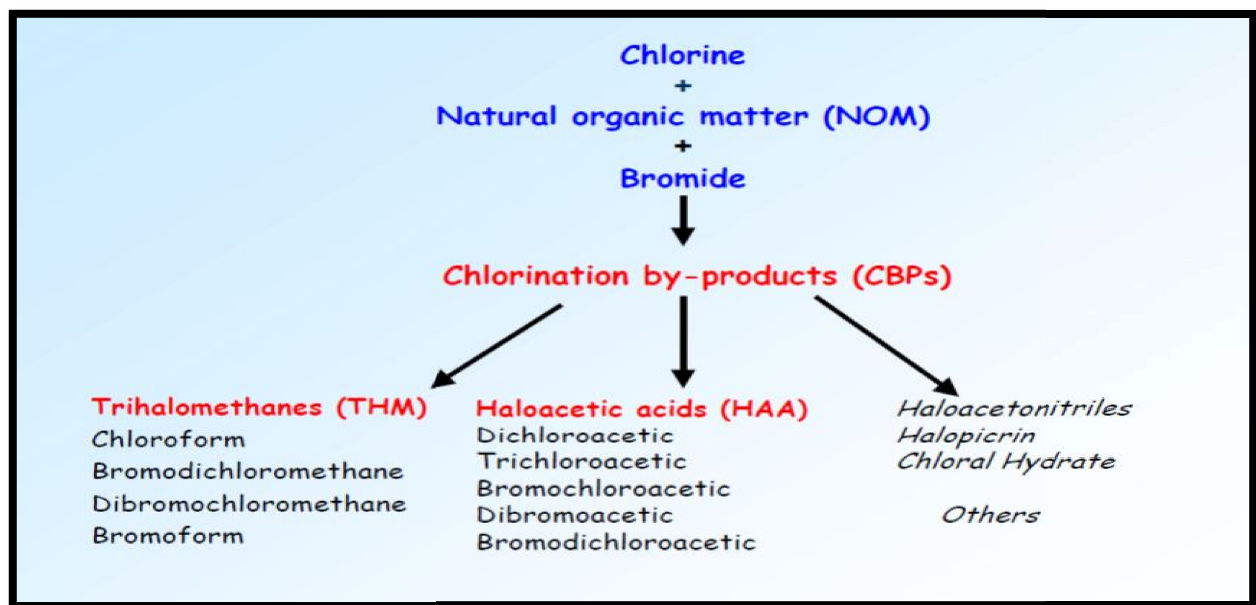


Study of Presence of Trihalomethans in Chlorinated Drinking water of Indore city

Objective: The main objective of the project is to determine the concentration of Trihalomethanes such as Chloroform, Dichlorobromomethane , Dibromochloromethane, and bromoform in chlorinated drinking water supplied to Indore M.P city. The project also aims to check whether the drinking water supply from different filtration plants around Indore city is in under permissible limit or not as per IS 10500 (2012).



The most important types of the subsidiary compounds which are produced as by-products of disinfection process are trihalomethanes. Trihalomethanes (chloroform, bromodichloromethane, dibromochloromethane and bromoform) are the most common byproducts of water chlorination which are found in higher concentrations in comparison with other organo halogenated pollutants in potable water. There are following two main filtration plants of Nagar Nigam supplied treated drinking water to Indore City.

1) Yashwant Sagar Dam

2) Narmada water treatment plant at Jalud

Samples of raw water, treated water, stored treated water of reservoirs/overhead tanks, user ends and RO water from user ends were collected for analysis.

Monitoring of Trihalomethanes in Chlorinated Drinking water of Indore city



Picture: Intake point at Indira Sagar Filtration Plant Indore



Picture: Filter Bed at Indira Sagar Filtration Plant Indore



Picture: Intake well at Narmada water treatment plant at Jalud



Picture: Sump, Narmada treatment plant at Vachu point, Indore



Picture: Intake well at Narmada filtration plant at Mhow



Picture: Overhead tank at BSF Colony, Indore

Trihalomethanes such as Chloroform, Dichlorobromomethane, Dibromochloromethane and bromoform were analyzed using chromatographic technique and results were compared with BIS 10500 (2012). From the obtained data up to third quarter, it was observed that Trihalomethanes were not present in raw water, it was found in treated, water supply tank/ reservoir and user end water. However, the concentration of THMs is well below the standard norms.