The Communist Party of the Soviet Union (CPSU) Central Committee resolution on the "Experience gained by the Party organizations and personnel of the leading Lvov-region industrial enterprises in developing and applying the comprehensive production-quality control system" (CPQCS) approves the Lvov initiative and notes that it is necessary to improve the system further and to detect constantly and utilize new resources and possibilities for its improvement. The CPQCS system is extending and transforming into the Comprehensive Production-Efficiency Improvement System (CPEIS), which is being developed and applied at the leading enterprises of the Krasnodar territory on the initiative of the CPSU Territorial Committee. The CPEI system, like the CPQC system, accumulates everything that is best in the sphere of quality control and solves consistently on the basis of the same principles the problems in controlling the basic and working funds, capital investments, material resources, achieving within the scope of enterprises scientific and technical progress, comprehensive improvement in controlling production, etc. An important place in this system is allocated to metrological provisions. Below we publish a collection of articles in the work of the Krasnodar Center of Standardization and Metrology, and of the territorial enterprises metrological services which are participating most actively in developing and applying the CPEI system.

METROLOGY AT THE SERVICE OF THE CPEI SYSTEM

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The Krasnodar territory is one of the most developed industrial territories, regions, and autonomous republics of the Russian Federation. In the production of furniture, meat, vegetable oils, granulated sugar, and canned food it occupies the first place in the Republic. The enterprises of this region also manufacture diverse industrial products, from the most complex electrical and radio measuring instruments, means of automation, program-controlled machines, compressors, and printing machines, to a wide range of light and food industries products. Many of these products are in great demand on the international market and are supplied to 70 countries throughout the world.

In the course of the Tenth Five-Year Plan the industrial production of the territory will increase by one-third and labor productivity by almost one-quarter. The marketing of highest-quality products will increase considerably, including agricultural raw products; for instance, the manufacture of products with the State Sign of Quality as compared with the total production volume amounts to 32.5% in the electrical measuring instruments plant, to 32.7% in the Sedin machine-tool plant, to 36.2% in the Eisk "Poligrafmash" plant, to 61.7% in the Krasnodar oxygen plant, and to 58.9% in the "Krasnodarsel'mash" plant.

The plants of this territory are now adopting the CPEI system, which consists of an aggregate of constantly revitalized economic, organizational, technical, and social measures. It is based on the enterprise standards which specify the content, sequence, and procedure of the activity aimed at an effective utilization of labor and material resources, capital investments, as well as basic and working funds.

An important role in applying the CPEI system consists of metrological provisions for production and, in particular, of enterprise standards on metrological provisions. The enterprises' chief metrologists' services have already developed and applied more than 130 such standards with the methodic assistance of the Krasnodar Center of Standardization and Metrology (KCSM). These standards provide for organizing and implementing departmental inspection
of measuring and testing equipment; metrological examination of design and technological documentation; organizing control over the precision of production tooling and over the finishing equipment; procedure for accepting, issuing, and registering measuring equipment received for state testing, etc.

For instance, since the Sedin machine-tool plant experts pay considerable attention to metrological provisions for raising production efficiency and quality, they drafted and applied an enterprise standard which specifies the tasks and function of the metrological service. It provides for metrological examination of design and technological documents at as early a stage as their drafting, working out technical conditions, and allocating engineering sections for this purpose. According to this standard technical documents can be inspected metrologically by the personnel of either the chief engineer's or chief technologist's department. Such a method for examining metrologically normative and technical documents is the most expedient, especially in the case of the large volume of design and technological work. This method is rapid and more efficient.

Examination of normative and technical documents carried out at the Krasnodar radio measuring-instruments plant in the last two years served to detect the demand in testing and measuring equipment, to purchase it in good time, and to provide it for all the mass-produced instruments.

The departmental metrological services of this territory operate under the KCSM methodic guidance. The KCSM experts render them considerable assistance in developing regulations on metrological services and enterprise standards on metrological provisions for production, in compiling thematic training plans for schools and circles intended to improve the technical knowledge of workers, engineers, and technicians, and in applying new measuring equipment in production.

State inspection metrologists pay considerable attention to raising efficiency of testing. In the first ten months of 1978 about 100 new installations and instruments were adopted and applied, thus serving to raise the labor productivity of state testers on an average by 6% and to master about 60 new types of testing. They include the testing of instruments used in measuring the gamma-radiations exposed dose and power; radiometers for measuring the surface pollution of beta-active substances; complex signal generators types G6-15 and G6-8; small capacitance meters type E8-2; precision class 0.005 digital universal voltmeters type ShCh3-1; ultraviolet power meters, etc.

A considerable achievement of the KCSM metrologists in recent years consists of mastering the testing of medical equipment and, above all, means for functional diagnostics.

The KCSM experts also pay much attention to metrological provisions for agricultural production.

Our territory carried out important work in 1978 in preparing measuring equipment for harvesting cereals and other agricultural crops, assessing the obtained products, as well as procuring and storing them. Before the beginning of harvesting the metrologists tested out more than 150,000 measuring instruments, including 4173 automobile balances. Round-the-clock duties were organized for state testers and repair mechanics in mobile test laboratories during the harvesting of cereals for the purpose of efficiently preparing and testing measuring equipment in farms and grain-storing enterprises.

A considerable amount of measuring-equipment testing was also carried out at sugar refineries and before digging the sugar-beet. About 30 complex automatic lines type ULS-2 were certified for determining the sugar content of root crops. This served to ensure effective control not only of the supplied crops quantity, but also of their quality.

In order to raise production efficiency and quality the working personnel of the Kuban' instrument-making plants are improving and raising the working qualities of their measuring equipment under the leadership of Party agencies.

The personnel of the Red Banner Order of Labor instrument-making plant of the "Tochmash-pribor" Production Association (Armavir) pledged last year to provide agriculture with improved, more convenient, and efficient weighing equipment. It was decided for this purpose to lengthen the weight-carrying platform of the 30-ton balances by three meters, i.e., extend it up to 15 meters. This made it possible to raise considerably the balance throughput of heavy trucks and trucks with trailers, thus saving time.