## USING STRUCTURAL ACTIONS TO IMPROVE ORGANIZATIONAL AND TECHNOLOGICAL RELIABILITY OF CONSTRUCTION ACTIVITIES

The process of construction is a complex probabilistic system characterized by complete (work stoppage) and partial failures reducing their intensity and causing failure to comply with the work performance schedule. Organizational and technological reliability (OTR) is an important criterion of successful operation of a construction company. In the construction industry, OTR represents the ability to maintain the operating parameters of a construction company within the pre-set values.

Assimilation of advanced technologies, diversity of construction materials, multiplicity of contractors, a wide range of construction operations require improvements in their reliability, an adequate assessment of the cost of construction and a lower discrepancy between scheduled deadlines and practical delivery terms. OTR improvement in the construction industry is one of the main challenges for construction companies.

**Key words**: organizational and technological reliability, construction activities, systemic development, organizational structure, construction company.

## References

- 1. Sedykh Yu.I., Lazebnik V.M. *Organizatsionno-tekhnologicheskaya nadezhnost' zhilishchno-grazhdanskogo stroitel'stva* [Organizational and Technological Reliability of Residential Construction]. Moscow, Stroyizdat Publ., 1989, 396 p.
- 2. Batienkov V.T., Chernobrovkin G.Ya., Kirnev A.D. *Tekhnologiya i organizatsiya stroitel'stva. Upravlenie kachestvom v voprosakh i otvetakh* [Technology and Organization of Construction Activities. Quality Management in Questions and Answers]. Rostov-on-Don, Feniks Publ., 2007, 400 p.
- 3. Ginzburg A.V. Avtomatizatsiya proektirovaniya organizatsionno-tekhnologicheskoy nadezhnosti stroitel'stva [Automated Design of Organizational and Technological Reliability of Construction Activities]. Moscow, SIP RIA Publ., 1999, 155 p.
- 4. Sinenko S.A. *Informatsionnaya tekhnologiya proektirovaniya organizatsii stroitel'nogo proizvodstva* [Information Technology Applicable to Design of Construction Operations]. Moscow, NTO «Sistemotekhnika i informatika» publ., 1992, 258 p.

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