

E.ON Belgium Modern bypass stack prevents power blackouts

In just three months, G+H installed a bypass stack at the combined cycle power plant in Vilvoorde. The plant – which was already mothballed before – now plays an important role in preventing power blackouts.



Insulation

Fire Protection

Noise Control

Belgium has prioritized the use of renewable energy. Thus environmentally friendly energy is the first choice of power to the electricity grid. However, in the winter period – when the sun and wind contribution is reduced – less energy can be generated from renewables. In order to provide reserve capacity, the state has called on power plant operators to reactivate decommissioned power plants as strategic reserve.

CUSTOMER

E.ON Belgium

PROJECT

Installation of a bypass stack in the Vilvoorde power plant in Belgium

PERIOD OF EXECUTION

09/2014 – 12/2014

CHARACTERISTICS

Height: 45 m

Diameter: 9 m

Weight: approx. 350 t

Gas turbine: Siemens V94.3A



In order to prepare the Vilvoorde CCPP for its role as strategic reserve, the boiler was first taken out of operation. To do this, G+H installed a blanking plate up-flow of the boiler and a 45 m high bypass stack, which now provides the exhaust route for the flue gases. This system enables the power plant to start-up and cycle more rapidly. The silencer has several 10 x 10 m splitters and is integrated into the stack. This

ensures compliance with Belgian noise protection regulations for the nearby residential area. The greatest challenge was to complete the project within the short timeframe specified by the customer. This could only be achieved by using a proven design, a high level of prefabrication and just-in-time delivery for quick installation. In fact, the stack was completed and handed over to the customer a few days ahead of schedule.



TASK

- Manufacture and install a bypass stack in just three months
- Compliance with strict local noise protection regulations
- Ensure full compliance with occupational health and safety standards

SOLUTION

- Design based on a proven concept
- Installation of 10 x 10 m silencer splitters
- High level of safety precautions

ADVANTAGES

- Very fast and reliable completion of the project, also in partnership with G+H Montage N.V.
- Power plant can start-up and cycle very rapidly
- Low noise emissions