

Electrocoagulation

Water Recovery and Reuse

General Industry

Industry Applications

Bio diesel, metal plating, radioactive isotope removal, textile dye removal, food processing plants, emergency potable water, groundwater cleanup, surface water cleanup, raw sewage treatment, pretreatment for reverse osmosis, ultra filtration and nano filtration, coal (hydrocarbon condensate), cooling towers, mining, antifreeze regeneration, commercial laundries, pressure washers and steam cleaners, and aquaculture

Challenges:

- Water discharge liabilities
- Cost of make-up water
- EPA and state fines and possible prison penalties
- Heavy metals, fats, oils, and grease
- Total suspended solids (TSS)
- Bacteria, viruses, cysts, pharmaceuticals, and hormones

Solution:

Electrocoagulation:

- Leaves water reusable, requiring no water discharge or potential liability; saves on sewer costs, monitoring, and testing fees, as well as the cost of make-up water
- Eliminates chemical coagulation
- Meets EPA compliance
- Destroys fecal coliform by 99+ %
- Removes T-Phos by 98+ %
- Reduces BOD5 by 98+ %
- Reduces Fat, oils, and grease by 98%
- Lowers TSS by 98+ %
- Reduces Radium, Uranium, Plutonium-239, and Americium-241 by 99+ %

Electrocoagulation vs. Chemical Coagulation

	EC	CC
Lowers capital costs	Yes	No
Decreases hazardous wastes	Yes	No
Decreases solids by 27% - 60%	Yes	No
Decreases sludge by-product	Yes	No
Lowers excessive labor costs	Yes	No
Lowers toxic wastes transportation expense	Yes	No
Neutralizes pH of by-product	Yes/ 7	No/10 +
Separates fats, oils, and grease effectively	Yes	No
Lowers toxic wastes transportation and storage liability	Yes	No
Produces reuse water	Yes	No
Separates and recovers metals	Yes	No
Lowers capital costs	Yes	No



