TECHNICAL TUESDAYS

TOPIC: Effluent Treatment Plant Process Sequence in Textile Industry

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What is Textile Processing Effluent?

The textile Wet Processing industry consumes large quantities of water and produces large volumes of wastewater from different steps from Pretreatment to finishing processes.

Wastewater from printing and processing units is often rich in color, containing residues of dyes and chemicals, such as complex components contain high COD and BOD called Textile Effluents.

Effluent Treatment Plant Process Sequence in Textile Industry:

Cooling & Mixing:

After primary filtration, the liquor passes to cooling and mixing tank in which uniform mixing of effluents from various process takes place. A paddle mixer is provided for mixing. Cooling of the effluent may be done with the help of cooling tower.

Neutralization

The effluent is pumped to a tank in which it is neutralized by acid or alkali dozing. The tank has an automatic dosing controller which at automatically control the dose of acid or alkali to maintain the required pH.

Co-Agulation

Then the effluent is pumped to the co-agulation tank. Chemical co-agulation very effective for removal of color and suspended materials, aluminum, ferrous sulphates, ferric chloride, chlorinated copper etc. to increase the efficiency of co-agualtion, co -agulation gain may be added for example polyacrylate.

Setting & Separation of Sludge

Some of the soluble organic matter and light suspended solids will form a blanket of flocculent matter with the co-agulants. The blanket is skimmed of to another tank and the remaining solution is moved to pressure filter.

Pressure Filter

For pressure filtration vacuum pumps may be used to force through the filter and suspended flocks are collected in the pressure fine filter.

Discharging to Drain:

After filtration the purified water sent to drain which eventually reach to the river or anywhere else.

Wishing you a great week ahead!

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