communities with high levels of chemical-related activity in TSCA risk evaluations would be an excellent application of this new model.

TSCA workplan

The best opportunity for robust dialogue around community concerns with chemical exposure exists with the chemicals on the 2014 update to the [TSCA workplan](#) that have not yet entered the risk evaluation process. If the EPA continues the approach it has taken to date for prioritisation, most if not all of the next group of high-priority chemicals will likely continue to come from the chemicals on the workplan. That said, nothing precludes the identification for prioritisation of chemicals not on the TSCA workplan. If chemicals not on it are of interest because local conditions present potential exposures and susceptibilities not captured in assumptions for the general population, then it may be appropriate to consider those chemicals as priorities for evaluation. Given that the next evaluations will not begin for at least three years, now is the time to explore how to consider community-based exposures and susceptibilities in TSCA risk evaluations.

I recommend the following three near- and medium-term steps to advance dialogue on this issue. First, an analysis should be done of those chemicals on the TSCA workplan to identify which of them are manufactured or processed in communities located in high concentrations of chemical-related activity. Second, from that analysis a public stakeholder workshop should be convened to discuss the analysis, with the objective of identifying priorities for in-depth, chemical-specific evaluation of the susceptibilities of populations potentially exposed to the chemicals identified in the analysis. The third step would be development of an analysis plan to determine what data need to be generated, collected, compiled, and analysed to inform inputs into future prioritisation and scoping processes for the subject chemicals with respect to community-based susceptibilities.

It would be of great public service if stakeholders outside the agency took leadership roles in discussion, and action, on understanding potential exposures and susceptibilities of communities near chemical facilities and, where they exist, how they can be incorporated into TSCA risk evaluations. Industry stakeholders, who have the best understanding of chemical operations and what is possible to address communities' concerns about potential unintended exposures from chemical operations, are particularly well placed to play leadership roles in such dialogue. Indeed, these companies are part of the communities in which they operate. They have facilities, workers, managers, and financial interests in the communities and may already have community engagement activities underway. Whether existing initiatives are leveraged or new ones started, companies with operations in these communities are uniquely placed to exercise leadership in showing how any potential exposures and susceptibilities of the populations where they have facilities could be considered in TSCA chemical evaluations. Now is the time to exercise leadership on this issue, as much as possible with the 20 chemicals currently under evaluation but even more so with the remaining chemicals on the TSCA workplan.

Today's events call on all of us, as Americans, to do our part to improve social justice and well-being in our country. Working together to bring a fuller range of considerations into TSCA risk evaluations is something that those of us involved in this area should actively support. We all will benefit from expanding, within communities and across the nation, the health, environmental, and economic benefits of sound chemical management.

The views expressed in this article are those of the expert author and are not necessarily shared by Chemical Watch.

Footnotes

* Comments on Draft Scopes of the Risk Evaluations for the First Twenty High-Priority Substances under the Toxic Substances Control Act, Eve C. Gartner et al., Earthjustice on behalf of Community In-Power and Development Association et al., regulations.gov, ID: EPA-HQ-OPPT-2018-0451-0031.

Disclaimer: Content on Chemical Watch (including any of its websites) shall not be regarded as professional advice and is not intended as such. CW Research Ltd does not accept liability for inaccuracies in published material. Customers are advised to take appropriate professional advice to inform business decisions.

Copyright: Documents and web pages downloaded from Chemical Watch (including any of its websites) are for the use of registered users only. Such documents and web pages must not be distributed or republished without consent from CW Research Ltd (email enquiries@chemicalwatch.com). Copyright in original legal texts and guidance remains with the respective government authorities.