



WATER MINING

Dynatec's Membrane Bioreactor Process chosen for NYC Green Building

The LEED (Leadership in Energy and Environmental Design) Green Building Rating System™ is a voluntary, consensus-based national standard for developing high performance, sustainable buildings.

Dynatec Systems has recently been awarded the contract to supply a membrane bioreactor system to treat 50,000 GPD of sanitary wastewater (black water) for The Helena apartment building in New York City. This unique application will actually mine wastewater such that it can be reused in the building cooling system and for other uses.

https://www.usgbc.org/LEED/Project/project_detail_step_1.asp?PROJECT_ID=1535

Achievable Effluent Quality

Membrane Bioreactor technology (MBR) has traditionally been used in difficult wastewater reuse applications where high quality and reliability was required. Now that normal effluent limits have reached lower requirements (5.0 mg/l total N and < 0.1 mg/l P) the MBR is being utilized more often than in the past to meet these new effluent limits. The effluent quality and lack of system upsets means that water reuse is now a realistic option.

Significant Savings

- Small foot-print saves building cost
- Water reuse reduces overall consumption
- Remote monitoring available
- Easy maintenance avoids labor costs and regulations

Land Development

- Residential Housing
- Office Parks
- Apartment Complexes
- Recreational Facilities

Technology Benefits

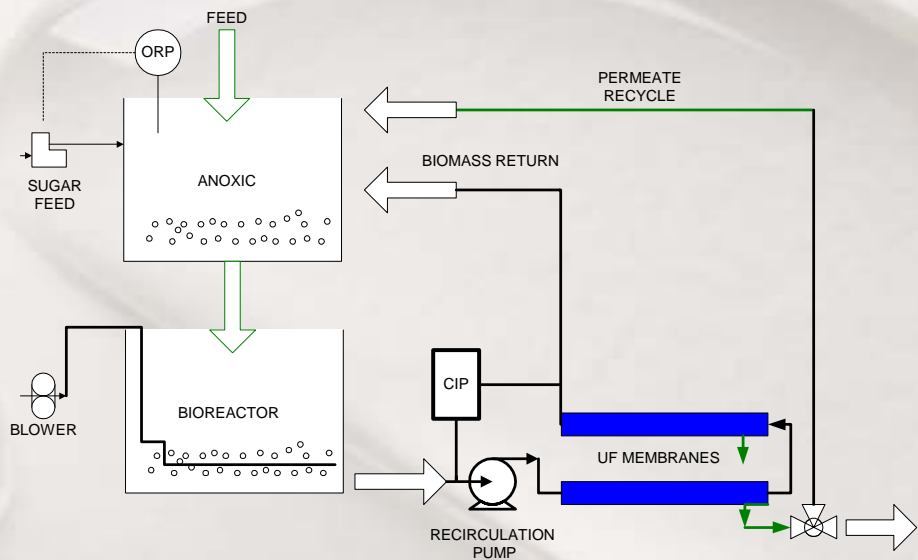
- Membrane separation system uses long-lasting tubular ultrafiltration (UF) membranes
- Simple mechanical process
- Consistent high quality water
- Ability to reuse purified water
- Low operating costs
- Unattended operation
- Minimal sludge disposal costs
- Retrofit existing conventional treatment systems

Contaminants Removed

- BOD5
- TSS
- Nitrogen
- Phosphorous

Services Provided

- Systems Design
- Equipment and Installation
- Operator Training
- Maintenance Contract



Dynatec Systems MBR Flow Schematic

Space Saving Wastewater Treatment

Space savings is an important reason to select an MBR for commercial buildings requiring wastewater treatment. The MBR process requires smaller tank sizes than conventional wastewater processes allowing new applications for wastewater treatment including Water Mining where reuse of water is important. A 50,000 GPD treatment system will be installed on the second floor of The Helena apartment building in a space of approximately 2500 S.F.