

Turnkey communications system for Peru

The Peruvian power utility *Etecen* has awarded ABB Network Partner AG, Switzerland, the contract to supply a turnkey communications system for Peru's coastal area, covering a distance of about 1,800 km.

The order, worth approximately US\$ 8.0 million, is for power line carrier equipment for the transmission of data and voice signals over high-voltage lines, digital radio relay systems and a telephony system for the operational management of the energy network. Included in the scope of supply is a mobile UHF radio system for operating and maintenance purposes. ABB Network Partner offered a complete solution for this project that features a variety of communications facilities, including non-ABB products. The contract is due to be fulfilled by mid-1998.

Start-up of San Teh cement plant in Fujian, China

The end of 1997 saw the successful start-up of the San Teh cement plant of *Fujian Long Yan San Teh Cement Building Material Industry Company, Ltd.* With a 2,000 t per day production capacity, it is the largest rotary-kiln cement plant in China's Fujian province.

ABB Industrie AG, working closely with other ABB companies and local firms, supplied the electrical equipment and provided electrical engineering, erection, supervision and commissioning services.

Production is fully automatic, with all process operations controlled by ABB's Advant Cement System. (A report on ACS appeared in ABB Review 6/7-95.) This system guarantees a consistently high quality for the cement.

The new plant was financed through a joint investment by the Xing San Teh Company of Hong Kong and the San Teh Company of Singapore. The investment transforms Fujian Long San Teh Cement into a modern, export-oriented enterprise for producing high-grade Portland cement.

Construction of a 700-MW power plant in Morocco

ABB has begun construction of a turnkey 700-MW private power plant at Jorf Lasfar in Morocco. The total project investment is approximately US\$ 1 billion, of which ABB's contract to build the plant is valued at US\$ 620 million. The order was placed by a 50/50 joint venture between ABB and CMS Generation, the independent power production subsidiary of CMS Energy Corporation, Michigan, USA.

The new plant will be built adjacent to an existing 660-MW plant, doubling the capacity of this major base-load facility to 1,360 MW. Power from the two plants will be sold under a 30-year agreement to *ONE*, the Moroccan national power utility.

ABB will supply two 350-MW steam turbine-generator sets, two coal-fired boilers, the control system and the balance of plant equipment. Leading the construction of the new power plant will be ABB companies in Germany, Italy, Switzerland and the USA. Units of ABB Financial Services served as financial advisers to the IPP and helped to arrange debt financing for the project.

Installation of the two turbines is scheduled to be completed by June 2000 and December 2000, respectively.

Advanced power supply system for Berlin's Reichstag

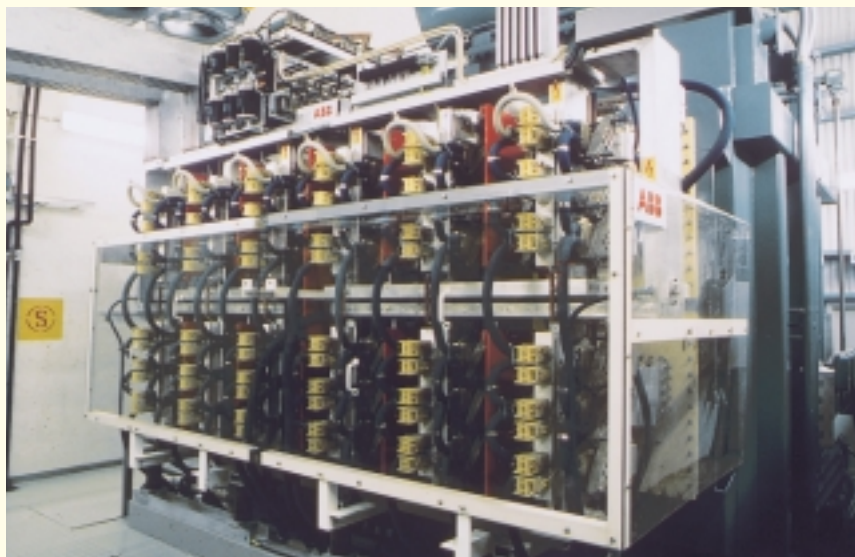
Bundesbaugesellschaft Berlin mbH has placed an order with a consortium led by ABB Netzleittechnik GmbH of Ladenburg, Germany, to supply and install advanced medium-voltage switchgear, power network control equipment and a supervisory control system in the Reichstag parliamentary building and adjoining complex in Berlin. The value of the order is approximately US\$ 8 million. Members of the consortium include ABB Energieanlagenbau GmbH, Dresden, and Honeywell AG.

60,000 items of information will be collected and monitored in the new control center. Alternative forms of energy will play a major role in this project.

160-pot expansion at Icelandic Aluminium commissioned

At the end of 1997 the *Icelandic Aluminium Co Ltd (ISAL)* dedicated a third line at its Straumsvik smelter. The new potline, with 160 pots for a 62,000 t capac-





ity addition, is powered by a 135-kA, 770-V DC facility. ABB Industrie AG of Switzerland supplied the electrical equipment, including four single-phase main transformers, 220-kV, 33-kV and 21-kV switchgear, a thyristor-controlled rectifier station, reactive power compensating plant and the process control system. The latter system ensures efficient operation, plus high control response and accuracy.

Planning and the project engineering were carried out in close cooperation with the ISAL project management team and Alesa Alusuisse Engineering. The installation was handed over three months earlier than originally scheduled.

Successful start-up of world's largest adjustable speed drive

The 100-MW adjustable speed drive built and installed at NASA's National Transonic Facility (NTF) was officially accepted by the *NASA Langley Research Center* in Mid-December 1997.

The drive was tested at NTF in Hampton, Virginia, early in December by an ABB team. The achieved power output of 100 MW at a nominal speed of 600 rev/min was also a new world record.

The main components of the drive are

a synchronous motor, frequency converter with excitation equipment, transformer and associated controls.

The wind tunnel offers aircraft builders all over the world a unique opportunity to test development models at transonic speeds.

Two 384-MVAR capacitor banks for Pacific AC Intertie upgrade

Pacific Gas and Electric Company of the US has awarded ABB Power Systems a turnkey contract to supply two 500-kV series capacitor banks for the Round Mountain substation of the Pacific AC Intertie. The contract includes supply of the protection and control system. Commercial operation is scheduled to begin in October 1998.

The 500-kV Pacific AC Intertie was built almost 30 years ago for the purpose of transmitting electrical energy from hydropower plants in Oregon to load centers in California.

Adjustable speed drive for pipeline compressor station in the USA

ABB Industrial Systems Inc, USA, and ABB Industrie AG of Switzerland have won an order from the *Natural Gas Pipe-*

line Company of America (NGPL) to supply an adjustable AC drive rated at 16 MW for a compressor station in a natural gas pipeline.

The order represents a breakthrough in the US market. NGPL has expressed an interest in purchasing further adjustable speed drives in the coming years.

30-MW diesel power plant for Mauritius

The Mauritian electric utility *CEB* has signed a contract with a consortium comprising Hyundai and ABB to supply, install and commission a 30-MW diesel power plant in Fort George. The contract is valued at approximately US\$ 20 million.

Power will be supplied by a MAN/B&W diesel engine of type 9K80 MC-S. ABB Spain will supply the generator and other electrical equipment. The plant is due to be commissioned in mid-1999.

Swedish steel mill installs first 'SVC Light' system

ABB Power Systems AB and *Uddeholm Tooling AB of Sweden* have signed a contract for the installation of a 10.5-kV static var compensator rated at 0-44 MVAR in the Hagfors steel mill, Sweden. The order is the first for the newly developed 'SVC Light', which features advanced semiconductor technology. The system will be in operation by the end of 1998.

US\$ 500 million contract to build an ethylene plant in Saudi Arabia

ABB has won a contract to build a new ethylene production plant as part of a major expansion of the Yanpet Petrochemical Complex, located in Yanbu, Saudi Arabia. The value of the lump sum turnkey contract is approximately US\$