ITPS corporate Information Systems of enterprise management.

Implementation of «Information Center for Planning and Management of Maintenance and Digital Passporting»

Sector: Chemical

Region: Russia

Year: 2021

Client: Kazanorgsintez PJSC

Task:

1. Implementation and adaptation of a set of digital tools that provide management of maintenance and repair processes and data in a unified IT environment, in particular, the basic model of the "Information Center for Planning and Management of Maintenance and Digital Passporting" software module;

2. Creation of integrated workplaces (AWS) for metrologists ("Metrological Support Information Control Center" software module);

3. Implementation of the "Dynamic equipment control information center" software module and its subsequent integration with the MES-system at Kazanorgsintez PJSC to collect data on the operating time of dynamic equipment to provide scheduling of maintenance and repair based on actual operating time;

4. Project management, formation of technical documentation and methodological guidelines for long-term, medium-term, and operational maintenance and repair planning, maintenance of digital passports of equipment, work with the "AWS-metrologist" complex, maintenance and repair planning of dynamic equipment according to the actual operating time;

5. Transfer of knowledge and competencies for working with the solution to the Customer, configuration and preparation of the solution for industrial operation, functional support, and development of IT systems.

Result:

- The developed solution ensures control of the Kazanorgsintez equipment fleet, which includes more than 50,000 units of measuring

instruments and process control systems, more than 80,000 units of primary and auxiliary equipment, and more than 10,000 functional locations (technological installations, units, etc.). MRO specialists have received a convenient, practical tool that allows them to perform all actions in a "single information window" mode, due to which labor costs for standard transactions are reduced, and the attention of personnel is directed to the solution of intelligent tasks for further improvement of the MRO system is ensured;

- The functional responsibilities of MRO specialists are built as a single end-to-end process on all planning horizons - from annual to daily;
- Customer specialists are relieved of the need to delve into the intricacies of working with IT systems when planning and working with maintenance and repair documents (orders, technological instructions, acceptance sheets, etc.) due to convenient and intuitive interfaces that allow them to perform all activities in a "single information window" mode;
- The possibility of long-term planning of MRO activities with economic justification is provided;
- The processes of operational planning and cost accounting for works performed by external contractors engaged in the repair, verification, and calibration of measuring instruments and information and measuring systems have been optimized;
- Errors when entering operational data into the operational documentation have been eliminated due to the exclusion of the human factor.

Review:

Innovative development of the MRO department is one of the critical objectives of our organization, which is focused on gaining new market advantages through the digitalization of operational and production processes. The deployed information modules give us additional opportunities to plan and manage the MRO department and use existing enterprise resource management tools effectively. The implemented project is an essential step for the company's planned transition to a qualitatively new MRO process management model based on equipment reliability assessments, failure prediction, and preventive measures to ensure the continuity of the production process and slow down the natural wear of

equipment.

Chief Engineer of Kazanorgsintez PJSC, Rafael Safarov