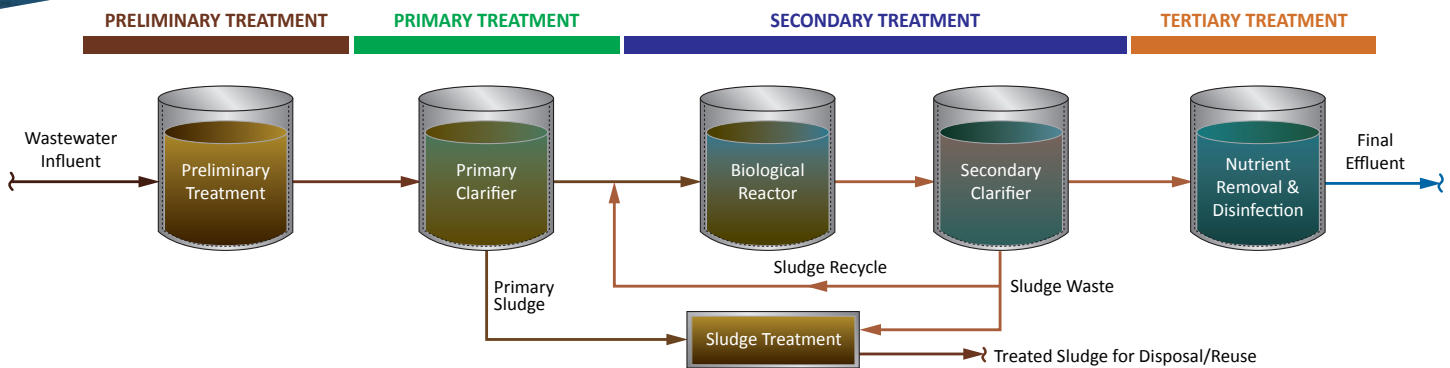


Oil and gas refineries are constantly striving to reduce costs, increase throughput, and maximize reliability while achieving the highest level of safety and environmental compliance. ChemTreat's wastewater solutions help improve the reliability of operations, protect your assets, and ultimately make our customers more competitive.



ChemTreat can help you address the treatment needs in your systems, including the following:

Preliminary Treatment

& off-spec water pretreatment prior to discharge to wastewater treatment plants

- Biochemical oxygen demand (BOD) and chemical oxygen demand (COD) reduction
- Reduction of inhibitory compounds/improved biodegradability
- Stripped sour water
- Spent caustic
- Sulfur compounds, such as hydrogen sulfide, thiosulfates and mercaptans
- Phenol
- Benzene

Primary Treatment

- Induced gas flotation (IGF) or dissolved gas flotation (DGF) enhancement with complete line of coagulant and flocculant polymers for emulsion breaking and total suspended solids (TSS) reduction
- pH control and coagulant/flocculant dosage optimization

Secondary Treatment

- Biological treatment enhancement and F/M monitoring through on-line total organic carbon (TOC) and TSS monitoring
- Supplemental Dissolved Oxygen (DO) for biological treatment systems during periods of high organics (BOD/COD/TOC) loading to WWTP (e.g., during turnarounds)
- Toxicity control
- Nitrification improvement
- Filamentous bulking control
- Foam control & bioaugmentation
- Supplemental nutrients
- Pond inversion, septicity prevention & odor control
- Sludge conditioning, sludge thickening & dewatering polymers

Tertiary Treatment

- Metals removal treatment products and strategies (selenium, arsenic, and iron)
- Organics (BOD/COD/TOC) reduction
- Effluent sulfide oxidation prior to discharge
- Enhanced backwashing of multi-media filters
- Dioxins removal through advanced oxidation and granular activated carbon
- Final effluent disinfection (as required)

