

Q&A

11Q3: I have found a well with enough amount of water. Its arsenic concentration is 0.013mg/L while water quality standard value is 0.01mg/L. The concentration value can be 0.01mg/L by rounding. Then it can ensure the standard. Is such method right?

A: Water quality standard of harmful substance is decided with considering its influence to human health. For chronicle toxic substance such as arsenic, standard value is decided as a safe concentration, no damage to human health, while a human drink the water for long term. Concentration of such substance must not exceed the standard value. When the standard is 0.01mg/L, 0.011mg/L of concentration is considered as exceeding the standard. For this reason, official analytical method is requested that its sensitivity is lower than on tenth of the standard value. For a case that exceeding standard is not frequent, water utility can supply water with restricted use, No drinking, no cooking, etc. While concentration exceeds the standard value, such water is not appropriate for drinking water. There is no way to loosen the standard because it is strictly bound to human health. Just same for any other harmful substances. It is also expected that standard items on comfortableness, such as turbidity, color, chloride, iron, manganese, etc. do not exceed standard. In some countries, water utility can supply water when such items do not ensure the standard, though water utility should improve water quality to ensure all of standard items. But in Japan, all the items should ensure the standard when a water utility begins supplying water.

(Answerer: Mr. SASAYAMA Hiroshi, JWVA, 2015)