

SUMMARY

EPN Comments on Proposed Perchlorate Drinking Water Standard

On August 26, 2019, EPN submitted comments to EPA raising serious concerns about its [proposed new](#) drinking water standard for perchlorate. Perchlorate is a persistent contaminant of concern that occurs naturally in arid regions such as the Southwest, and is manufactured as an industrial chemical for use in rocket propellant, explosives, fireworks and road flares. Surveys have detected perchlorate in food crops and milk and at varying levels in drinking water. Exposure to food or drinking water contaminated by perchlorate can disrupt thyroid function and lead to the reduced production of thyroid hormones critical to healthy metabolism. Thyroid hormones are essential to normal growth and development of the central nervous system in fetuses and infants, putting pregnant women, their fetuses and newborns at special risk. EPN has concluded that the proposed perchlorate drinking water standard does not provide an adequate margin of safety for the vulnerable subpopulation of fetuses and infants or for the broader population, among other concerns.

EPA is proposing a drinking water regulation for perchlorate and a health-based Maximum Contaminant Level Goal (MCLG), the non-enforceable maximum level of a contaminant in drinking water at which no known or anticipated adverse health effects would occur, with an adequate margin of safety. EPA is proposing to set both the enforceable Maximum Contaminant Level (MCL) for perchlorate—the highest level allowed in drinking water—and the perchlorate MCLG at 0.056 mg/L (56 µg/L).

In addition, EPA is proposing requirements for water systems to conduct monitoring and reporting for perchlorate, and to provide information about perchlorate to their consumers, as well as requirements for primary agencies responsible for supervising public water systems under the [Safe Drinking Water Act](#). Finally, the proposal includes a list of treatment technologies that would enable water systems to comply with the MCL.

In its comments, EPN raised significant concerns about the proposed action, including that it:

- Lacks robust epidemiology studies making it very difficult to estimate the likelihood and magnitude of the effects on neurodevelopment in fetuses and infants exposed to perchlorate through cord blood, breast milk and formula;
- Sets the proposed perchlorate standard on a reference dose (RfD) that does not provide an adequate margin of safety. An RfD is an estimate, with uncertainty spanning some order of magnitude, of a daily oral dose to people, including sensitive subgroups, that is likely not to cause appreciable risks of negative health effects during a lifetime.
- Uses a novel approach to derive a Relative Source Contribution (RSC) for perchlorate that must be peer reviewed by external experts before it can be used. A RSC is the proportion of the total daily exposure to a chemical that is attributed to tap water in calculating acceptable levels; and
- Presents serious implementation issues, including the extent and cost of the initial perchlorate monitoring required by states and water systems, the adequacy of EPA's cost-benefit analysis of the proposed regulation, and the inclusion of an option to withdraw from the [2011 regulatory determination](#) that EPA would regulate perchlorate in drinking water.

Due to serious questions about the scientific defensibility of the EPA perchlorate regulation and the validity of the monitoring and cost-benefit analysis, EPN strongly recommends that EPA: (1) submit a new

proposal that does not include an option to withdraw from the 2011 regulatory determination; (2) recalculate the MCLG and MCL with an appropriately sensitive endpoint, an adequate margin of safety, and a peer-reviewed RSC; and (3) develop cost-effective monitoring recommendations and a cost-benefit analysis that accounts for co-benefits.