

EPA's New Science Advisor Process

By: Susan E. Dudley | March 2, 2022

In brief...

EPA's new process for engaging its science advisors would embed them in every step of the rulemaking process, which risks diminishing the independence of their review and possibly foreclosing consideration of important research, perspectives, and policy options.

On Monday, the Environmental Protection Agency (EPA) announced [new procedures](#) for engaging its Science Advisory Board earlier in the rulemaking process. EPA will create an *SAB Work Group for Review of Science Supporting EPA Decisions* to evaluate proposed regulations to determine whether their supporting science warrants full SAB review. EPA will also share with its SAB staff office a copy of its draft [semi-annual agenda](#) of regulatory actions (a list of policy actions at different stages of development) concurrent with submitting it to the Office of Management & Budget (OMB). Further, when EPA submits a significant regulatory proposal to OMB for interagency review, it will send that draft and associated technical support documents to the SAB office to share with the new Work Group.

EPA will also hold monthly meetings to brief the Work Group on upcoming actions, discuss which of those actions warrant review by the full 47-member board, and identify the “charge questions” to be considered by the full SAB. The new procedures take effect immediately.

While the [press release](#) announcing the new procedures emphasizes the importance of independent scientific review, engaging the reviewers in every stage of the policy development process may have the opposite effect. Too close a relationship between EPA staff and SAB members may be a particular concern because SAB members often conduct research on the very topics they are asked to peer review, sometimes with funding from EPA. A small number of reviewers—all dependent on EPA for their selection, support, and [reappointment](#) (p. 31)—may suffer from [groupthink](#) as described in the [behavioral](#) psychology literature, [including](#) “close-mindedness, involving a collective effort ‘to rationalize’ so as to discount warnings or information that might lead to reconsideration, and stereotyped views of enemies.”

The process memo states that the SAB's statutory role is to focus on the “adequacy of the scientific and technical basis” of the actions it is reviewing, and not to weigh in on policy aspects of EPA actions. That is an [important distinction](#), but a very difficult line to draw as it is next to impossible to keep [hidden](#)

[policy judgments](#) from creeping into a scientific assessment. Scientists will never have complete information to predict outcomes with certainty, so they rely on assumptions, judgments, and rules of thumb. These various judgments—including which science to consider, how individual studies are weighed and combined, how to handle competing theories, which models to use, etc.—can have very large impacts on the resulting assessment of risks. And these embedded judgments, intentionally or not, can bias the ultimate advice provided to decision-makers and the public.

By embedding the SAB in every stage of a rulemaking, EPA’s new process risks allowing a small group of reviewers to shut out discussion on important scientific and technical topics. It may even foreclose consideration of regulatory alternatives that might address pressing needs. A coalition of parties affected by rulemaking have recently [raised concerns](#) about the short window of opportunity EPA provides for public comment on SAB reviews, and encouraged a “more robust and transparent process that provides adequate time for stakeholder input.” Rather than empower selected individuals with more authority over the science EPA considers in its rulemaking, EPA should provide earlier opportunities for a wide range of expertise and perspectives. As a 2012 Keystone Center [report](#) emphasized, “all potential panelists will have conscious and unconscious biases,” making it important to engage people with diverse perspectives and expertise in open dialogue and exchange of views.

Recent advances in public engagement and data analytics would allow EPA’s science and policies to benefit from the wisdom of crowds. For example, EPA might publicly share advance notices seeking input on available scientific studies, or experiment with a “wiki” or “[distributed knowledge collaboration](#)” approach by providing a forum for diverse individuals to build on each other’s information, adding, editing, updating, and correcting to engage the wisdom of dispersed knowledge on issues where no one person or group has complete information.

Effective environmental policy that focuses resources on addressing real threats to public health and the environment depends on reliable scientific information and transparent policy choices. Engaging EPA’s science advisors earlier in the process could support those goals, but EPA’s new process risks blurring the lines between science and policy and foreclosing valuable insights from diverse sources.