

Prospects and problems of specialty “quality control” in the USA

Everyone knows that the United States has high quality standards. First of all, this country has high production requirements, and then, there are a lot of highly skilled professionals. However, few people know and realize how important quality control in the modern world is. That is the reason for the research. The aim of the research is to study the basic problems and prospects in the area of quality control, and to consider possible methods of its improvement.

We studied the problems and prospects of a quality engineer, and considered ways of solving these problems.

Major disadvantages in training of American specialists are the following:

- Lack of time studying professional disciplines
- Lack of self-education in higher institutions
- Lack of information about role of engineer in society
- Lack of interdisciplinary courses from the very beginning of student's training

Taking into account the above-mentioned problems, as well as political, economic and social changes that take place in modern society, the American Association of Engineering Education gave a number of recommendations on the modernization of engineering education.

- A bachelor's degree, awarded after a four-year study at any institution of higher education should be recognized as «pre-engineering» degree or “Bachelor of Arts” in engineering, depending on the content of the courses and taking into account future career intentions of students.

- Accreditation Board of Engineering Education should take the proposal for accreditation of master's programs in subspecialties and recognize that education received by students of «professional» master's programs has the same level as a master's degree.

- Educational institutions should promote investigations focused on cognitive activity of students from the first year of training in vocational schools.

- Educational institutions of engineering profile should support research in the field of engineering education to find out what pedagogical and methodological techniques are the most effective.

- Universities should develop new requirements for the training of teachers. For example, they should include the requirement of having work experience in manufacturing and to develop or upgrade training programs for the teaching staff.

- In addition to main subjects, students should study the skills of lifelong learning.

- Educational institutions of engineering profile should introduce interdisciplinary courses right from the start, than make them available at graduate level.

- Educational institutions should work more closely with public schools to improve students' achievements in science.

- Educational institutions of engineering profile should be more proactive with citizens to explain the importance of engineers in society and spread engineering knowledge in general.

Due to the implementation of the plan, the US is one of the leading countries in the field of engineering, and in particular in quality control.

The Quality Manager is a promising specialty all around the world, but in the US, all the conditions for its development are met.

As everyone knows the US is one of the most developed countries, with a high demand for production. In order to retain its position, it needs a high level of expertise. Therefore, in the US, there are characteristics of quality control:

- Tight control of manufacturing
- Attention to the process of production planning in terms of volume and quality indicators

- Self-improvement and self-education

Quality engineers in the United States specialize in various areas of the economic activity. Often the professional growth of quality engineer is associated with the development of new techniques and methods of work, as well as constant knowledge updating. In many cases we can meet quality control professionals who have mastered the related professions, such as engineering standardization and certification or certification of products and management systems, and others.

Product quality in the US is an important indicator of the company. «American» quality in modern management is a systematic, multi-level category, which reflects the organization's ability to meet the needs of stakeholders, and achieves the sustainable development in variable and competitive conditions.

References

1. Белобрагин В.Я. Современные проблемы теории управления эффективностью производства и качеством продукции в условиях становления рынка. – М.: Изд-во стандартов, 1994. 256 с.
2. Крылова Г.Д. Зарубежный опыт управления качеством. – М.: Изд-во стандартов, 1992
3. Харрингтон Дж.Х. Управление качеством в американских корпорациях. – М.: Экономика, 1990

Научный руководитель: К.В. Ягодкина, старший преподаватель, ТПУ, Россия