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Forensic structural engineering and construction cost examination: current problems and solutions

On September 30 – October 1, 2021, National Science and Practical Conference “Forensic Structural Engineering and Construction Cost Examination: Current Problems and Solutions” was held at the National Research Moscow State University of Civil Engineering. In the plenary reports, speakers presented the results of in-depth and detailed studies on the appointment and performance of forensic structural engineering/construction cost examinations in the course of criminal, civil, arbitration and administrative litigations, as well as the practice of using special civil engineering knowledge and knowledge in the field of pre-trial real estate valuation. The speakers identified and analyzed new trends in the development of these areas of forensic expertise. The speakers drew attention to the growing need for professional knowledge in the field of pre-design surveys, construction, operation, renovation and reconstruction of buildings and structures in operation, as well as the regularities governing the generation and transformation of market and other real estate values. The speakers drew attention to the increasing variety of forensic examinations currently conducted by employees of both public and non-public forensic institutions. The speakers also focused on the professional training of forensic experts, various forms of their training and professional advancement, the required level of teaching theoretical, procedural, organizational and methodological fundamentals of forensic examination, development of practical examination skills and demonstrating their consistency and results in expert opinions.

The conference speakers addressed the most relevant issues of construction cost examinations which are essential when the cadastral value of real estate facilities is contested in court and when causes, conditions, circumstances and the mechanism of accidents, failures, and casualties in the course of construction and operation of construction facilities are identified. Hence, the most relevant problems of forensic structural engineering and construction cost examinations were considered, and the most effective solutions were developed.

Keywords: forensic structural engineering examination, forensic cost examination, forensic civil engineering expert, conference, forensic institutions, examination methodology, criminal case, civil case, investigator, judge

INTRODUCTION

The conference “Forensic structural engineering and construction cost examination: current problems and solutions”, held at the National Research Moscow State University of Civil Engineering (NRU MGSU) on September 30 – October 1, 2021 began with a plenary session, opened by A.R. Tusnin, Vice-Rector for Research, Scientific and Technology Activities of NRU MGSU, Chairman of the Conference Organizing Committee.

K.Yu. Kulakov, Vice-rector for financial policy, NRU MGSU, A.K. Orlov, Director of the Institute of economics, management and communications in the field of construction and real estate, NRU MGSU, and P.G. Grabovy, Head of Department of construction organization and real estate management, NRU MGSU greeted the audience.

Relevant and informative plenary presentations on debatable issues of forensic structural engineering examinations (FSEE) were made by the following experts in the field of their theory and practice.

A.Yu. Butyrin, Head of the Laboratory of Construction Forensics of the RFCFS of the Russian Ministry of Justice, Doctor of Law, professor, Department of Construction Organization and Real Estate Management, NRU MGSU

In his report “The main trends in the development of forensic structural engineering examination”, professor Andrey Butyrin outlined the results of

studying the process of formation and development of FSEE as a whole and within the framework of examination-focused institutions of the Ministry of Justice of Russia.

According to the speaker, an essential feature of the process is the simplification of tasks solved by structural engineering experts. Professor Butyrin A.Yu. set the boundary between the notions of a “simple” and “complex” examination task, which are provisional to a certain extent [1].

Firstly, beyond the boundary of “simple” tasks are the research projects that determine the strength characteristics of load-bearing and enclosing constructions of buildings and structures. These studies are based on the provisions of such disciplines as theoretical and structural mechanics, resistance of materials, solid state physics, and others. Secondly, research-intensive research on construction and materials, requiring the use of advanced engineering facilities and equipment. Thirdly, this is the logic that is so much needed for the FSEE in criminal cases related to casualties on construction sites, accidents and failures in the construction industry.

The ratio of simple and complex tasks, tackled by experts, is determined as approximately ten to one.

As evidenced in practice, experts in structural engineering (coming from public and private institutions) undertake the resolution of “complex” problems extremely rarely. The research is conducted reluctantly and cursorily, although it takes a long

time which is a fairly clear sign of a decline in the overall professional level of structural engineering experts.

Given the fact that this trend has turned persistent, an attempt should be made to answer three main questions:

- 1) What is the reason for this phenomenon?
- 2) How should this phenomenon be treated?
- 3) What should be done in this regard?

We give the following answers to these questions:

1. The simplicity of the overwhelming amount of tasks, solved by forensic structural engineering experts, is explained by the needs of the investigative and judicial practice. At a given moment in time, an investigator and a judge need solutions for "simple" tasks, that do not require any reference to the foundations of fundamental and, therefore, presumably "complex" theoretical provisions. Hence, low cognitive demand tasks determine the low scientific level of research (it should be noted that a low scientific level does not mean a low-quality level).

2. This phenomenon should be treated without evaluation; that is, it is neither good nor bad – it's a given for today, and its understanding necessitates the formulation of rational proposals in this respect and making efforts to have them implemented.

3. The principal proposals, made in this respect, resolve themselves into this:

Firstly, it is necessary to redistribute the flows of commissioned examinations, and the "complex" ones (mind that their number is relatively small) shall be addressed to those scarce forensic examination organizations and institutions in which the professional training level of experts, as well as the equipment, instruments and methods allow to solve these tasks quickly and efficiently. Therefore, so-called "elite" expert organizations and institutions will stand out. Other (the overwhelming majority) "non-complex" examinations should be addressed to other forensic examination organizations, whose number is disproportionately larger. Investigators and judges, whose activities are related to the utilization of special structural engineering knowledge, should be informed about this proportion (which seems to be natural in any cognitive activity).

Secondly, it is necessary to change the idea of approaches to the professional training of professional structural engineering experts, with regard for the level and content of research highly demanded by practicing judges and investigators.

Thirdly, it is necessary to rationally approach the technological infrastructure of forensic organizations and institutions. At the same time, it is necessary to proceed from the fact that "complex" studies, requiring the use of modern expensive equipment should be conducted using the appropriate instruments at organizations and institutions that employ specialists who are constantly conducting certain applied research needed for particular examinations at the moment. This is the only way to ensure the guaranteed reliability of anticipated results of a forensic examination.

In the event that the trend, identified at the present stage, is correctly identified, the measures to be taken will allow for a more rational use of the cognitive potential of structural engineering experts in court proceedings.

K.Yu. Kulakov, Vice-Rector for Financial Policy, NRU MGSU, President of the Union of Financial and Economic Forensic Experts, Doctor of Economics, Professor

Professor Kirill Kulakov presented the report "New rules for contesting the cadastral value. State Cadastral Valuation – 2021 in Moscow:

what is to be expected and what's to be done?". The speaker cited and commented on amended provisions of these rules.

Cost studies are an integral part of the FSEE and other types of forensic examinations. They are also relevant when the cadastral value is contested. The cadastral value serves as the basis for taxation of natural persons and legal entities. The contesting of the cadastral value is based on the provisions of the Federal Law "On State Cadastral Valuation" dated 03.07.2016 No. 237-FZ. At the moment, the present-day procedure for contesting the cadastral value includes two options: according to the first one, the taxpayer can apply to a specialized commission in charge of contesting the cadastral value (if it is established in the subject of the Federation); the second option means resolving the issue in court [2]. In 2020, 20,746 disputes were initiated in courts about the cadastral value entered into the state cadastral register of real estate in respect of 37,932 real estate facilities. For the period from 01.01.2021 to 31.07.2021, 9,467 disputes were initiated in courts about the cadastral value entered into the Unified State Register of Real Estate in respect of 19,900 real estate facilities. Despite the fact that the legislation has several grounds for contesting procedures, 98 % of court disputes in 2020 and 99 % of court disputes in 2021 were focused on setting the cadastral value of a real estate facility equal to the market value. For other reasons, disputes are initiated very rarely. At the same time, 96 % of court decisions are positive, and they are issued in favour of applicants, which indicates a significant percentage of errors in determining the cadastral value.

As a result of the court resolutions issued in respect of the claims submitted from 01.01.2020 to 31.12.2020, there was a drop in the total cadastral value (approximately 228.6 billion rubles, or 52 %) of real estate facilities:

- the total cadastral value before the court proceedings was about 441.68 billion rubles;
- it was about 213.06 billion rubles after the court proceedings.

This value change is specified in the court resolutions on claims submitted from 01.01.2021 through 31.07.2021: there was a decline in the total cadastral value of the real estate by approximately 75.95 billion rubles (–50.29 %):

- the total cadastral value before the claim was about 151.03 billion rubles;
- the total cadastral value went down to about 75.08 billion rubles following the issuance of the court resolution.

The legislator has introduced an innovation for the cadastral value reconsideration; it is already in effect in 14 constituent subjects of the Russian Federation. A tougher procedure is back for taxpayers willing to contest the cadastral value in court: the innovation requires a mandatory pre-trial stage for individuals and legal entities. Contesting the cadastral value starts from interaction with the State Budgetary Institution for cadastral valuation. Significant and other nuances of the contesting procedure are also in place (Article 22.1 of the 237-FZ as amended. 269-FZ), namely [3]:

- an assessment report is attached to the application in the electronic format;
- an assessment report must contain an extract from the Unified State Register of Real Estate;
- an application can be submitted within 6 months as of the date of the market value assessment according to the assessment report.

In case of a decline issued by the State Budgetary Institution, its decision must be backed by the arguments identified in the course of the application consideration pursuant to paragraph 2, part 11, Article 22.1. They include the use of incomplete and (or)

► unreliable information, calculation or other errors that affect the final result of determining the market value of a real estate facility, violation of the regulatory requirements governing valuation activities when compiling a report on the assessment of the market value of a real estate facility.

A transitional period is established through January 1, 2023 in terms of the application of Articles 22 and 22.1 of Federal Law No. 237-FZ of July 3, 2016 "On State Cadastral Valuation", taking into account the following features:

1. During the transition period, the supreme executive authority of the subject of the Russian Federation may decide on the date of transition to the application of provisions of Article 22.1 of Federal Law No. 237-FZ dated July 3, 2016 "On State Cadastral Valuation" for the purposes of establishing the cadastral value of real estate facilities in the amount of their market value;

2. During the transition period before the day, specified in the resolution (in the absence of a resolution, before the end of the transition period):

- the provisions of Article 22.1 of Federal Law No. 237-FZ of July 3, 2016 "On State Cadastral Valuation" are not applied in the subject of the Russian Federation;
- the market value assessment report attached to the application in accordance with Part 9 of Article 22 of Federal Law No. 237-FZ of July 3, 2016 "On State Cadastral Valuation" is subject to preparation exclusively in the form of an electronic document.

Paragraph 5 of Article 6 of the Law 269-FZ establishes that in 2022, a state cadastral assessment of land plots should be carried out in all subjects of the Russian Federation, disregarding any restrictions on the frequency of state cadastral assessments.

According to paragraph 6, Article 6 of the Law 269-FZ, in 2023, any state cadastral assessment of buildings, premises, structures, facilities under construction, parking spaces must be conducted in all subjects of the Russian Federation, disregarding any restrictions on the frequency of state cadastral assessments.

The present-day frequency of the State Cadastral Valuation remains unchanged before these dates. According to paragraphs 2.2, paragraph 7 of Article 6, Law 269-FZ, the state cadastral assessment is not conducted if a decision to conduct it is made within a period smaller than six months before January 1 of the year of the state cadastral assessment required by such a decision.

The innovations, analyzed by Professor Kulakov, will require appraisers and the forensic expert community to review a number of approaches to cost studies in cases involving the contesting of cadastral value.

K.P. Grabovy, Head of the Laboratory of Forensic Construction and Technical Expertise and Claim Work, NRU MGSU, Doctor of Economics, Professor

Professor Kirill Grabovy made a report "Notarial expertise as a special way of conducting construction and technical research", in which he compared the main characteristics of a forensic structural engineering examination and an examination appointed by a notary.

The regulatory and legal justification of the notarial expertise includes the norms of Article 69 of the APC (Arbitration Procedure Code) of the Russian Federation "Grounds for exemption from proof"; Article 61 of the CPC of the Russian Federation "Grounds for exemption from proving"; Article 102-103 "Fundamentals of the legislation of the Russian Federation on Notaries".

In fact, a new type of an extrajudicial procedure (a notarial expertise) is introduced. You can contest it in a court of general

jurisdiction by filing a separate application (that is, pursuant to the general procedure for contesting notarial actions). The court must accept a notarial expertise as evidence, that is, in certain situations, a notarial expertise can replace a court-appointed one.

A notarial expertise is a procedural action consisting of research and an expert opinion on issues whose resolution requires special knowledge in the field of science, technology, art or craft and which are to be addressed by an expert pursuant to a notary's decree in order to provide evidence necessary in the event of cases in courts or administrative authorities.

A notarial expertise is appointed not by a court, an investigator or a state authority, but by a notary in the absence of a court case (dispute); this is an out-of-court examination that has features typical for forensic examination.

In the vast majority of cases, the purpose of a notarial expertise is to provide evidence in a first-instance court case. However, it is noteworthy that a notarial expertise in the appellate instance is also possible.

The features of the notarial expertise are as follows. This type of proof is specified by the law, namely, Part 1 of Article 103 "Fundamentals of the legislation of the Russian Federation on notaries". Its scope and procedure are specified by the law (part 2 of Article 103 "Fundamentals of legislation on notaries"). The expertise is appointed by an authorized person, or a notary. Part 5 of Article 61 of the CPC (Civil Procedure Code) of the Russian Federation and Part 5 of Article 69 of the APC of the Russian Federation say that a notarial expertise can serve as the "grounds for exemption from proving". At the same time, the expert is warned about the criminal liability for issuing a deliberately false conclusion provided for in Article 307 of the Criminal Code of the Russian Federation (Part 6 of Article 103 of the "Fundamentals of legislation on notaries". The results of the notarial expertise can be used as evidence in further judicial proceedings, since this type of examination is specified by the norms of procedure codes.

In accordance with part 1, Article 102 of the "Fundamentals of the legislation of the Russian Federation on notaries", interested persons, such as an alleged plaintiff or an alleged defendant, who believe that the evidence, that could prove their rightness and refute the arguments of the other party in a future court case, will become unavailable for investigation (for example, consequences of a flood on the premises may be eliminated; traces of poor-quality repairs of the premises may disappear, etc.), are entitled to apply to the notary with an application for securing evidence.

Such an application is possible only on condition that the case for which the evidence is relevant does not exit and is not under consideration at a court or administrative authority.

It should be noted that the procedure for selecting an expert and the place of examination are not regulated by any law, expert candidates are proposed by the interested parties. If the notary does not notify all parties about the examination or notifies them, but they fail to arrive, he notary must be governed by the opinion of the party that is present.

A potential problem is when one of the parties receives the notification too late and does not have time to attend the examination; as a result, this party does not have time to submit his/her questions to the expert, while these questions determine the content of the examination and the court resolution, as the rights of late persons are not protected within the framework of notarial proceedings.

It remains unclear who, when and how chooses an institution for an examination. This is especially important in cases where one of the parties is not present during the examination for any reason.

It may happen that a person, knowing that in the future he/she will have to attend the court proceedings, addresses a notary and conducts an examination at the institution of his/her choice. As a result, the other party will have little chance to contest such evidence by the time the case is in court.

A notarial examination is aimed at obtaining sufficient evidence in a pre-trial procedure, which can later be evaluated by the court as the evidence correlated with the conclusion of a forensic expert.

An examination conducted in the order of notarization of evidence is the only way to obtain a full-fledged examination with the "signature" of an expert pursuant Article 307 of the Criminal Code of the Russian Federation in the extrajudicial process.

The significance of such an examination consists in the fact that the circumstances established by the notary are not subject to proving, which is enshrined in the legislation.

Hence, the studies under consideration are also of interest to a forensic structural engineering expert, who treats examinations as an everyday practice, because new prospects are opening up here, a relatively undeveloped area for the implementation of special structural engineering knowledge.

E.B. Stativa, Leading expert of the Laboratory of Forensic Construction and Technical Expertise of the Federal State Budgetary Institution of the Russian Federation under the Ministry of Justice of the Russian Federation, Candidate of Juridic Sciences, Associate Professor of the Department of Construction Organization and Real Estate Management, NRU MGSU

In the report on "Problems of formation and development of the methodological framework for the forensic structural engineering examination" Associate Professor Ekaterina Stativa noted that the process of generating the methodological framework for the majority of forensic structural engineering studies can be divided into three consecutive stages.

At the first stage, experts, having identified the issues that they have not solved in the absence of a special-purpose methodology, develop the method they need. If the situation repeats itself, this particular method is used as the principal one, although it must take account of the questions asked by the court and features of the item exposed to the expert examination [4].

The first stage can last for quite a long time, for years, and sometimes decades, until the accumulated empirical material converts into general methodological approaches to solving a certain type (class) of an expert problem.

The second stage encompasses the preparation and publication of research and methodology-focused articles, describing the new practice of solving expert problems that were not previously covered by the methodological literature. These articles consider certain aspects and patterns of similar forensic situations. The authors also try to identify the prerequisites and explain the reasons for the problematic issues in the judicial practice, whose resolution requires the knowledge of structural engineering.

The third stage of the methodology generation includes the preparation, approval, publication and introduction of methods (methodological recommendations) for solving standard forensic tasks.

This three-staged structure allows to systematize the methodology advancements, collected by structural engineering experts.

Some advancements are based on the existing methods, while others are based on the results of the generalized examination practice.

Surely, the development of methods, based on existing advancements, is a less laborious process, as it has a certain theoretical and methodological basis, and this process, in fact, is a logical continuation of a chain of judgments and indications of the need to perform certain cognitive actions.

Fundamentally new methods are developed "from scratch". The structure and algorithm of the future studies are designed, taking into account the essence of the issues to be tackled by the experts and specific features of the facilities to be examined.

The speaker believes that the principles that underly the development of new methods will allow to rationally and quickly design the relevant methodological material that meets the needs of forensic experts, investigative and judicial practice.

M.G. Nersesyan, Head of the Department of Forensic Economic Examinations of the Federal State Budgetary Institution of the Russian Federation under the Ministry of Justice of the Russian Federation, Candidate of Juridic Sciences

Medea Nersesyan made a report on "Complex forensic structural engineering and economic examinations". In the report, areas of interaction between a forensic structural engineering expert and a forensic economic expert were identified and clarified.

The issue of complexity in the theory of forensic examination is still considered complicated and debatable, to some extent. Integrated studies in the theory of forensic examination entail several methods of research, namely: several opinions are drafted by experts, having different specialties, and thus the examination is allegedly conducted independently; or one expert opinion is drafted according to the rules of an integrated examination. Therefore, it is necessary to distinguish integrated studies from an integrated examination. A common feature of these two cognitive actions is the impossibility of performing them without getting specialists in different areas of knowledge involved and applying the relevant special knowledge that they have.

The difference is that an integrated examination means that each subsequent study is based on the results of the previous one (performed by an expert having a different specialty), and when a set of studies is conducted, each is autonomous, and the results of the subsequent study are in no way related to the results of the previous studies.

An example of an integrated examination is the establishment of the cause of the building collapse on the basis of the results of a forensic examination of materials, that have proven the inadequate strength of the load-bearing structures. An example of an examination, based on a set of studies, is the determination by a forensic economic expert of the value of an enterprise, and by a structural engineering expert of the value of the building of this enterprise [5].

Forensic structural engineering experts and forensic economic experts often conduct both of these types of studies. This work contributes to obtaining comprehensive conclusions that allow investigation authorities or the court to have a better understanding of the main technological and economic characteristics of those organizations, enterprises and institutions that have become parties to the court proceedings.

At the same time, economic and structural engineering experts learn more about the specifics of these two areas of forensic examination, which certainly expands the range of their professional knowledge and develops their skills in conducting complex studies on several objects, which are now increasingly in demand both in criminal proceedings and cases considered by arbitration courts. ►

► This interaction is certainly fruitful and needs the attention from developers of training programs used in the training of forensic experts and their professional development, since the experience thus gained must be an integral part of the methodology used by forensic structural engineering and economic experts.

I.A. Danilkin, Head of the Forensic Centre of the Ministry of Internal Affairs of Russia in Moscow, Candidate of Juridic Sciences, associate professor

In his report *"Forensic structural engineering examination at Moscow interior authorities: inception, problems and development prospects"*, Igor Danilkin spoke about the forensic structural engineering examination at the Forensic Centre of the Ministry of Internal Affairs of Russia in Moscow. The speaker focused on the steady pace of its development. Mainly forensic examinations, conducted here, are aimed at identifying the types, amount, quality and cost of construction work conducted as part of the implementation of government-funded projects, which are financed from federal or regional budgets. A relatively young team of structural engineering experts tackles increasingly complex tasks, exploring large-scale, multi-object construction facilities. NRU MGSU graduates, who have been effectively trained in forensic structural engineering expertise, join the team. One of the main problems is the ever-decreasing number of criminal cases, the investigation of which requires the use of special structural engineering knowledge. Ongoing interaction between the Forensic Centre of the Ministry of Internal Affairs of Russia and NRU MGSU helps to solve this problem. There are plans to increase the number of forensic structural engineering experts, have them equipped with advanced devices and techniques that enable these specialists to perform high-level effective instrumental research that meets the requirements of contemporary court proceedings.

E.A. Safonova, Director of TRANS GEO LLC

Elena Safonova made a presentation *"Geophysical studies of construction facilities in the course of a forensic structural engineering examination and outside the scope of the court proceedings"* and described the technical capacity of the most recent version of the LOZA georadar. LOZA georadars belong to the class of geophysical instruments used to study the subsurface structure of the soil at depths of up to hundreds of meters, depending on the model of the instrument, the antenna used and the parameters of the sounding medium.

The principle of operation of radars is based on the emission of ultra-wideband electromagnetic pulses into the underlying environment and registration of their reflections from the boundaries of layers or objects.

A distinctive feature of the devices, in comparison with well-known foreign and domestic counterparts, is a large energy potential, which makes it possible to work in high conductivity environments, for example, in loam or wet clay, which is impossible for other georadars due to their low potential.

The operation of LOZA georadar has proven its effectiveness in solving the following tasks:

- engineering and geological surveys in the design of linear and areal structures;
- monitoring the state of soil below and near engineering structures during construction and operation (building foundations, railways and highways);
- identification of underground utilities;

- locating artificial and natural cavities in the ground and in building structures (karst cavities, voids and tectonic disturbances);
- determination of the thickness of filled and deformed soils, mapping the boundaries of bedrocks under loose sediments;
- search for sand and gravel deposits, mapping landslide bodies;
- checking the state of bridges, supports, tunnels;
- identification of landfills full of environmentally harmful waste;
- non-destructive surveying of buried tanks, hidden trenches, contaminated soil boundaries, and leakages.

To study the geological structure of the required section in the vertical direction, LOZA-V georadar, equipped with transceiver antennas, moves along the profile. The spatial step of measurements along the profile is selected depending on the required detail of the object study. When searching for small objects (pipes, cables and others), the step is 5–10 cm, and when examining geological objects (for example, sand pits), it is equal to 50–100 cm.

M.S. Rivanenko, Head of the Testing Laboratory Center of the State Budgetary Institution of Moscow "Center for Expertise, Research and Testing in Construction" (SBI "CEIIS")

In his report, *"Involvement of an expert organization within the framework of the state construction supervision"*, Maxim Rivanenko addressed the work, performed by the Moscow State Budgetary Institution "Centre for Examinations, Research and Testing in Construction", emphasizing that the mandatory element and, accordingly, the object of research is the project documentation, used as a benchmark to match the qualitative and quantitative characteristics of a building or a structure under construction. The main purpose of the work, performed by the staff of the Moscow State Budgetary Institution "Centre for Examinations, Research and Testing in Construction" is the instrumental control within the framework of the state construction supervision. The services, provided by this Institution are in great demand, and the amount of work, performed by the Institution, increases each year. The Institution represents an interconnected system that has two blocks: the main one (production) and auxiliary one (support). The production division focuses on seven areas: road construction control, control of load-bearing and enclosing structures; geodetic control; control of installation of engineering systems; sanitary and epidemiological control; fire control; quality control of sound insulation and facade structures. In turn, the support division has accounting, planning and economic departments, and the department of motor transport. The Institution maintains the necessary accreditation for this type of activity.

Since 2012, the Institution staff has implemented over 120,000 research projects and checked over 14,000 objects.

Presently, the Institution has the following problems.

In the course of the research, conducted within the framework of state supervision, it is impossible to compare the characteristics of an object under construction with regulatory requirements, the source of which is not specified in the project documentation for this object [6]. In other words, if a particular regulatory legal act is not listed in the project documentation, it is automatically excluded from the list of documents that can be considered by a construction supervision expert as the document that applies to this object.

The second problem is the lack of a unified approach to the structure of organizations involved in state construction supervision. The Institution employees have to conduct consultations with the regions where these organizations are being established.

These problems are being solved and everything is in place to eliminate their negative impact on the activities of expert

organizations involved in the state construction supervision in the Russian Federation.

L.I. Zaitseva, Associate Professor of the Department of Investment and Construction Business of the Russian Academy of National Economy and Public Administration under the President of the Russian Federation, Candidate of Juridic Sciences

Associate Professor Larisa Zaitseva presented a report entitled *"The assessment of the potential of structural engineering and cost examinations as alternative dispute resolution techniques"*.

The anti-crisis approach to bankruptcy encompasses rehabilitation and wellness procedures, the transformation of the role of arbitration managers, as well as the introduction of conciliation procedures aimed at reaching amicable agreements. At the early stages, an anti-crisis approach, including structural engineering examinations conducted within the framework of bankruptcy procedures, is used to restore the solvency of a legal entity, or the developer, which will allow the company to "survive". However, at the moment, only 2 % of companies remain stable and survive bankruptcy.

A wide range of out-of-court dispute resolution methods in investment and construction activities includes mediation, as the most popular type of settlement, and a number of other procedures, such as a "quasi-court", a dispute resolution and prevention commission, arbitration, as well as their combinations, such as mediation — arbitration and others. An early independent assessment of a dispute and multilateral negotiations are also employed. An examination is integrated into this process at any stage of dispute resolution.

The factors preventing the unlocking of the examination potential through the out-of-court resolution of construction-focused disputes include the following circumstances.

The first circumstance is the absence of industry-specific (targeted) regulation of the out-of-court examination, the abstract nature of its procedural norms, low court-related expenditures in the Russian Federation, which makes dispute resolution in the state court attractive; lack of friendly cooperation; formalized court work; abuse of procedural rights. It should also be noted that contractual constructions do not take into account the specific features of the construction industry in terms of applying alternative dispute resolution procedures and drafting clauses (including the "expert clause"). It is impossible not to mention the absence of a "reputational" criterion when choosing an examination institution, as well as the passive role of the state, acting as a customer in promoting alternative dispute resolution methods: 1.58 % of cases considered in arbitration courts end in a settlement agreement.

An examination, conducted in the context of alternative dispute resolution, has the following distinctive features.

The range of issues to be solved to effectively resolve the dispute, as well as their content are determined by experts (together with the parties to the dispute); examination costs are shared by the parties to the dispute; procedure (prompt interaction with the parties to the dispute, absence of procedural restrictions and others); selection of expert candidates is conducted by the parties themselves. The application of examination as an alternative method of dispute resolution is largely dependent on the lack of a project-oriented approach in the investment and construction sector. The issue of making an expert opinion binding also remains controversial. It can be quite difficult to find an expert having the necessary specialization.

This list of problems is not, of course, exhaustive; nevertheless, prerequisites are in place for the alternative methods of dispute resolution to become more widespread in Russia.

K.K. Maximov, Senior Expert of the Engineering and Technical Research Department of the Federal State Institution "Forensic Expert Center" of the Investigative Committee of the Russian Federation

Kirill Maximov presented the report *"Recommendations for the visual examination of the scene of an accident and examinations appointed in respect of criminal cases initiated on the basis of the facts of intoxication of people with carbon monoxide due to the operation of gas consuming equipment in housing accommodations"*, in which he briefly outlined the main provisions of the methodological recommendations for forensic structural engineering examinations in respect of the criminal cases related to the intoxication of people with carbon monoxide in housing accommodations. According to the speaker, these recommendations will allow to standardize these forensic examinations and reduce the time they take.

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Актуальные проблемы судебных строительно-технической и стоимостной экспертиз и пути их решения

В Национальном исследовательском Московском государственном строительном университете 30 сентября – 1 октября 2021 г. состоялась национальная научно-практическая конференция «Судебная строительно-техническая и стоимостная экспертизы: проблемы и пути их решения». В своих пленарных докладах выступающие представили резуль-

таты глубокого и детального изучения вопросов назначения и производства судебных строительно-технических и стоимостных экспертиз в уголовном, гражданском, арбитражном и административном процессах, а также практику использования специальных строительно-технических знаний и знаний в области оценки недвижимости в досудебном порядке. Были выявлены и проанализированы складывающиеся тенденции в развитии этих направлений судебно-экспертной деятельности. Спикеры отметили рост потребности современного судопроизводства в использовании профессиональных знаний в области предпроектных изысканий, возведения, эксплуатации, ремонта и реконструкции эксплуатируемых

зданий и сооружений, а также знаний закономерностей формирования и трансформации рыночной и иной стоимости объектов недвижимости. Выступающие отметили возрастающее разнообразие видов судебно-экспертных исследований, проводимых в настоящее время сотрудниками как государственных, так и негосударственных судебно-экспертных учреждений. Особое внимание докладчиками было уделено профессиональной подготовке судебных экспертов, различным формам их обучения и повышения квалификации, способам обеспечения необходимого для работы уровня преподавания теоретических, процессуальных, организационных и методических основ судебной экспертизы, приобретение ими практических навыков проведения исследований и отражения их последовательности и результатов в заключениях экспертов.

Ключевые слова: судебная строительно-техническая экспертиза, судебная стоимостная экспертиза, судебный эксперт-строитель, конференция, судебно-экспертные учреждения, экспертная методика, уголовное дело, гражданское дело, следователь, судья

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