

ASSESSMENT OF INDUSTRIAL WASTEWATER TREATMENT PROCESSES

Krishna Raj Singh*

*SBAS, Sanskriti University,

Mathura, Uttar Pradesh, INDIA

Email id- hodbio-tech@sanskriti.edu.in

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ABSTRACT

The article explores some analyses concerning industrial wastewater treatment methods, with aerobic, anaerobic, or a mixture of both ways being used in these investigations. The article tries to carefully examine the academics' as well as researchers' motivations, instruments, and results. The management of chemical industrial effluent from a structure as well as the building chemical plant alongside a rubber shoe factory is looked at. The effluent from the various facilities is dumped into the city sewage system. The wastewater discharged from the structure as well as the construction chemical plant is determined to be highly contaminated with organic chemicals, according to the results. Biochemical oxygen demand (BOD) and Chemical oxygen demand (COD) averaged 149.8 mgO₂/l and 2911.8, respectively. Phenol concentrations as high as 0.28 mg/litter were observed. With ferric chloride and lime chemically treated was successful, and the effluent had a characteristic that was within Egyptian allowed limits. Domestic wastewater is mixed with industrial wastewater at the other plant to reduce the burden i.e., organic. After mixing, the BOD and COD readings were 2614.8 and 5238.8 mgO₂/litter, respectively. 0.48 mg/litter is the average phenol content. As a consequence, the chemical industrial wastewater's properties determine which treatment plan to employ. Engineering development of each treatment system based on laboratory results.

KEYWORDS: *Aerobic Reactor, Aerobic, Anaerobic, Chemical Industrial Wastewater, Wastewater Treatment Plant.*

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