



Russia's got corrosion protection solutions. Today, the key tasks are working on industrial standards and certification of corrosion protection specialists.

On April 24 through 26, ExpoForum hosted the 26th Corrosion Protection International Exhibition & Congress. This year, the event has been attended by 7,000 people from 11 countries, including China, Turkey, India, Belarus, Azerbaijan, and Kazakhstan. 18 companies presented their latest projects for corrosion protection. The convention program was participated by 100 delegates.

During the gala opening of several industrial events simultaneously taking place in ExpoForum, which were the 12th Russian International Energy Forum, the Municipal Housing Complex of Russia International Exhibition and the Corrosion Protection Exhibition & Congress, the last but not least was officially started by Alexey Eresko – Deputy Minister of Construction Industry, Housing and Utilities Sector of the Russian Federation, Sergey Kropachev – Vice Governor of St. Petersburg, Evgeny Razumishkin – Vice Governor of St. Petersburg, Dmitry Nikitin – CEO of RESTEC Exhibition Company, and Sergey Voronkov – CEO of ExpoForum International.

As part of the exhibition section, specialists from Russian companies presented their corrosion protection novelties. Please note that some of them have no equivalents anywhere in the world. For example, there was the static charges removal coating made by Primatek, mobile devices for electrochemical treatment of stainless steel and alloys by Steelox, the monitoring system designed for operation in the area with circulating currents and capable of their disposal on a standalone basis – a knowhow brought by Neftegazkompleks-EKhZ, a protective threshold device intended for protection current leakage prevention in grounding systems by Pipeline Systems and Technologies (the world's only producer of this kind of equipment), corrosion processes indicators produced at the NS Gas Tools Plant (Stavropol) in compliance with the unique technology covered by a Russian patent.

The specialists were particularly interested in operation of the metal surface laser cleaning unit – Mendeleevets ULO-2000, presented by Chemservice.

ZINGA Company demonstrated their cold zincing system ZINGA, positioned as an alternative to hot zinc and metal coating.

RUSMA showcased the Russian equivalents of the German chemical items and unique products of their own design.

Zinker Company held a series of traditional zincing workshops where they showed how zinc can be deposited on metal to form a protective layer.

The key event of the exhibition and congress was the International Scientific-Practical Conference TOPICAL ISSUES OF CORROSION PROTECTION. During the Plenary Session, the participants talked about the certification system for corrosion protection specialists and the need for standard unification.

According to Pavel Stepanov, Development Director and Head of Department at the Russian Register Certification Association, a certification and competence assessment system has to be established for corrosion protection specialists and experts, as FROSIO and NACE, the top international companies who used to provide such services, ceased issue and prolongation of their certificates. In this regard, Pavel Stepanov asked the participants to consider the education and certification program that the Russian Register Association had made over 10 years ago. Inspectors trained with the use of this program are sought-after by the ship-building, construction, and oil-gas equipment production sectors. Moreover, his company is ready to assess competence of FROSIO certificate holders using a shorter procedure.

At the same time, there is no competence assessment without standardization, insisted Artem Polosminnikov – Director of Standardization Centre at the Institute of Oil and Gas Technology Initiatives (INTI). According to him, INTI has already developed 200+ standards for basic equipment groups in collaboration with designers and manufacturers, as well as the biggest oil & gas companies – Gazprom, Transneft, and others. According to the expert, they are currently working to establish a single standardization system in Russia with due regard to the GOSTs (state standards) currently in effect.

Nikolay Petrov, Executive Director of SOPKOR Association and Chairman of Interstate Technical Committee 543 / Technical Committee 214, talked about the work undertaken to improve the standards managed by TC 543, which today include 108 regulative documents.

Another event arranged as part of the conference was PROTECTIVE COATINGS AND CORROSION INHIBITORS Session. There, Russian producers of protective coatings reported their achievements in this sphere. In particular, Zinker Company spoke about zinc-rich coating technologies of their own development, Technological Systems for Protective Coatings Company – about their metalized protective coatings that can be used to cover elements of any size both in production sites and in field conditions, Metaclay – about powder



polyethylene coatings they'd designed to protect pipes from corrosion and mechanical impacts, and this list is nowhere near complete.

Further, experts met during the CATHODIC PROTECTION AND OPERATION ISSUES Session to discuss methods of corrosion protection at offshore facilities. Corrosion can result in shutdown of industrial sites and can adversely impact the country's economy, but in case with aggressive media, especially seawater, it requires some exceptional approaches and solutions.

According to the data provided by Prometey Central Research Institute of Structural Materials, during 25 years corrosion of plating on icebreakers used in northern regions can reach 4.5 mm. However, if electro-chemical protection means are applied, this value can be reduced to 0.15 mm. It should be mentioned that 15% of corrosion processes are caused by micro organisms. 'Bacteria literally eat metal. What they excrete after they eat their full damages the hulls even further,' mentioned Andrey Burkov, Adviser to CEO at PSS Corporation.

The expert outlined five effective methods of corrosion protection for the ship-building industry, which according to him should be used together. They are painting, sacrificial anode protection, active cathodic protection with potential adjusted superimposed current, propeller-rudder system protection, and protection of outboard fittings from biofouling.

The interstate standard under development called 'Anodes in cathodic protection plants used in sea water and saline media' will include requirements to technical properties of cathodes, feedstock and materials used to produce them, as well as other regulations associated with corrosion protection of oil and gas transportation pipelines, mooring and hydrotechnical facilities. The draft of this document was presented to the experts by Vyacheslav Pershukov, Deputy CEO for Development at Chemservice.

'We should approach the use of protective materials very carefully, as in 90 percent of Russian seas water cools down to minus 3 degrees in winter. We need all-the-year-round protection, and the temperature factor can not only blunt the effectiveness of such coatings but also decrease their life a great deal,' Vyacheslav Pershukov explained.

While the industry-related events were taking place in ExpoForum, the Business Matchmaking Centre worked, too, where over 1,700 meetings between suppliers and customers took place. During the Exhibition and Congress, representatives of the following companies had face-to-face meetings arranged: Gazprom UGS, Nizhnekamskneftekhim, Rosneft Oil Company, Gazprom Gazoraspredeleniye Kirov, Transneft R&D, Power Machines, Mosoblgaz, Samaraneftegaz, Samotlorneftegaz, Udmurtneft, Litum, Invaco, and many others.

Business occasions arranged during the Corrosion Protection Exhibition & Congress were attended by specialists from Gazprom Group, Lukoil Group, Transneft, St. Petersburg Subway, Russian Railways, shipbuilding plants of Sevmash, Zvezdochka Ship Repair Centre etc.

Along with the Corrosion Protection Exhibition & Congress, ExpoForum hosted the 12th Russian International Energy Forum and the Municipal Housing Complex of Russia International Exhibition. Such industrial events being held at the same time enabled experts from different spheres of economy to meet in one place and share their experience of doing business in the most essential sectors of the Russian economy as effectively as possible.

The General Partner of the Corrosion Protection Exhibition & Congress was Primatek Group of Companies.

The event was organised by ExpoForum International.