

CONSTRUCTION



# CASE STUDY

## TECHNICAL CONSULTANT FOR MAJOR POWER PLANT PROJECTS IN POLAND

The SGS Contract Engineer services have been developed as a response to the market's need for independent multidisciplinary teams of professionals that act on construction sites as representatives of the investor. Their duty is to ensure that the main contract concluded between the investor and general contractor meets all required and agreed conditions in terms of: technical parameters, quality of equipment and works, scheduled time and contract price. The success and efficiency of the SGS Contract Engineer services has been proved especially by the dozens of construction projects managed by SGS in Poland.

### POWER PLANT CONSTRUCTIONS WITH SGS SUPPORT

In the last ten years the SGS contract engineer experts in Poland have been involved in the construction of around 12 large scale power units and thus making SGS the leader in Poland.

One of these large scale and highly complex projects managed in Poland was the construction of a Combined Cycle Power Plant (CCPP) at Zielona Gora. As part of the project the SGS team of experts had to act as the owner's representative during the construction of a Gas Turbine and a Heat Recovery Steam Generator train plus plant auxiliaries generating 190 MWe electrical output and 95 MWt thermal output. The service has included also electric power evacuation, 23 km long 110kV and 220 kV power transmission lines and modernization of respective national grid substation bays. For this over 100 Million Euro worth project SGS provided the full range of Contract Engineer services, which included: technical consulting during the contract negotiation, basic engineering, design management and detail engineering supervision, quality assurance and quality control inspections, overall construction supervision on behalf of the client and Polish building law, supervision of the functional tests, plant commissioning and performance tests as well.

With a team of 9 experts, a fully equipped office permanently on site at Zielona Gora and the supply chain inspectors employed in this project SGS ensured that all construction activities in this two year project had been completed by the September 2004 deadline. The large scale of the construction site made each day a very busy one for the SGS engineers and this finally translated in some impressive figures. Our supply chain inspectors carried out vendor audits and inspection of all the suppliers involved in the project. SGS material engineers performed 36 factory acceptances of the steel constructions, 35 factory acceptance tests of devices in Poland and 9 abroad along with 4 referential visits.

For the 3 years project duration the SGS team completed 457 branch partial acceptances and 148 branch final acceptances. This huge amount of tests and inspection generated an even greater number of highly necessary reports and opinion papers. SGS created for this project a quality manual, 843 opinions on detail designs, 26 monthly reports, 60 opinions on project revision and completion of milestones and took care of the final acceptance procedure. The last stages of construction which included 29 inspections before commissioning and 7 multi-branch final inspections culminated with the overall final acceptance of the CCPP. By the projected deadline the new construction had successfully passed all necessary tests and the EPC Contractor was able to hand over the new CHPP to its owner.

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## **A NEW LARGE SCALE PROJECT TO MATCH THE CAPABILITIES OF SGS**

The extensive experience in Contract Engineer services in Poland recommended SGS as the most suitable provider in the mammoth power unit construction project at Belchatow. In this 800 Million Euro worth project SGS was required to act as the Technical Consultant of Belchatow Power Plant during the construction of a new lignite coal fired power unit that would generate 858 MW and during the construction of a 400 kV output transmission line. The project was launched in December 2006. The staff of 8 highly qualified SGS professionals permanently located on site will have to conclude their services by the end of 2010. The construction of the new unit is already at an advanced stage which allows us to forecast that the new Belchatow power unit will be completed within the deadline assumed.

**SGS IS THE GLOBAL LEADER AND INNOVATOR IN INSPECTION, VERIFICATION, TESTING AND CERTIFICATION SERVICES. FOUNDED IN 1878, SGS IS RECOGNIZED AS THE GLOBAL BENCHMARK IN QUALITY AND INTEGRITY. WITH OVER 59,000 EMPLOYEES, SGS OPERATES A NETWORK OF OVER 1,000 OFFICES AND LABORATORIES AROUND THE WORLD.**