

Development of the drinking water standard research paper

[Health & Medicine](#), [Alcoholism](#)



In 2000, the US Environmental Protection Agency conducted a survey of drinking water and safety in 25 states. The findings revealed that an average of 34 million Americans used tapped water. The tapped water contained average levels of arsenic, which posed a massive cancer risk among the users. The report indicated that at least 56 million people used arsenic water to unsafe levels. The data was analyzed from findings collected in 25 states, and this implied that the risk of arsenic water could be more than recorded if data was collected in all states.

In a report released in June 2000, EPA proposed the need to revise the arsenic standards from 50ppb to as low as 5ppb. The report also had comment options of 3ppb, 10ppb, and 20ppb (EPA 2001, par 4). This proposal was based on the findings from the survey conducted in February 2000 and also relied from an analysis conducted by the National Research Council (NRC) in 1999. The former had recommended that arsenic standards should be reduced but did not provide the recommended level. In its report, the NRC had concluded the studies for required for improving the validity of arsenic water, and provided these recommendations to EPA.

The standards proposed by EPA were meant to apply to community water systems in an attempt to reduce the levels of arsenic compounds in tapped water. Non-community water systems such as community wells were required to monitor and report any cases of increased levels of arsenic waters. EPA finalized its report in January 22 2001 and set a standard of 10ppb to non-community, and non-transient, and community water systems. The agency provided a five year warrant for all water systems to apply the new water standards as under the SDWA provisions. Under this obligation,

EPA estimated that over 5.5% (1100) of the estimated 54000 community water systems and 5.5% (1100) of the estimated 20,000 non-transients and non-community water systems needed to take the 10ppb measure.

In meeting this objective, however, EPA required to develop new standards to rule as under the Safe Drinking Water Act (SDWA). The requirement was that water standards should have zero percentage of Carcinogens, unless the arsenic and Carcinogen levels exist at a level which has limited adverse effects. EPA then set a standard meant to improve on feasibility. This was achieved through the use of technology and treatment of water to ensure the 10ppb objective, and in reduction of risks associated with arsenic compounds. However, this was limited on consideration to expenditure and costs. A congress was later formed, which would discuss, and come up with a considerable budget to ensure feasibility, and balance on the costs.

The congress recognized that costs and technical considerations in large cities were not comparable to those in the small community systems (EPA 2001, par 9). Small systems were granted exemptions while large systems had to cater for some costs. To create a balance, EPA provided that systems serving less than 10,000 people could have average costs ranging between \$38 and \$327, annually. For larger systems, the costs could range from \$0.86 to \$32 per household. Several boards such as Science Advisory Board (SAB) and American Water Works Association (AWWA) criticized the provision with the anticipated costs and benefits. To settle the critics, the standards were set as bills. However, none of the bills has been enacted.

Reference.

EPA United States Environmental Protection Agency. Fact Sheet: Drinking Water Standard for Arsenic. EPA 815-F-00-015, January 2001. Work cited, http://water.epa.gov/lawsregs/rulesregs/sdwa/arsenic/regulations_factsheet.cfm