



CASE STUDY

SGS PROVIDES **TECHNICAL CONSULTANCY** FOR WIERZCHOWICE UNDERGROUND GAS STORAGE PLANT IN POLAND

SGS was appointed two contracts in January 2010 - to provide Design Documentation Appraisal and Power Plant Construction Supervision for the expansion of the Underground Gas Storage Plant in Wierzchowice, Poland. For the length of the entire project, scheduled for completion in 2012, SGS's team of experts provides a wide range of Technical Consulting Services, including Design Verification, Construction Supervision as well as Quality Assurance and Quality Control.

COMPLEX PROJECTS REQUIRE DEDICATED QUALITY ASSURANCE AND QUALITY CONTROL

The primary role of underground gas storage facilities in Poland is to back up gas resources storage and balance seasonal variations of gas consumption. Consequently, underground facilities for gas storage with direct connection to the country's gas system are indispensable in order to maintain proper gas distribution parameters.

Storage volumes as well as the injection and withdrawal rates of gas currently available in Poland are not sufficient for the country's needs. Therefore, the Polish Oil and Gas Company (PGNiG), the leader of the Polish natural gas market, decided to implement an intensive programme of underground gas storage development. The programme covers the expansion of both existing and the construction of new facilities.

One of the facilities scheduled for expansion is the Underground Gas Storage Plant (UGS) in Wierzchowice. Established in a partly depleted gas reservoir, the Underground Gas Storage Plant is a high-methane gas storage facility. The reservoir is located in the west part of Poland and includes the compressor station for gas injection and withdrawal. Currently, the gas storage working volume is 575 mln m³, with a maximum loading rate of 3,6 mln m³/day and maximum unloading rate of 4,8 mln/per day. However, after the first stage of plant extension, the gas storage working volume will increase up to 1.200 mln m³. Moreover, the maximum loading rate will rise up to 9,6 mln m³/day and maximum unloading rate to 14,4 mln/day. In subsequent stages, the parameters will increase up to 3,5 mln m³ gas storage working volume, with a maximum loading rate of 30 mln m³/day and maximum unloading rate of 50 mln/day.

In order to both proceed with such an extensive project in compliance with all relevant regulations and requirements, and to keep the project within the planned time schedule and budget, the project owner looked for a reliable inspection, verification, testing and certification company.

In January 2010, due to its substantial experience and competence, SGS Poland was assigned a contract to provide complex Technical Consulting Services for the project.



CASE STUDY

SGS TECHNICAL CONSULTING SERVICES FOR WIERZCHOWICE UNDERGROUND GAS STORAGE PLANT

Since January 2010, SGS has provided third-party inspection, testing and verification services for the expansion of the Underground Gas Storage Plant in Wierzchowice, including Design Verification, Construction Supervision as well as Quality Assurance and Quality Control.

In order to verify at the earliest possible stage that the expansion project is designed to the required standards, criteria and legislation with regards to material selection, design and requisite safety levels, SGS provided extensive Design Verification services. A team of highly experienced SGS experts reviewed design drawings, structural and geotechnical design as well as installation specifications and material certificates.

Based on its extensive skills in the construction industry, SGS also conducts Construction Supervision for the expansion of the Wierzchowice Underground Gas Storage Plant. With a team of highly qualified experts, SGS supports the client with professional and technical advisory services based on supplied inspections, OEM approval test participation, technical documentation and assessments in order to achieve quality, timing and budget as per the contract agreed with the client. SGS carries out independent site inspections in order to guarantee that the expansion works are conducted according to Polish building requirements and mining laws and in addition, SGS provides reports to the client on a monthly basis. With comprehensive experience in the construction industry, SGS helps the client reduce technical risks and prevent construction errors. SGS also effectively supports the client to keep the construction project within its planned schedule. In addition, a team of SGS experts carries out Quality Assurance and Quality Control onsite, whereby SGS verifies materials and machinery equipment through checks, audits, inspection and witnessing in order to ensure that the construction works are in compliance with all contractual specifications, codes, standards and government regulations.

Due to SGS's help, the expansion works of the Underground Gas Storage Plant in Wierzchowice are conducted in accordance with all standards and requirements within the planned time schedule.

SGS is a global service provider for technical verification, inspection, testing and conformity assessment, ensuring that the customer's installations, materials, equipment, facilities and projects meet all quality and performance requirements, whether they are regulatory, voluntary or customer-based.

SGS IS THE WORLD'S LEADING INSPECTION, VERIFICATION, TESTING AND CERTIFICATION COMPANY.