

Case Study

Lower Melville Wood Leachate Treatment Plant

Client:

Fife County Council

Principal Contractor:

TAL Civil Engineering

M&E sub-contractor:


Colloide

Location:

Ladybank,
Fife

Project:

Leachate Treatment Plant



In collaboration with TAL Civil Engineering and SLR acting as the Client representative for Fife County Council, Colloide Engineering took on the role of Specialist Process Engineer and Mechanical and Electrical Engineering Subcontractor at this site.

The objective was to design and construct a state-of-the-art Leachate Treatment Plant, ensuring compliance with environmental regulations.



Project Deliverables

The main components of the system

- Fine bubble aeration system
- 2no. air blowers
- SBR discharge system
- SBR instrumentation
- Leachate feed pumpset
- Reed bed discharge pumpset
- Final discharge pumpset
- Catchment bund pumpset
- Control room
- Chemical dosing room
- Reed bed equipment and instrumentation
- Interconnecting pipework and valves
- Plant insulation and trace heating
- Pumping systems instrumentation
- Chemical storage and dosing equipment
- Access platforms and stairs
- Control panel and wiring
- SCADA system
- Building services (exterior and interior)



Environmental Focus

Sustainable Commitment

The scope of our involvement extended beyond installation and commissioning. Colloide Engineering also took responsibility for the process commissioning of the plant. This included the crucial task of seeding the plant and operating it for three months before handing over to the Client. Our dedicated team meticulously managed the entire process, ensuring a smooth transition and optimal performance of the treatment plant.

The final design of the leachate treatment plant incorporated various essential components, such as inlet balancing, SBR (Sequencing Batch Reactor) treatment, and reed bed treatment. These features worked in harmony to effectively treat the leachate before its final discharge into the river, ensuring compliance with stringent environmental standards.

Colloid's commitment to delivering high-quality solutions, combined with our technical expertise, played a pivotal role in the successful completion of this project.

