

Reuse of a dyehouse effluent after being treated with the combined catalytic wet peroxide oxidation process and the aerated constructed wetland

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Catalytic wet peroxide oxidation process was combined with the aerated constructed wetland in order to treat the raw dyehouse wastewater to the acceptable level for the reuse as the washing process water. More than 90 % of BOD and CODs could be removed with the wet peroxide oxidation reactor, and the remaining pollutants in the treated water were transformed into biodegradable ones which could have been successfully be treated at the following aerated constructed wetland. The highest values of BOD₅, COD_{Mn}, COD_{Cr}, SS and T-N in the treated water were 1.6, 1.8, 2.1, 0.5 and 12.8 mg/L, respectively. These values were low enough for the treated water to be reused at the washing process.