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Re: **Comments on the Proposed Report on Carcinogens Review Process**, 76 Fed. Reg. 67200 (Oct. 31, 2011)

Dear Dr. Lunn:

The Society of the Plastics Industry, Inc. (SPI) appreciates the opportunity to provide comments concerning the National Toxicology Program's (NTP) proposed Report on Carcinogens (RoC) review process.[1] SPI members represent the entire plastics industry supply chain, including processors, machinery and equipment manufacturers and raw materials suppliers. The U.S. plastics industry employs nearly 1 million workers and provides nearly $327 billion in annual shipments.[2]

We agree that the RoC review process needs revision; however, NTP's proposal is incomplete and fails to address critical policy and process considerations. While the RoC review process is framed in terms of administrative steps, the NTP fails to take into account the broader perspective. In developing an enhanced process, NTP must necessarily consider the inseparable and interconnected relationship between the administrative process, preservation of scientific integrity, and role of science and science policy in administrative proceedings and the decision-making process within the broader context of participatory democracy.

[1] *See* "Proposed National Toxicology Program (NTP) Review Process for the Report on Carcinogens: Request for Public Comment and Listening Session," 76 Fed. Reg. 67200 (Oct. 31, 2011).

[2] For more information on SPI, visit www.plasticsindustry.org.

From this necessarily broader perspective, the RoC review process should not merely be a procedural checklist. More importantly, it must embody criteria that supports and ensures meaningful consideration of all the scientific data, include a transparent framework for the interpretation of the data, and clearly explain the application of science policy supporting the statutory foundation of the Report on Carcinogens.

I. Heightened Review of the Selection of Both Candidate Substances and Scientific Data is Necessary

SPI supports changes to the review process to ensure that more rigorous consideration is given to determining whether to add a nominated substance to the list of candidate substances for RoC evaluation. The selection of a candidate substance for carcinogenicity review and listing of such substance on the public RoC website can alarm the public, stigmatize the substance, and lead to significant business disruption. Accordingly, we support the proposed additional front-end review by the NTP Executive Committee and Board of Scientific Counselors (BSC) in determining whether to select a substance for RoC evaluation.

We emphasize, however, that review by these panels will only prove meaningful if they consider scientific information provided by outside stakeholders when determining whether the available exposure and carcinogenicity evidence justifies RoC evaluation. Typically, the most relevant, current data is developed and best-understood by outside stakeholders with the resources and interest to support such work. Thus, the panels should not only have access to written public comments, but should also be charged with reviewing scientific information conveyed in the comments relevant to the selection of candidate substances. While this may lengthen the front-end process for selecting candidate substances, it will ultimately result in a more efficient monograph development process.

To this end, we also support a detailed analysis by such panels of the NTP's proposed approach for conducting a literature review and obtaining external/public scientific input in the development of the cancer evaluation. As the Office of Management and Budget's (OMB) *Final Information Quality Bulletin for Peer Review* asserts:

> *[I]n the context of risk assessments, it is valuable to have the choice of input data and the specification of the model reviewed by peers before the agency invests time and resources in implementing the model and interpreting the results. "Early" peer review occurs in time to "focus attention on data inadequacies in time for corrections*."[3]

Any "concept document" prepared by NTP during the candidate substance selection process should be explicit about the criteria NTP will use to determine which scientific papers to review

[3] "Final Information Quality Bulletin for Peer Review," Memorandum from Joshua B. Bolten, Director, Office of Management and Budget, Executive Office of the President to Heads of Departments and Agencies, p. 14 (Dec. 16, 2004).

and how those papers will be evaluated. In developing such criteria, NTP should heed the following recommendation:

> *Agencies and their scientific advisory committees need to extend their inquiry beyond simply ascertaining whether a paper was peer reviewed; peer review is a necessary but not sufficient determinant of quality. That further inquiry might explore how the peer review was conducted, how the paper fits into the larger body of literature under review; and perhaps most important, the methodology behind the conclusions described in the paper (for example, how a cohort to study was chosen in an epidemiological study).*[4]

Implementation by NTP of these substantive measures will ensure that selection of a candidate substance and the methodology for conducting a literature review is the product of thorough, objective, and expert consideration. As noted above, these front-end measures will save NTP resources and prevent disruption during the RoC monograph drafting stage.

II. NTP and Its Review Panels Should Consider the Full Body of Relevant Scientific Literature, and Transparently Explain the Uncertainties and Limitations of Such Data

NTP and its scientific advisory committees should cast a wide net in reviewing studies relevant to regulatory policy, and should make their methods for filtering and evaluating those studies transparent.[5] According to the White House's Memorandum on Scientific Integrity:

> *The accurate presentation of scientific and technological information is critical to informed decision making by the public and policymakers. Agencies should communicate scientific and technological findings by including a clear explication of underlying assumptions; accurate contextualization of uncertainties; and a description of the probabilities associated with both optimistic and pessimistic case projections, including best-case and worst-case scenarios where appropriate.*[6]

NTP must provide peer reviewers with the relevant positive and negative evidence related to carcinogenicity, and an appropriately broad mandate so that the members of the peer review panel can render a meaningful weight of the evidence evaluation.[7]

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[4] "Improving the Use of Science in Regulatory Policy," pp. 41- 42, Bipartisan Policy Center (Aug. 5, 2009).

[5] *Id*.

[6] "Memorandum on Scientific Integrity," p. 2, John P. Holdren, Assistant to the President for Science and Technology and Director of the Office of Science and Technology, to the Heads of the Executive Departments and Agencies (Dec. 17, 2010).

[7] *See* "OMB Proposes Draft Peer Review Standards for Regulatory Science," Office of Management and Budget, Executive Office of the President, p. 4 (Aug. 29, 2003).

With respect to the peer review charge, OMB's *Final Information Quality Bulletin for Peer Review* directs:

> *The charge should ask that peer reviewers ensure that scientific uncertainties are clearly identified and characterized. Since not all uncertainties have an equal effect on the conclusions drawn, reviewers should be asked to ensure that the potential implications of the uncertainties for the technical conclusions drawn are clear. In addition, peer reviewers might be asked to consider value-of-information analyses that identify whether more research is likely to decrease key uncertainties. Value-of-information analysis was suggested for this purpose in the report of the Presidential/Congressional Commission on Risk Assessment and Risk Management.*[8] *A description of additional research that would appreciably influence the conclusions of the assessment can help an agency assess and target subsequent efforts.*[9]

Consistent with this mandate, NTP and its review panels must weigh the relative quality of all relevant studies (including competing studies), review new scientific information as it is brought to the attention of the program, and explain the limitations and uncertainties inherent in their evaluation of the available science.

Under the current process, NTP developed a "Background Document" that sought to be a comprehensive summary of the scientific literature. NTP's description of the proposed process provides no commitment or insight into the depth or scope of the "draft RoC Monograph." The implication of the terminology in the proposal suggests that NTP is abandoning a comprehensive summary of the literature. We specifically request that NTP abandon its past practice of only presenting studies that the staff views as supportive of a proposed classification and commit to a fully transparent presentation throughout the process, including meaningful peer review.

III. NTP Must Distinguish among Scientific Data, Data Interpretation, Science Policy, and Regulatory Policy

The listing of a substance in the RoC reflects NTP's administrative decision based on the agency's application of statutory criteria.[10] Properly applied, the scientific method is the best vehicle that civilization has developed to produce and validate data on the physical world. Of course, the data may have varying degrees of certainty, but available data is the foundation for informed decision-making. But, data in isolation rarely answers the questions posed by

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[8] *Presidential/Congressional Commission on Risk Assessment and Risk Management*, Risk Commission Report, 1997, Volume 1: 39, Volume 2: 91.

[9] *See supra*, note 2 at 16.

[10] 42 U.S.C. § 241(b)(4) requires that the Secretary of the Department of Health and Human Services publish a biennial report which contains a list of all substances (1) which either are known to be carcinogens or may reasonably be anticipated to be carcinogens; and (2) to which a significant number of persons residing in the United States are exposed.

regulatory agencies. To formulate an answer, the data must be interpreted. This is particularly true for determinations of whether a substance presents a known or probable carcinogenic risk to humans. Substances with limited or extensive scientific literature present parallel challenges. Limited databases frequently call for extrapolation, while extensive databases regularly require the reconciliation of divergent results. In this regard, it is important to recognize and explain the relationships between data, interpretation and the application of science policy and regulatory policy. The agency must determine, as a matter of policy, how to reconcile scientific uncertainty, weigh risk, and determine what is "reasonable" in light of the technology at stake and the public exposure. This same concept is recognized by experts in the area of regulatory science:

> *[D]ecisions about how much risk society should tolerate or what actions should be taken in the face of scientific uncertainty are not science questions, rather they concern policies and values. Matters such as risk and uncertainty need to be informed by scientific results, but science cannot tell policy makers how to act. True, distinguishing between science and policy is not always easy or straightforward, and scientists may make choices based on values in the course of their work. Nonetheless, policy debate would be clarified and enhanced if a systematic effort were made to distinguish between questions that can be resolved through scientific judgments and those that involve judgments about values and other matters of policy when regulatory issues comprise both*.[11]

Accordingly, policy decisions should not be disguised as scientific findings,[12] nor should the NTP frame regulatory issues as debates solely about science.[13] Rather, NTP must be transparent that when it publishes the RoC it is presenting a policy judgment informed by the accumulated scientific evidence, not scientific fact.[14]

IV. Meaningful Opportunity for Comment

The bulk of NTP's activities revolve around scientific research. NTP researchers often publish the results of their work in peer review journals. Peer review, in that context, is generally an assessment by experts of whether the content of the study report is internally consistent and in accord with scientific principles and appropriate study protocols. NTP appears to have taken a similar approach with the proposed RoC review process. This is, unfortunately, a serious error. The purpose of the comment period is not simply to determine whether the proposal conflicts with the current state of the science. The purpose, presumably, is to determine whether the

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[11] *Supra*, note 3 at 15.

[12] "Opening Memorandum to EPA Employees," Lisa P. Jackson, Administrator, U.S. Environmental Protection Agency (Jan. 23, 2001).

[13] *Supra*, note 3 at 11.

[14] *See supra*, note 2 at 15 (citing Mark R. Powell, *Science at EPA: Information in the Regulatory Process*, Resources for the Future, Washington, D.C., 1999: 139).

proposal can be improved and whether it advances the interests of the public and NTP. The current proposal fails from at least two important perspectives.

First, when agencies change their processes or positions, the time-honored approach is to note the prior position, explain why the position is no longer tenable, and present the rationale for the new approach. In doing so, a comparison of old and new processes is essential. Here, for example, NTP refers to the preparation of a "Monograph." The content, scope and detail of that document are not explained. NTP does not compare the Monograph to the Background Document that it has been preparing. While the proposal is unclear, the reader is left with the impression that the new Monograph will be less comprehensive then the prior Background Documents, but, without discussion or elaboration by NTP, the real substance of the process is unknown. It is this deficiency in particular, *i.e.*, the inability to determine how the new process will impact substantive decisions and the participatory rights of the public, that fails to meet the fundamentals of sound administrative practice. More bluntly, this is simply unfair.

To make matters worse, the Board of Scientific Counselors will meet on December 15, two weeks after the close of the comment period, to review the NTP proposal. By any measure, this does not leave adequate time for NTP to consider the public's comments and revise its proposal before presenting it to the Board. Even if NTP devotes all its resources to understanding, internally debating and revising the draft proposal, there is scant if any time for the Board to study and reflect on the revised proposal. Ultimately, one is left with the impression that the comment period is a mere formality rather then an opportunity to gather views and improve the final work product.

V. Conclusion

SPI supports reform of the RoC review process aimed at enhancing scientific integrity and agency accountability. Unfortunately, NTP's proposal is incomplete and fails to address critical policy and process considerations. We urge NTP to defer review by the Board of Scientific Counselors until the NTP has had a meaningful opportunity to review public comments and engage stakeholders in formulating a comprehensive approach.

Deferral and re-proposal is necessary because this is not a matter of simple modification. The explanatory rationale and comparative discussion with the current process is missing, as well as a meaningful explanation of the content of the steps that NTP has outlined in its proposal. Similarly, NTP needs to marry these process steps with the procedural criteria it will employ in preparing the next RoC. For example, NTP has never detailed its process for determining whether a substance presents a known or reasonably anticipated carcinogenic risk to humans, analogous to the U.S. Environmental Protection Agency's (EPA) "Guidelines for Carcinogen Risk Assessment" (2005).[15] Although NTP has characterized the RoC as a hazard identification

[15] Available at http://epa.gov/cancerguidelines/

exercise, the RoC's consideration of human exposure coupled with a risk classification in one or two categories, moves the RoC well beyond mere hazard identification.

NTP's current and mistaken approach is captured in the very name that NTP uses, that is, the "Review Process" for the RoC. The proposal should embody and be approached as the procedural heart of the RoC "Development Process." Only a reproposal will be able to achieve this essential goal.

As a recognized stakeholder in deliberations affecting the field, we appreciate this opportunity to provide our views on this important issue and would be pleased to engage in a dialogue with the agency, provide elaboration, or answer questions.

Sincerely,
[Redacted]

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