



100% Reuse of Water & Sludge in the Process

(Zero Liquid Discharge)





Case Study – 1	Wall and Floor tile manufacturing industry, having a Waste Water treatment plant designed to reuse 100% of water back to the process in wet grinding
Implementing the technology	<p>Before:</p> <ul style="list-style-type: none"> The effluent generated in the plant was sent for treatment in the Effluent Treatment Plant and the waste water generated was not recycled/reused anywhere. <p>After:</p> <ul style="list-style-type: none"> The waste water after the primary treatment of the effluent is pumped back into the plant for utilizing in the slip preparation (wet grinding) operation. <p>Flow diagram of the Zero Discharge waste water recycle plant (ETP)</p> <pre> graph LR A[Waste water from all dept.] --> B[Collection Tank] B --> C[Primary treatment] C --> D[Settling tank] D --> E[Water back to various departments] E --> F[Various Dept] D --> G[Sludge drying bed] </pre>

Benefits	
Environmental	<p>Before:</p> <ul style="list-style-type: none"> • High consumption of fresh water • Waste of water in the disposal of the effluent <p>After:</p> <ul style="list-style-type: none"> • Conservation of fresh water by recycling of waste water back into the process, hence saving the same amount of fresh water • Zero discharge of liquid from the industry
Economical	<p>Industry had to buy more amount of water from the GIDC water supply system.</p> <p>Reduced amount of purchase for fresh water due to recycling 134.13 KL/Day of waste water.</p>