EPA Efforts to Reduce Risks from Microbial Contaminants and Disinfectants/Disinfection By-products

Balancing Risks

• Public water systems use disinfection to kill harmful microbial contaminants that can cause illness, and may even be fatal for those with weak immune systems. However, disinfection and the resulting by-products also pose risks, including potential increases in cancer rates and liver and kidney damage. The challenge is to strike an appropriate balance between these two risks so that public health is adequately protected.

Regulatory Negotiation

- To help meet this challenge, EPA convened a negotiating team in November 1992 to assess the risks and determine the most appropriate course of action. The negotiating team included representatives from:
 - Public water systems
 - State and local health agencies
 - Environmental organizations
 - Consumer groups
 - Federal, state, and local governments
- The negotiators agreed to a three-part program:



1. Modest interim controls of disinfectants and disinfection by-products (D/DBP), and microbial contaminants

Based on existing data, interim controls were determined for controlling D/DBPs and microbial contaminants. These controls are being proposed by EPA as a D/DBP rule and an enhanced surface water treatment (ESWT) rule for microbial control.

Under the proposed D/DBP rule, communities would be required to meet new standards for disinfectants and disinfection by-products. The existing standard for trihalomethanes would be lowered and extended to cover all systems, regardless of size. The rule would also establish six new maximum contaminant levels to control excessive use of disinfectants and reduce by-product formation.

The ESTW rule proposes a number of treatment options for protecting water systems against harmful protozoa, such as <u>Giardia</u> and <u>Cryptosporidium</u>, and viruses. It would require systems with poorer source water to provide greater control than is currently required under the existing surface water treatment regulation. A sanitary survey would be required every five years so that public water systems would periodically evaluate the effectiveness of their operations. The proposed rule would apply to those systems serving 10,000 people or more; however, the sanitary survey would also be applicable to those systems serving less than 10,000 people.

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