

Case Study: Pharmaceutical

Challenge

At GlaxoSmithKline, Scotland, treatment of two fermentation broths from proprietary manufacturing processes along with solvent recovery column bottoms was required to off-load the existing activated sludge plant. Fourteen different technologies were evaluated. The BCS AFC process was selected as the economic choice and successfully met all design guarantees while operating for over 10 years.



Solution

The BCS AFC system's full-load capacity is 70 tons of COD per day. Installed system's capital cost was \$13 million. An existing activated sludge plant on-site, with 56 tons of COD per day capacity, cost \$30 million. Solids separation is by ultrafiltration which, combined with chemical treatment, assures that no proprietary fermentation components leave the facility.

Result

- No potential of proprietary manufacturing organisms or product released to effluent
- Eliminates off-site disposal liability
- Total off-gas control, no odors
- Virtual elimination of waste sludge disposal
- Small footprint
- Permit compliance

