



Colombia: OLTC Service by Helicopter



Once again MR do Brasil has proven just how capable it is with a particularly spectacular service assignment taking them along Colombia's only 500-kV-line. Service technician Josef Pflügl (2nd from right) from São Paulo first spent four days training the staff of ISA (Interconexión Eléctrica S.A.), the local power supply company. The high voltage line could only be switched off on Sundays which meant he only had time between 9a.m. and 7p.m. to service 24 OILTAP® M I 1500 on-load tap-changers on the single phase transformers (each 150 MVA) and to install oil filter systems and get it ready for operation. 15 ISA-technicians and engineers supported Pflügl. The transformer stations in Sabana Larga, Chinun, Cerromatoso and San Carlos are spread along the overland line which runs from northern Colombia right down to central Colombia. For security reasons the assignment

had to be carried out by helicopter the whole way from the ISA headquarters in Medellín to San Carlos. Colombian military forces kept the staff accommodation under surveillance at all times. There was one incident despite all these precautions. After work on the first day the whole service team had to leave the lodging that had been planned for them and spend the night on the military camp because local guerrillas had found out where they were staying. In spite of the very difficult conditions all the work was accomplished within the deadline and to the full satisfaction of the customer. ● Contact: pflugl@reinhausen.com.br

OLTC just in time

Due to one of the transformers at the Krimpen aan den IJssel (near Rotterdam) substation catching fire in July, TenneT had to temporarily put all three 150 kV transformers out of operation.

Thus thousands of customers in the immediate surroundings, which are serviced by Eneco Grid Administration, had their power supply cut off. By putting the transformers out of order, 90 MW of power was lost. Eneco acted quickly and managed to restore 75 MW within an hour and a half, thus restoring power for the majority of their afflicted customers. In the course of the evening power was restored for all connections. Then TenneT managed to restart the two transformers next to the burned one, bringing the electricity supply in the area back to normal. The problem was to get a new transformer and OLTC within very short time. But help was on its way. MR managed to deliver the requested OILTAP® R 1200Y - 72,5/C just in time the new 70 MW-transformer was built by SMIT. ●

MR at INDUSTRIA in Budapest



From May 18th to 21st 2004 MR presented its whole product range at INDUSTRIA fair in Budapest. MR area sales managers Erwin Zeisig and Harald Rotter took the opportunity of introducing Balazs Totmarton as new MR service and commercial agent for Hungary (from left). ●

Contact Mr. Totmarton:
theresa5@axelero.hu

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Although this newsletter has been prepared with the greatest of care, it cannot be guaranteed that the information is free of errors and accurate.

Editor: Marketing Communications, o.reichmeyer@reinhausen.com

Phone +49 941 4090-648, Fax +49 941 4090-666

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Complete Low Voltage Compensation System for Manufacturer of Special Paper

PQM Power Quality Management (Berlin) received the contract to equip the whole plant of Felix Schoeller Foto- und Spezialpapier, a company in Osnabrück, with a low voltage compensation system.



The Felix Schoeller Group has specialised in the manufacture of high-quality special paper for over a hundred years now. The family enterprise with its staff of 2 500 employees upholds plants in seven different locations in Germany, USA and Canada where they manufacture digital imaging paper, special decor and technical papers for a variety of applications and are leader on the world market.

The contract was a great challenge for the Berlin engineers calling upon all their know how. The first step was to make an

extensive analysis of the network in the Osnabrück plant to determine the reactive load compensation requirement and the harmonics load on 20 low voltage substations. With the data thus collected the engineers came up with a customized design with regard to capacity, voltage rating and degree of throttling. Determining the throttling was of particular importance here because this was to have the very useful side effect of reducing the harmonics load in the network. Finally the substations comprising 25 control cabinets with a total capacity of more than 6 Mvar compensation capacity were delivered in accordance with the dimensioning and taken into operation.

A special feature of this contract was a new design for the compensation systems, which allow an increase in power density of 33%. This was necessary as the space available for installation in the existing control rooms was very cramped.

The installation of the compensation systems facilitated an increase of the power factor of the whole location to a value higher than 0.9. The aim of the Schoeller Group to reduce running costs for the supply of reactive energy by investing in compensation systems was thus fulfilled. ●

Contact:

Matthias Jacobi, Power Quality Management

Sickingenstrasse 71, 10553 Berlin, Germany

Phone: +49 3033 0915-15, Fax: +49 3033 0915 25

E-mail: m.jacobi@reinhausen.com

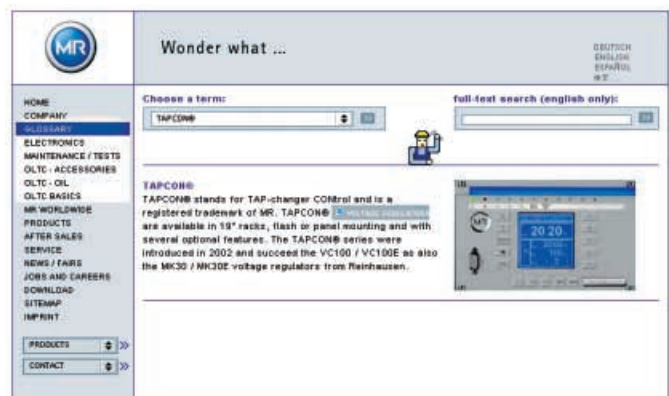
www.compensation-systems.com

New: MR online glossary

A helpful encyclopedia on OLTCs

Did you ever wonder what spark gaps are? You have some questions about MR oil filter units? The new MR online glossary about on-load tap-changers, accessories, automatic voltage regulators, OLTC-maintenance and OLTC-oil will help you. Just choose the term within the desired category or use the full-text search. Then the results will be displayed below. Often, you can jump from text to text via the gray marked links. We are trying to add more and more terms, so that you will get something like an online encyclopedia about on-load tap-changers. In case you have some proposals or supplements, please send them to webmaster@reinhausen.com ●

You would like to have a first look? This way please:
www.reinhausen.com/mr/en/glossary



Servicing the world's largest 1500 MVA transformer

The world's largest 1500 MVA voltage regulating transformer is located at Gronau in Germany, close to the Dutch border. Actually, the transformer is two in one – one fixed and one tapped winding built into two separate tanks to facilitate transportation. The phase shifter serves to transmit the current from the RWE high tension network to the neighboring country. By reason of their vast amount of experience in the field of TU (Trafo Union) tap-changers MR's service specialists were awarded the contract to carry out full inspection of the transformer. Günther Krogner performed the work on site together with five other colleagues: "Our job was to inspect the 6 diverter switches (up to 2400 amps) and the very complex gearing for the regulation in quadrature which operates in 481 (!) steps". The gearing was dismantled subsequent to thorough inspection and transported to Stuttgart for overhaul at the manufacturer's plant. The work was performed quickly in line with a very tight time schedule. The mega transformer was put back into operation on time upon completion of the work, and after changing 4800 liters of oil. ●

Contact: g.krogner@reinhausen.com

