



FACT SHEET - SULFATE

A State and Local Perspective

This proposed rule is an innovative approach to regulating a naturally-occurring drinking water contaminant. The approach EPA developed, working in cooperation with several States at a 1992 meeting, was designed specifically to provide relief to smaller systems in offering a means of compliance less expensive than central treatment. Under this approach, the State would have the authority to allow public water systems (PWSs), as one means of compliance with the sulfate MCL, to provide alternative water and public education/notification to the targeted population.

The proposed rule has been developed to ensure that sulfate levels in drinking water are reduced below levels of concern by a unique means of compliance tailored to the target population. The health effect from sulfate is temporary diarrhea to those not accustomed to high levels of sulfate in drinking water. The target populations consists of infants, travelers and new residents in areas with high sulfate levels in water. This proposal is a combination of "alternative water" and public notification/education, and affects all systems (community water systems, transient non-community water systems, and non-transient, non-community water systems). Most of the approximately 2,000 systems expected to exceed the sulfate MCL serve populations of 3,300 people or less. "Alternative water" is defined as either bottled water which has been monitored or certified to be in compliance with all EPA MCLs, or water filtered by a point-of-use or point-of-entry device.

The proposed Maximum Contaminant Level for sulfate is 500 mg/L. Central treatment technologies effective in removing sulfate are reverse osmosis, ion exchange and electrodialysis reversal.

Unique Means of Compliance

Four options are being proposed for public comment. The lead option requires provision of alternative water to both transient adults (travelers and new residents) and infants. Two variations of the lead option require provision of alternative water to infants only. These two options differ only in the content of the public notification. In one case, only infants are considered at risk, and temporary diarrhea is considered as only an inconvenience for adults. In the other, both

adults and infants are considered at risk, but public notification is deemed sufficient protection for adults. Because the lead option and its two variations represent a significant change in regulatory approach, EPA considered another, more conventional option. This fourth option would enable systems to seek a variance from the sulfate MCL. As a condition of receiving a variance, systems would be required to provide alternative water to their target populations, just as in the lead option. The only difference is that the relief for small systems would be provided through a different statutory mechanism.

SUMMARY OF PROPOSED OPTIONS

Option	1 Lead	2	3	4 Variance	Central Treatment
Target Population	Adults & Infants	Infants	Adults & Infants	Adults & Infants	Adults & Infants
Alternative Water provided	Adults & Infants	Infants	Infants	Adults & Infants	No
Public Notification/ Education	Yes	Yes	Yes	Yes	No

Community Water Systems (CWSs) adopting the lead option would be responsible for providing alternative water on request to any household which has an infant or travelers (guests), and to any household with new residents who have moved to the community from outside the service area. For CWSs, there are four components to the proposed public education and public notification requirement: notices in bills, pamphlets, signs and notices to the media.

Transient systems, which comprise most of the affected systems (1,200 of 2,000), and non-transient, non-community systems would be required to make alternative water available for travelers and new residents at establishments in the service area. Where the target population is affected on a relatively continual basis, systems may find it more cost-effective to provide POU or POE devices. Systems which rarely serve the target population could choose to have a supply of bottled water on hand. PWSs would be responsible for maintaining POU/POE devices to ensure their continuing effectiveness. Public notification for transient systems and non-transient, non-community systems would consist of permanent signs in places such as rest areas, campgrounds, gas stations, etc. The signs would state the nearest location of drinking water for individuals not acclimated to high sulfate levels. If the location has a POE device, posting would not be necessary, since all taps would provide water that complies with the MCL.

Monitoring

Monitoring for sulfate would be one sample every three years for ground water systems, and annual samples for surface water systems for systems with no detections or which have BAT installed. A system with sulfate levels exceeding the MCL which is authorized by the State to comply by implementing the unique option being proposed would not be required to continue monitoring, since water in compliance with the sulfate MCL would be provided to the target population.

COST OF THE PROPOSED OPTIONS

NATIONAL ANNUAL SULFATE COSTS FOR OPTIONS 1 - 4 (\$ MILLIONS)			
	OPTION 1 (LEAD)	OPTIONS 2/3	OPTION 4 (VARIANCE)**
Central Treatment	\$71* (500 systems)	-	\$139
Public Not./Ed Alternative Water	\$7 (1,500 systems)	\$8	-
State Implementation	\$7	\$7	\$7
Monitoring	\$0.5	\$0.5	\$0.5
Total	\$86	\$16	\$147

* This total is for 25% of the 2,000 affected systems, which EPA estimates will install central treatment, in spite of the availability of the less expensive, unique alternative.

** Even though the variance provision is available, for costing purposes, this option assumes 100% of systems comply by installing BAT.

Source: RIA for Sulfate, August 31, 1994

For more information, contact the Safe Drinking Water Hotline, 1-800-426-4791.

