

Dear Colleagues and Partners!

PJSC “Zaporozhtransformator” proposes to your kind attention the regular issue of “ZTR-INFORM” express-bulletin

Here you could find information on the activities of our Company: new project, contracts, design solutions and developments. Hope that these data will be useful for you and contributory for collaboration consolidation between our companies.

ZTR has updated the technology of testing of shunt reactors

In June 2011, high-voltage modular system was commissioned at PJSC “Zaporozhtransformator” (ZTR) that is purposed for testing of single- and three-phase shunt reactors rated for 10–750 kV. Modular system is a part of test equipment purposed for reactor insulation quality verification with measurement of partial discharge intensity.

Modular system is intended for connection of single- and three-phase shunt reactors rated for 10–750 kV to high-voltage test transformers, reference measurement capacitor at performance of electromagnetic testing (at 50 or 60 Hz frequency) as well as induced voltage test at increased frequency, with measurement of partial discharge intensity.

Costs for modular system purchase and start-up made up about USD 200thds. In total, for modernization of testing complex it was allocated in 2011 USD 625 thds.

“Standards for transformers and shunt reactors stipulate the partial discharge level in insulation within induced voltage test not more than $3 - 5 \cdot 10^{-10}$ C. During testing of shunt reactors it is rather difficult to avoid high-frequency interferences form test equipment, that is resulted in significant loss of time for their elimination – said Yuriy Letun, Head of High-Voltage Test Workshop– By means of installation of high-intensity low-frequency filters between the test equipment and the reactor under testing, we have achieved reduction of the interferences by more than 10 times. Herewith, the problem of reduction of interferences at measurement of partial discharges in shunt reactor insulation is settled at ZTR together with decrease of labor-output ratio at connection of test setup”.



Modular system is a set of insulation supports rated for voltages 800 and 300 kV, equipped with low-frequency filters and high-voltage split busbars. The system was developed by All-Russian Electro-technical Institution, NPP

“Diatrans” Ltd. Group (Moscow, RF) based on ZTR order. Trial test results at no-load mode, as well as within shunt reactor testing, confirm the modular system correspondence to the requirements specified.

Bureau Veritas has carried out “Zaporozhtransformator” certification

Systems of ZTR environmental management and health protection correspond to world standards

In April 2011, PJSC «Zaporozhtransformator» (ZTR) was successfully certified for correspondence to the company management system to international standards.

The audit was subjected to the standards ISO 14001 (environmental management and health protection) and OHSAS 18001 (system of safety management and health protection).

The company was audited by the leader in worldwide certification and consulting, the company Bureau Veritas. According to Yuriy Shevchenko, senior auditor of Bureau Veritas company, integrated management system of PJSC “ZTR” could be recognized as the reference one for the major companies, especially with consideration of the fact that ZTR has initiated introduction of world approaches to environment and labor protection not so long ago.



“The matters related to environment and labor protection are resolved at ZTR systematically. I am sure that successful results of the audit for correspondence to ISO 14001 and OHSAS 18001 standards will assist to ZTR in improvement of its competitiveness and enter the new markets, in particular, in the developed countries. The majority of the customers of our products insist on the matter that ZTR should have independent confirmation of systematic settlement of environmental and labor protection issues at the company, with application of such tool as risk analysis. Nowadays we have received such confirmation”, – noted by Michael Oservaser, Quality Director of PJSC “ZTR”.

ZTR is one of the first companies that implemented and certified its management system for correspondence to three international standards at once: ISO 9001, ISO 14001, OHSAS 18001. Such approach ensures not only competitive benefit, but also improves the internal organizational culture and the mobility of the company.

Updating of paint production is in progress

June, 2011 is marked by the great event for welding production – commissioning of the third paint-and-drying chamber, purposed for painting and drying of the tanks of high-power transformers. It was a long-expected and urgently demanded event for due time shipment of metal structures for assembling workshop and fulfillment of the production schedule.

Paint and drying chamber is equipped with transport carriage, lifting platforms for the workers ensuring the painting of the transformer tanks at heights by movement along the product. The chamber is provided with readily replaceable dry filters, ensuring purification of both incoming and exhaust air contaminated with solvent vapors and paint dust.

Control over the duties is carried out from the control board for setting the technological duties for the processes, maintained automatically: painting – drying – cooling. The painters could carry out painting from six stations; and simultaneously – from two or four stations. The paint-and-drying chambers are equipped with the units of automatic powder fire-fighting, system of permissible concentration monitoring, automatic control over burners. Proper lighting, prepared purified compressed air for spraying, effective air exchange, mechanization of the painter movement, ability of parallel work of several painters will ensure effective use of time hours, qualitative and fast performance of painting.

Start-up and creation of additional production capacities at paint section ensure increase of the flow capacity of the welding workshop and reduction of the interval between shot-blasting treatment of ISO 12944 and the requirements of paint manufacturers.

The works as for reconstruction for the paint production section have started since 2007; from 2009 till the moment, the objects for amount about USD 1,5 mln. have been commissioned: new paint-

preparation section, heating and ventilation of completing-and-painting section, three paint-and-drying chambers. These are necessary actions to ensure the production capacity of ZTR painting facilities for output of 60 GVA and creation of up-to-date production.



As referred to further development of paint facilities, it is scheduled to install the fourth paint-and-drying chamber, optimization of lifting-and-transport operations at completing-and-painting section. The question of construction of painting line for corrugated tanks and transformer cooling system branch pipes, as well as the activities for creation of the section infrastructure in accordance with up-to-date requirements of the industrial sanitary and corporate culture, are now under consideration. The costs for above will make up about USD 2 mln. These are further investments to ZTR painting production.