

**THE MINISTRY OF REGIONAL DEVELOPMENT, CONSTRUCTION  
AND HOUSING AND COMMUNAL SERVICES OF UKRAINE  
(MINREGION OF UKRAINE)**



**STATE ENTERPRISE  
“THE STATE RESEARCH INSTITUTE  
OF BUILDING CONSTRUCTIONS”  
(NIISK)**



**75**

**WWW.NIISK.COM**





**CONGRATULATION TO NIISK  
ON THE 75TH ANNIVERSARY**

**GENNADIY ZUBKO,  
Vice Prime Minister of Ukraine -  
Minister of Regional Development,  
Construction and Housing and  
Communal Services of Ukraine**

*Dear team of the State Enterprise «The State Research  
Institute of Building Structures»!*

I congratulate you on the 75th anniversary of the foundation of the Institute.

Over 75 years of powerful and meaningful work of the team, you have outstanding discoveries, research development and scientific achievement as a result now.

You proceed along the road of victory and achievement, the outstanding scientific schools have been established and strategic directions of construction science have been developed.

As a basic organization of the Ministry of Regional Development, you successfully provide scientific and technical, research and informational support of design, construction and operation of construction projects. By your participation we introduce reforms that are not easy for the country: deregulation in construction and energy efficiency.

The Institute solves problems of the construction industry in a complex, prompt and professional manner. And the contribution to our joint work is the promotion of reliability, safety, functional and comfortable operation of construction projects with strategic importance. Your work is crucial for the development of residential and industrial buildings.

I am pleased to note that today the Institute successfully integrates into European and world space. You honorably represent Ukraine in the European Union and other international organizations. And this is a great work for creating a positive image of our state.

I am sure that your persistence, responsibility and professionalism, which are based on the invaluable experience of many generations of scientific schools founders, will continue to be a solid foundation for the development of domestic construction science.

I wish your consolidated team new achievements on the way of the Ukrainian state development, unceasing movement towards new success, inspiration, optimism and implementation of your creative ideas!

Good health and well-being for your families!



## **APPEAL**

**By Gennadiy G. Farenjuk,  
NIISK Director,  
Doctor of Engineering Sciences**

## **DEAR FRIENDS!**

*We are 75. These years represent the glorious history and a multi-year path of stable development and growth of the State Enterprise «State Research Institute of Building Constructions».*

*Founded in 1943, the Institute has survived the test of time and continued to symbolize combination of the best traditions and hold a high ranking of a leading scientific institution throughout its history.*

*It is hard to imagine the construction industry without the NIISK unique scientific and technological developments. Performing various works at the strategic importance objects, the Institute specialists prove to the whole country their uniqueness and ability to efficiently work.*

*We are glad to welcome you and see among our partners, colleagues and customers of Institute scientific and technical products.*

*As the Minregion's base organization, the NIISK provides for the scientific, technical, experimental, legal, methodological and informational support for design, erection and operation of numerous construction projects.*

*Today the Institute is a modern research institution that comprehensively, continuously and at a high professional level solves the construction industry problems regarding the reliability, safety, functionality and operational comfort of civil and industrial complex construction projects.*

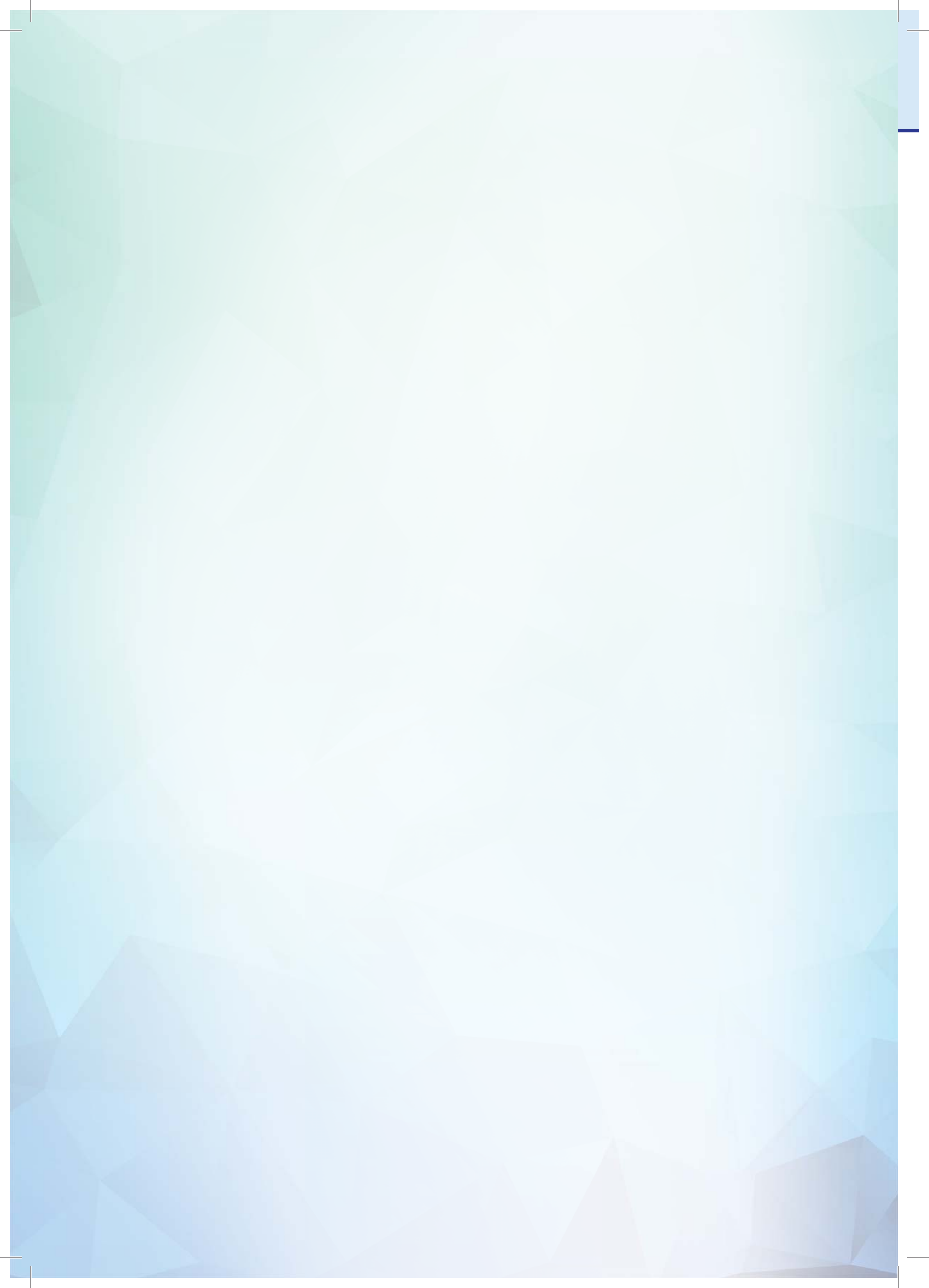
*We have significant successes and a lot to be proud of. We have proven to be capable of going ahead even in the hardest times and ready to meet all challenges.*

*The Institute's personnel make the meaningful efforts to reform and improve the construction sector legislative framework, to reach the new heights of professionalism and to hold the leading positions in the construction industry of Ukraine.*

*The NIISK guarantees the business reliability and high quality of performed scientific and technical projects, as well as the professional solutions of your problems.*

*Let's build Ukraine together!*







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## **INSTITUTE ADMINISTRATION**



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of Zaporizhia Division*  
  
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## **BUSINESS CARD**

**FULL NAME:**

*State Enterprise “The State Research  
Institute of Building Constructions”  
of the Ministry of Regional Development,  
Construction and Housing and Communal  
Services of Ukraine*

**Short name:**

**NIISK**

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**FULL NAME:**

*Zaporizhia Division  
of State Enterprise “The State Research  
Institute of Building Constructions” of  
the Ministry of Regional Development,  
Construction and Housing and Communal  
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## **SCOPE OF ACTIVITIES**

*The research works for the architecture objects creation, the engineering activities in construction field, the scientific and technical support of the buildings and facilities design, construction and operation*



## *INSTITUTE HISTORY*

The State Enterprise “The State Research Institute of Building Constructions” (NIISK) started its operation as early as in 1943 under the name of the “Ukrainian Research Institute of Buildings (UkrNDIS)” and was temporary located in Moscow. In March 1944 the UkrNDIS moved to Kyiv.

The Institute main activities at that time aimed at solving a number of pressing issues related to the restoration of buildings and structures destroyed during the Great Patriotic War in the shortest terms and searching for the most rational decisions.

The Institute was headed by the well-known specialists, including I.Vavytskyi, I.Koziula, B.Gorskyi, M.Plekhov, V.Mykhailov, A.Burakas and P.Kryvosheiev.

In the Institute the important scientific and technical areas of focus were created with the participation of well-known specialists in the relevant fields, namely:

- Construction in complex geotechnical conditions: (I. Lytvynov, Dr., S. Klepikov, Dr., A. Ryzhov, Dr. and G. Chernyi, Dr.; P. Dranishnikov, PhD, M. Minskivskyi, PhD, M. Meteliuk, PhD, V. Shumovskyi, PhD, G. Grygoriev, PhD, I. Tkachenko, PhD, I. Matveiev, PhD, A. Trehub, PhD, I. Rosenfeld, PhD, V. Shokarev, PhD, G. Soloviova, PhD, and others);
- Theory of building structures calculation: (Yo. Ulytskyi, Dr., O. Holyshev, Dr., V. Shymanovskyi, Dr., O. Dykhovychnyi, Dr., Ya. Livshyts, Dr. and A. Bambura, Dr.; A. Dubynskyi, PhD, Ye. Stakovychenko, PhD, V. Skatynskyi, PhD, V. Bachynskyi, PhD, and others);
- Design of reinforced concrete and other structures (I. Rokhlin, Dr., V. Shymanovskyi, Dr., M. Yankelevych, Dr., A. Bambura, Dr. and A. Dekhtyar, Dr.; V. Myhailov, PhD, A. Burakas, PhD, I. Lukashenko, PhD, P. Kryvosheiev, PhD, V. Tairov, PhD, V. Lelichenko, PhD, A. Liberman, PhD, A. Tseitlin, PhD, V. Galych, PhD, Yu. Katrutsa, PhD, I. Tkachenko, PhD, R. Kharchenko, PhD, V. Matsveiko, PhD, Yu. Sliusarenko, PhD, Yu. Kurash, PhD, and others);

## *INSTITUTE HISTORY*

- **Manufacture technologies for reinforced concrete structures (L. Sheinich, Dr.; M. Pliexhov, PhD, V. Riznychenko, PhD, M. Sytnyk, PhD, V. Lastik, PhD, P. Golub, PhD, A. Tsiotov, PhD, V. Bulakovskiy, PhD, G. Girshtel, PhD, S. Glazkova, PhD, and others);**
- **Quality control and research systems for structures and materials (D. Pekus-Sakhnovskiy, PhD, S. Nogin, PhD, M. Sydorenko, PhD, D. Korshunov, PhD, V. Tokarev, PhD, P. Vitiuk, PhD, Yu. Kardovskiy, PhD, G. Reminets, PhD, V. Tarasiuk, PhD, and others);**
- **Scientific research processes automation (Yu. Nemchynov, Dr. and O. Dyhovychnyi, Dr.; I. Pedakhovskiy, PhD, V. Tatsii, PhD, V. Kravchuk, PhD, and others);**
- **Antiseismic construction: (Yu. Nemchynov, Dr.; M. Marienkov, PhD, O. Khavkin, PhD, and others);**
- **Building thermal physics and acoustics (G. Farenjuk, Dr.; V. Miakshyn, PhD, V. Khomenko, PhD, M. Trokhymenko, PhD, and others);**
- **Building structures transportation: (I. Skachkov, PhD, O. Ishchenko, PhD, V. Pastushenko, PhD, and others).**



The NIISK is included into the National Register of Scientific Establishments Qualified for the State Support (Certificate No.02159, series HB).

As the Minregion’s base organization, the NIISK:

- carries out the scientific, technical, experimental, legal, methodological and informational support including the scientific and technical control over the design, erection and operation of building projects structures;
- guides the activities of the following Standardization Technical Committees (TC):
  - TC 302 “Energy Performance of Buildings and Facilities”;
  - TC 303 “Building Structures”;
  - TC 304 “Buildings and Facilities Protection”;

and Sub-Committees (SC):

- SC 8 “Agro-Industrial Construction” of TC 310 “Industrial Construction”;
- SC 3 “Research and Scientific and Technical Works Pricing and Standardization in Construction” of TC 311 “Pricing and Budgetary Regulation in Construction”.



***BASIC DIRECTIONS OF THE NIISK SCIENTIFIC AND TECHNICAL ACTIVITIES:***

- Regulatory framework development for the construction industry;
- Construction in the complicated engineering and geological conditions and the geotechnical aspects of design, construction and operation;
- Energy performance of construction projects;
- Antiseismic construction;
- New building structures research and introduction into the residential, public and industrial construction;
- Conversion of ChNPP “Shelter” Object into an environmentally safe system;
- The buildings and engineering constructions reliability and safety;
- Building acoustics;
- The construction products conformity assessment and the certification of new products fitness for use in construction;
- Economics and pricing of scientific and technical activities in construction industry.







## ***INSTITUTE TODAY***

The Institute is the base organization for scientific and technical activities in construction in the areas of creating the national regulatory framework integrated into the international legal and regulatory space of technical regulation in construction, improving the buildings and structures reliability and safety, ensuring the energy efficiency and improving the energy performance of buildings and structures, supporting the Chernobyl NPP "Shelter" Object conversion into an environmentally safe system, designing and constructing buildings and structures in complicated engineering and geological conditions and seismic resistant structures as well as certifying the building materials, products and structures conformity assessment.

The Institute also operates as the secretariat of three technical committees for standardization and two subcommittees in other technical committees for standardization, namely: TC 302 «Energy Performance of Buildings and Facilities», TC 303 «Building Structures», TC 304 «Buildings and Facilities Protection», SC 3 «Research and Scientific and Technical Works Pricing and Standardization in Construction» of TC 311 «Pricing and Budgetary Regulation in Construction» and SC 8 «Agro-Industrial Construction» of TC 310 «Industrial Construction».

The institute has an extensive structure, which includes Zaporizhzhia Branch and regional laboratories in the cities of Rivne, Odesa, Poltava, Dnipro.

As of 01.01.2018, the number of employees of the Institute is 271 persons, including 173 researchers, among them 8 doctors of technical sciences and 48 PhDs in engineering and economics.

23 employees are certified as experts in different fields.

In the Institute the scientific schools are created and operate in the following areas: reinforced concrete structures; energy efficiency in construction; bases and foundations; engineering protection of territories, buildings and facilities. The Institute has Specialized Academic Council K 26.833.01 for the theses



## ***INSTITUTE TODAY***

defense for obtaining the PhD scientific degrees in the following specialties: 05.23.01 “Building structures, buildings and facilities” and 05.23.02 “Bases and foundations”. The Institute has the postgraduate training programs in the following specialties: 05.23.01 “Building structures, buildings and facilities”, 05.23.02 “Bases and foundations” and 05.23.05 “Building materials and products”.

The Institute is included into the National Register of Scientific Establishments Qualified for the State Support (certificate № 02159, series HB of 12.05.2016).

As a world-class scientific organization, the Institute represents Ukraine in the International Federation for Structural Concrete (fib), the International Association for Earthquake Engineering (IAEE), the European Association for Earthquake Engineering (EAEE) and the European Union for Technical Approval in Construction (UEAtc) and is a member of the Seismic Construction and Natural and Man-Made Effects Reduction Commission of the Commonwealth of Independent States (CIS) and the Ukrainian Society for Soil Mechanics, Geotechnics and Foundation Engineering, which is a part of the International Society for Soil Mechanics and Geotechnical Engineering (ISSMGE).

The Institute collaborates with design, construction and scientific organizations of Ukraine, as well as from the USA, France, Germany, Poland, Czech Republic, Belarus and others.

The Institute also cooperates with professional associations and is a collective member of the Academy of Construction of Ukraine; a participant of the «Ukrainian Association of Design Organizations»; a participant of the association «All-Ukrainian Union of Manufacturers of Building Materials and Products»; a collective member of the All-Ukrainian public organization «Ukrainian Society for Soil Mechanics, Geotechnics and Foundations»; a collective member of the Kiev Chamber of Commerce; a member of the National Association for Quality; a participant of the association «Ukrainian

## *INSTITUTE TODAY*

manufacturers of Translucent Structures»; representative to the Board of Directors of the Confederation of Builders of Ukraine; a member of the Construction Chamber of Ukraine.

The Institute carries out the comprehensive research works regarding the determination of state of soil bases, foundations, and bearing and envelope structures in buildings and facilities of various purposes.

Every year the Institute performs assessments of the technical conditions of buildings and constructions and develops and applies methods for their strengthening.

The Institute carries out scientific and technical support of construction projects in order to solve complex scientific and technical problems.

The Institute has introduced a certified quality management system.

The Institute structure includes the Test Center for the tests of civil structures, buildings and facilities, products, materials and soils by physical and mechanical characteristics and operational properties, and the «CENTROSEPROBUD» product certification body (CB).

More than 32 regulatory acts and 227 normative documents including regulatory documents harmonized with international and European Standards have been elaborated at the Institute. The Institute also maintains more than 420 regulatory acts and normative documents.





## NIISK MISSION IN THE CONSTRUCTION INDUSTRY

is to provide for the reliability, security, functionality and comfort operation of residential and industrial complex, as well as development of construction of the strategic importance for Ukraine



## NIISK STRATEGIC PLAN

*covers the following issues:*



- practical implementation of state policy in the fields of construction, architecture, town-planning and housing and communal services;
- enhancement of reliability and safety of construction objects;
- increase of energy performance in construction;
- improvement of building science competitiveness;
- increase of efficiency in scientific and technological activities in construction sector.



## ***NIISK STRATEGIC DEVELOPMENT GOALS***

**Strategic objective 1** – European integration of the construction industry including the formation of the national regulatory framework integrated into the international legal and regulatory space of technical regulation in construction

**Strategic objective 2** – Enhancement of construction industry reliability and safety and competitiveness of building products with an allowance for the complicated engineering and geological conditions and construction geotechnical aspects; antiseismic construction; buildings and facilities reliability and safety; conformity assessment of construction materials, products and structures

**Strategic objective 3** – Updating of the Strategy for the Chernobyl Nuclear Power Plant «Shelter» Object conversion into an environmentally safe system. Formulation and implementation of conversion scenarios taking into account the NSC structures effects

**Strategic objective 4** – Energy efficiency and energy performance of buildings and facilities

**Strategic objective 5** – Creation of construction research and development center





## QUALITY MANAGEMENT



The Institute laboratory and testing facilities are equipped with all necessary test equipment.

All laboratories are accredited according to ISO/IEC 17025:2006 requirements for the building materials, products and structure tests.



### NIISK LABORATORY AND TESTING BASE:

- **Test Center composed of:**
  - Department for Studies of Buildings and Facilities Technical State in Hazardous Geological Processes;
  - Department of Bases and Foundations and Protection of Territories, Buildings and Facilities against Deformations in Complicated Engineering and Geological Conditions;
  - Department of Buildings and Facilities Structures Reliability;
  - Department of Researches Automation and Buildings and Facilities Seismic Resistance;
  - Department of Buildings and Facilities Structures Research;
  - Department of Reinforced Concrete Structures Manufacture Technologies;
- **Department of Construction Physics and Resource Saving;**
- **NIISK Zaporizhia's Division Testing Center**



## **TECHNICAL COMMITTEES FOR STANDARTIZATION**



*The State Enterprise «The State Research Institute of Building Constructions» performs the Secretariat functions for three Technical Committees for Standardization (TC) and two Subcommittees (SC) in other Technical Committees for Standardization.*

*TC 302 «Energy Performance of Buildings and Facilities» carries out works in the following areas: building thermal insulation; energy performance of systems ensuring the buildings heat regime and rooms lighting and insolation; building energy certification; space microclimate; renewable energy sources-based engineering systems, building monitoring and management systems.*

*TC 303 «Building Structures» deals with concrete, reinforced concrete, steel-reinforced concrete, masonry, reinforced masonry and wooden external structures; methods for building structures testing and conformity assessment.*

*TC 304 «Buildings and Facilities Protection» deals with the issues of scientific and technical support, reliability and structural safety of important buildings and facilities; fire resistance of building structures; protection against corrosion; seismic resistant construction and protection against vibrations; building acoustics and noise protection; engineering protection of territories, buildings and structures in complicated engineering and geological conditions; buildings and facilities protection on underworked areas; coastal territories protection against the river and sea surf and courses and the dangerous geological processes.*

*Besides, there are subcommittees SC 8 «Agro-Industrial Construction» and SC 3 «Research and Scientific and Technical Works Pricing and Standardization in Construction» in the structures of TC 310 «Industrial Construction» and TC 311 «Pricing and Budgetary Regulation in Construction», respectively.*

*The purpose of the Technical Committees for Standardization is the organization and execution of works for international, regional and national standardization in the specified spheres of activities.*



## TECHNICAL COMMITTEES FOR STANDARTIZATION

Scope of TC 302 “Energy Performance of Buildings and Facilities” activities

<b>CODES ACCORDING TO DK 004:2008 (UCND)</b>	<b>STANDARDIZATION POINTS</b>
91.010.10	<i>Legal aspects concerning the buildings and facilities energy certification</i>
91.010.30	<i>Technical aspects in regard to the requirements for energy effective use and consumption during the building structures and projects design and operation</i>
91.040.01	<i>Construction in general in regard to the energy performance; microclimate ensuring; conformity assessment by thermal insulation parameters; thermal and energy indicators monitoring</i>
91.080.01	<i>Building structures in general in regard to the thermophysical properties and energy performance</i>
91.100.01	<i>Construction materials (excepting structural glass) in general in regard to the thermophysical properties</i>
91.120.01	<i>Buildings external and internal protection in general in regard to the envelope structure resistance to climatic factors</i>
91.120.10	<i>Buildings heat insulation</i>
91.140.01	<i>Fit out of buildings in general (excepting equipment, devices, machines and meters) in regard to the buildings thermal regulation systems (heating, ventilation and air conditioning) monitoring and control</i>
91.140.10	<i>Heating systems (excepting equipment, devices, machines and meters) in regard to the electrical cable systems of heating</i>
91.140.99	<i>Other fit out of buildings (excepting equipment, devices, machines and meters) in regard to the technical building systems based on renewable energy sources</i>
91.160.01	<i>Lighting in general in regard to the room natural lighting and insolation</i>

## TECHNICAL COMMITTEES FOR STANDARTIZATION

### *Structure of TC 302 “Energy Performance of Buildings and Facilities”*

<b>SUBCOMMITTEE (SC) NAME</b>	<b>ORGANIZATION OPERATING AS SUBCOMMITTEE (SC) SECRETARIAT</b>
<b><i>SC 1 Buildings thermal insulation</i></b>	<b>NIISK</b>
<b><i>SC 2 Energy performance of systems ensuring the buildings heat regime</i></b>	<b><i>TOV “Scientific and Production Enterprise “Eleter”</i></b>
<b><i>SC 3 Lighting and insolation of rooms</i></b>	<b>KNUCA</b>
<b><i>SC 4 Buildings energy certification</i></b>	<b>NIISK</b>
<b><i>SC 5 Space microclimate</i></b>	<b><i>SI “O.M.Marzeiev Institute for Public Health” NAMSU</i></b>
<b><i>SC 6 Renewable energy sources- based engineering systems</i></b>	<b><i>Association of Energy Efficient Technologies Engineers of Ukraine</i></b>
<b><i>SC 7 Building monitoring and management systems</i></b>	<b><i>Academy of Municipal Administration</i></b>

## TECHNICAL COMMITTEES FOR STANDARTIZATION

### *Scope of TC 303 “Building Structures” activities*

<i>CODES ACCORDING TO DK 004:2008 (UCND)</i>	<i>STANDARDIZATION POINTS</i>
<i>91.080.01</i>	<i>Building structures in general in regard to the conformity assessment, test methods and nondestructive testing of non-metal building structures</i>
<i>91.080.20</i>	<i>Wooden structures</i>
<i>91.080.30</i>	<i>Masonry</i>
<i>91.080.40</i>	<i>Concrete and reinforced concrete structures and reinforcement for reinforced concrete structures</i>
<i>91.080.99</i>	<i>Other building structures in regard to steel-reinforced concrete structures</i>
<i>91.090</i>	<i>External structures (excepting metal structures and glassware)</i>
<i>91.100.30</i>	<i>Concrete and concrete products (excepting porous concretes and small-piece concrete products)</i>
<i>91.100.40</i>	<i>Fiber reinforced cement products (excepting sheets and pipes)</i>
<i>91.200</i>	<i>Construction technologies in regard to the admixtures use during concrete, reinforced concrete and steel-reinforced concrete structures manufacture</i>



## *TECHNICAL COMMITTEES FOR STANDARTIZATION*

### *Structure of TC 303 “Building Structures”*

<i>SUBCOMMITTEE (SC) NAME</i>	<i>ORGANIZATION OPERATING AS SUBCOMMITTEE (SC) SECRETARIAT</i>
<i>SC 1 Concrete and reinforced concrete structures</i>	<i>NIISK</i>
<i>SC 2 Steel-reinforced concrete structures</i>	<i>Poltava National Technical Yuri Kondratyuk University</i>
<i>SC 3 Wooden structures</i>	<i>Prydniprovska State Academy of Civil Engineering and Architecture</i>
<i>SC 4 Masonry and reinforced masonry structures</i>	<i>Odessa State Academy of Civil Engineering and Architecture</i>
<i>SC 5 External structures</i>	<i>NIISK</i>
<i>SC 6 Methods for building structures tests</i>	<i>NIISK</i>
<i>SC 7 Conformity assessment</i>	<i>NIISK</i>

## TECHNICAL COMMITTEES FOR STANDARTIZATION

### Scope of TC 304 “Building and Facilities Protection” activities

CODES ACCORDING TO DK 004:2008 (UCND)	STANDARDIZATION POINTS
91.010.10	<i>Legal aspects in regard to the certification of buildings and facilities with dynamic loading</i>
91.010.30	<i>Technical aspects in regard to the scientific and technical support and reliability and structural safety of important buildings and facilities</i>
91.040.01	<i>Construction in general in regard to designing the buildings and facilities in seismic dangerous regions</i>
91.080.01	<i>Building structures in general in regard to sound insulation and sound adsorption properties</i>
91.100.01	<i>Construction materials in general in regard to the sound insulation and sound adsorption properties</i>
91.120.01	<i>External and internal protection of buildings in general in regard to fire resistance; protection against corrosion (excepting protection of metal building structures), landslides actions, effects of internal erosion, karst and other ground base non-uniform deformations; protection against mining excavations actions; coastal territories protection against the river and sea surf and courses and the dangerous geological processes.</i>
91.120.20	<i>Acoustics in buildings. Sound insulation</i>
91.120.25	<i>Seismic protection and protection against vibrations</i>
91.120.30	<i>Waterproofing in regard to the protection against moistening</i>
91.200	<i>Construction technology in regard to development of geomonitoring, de-tilting and relocation of structures and building systems in general for the protection against the actions of settlements, landslides, internal erosion, karst, mining excavations and other ground base non-uniform deformations (excluding mining excavations)</i>
93.160	<i>Hydraulic engineering (excepting the industrial hydraulic engineering works including hydraulic handling systems for tailings, slimes and sludge, tailing dumps, slime tanks, sludge collectors, ponds (settling ponds, accumulator tanks, coolers, biological treatment ponds) and sludge banks).</i>

## **TECHNICAL COMMITTEES FOR STANDARTIZATION**

### **Structure of TC 304 “Building and Facilities Protection”**

<i>SUBCOMMITTEE (SC) NAME</i>	<i>ORGANIZATION OPERATING AS SUBCOMMITTEE (SC) SECRETARIAT</i>
<i>SC 1 Scientific and technical support, reliability and structural safety of important buildings and structures</i>	<b>NIISK</b>
<i>SC 2 Fire resistance of building structures</i>	<b>NIISK</b>
<i>SC 3 Protection against corrosion</i>	<b>NIISK</b>
<i>SC 4 Seismic resistant construction and protection against vibration</i>	<b>NIISK</b>
<i>SC 5 Buildings and facilities design in seismic dangerous regions</i>	<b>SE «KrymNDIproekt»</b>
<i>SC 6 Building acoustics and noise protection</i>	<b>NIISK</b>
<i>SC 7 Engineering protection of territories, buildings and structures in complicated engineering and geological conditions</i>	<b>NIISK</b>
<i>SC 8 Buildings and facilities protection on underworked areas</i>	<b>SE “Donetskyi PrombudNDIproekt”</b>
<i>SC 9 Coastal territories protection against the river and sea surf and courses and the dangerous geological processes</i>	<b>Scientific and Technical Services Center «Inzhzahyst»</b>



***OUR PROJECTS: Survey and retrofitting of  
administration buildings***



***The building of the Verkhovna  
Rada of Ukraine***



***The building of the Government  
of Ukraine***



***The administrative building of  
the Minregion of Ukraine***



***The administrative building  
of the Ministry of Infrastructure  
of Ukraine***

***OUR PROJECTS: Scientific and technical support for the retrofitting of administrative buildings***

***The National Bank of Ukraine***



***The administrative building of Appeals Court in Kyiv***



***The Ukrainian House in Kyiv***



***The National Parliamentary Library in Kyiv***





***OUR PROJECTS: Scientific and technical support for the restoration of historical and architectural monuments***



***The Odessa National  
Academic Theater of Opera  
and Ballet***



***The Taras Shevchenko  
National Opera and Ballet  
Theatre of Ukraine***



***The Kyiv National Academic  
Theatre of Operetta***



***The Lastivchyne Pnizdo  
(Swallow's Nest) palace-castle  
and museum in the Town of  
Gaspra in the Crimea***



***OUR PROJECTS: Scientific and technical support for the  
renewal of historical and architectural monuments***

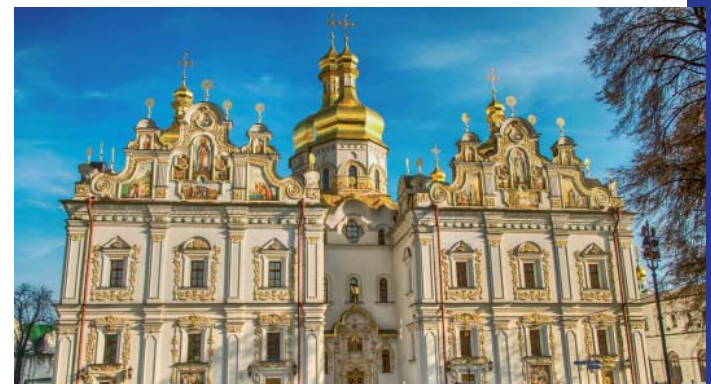
***Sophia Kyivska (St.Sophia  
of Kyiv) National Historical  
and Cultural Preserve***



***Mykhailivskiy Zolotoverhiy  
(St. Michael's Golden-Domed)  
Cathedral in Kyiv***



***Uspenskyi (Dormition)  
Cathedral of Kyiv-Pechersk Lavra***



***Andriivska (Saint Andrew's)  
Church in Kyiv***



***OUR PROJECTS: investigation and determination of  
operation life of NPP civil structures***



***Pivdenno-Ukrainska  
(South-Ukraine) NPP***



***Zaporizhia NPP***



***Rivne NPP***



***Khmelnytsky NPP***



***OUR PROJECTS: Scientific and technical support  
for the Chornobyl NPP "Shelter" Object conversion into  
an environmentally safe system***

***Technical state monitoring  
of the "Shelter" Object civil  
structures***



***Stabilization of the "Shelter"  
Object civil structures***



***Construction site  
arrangement for the New  
Safe Confinement***



***The erection of New Safe  
Confinement***





***OUR PROJECTS: Scientific and technical support for  
the surveys and renovation of hotels***



***Sheraton Kyiv  
Olimpiyskyi hotel***



***Dnipro hotel  
in Zaporizhia***



***Nyzhnia Oreanda hotel  
in Yalta city***



***Zirka Bukoveliu  
hotel complex in  
Ivano-Frankivska oblast***

***OUR PROJECTS: Scientific and technical support for the restoration of shopping facilities in Kyiv***

***"Ukraina"  
department store***



***Central  
Trade House***



***"Dytiachyi Svit"  
(Children's World) store***



***Central Department Store  
(TSUM)***





***OUR PROJECTS: Scientific and technical support for  
the sports facilities retrofitting and construction for EURO-2012***



***NSC Olimpiyskiy  
in Kyiv***



***Donbas Arena stadium  
in Donetsk***



***Lviv Arena stadium  
in Lviv***



***Palace of Sports  
in Kyiv***



*OUR PROJECTS: Scientific and technical support for  
the bridgework construction in Kyiv*

*Kyiv Metro bridge*



*Pivdennyi (Southern) bridge*



*Darnytsia automobile-railway  
bridge*



*Bridge across the Desenka  
River in Kyiv*



***OUR PROJECTS: Scientific and technical support for  
the construction of residential and public buildings***



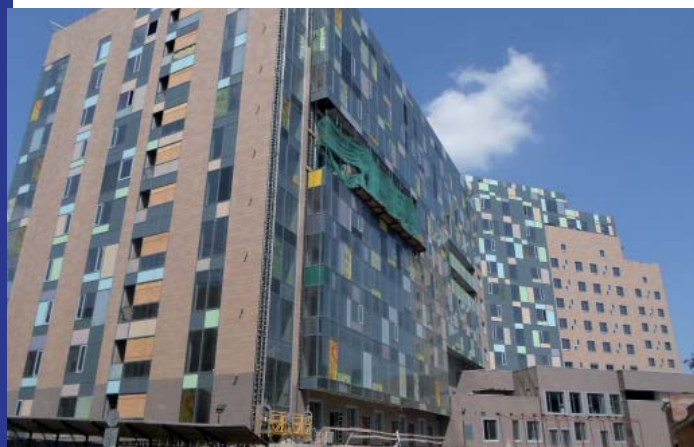
***High-rise apartments  
block at Klovski Descent  
in Kyiv***



***Residential house  
at 5 Gagarina St.,  
Zaporizhia***



***Residential house  
in Odesa***



***“Okhmadyt”  
National Children’s  
Specialized Hospital***



***OUR PROJECTS: Scientific and technical support for the construction and restoration of public buildings***

***National Philharmonic  
Building in Kyiv***



***Bus terminal at Kiltseva (Ring)  
Road in Kyiv***



***"Ocean Plaza" shopping and  
entertainment centre***



***National Organ and  
Chamber Music Hall  
in Kyiv***



***OUR PROJECTS: Scientific and technical support for  
the building projects***



***“River Mall” cultural  
and recreational centre  
in Kyiv***



***Old Exchange Building in Odesa***



***Chokolivskyi utility tunnel  
in Kyiv***



***Elevator in the city  
of Koziatyn***



***OUR PROJECTS: Scientific and technical support of building projects by the NIISK Zaporizhia Division***

***Piles static tests  
in loessial collapsible  
soils***



***Soil stabilization by deep  
mixing method***



***Bases stress-strain  
state assessment  
in real time***



***Piles integrity and  
length control***



***OUR PROJECTS: Scientific and technical support of  
geotechnologies***



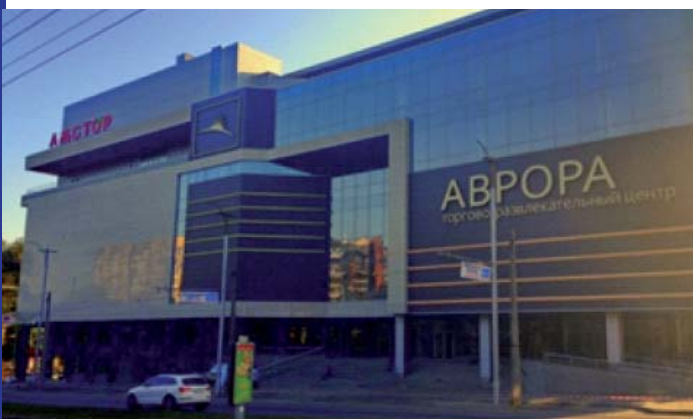
***Engineering and geological  
surveys during the construction  
of new terminal in Zaporizhia  
airport***



***Loessial soil compaction  
by hydraulic blasting***



***Above-norm tilt elimination in a  
residential building  
in Zaporizhia***



***Stress-strain state  
monitoring of civil  
structures in the “Avrora”  
shopping mall  
in Zaporizhia***

## ***NIISK INTERNATIONAL COOPERATION***

**NIISK works in a close cooperation with the European Union for Technical Approval in Construction (UEAtc). During his visit to Ukraine in 2017, the UEAtc President Mr. Benny De Blair expressed the words of support regarding the way of the Ukrainian construction industry gradual integration to the European one. The visit resulted in signing the Agreement on Cooperation between the NIISK and BCCA (Belgian Construction Certification Association).**





In 2018, President of the International Federation for Structural Concrete (fib) Mr. Hugo Corres Peretti within his working visit to Ukraine attended the NIISK where he took part in the scientific and technical meeting and informed the NIISK specialists about the Federation activities and Model Code 2020, as well as about the new approaches in design and construction developed by the fib working committees. Based on the meeting results, a Memorandum on the strengthening of international scientific relations and scientific and technical cooperation in construction sector between the International Federation for Structural Concrete (fib) and the State Enterprise «State Research Institute of Building constructions» (NIISK) was signed.



## NIISK AWARDS

**NIISK WAS AWARDED  
THE STATUS TITLE OF  
"CHOICE OF UKRAINE 2018"**

according to the results of the International Congress and Convention Association (ICCA-50) study of the financial and economic activity indicators, what was a powerful evidence of the Institute's solvency, reliability and financial firmness



**THE ORGANIZING COMMITTEE OF THE  
NATIONAL BUSINESS RATING IN UKRAINE  
AWARDED THE NIISK THE TITLE OF  
"LEADER OF THE YEAR 2017"**

The Institute was awarded the Rating Gold for the first place among public sector undertakings in the "Effectiveness and Profitability" nomination by its basic scientific and technical activity



## *NIISK AWARDS*

***BY THE DECISION OF THE SCIENTIFIC ADVISORY COUNCIL OF THE INTERNATIONAL IMAGE PROGRAM “LEADERS OF THE XXI CENTURY” THE NIISK WAS AWARDED “GOLDEN SYMBOL OF THE QUALITY OF NATIONAL PRODUCTS AND SERVICES OF UKRAINE”***

for rendering the competitive scientific and technical services of high-quality in the construction field that meet the national and international quality standards



***BASED ON THE 2015 STATE STATISTICS DATA, THE INTERNATIONAL ECONOMIC RATING “LEAGUE OF THE BESTS” HAS ACKNOWLEDGED THE NIISK AS ONE OF THE BEST ENTERPRISES AND HONoured IT WITH A STATUS AWARD “THE ENTERPRISE OF THE YEAR 2015”***



The Status Confirmation Certificate was signed by such independent rating auditors as the Standard Chartered Rating GmBH (SCR, Germany) and Intenational Rating Association (IRA, Hong Kong)





**THE MINISTRY OF REGIONAL DEVELOPMENT, CONSTRUCTION  
AND HOUSING AND COMMUNAL SERVICES OF UKRAINE  
(MINREGION OF UKRAINE)**



**STATE ENTERPRISE  
“THE STATE RESEARCH INSTITUTE  
OF BUILDING CONSTRUCTIONS”**

**SCIENTIFIC AND TECHNICAL ACTIVITIES IN CONSTRUCTION**

1. The development of construction regulations and normative documents
2. The scientific and technical support in design, erection and operation of buildings and facilities including those on the territories with complicated engineering and geological and seismic conditions and facilities of nuclear and thermal power industry
3. The development of structural solutions and technologies for affordable housing
4. The development of technical solutions for energy performance improvement of construction projects
5. Engineering services:
  - the design optimization of construction projects or elements
  - development of calculation methods for the building structures
  - development of manufacturing technologies for building structures
  - development of recommendations regarding reconstruction of buildings and facilities
  - inspection and assessment of civil structures; development of technical state certificates for buildings and facilities
  - technical supervision of the construction
  - geodetic control of the construction
  - certification of building materials, products and structures
  - expert examination of scientific and technical products, including design, research and development works
  - consulting services
  - training of highly qualified personnel at postgraduate studies
6. Engineering and geological and geophysical surveys
7. Pile static and dynamic testing
8. Numerical analysis of buildings and facilities
9. Design of special works in construction:
  - bases and foundations of all types
  - frames for cast-in-place buildings
  - reinforcement of building structures
10. Turn-key construction:
  - removal of excessive tilt of buildings and facilities
  - soil strengthening by deep mixing
  - soil compaction by hydro bug
  - dewatering
  - waterproofing of foundations and walls
  - reinforcement of building structures
  - pipeline compensators
11. Quality control of materials and structures:
  - pile integrity and length
  - strength of concrete in reinforced concrete structures
  - soil compaction
  - cementing of rock soil
  - assessment of level and development of protection of acoustic equipment of residential and public buildings including theatres, museums, archives, industrial facilities and others
  - assessment of heat engineering performance of building structures
12. Monitoring of buildings and facilities including automated one

**REGULATIONS, STANDARDS  
TECHNICAL CERTIFICATES  
CALCULATIONS  
DESIGN  
MONITORING  
INVESTIGATION  
TESTING  
EXPERT EXAMINATION  
CONCULTATIONS**

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