

Biomass Handling & Fuel Generation

Biofuel Storage Area & Feed System

Overview

To design, manufacture, manage and install a 400m³ biomass storage and feed system at a power station.

Problem

As part of the government's commitment to reducing greenhouse gas emissions, new legislation enforced a target for all energy providers to supply 10% of their electricity supplied in the UK from renewable energy sources by 2010 and a reduction in emissions of some 60% from current levels by about 2050. In 2001 renewable energy accounted for just 3% of UK electricity supply.

Solution

As a coal fired power station, the number of feasible options in providing a set percentage of electricity derived from a renewable source was limited. One such system solution was a bio-fuels storage and feed system.

The system involved a 400m³ raw material reception and storage facility complete with feed transfer systems onto the main coal feed conveyors inside the main junction tower. The transfer feed system is capable of handling a wide range of Bio-fuels at 40TPH to the existing belt conveyors leading to the main fuel process plant.

The covered storage area was constructed from a pre-cast walling system which supported the roof structure.

Result

A continuous, uninterrupted process; providing the required level (10% per annum) of electricity derived from a renewable source.

