

DISINFECTION BYPRODUCTS PRECURSORS REMOVAL FROM DAM RESERVOIR WATER

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Abstract: The water of the Wisła-Czarne reservoir is of very low hardness and alkalinity. In spite of high SUVA values it is not susceptible to enhanced coagulation. In order to achieve the assumed results, coagulation with ALS (aluminium sulphate) should be conducted in two optional technological systems – in a conventional system and in “in-bed” coagulation dependently of water quality and its temperature. Effective treatment with ALS is possible, even at low temperature of the water, but at strict technological parameters. However, because of significant variations of water quality, especially after rainstorms, it is very difficult to meet such requirements. Application of pre-hydrolyzed Flokor 1,2A instead of ALS enables to eliminate reagents to the pH adjustment and to apply “in-bed” coagulation when water supplied to the WTP is of low turbidity. To assure stable technological system operation, in aspect of raw water quality changes, some activities were also undertaken, i.e. modernization of rapid filters, which involved a drainage system and exchange of sand bed for anthracite-sand bed. Treatment based on direct filtration results in decrease of reagents usage and, what is especially important, effective DBPs precursors removal.