

GENERATION AND MANAGEMENT OF WASTEWATER FROM GROUND WATER TREATMENT

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Abstract: Use of various wastes containing iron or aluminium in wastewater treatment can be considered as an alternative method to expensive and commercial reagents. These wastes can be recycled thanks to this method, which is important from an environmental point of view. Washings generated during ground water treatment are rather useless but they are one of waste iron sources. The article demonstrates a description of two ground water treatment plants supplying the city of Koszalin with drinking water. On the basis of data from the last four years, a balance of the annual amount of iron sludge formed as a result of backwashing filter beds in both plants was performed. The amount of waste iron exceeds $10 \text{ Mg Fe}\cdot\text{year}^{-1}$. Research on waste iron usage to remove orthophosphates from a model solution and real sludge liquor from sludge digestion showed that iron sludge from washings can be efficiently used in wastewater treatment technology.