Teshmont team wins TG transmission study

Stanley Technology Group affiliate, Teshmont Consultants Inc., has been awarded the first direct current high voltage transmission line study and design assignment for the Three Gorges Hydro project in China. Teshmont will provide consulting services and assist the Beijing HVDC Engineering Consulting Co. with electrical system studies, electrode design, preparation of international bidding documents for converter terminal and communications equipment, as well as bid evaluations.

Engineers from Teshmont will carry out part of their studies on site in China and host the Chinese engineers from the State Power Grid Development Co. Limited and Beijing HVDC Consulting Co. in Canada.

Teshmont was selected through a rigorous competition process involving several international firms. In 1983, the company assisted with China's first high voltage DC transmission line from Gezhouba to Shanghai and continues to work on various power projects within the country.

Work re-starts at Porto Primavera

Construction work has re-started on Brazil's much delayed 1814MW Porto Primavera hydroelectric project, owned by Brazilian utility, Companhia Energética de Sao Paulo (CESP). Work on the shipping channel and the powerhouse, which is being carried out by the Brazilian contractor, Camargo Correa, is aimed at an in-service date for the first of the project's 18 turbines in 1988.

The Porto Primavera Project on the Parana River, located approximately 750km west of Sao Paulo, includes a 10.4km long, 38m high earth dam, a concrete spillway with 16 radial gates, a shipping channel, and a surface powerhouse.

After impoundment the project will form a reservoir approximately 250km long with a depth of about 15m. Although work on the project originally started in June 1980, with the diversion of the Parana River, it has progressed in fits and starts due to economic difficulties in Brazil. The diversion works were finished in December 1982, while work on the spillway was completed in 1993.

CESP, Brazil's largest electricity producer has a generating capacity of 10 232MW. The utility has recently completed the 2000MW Taquaruçu hydro project on the Parananema River (IWP&DC, December 1996, p12).

Aswan 1 hydro plant upgraded

A consortium led by ABB Kraftwerke AG of Germany, has completed the upgrading of seven turbine generator sets and plant ancillaries at the Aswan 1 hydro plant on the Nile River in Egypt.

The upgrading of Aswan 1, which has been in operation for more than 30 years, was the largest hydro upgrading project of its type ever undertaken in Egypt. Work on the project which lasted for about four and a half years was carried out under a US$170M contract, covering the water inlet, turbines, electrical and electronic equipment, controls and generators.

The core feature of the generator upgrade was the round packing method developed by ABB for the generator stators.

Impoundment of Katse Dam, part of the Lesotho Highlands Water Project, is close to completion. The reservoir level as of mid-January 1997 was 2024.47m asl - 156m deep at the dam wall and 35.47m above the minimum operating level. On the dam, the non-overspill blocks are at crest level with only seven concrete castings remaining to bring the entire spillway to its crest height.

Work is progressing on the support structures for the deck bridge spanning the spillway. Grouting is due to start soon in the upper grouting compartment. The dam is scheduled to be complete by the end of this year.