CASE STUDY

CATERPILLAR UK — ENERGY EFFICIENT PAINT PLANT

- Design and Installation of new solvent free paint plant facility.
- Mechanical, Electrical and Civil works.
- New de-sludging and separation process.
- New PLC controls systems
- Integrated with paint curing and spray facility

BESPOKE DESIGN

ESP projects are designed to meet specific client requirements with full computer simulation used to prove all designs.

ENERGY EFFICIENCY

As approved Carbon Trust Consultants, we will ensure that the system energy performance is optimised to produce lower operational costs.

PROJECT CDM AND MANAGEMENT

Our engineers and consultants will ensure that all aspects of the design and installation are fully compliant and all relevant permissions and safety requirements are fully adhered to.

MCS ACCREDITED

ESP is an accredited installer, approved under the Government's Micro-generation Certification Scheme.

CARBON TRUST

ESP are approved Carbon Trust Energy and Biomass Consultants.

ESP were engaged by Caterpillar UK to design and project manage Caterpillars new paint plant facility in Peterlee.

The installation involved the complete redesign and specification of all mechanical and electrical elements of the facility to meet improved environmental and energy standards at the plant.

The treatment and dewatering of the sludge cake was seen as a critical element of the process and improvements made reduced maintenance requirements and increased the recycling of water to the plant.

A new extension building was constructed to house separation plant and state of the art PLC control systems . The operation was subject to rigorous testing and commissioning standards as well as ensure consent to operate procedures were fully complied with.

The systems were preinstalled to swap over to the new installation during the narrow summer shutdown window, with all works being executed safely and on schedule to ensure that no production time was lost.

The use of VSD in conjunction with constant monitoring have ensured that the plant provides the lowest carbon footprint with outstanding environmental characteristics.

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