

Removal of ammonium for drinking water by biological treatment and by electro dialysis

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ABSTRACT

Ammonium constitutes a hampering element in the production of drinking water. It interferes with the chlorination to form chloramines so modifying the smell and the taste of the water. This paper presents the description and the optimization operations of the biggest biological treatment plant in Morocco for the elimination of ammonium in the presence of sulphides. The difficulties met and the steps taken to surmount them are described. These steps greatly improved performance but did not reach the planned and the contractual requirements. The paper also presents the preliminary results of ammonium removal by an electro dialysis pilot plant. The ED tests showed excellent performance and the water quality was significantly improved, especially the TDS.

Keywords: Ammonium; Biological plant; Performance, Electro dialysis, Conductivity

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