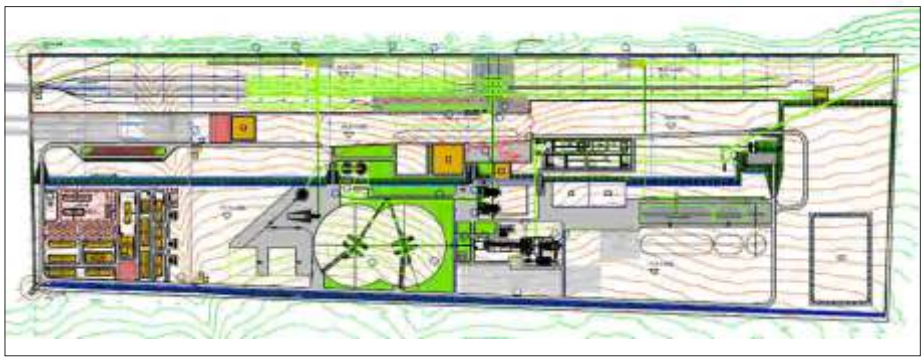
KREBS UND KIEFER

New cement production plant in Akbulak (Russia)



Dyckerhoff AG

Overview plan of the new cement production plant

The cement manufacturer Dyckerhoff is planning to build a new cement production plant in Akbulak (Russia). Including the extensive railway tracks and facilities, the area involved covers around 1 million m².

Construction of the plant has been postponed indefinitely due to the world economic crisis.

Krebs und Kiefer was commissioned to produce the structural design for some of the most important facilities, up to the level of detail needed for construction.

The assessment of the expert reports on the subsoil conditions and the foundation design were carried out by Ingenieursozietät Professor Katzenbach, Darmstadt.

The language of the project was English. Calculations and drawings as part of the structural design documentation were produced both in Russian and English.

The design was based on the loads applicable in Russia and the materials available there.

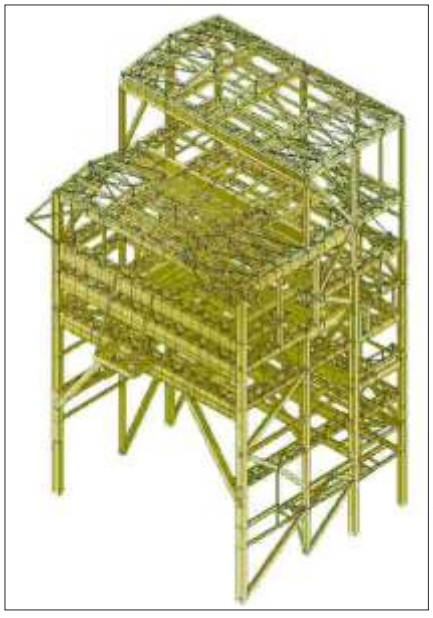
The most important technical facilities include the following structures in the area of the rotary kilns; Krebs und Kiefer produced the entire structural design for these structures:

- Dryer/crusher to crush the raw material
- Heat exchanger tower to heat the raw material
- Plinth structures to support the rotary kiln, clinker cooler to cool the cement clinker after firing
- Cement mill including filtering equipment

Pile foundations were chosen for the structures, in agreement with the soil expert.

The client has requested solutions with different construction methods for the heat exchanger. Krebs und Kiefer is also responsible for part of the industrial object planning.

To enable all participants in the planning process to exchange information, it is essential to model and design the structures in 3 dimensions.



Krebs und Kiefer

Steel construction for the cement mill

Owner
Dyckerhoff AG, owned by the Italian Buzzi Unicem Group

Client
Dyckerhoff AG, Wiesbaden (Central technical department)

Construction period
Postponed indefinitely

Construction costs
75 Mio. EUR

Processing period
2008 - 2011

Krebs und Kiefer services
- Structural design, HOAI Phases 1 - 6
- Study of alternative solutions for cost optimization purposes
- Coordination with local partners

Krebs und Kiefer

Main platforms in the heat exchanger tower