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Governor
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NORTH CAROLINA
Environmental Quality

Secretaries' Science Advisory Board
Official Recommendation

Subject: PFAS Toxicity Assessment Review
Date: July 8, 2024

Summary:
During the April 3, 2024, NC Secretaries' Science Advisory Board (Board) meeting, the Board compared the PFAS toxicity assessments that were used as the foundation for the Environmental Protection Agency's (EPA) National Primary Drinking Water Regulation (NPDWR) [PFOS, PFOA, HFPO-DA, PFBS, PFNA, PFHxS] and the PFAS toxicity assessments produced from the EPA's Integrated Risk Information System (IRIS) program [PFBA, PFHxA]. Synoptic information detailing the methodology used for each of the assessments were provided to the Board ahead of the meeting aid in their discussion. The NC Department of Environmental Quality (NC DEQ) asked the NC SSAB to review the information provided and determine if the toxicity assessments that the EPA produced/used to support the NPDWR are consistent with the IRIS Handbook guidelines. The charge question posed by NC DEQ and the Board's summarized discussions are provided below.

The charge question posed to the Board by NCDEQ during the April 3, 2023, meeting was:

- Are the EPA and Center for Disease Control and Prevention (CDC) Agency for Toxic Substance and Disease Registry (ATSDR) assessments used to support the EPA's NPDWR adequate and of comparable quality to the EPA's IRIS assessments?

The Board's Evaluation and Discussion Summary:
To address DEQ's question, the Board reviewed the synoptic materials that were shared ahead of the April 3, 2024, meeting which outlined the ATSDR MRL Development Handbook, and PFAS-specific MRL Development Protocol, and the EPA IRIS Handbook methodologies for comparison. The Board also viewed the PFAS Toxicity Assessment Review Presentation that summarized the background information that supports the charge question presented above (DEQ 2024).

The discussion included a detailed examination of the CDC ATSDR toxicity assessments, and the documentation that the EPA provided that accompanied the EPA review prior to inclusion in the NPDWR. The Board compared the methodologies of the federal agencies assessments to the IRIS Handbook methodology. Since the IRIS process is a very lengthy and elaborate process, and the IRIS program could not have completed all of the assessments required for the EPA's PFAS Roadmap in the allocated timeframe, the EPA spread the work to different programs in the organization. The Board agreed that all the toxicity assessments produced by the EPA follow the IRIS Handbook methodology and are of comparable scientific rigor. The CDC ATSDR toxicity assessments that were used in the NPDWR were also scrutinized by the Board. The Board agreed that the CDC ATSDR assessments alone are not fit-for-purpose to be comparable to the IRIS assessments. However, since the EPA evaluated the scientific studies included in the CDC ATSDR assessments and derived reference doses that meet the standards of the IRIS program for use in the NPDWR, the Board agreed that the reference doses that are used in the NPDWR are of comparable scientific rigor to the IRIS assessment reference doses and of comparable fit-for purpose to the EPA IRIS toxicity assessments.

The Board's Response:
The NC SSAB finds, regarding the eight PFAS that DEQ is proposing for water quality standards development, that the non-IRIS EPA assessments and the EPA's reference doses that are based on the CDC ATSDR assessments are adequate and of comparable fit-for-purpose to the EPA's IRIS assessments.

The Board unanimously approved this recommendation during the April 3, 2024, meeting.

References:
See attachments.

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