

THE PROBLEM OF NON-COMPLIANCE WITH BUILDING REGULATIONS IN UKRAINE

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Abstract

The problem of non-compliance with building regulations in Ukraine is examined in this work; the main norms based on the consideration of natural features, seismic activity are analyzed; the importance of their observance and examples of irresponsible construction are considered.

Keywords: non-compliance, building regulations, construction, materials, technologies, seismic zoning, norms, earthquake.

The field of construction is rapidly developing, however, people abuse compliance with regulations that must correspond to climatic conditions and seismic activity. This often leads to negative consequences: destruction of structures, uncomfortable housing, death of people.

The aim of the work is a demonstration of the importance of complying with building regulations, informing about violations, peculiarities, a list of documents describing the rules of compliance is presented.

Construction in Ukraine must take into account the country's natural features and comply with requirements that ensure maximum safety and stability of buildings during various natural phenomena. The main requirements that take into account the natural features of Ukraine include:

- Use of construction materials and technologies that ensure maximum stability of buildings during various natural phenomena. Such materials include concrete, steel, stone, wood and other materials that have high strength and durability.
- Conducting ground investigations and taking into account the peculiarities of the grounding in the design and construction of buildings. Ukraine has a diverse geological structure, so soil research allows you to download soil parameters and take them into account when designing buildings.
- Establishment of special measures to protect buildings from natural phenomena, such as earthquakes, floods, landslides, and others. Such measures may include strengthening of building structures, protection of windows and doors, installation of special flood and landslide protection systems, and others.
- Compliance with construction norms and rules established to ensure the safety of buildings and their residents. Such standards include fire safety, energy saving, sound insulation, and others.

Construction in Ukraine must comply with seismic zoning standards established by the State Committee for Construction and Architecture of Ukraine. The norms of this system are developed taking into account the level of seismic activity of the region and provide for the use of special technologies and materials to ensure maximum safety of buildings during earthquakes. The main features of the construction, which meet the norms of seismic zoning of Ukraine, include the following:

- The use of special technologies and materials that ensure high strength and stability of buildings during an earthquake. Reinforced concrete structures, high-strength steel structures, hybrid structures and other modern construction technologies can be used for this.
- Installation of special means of protecting buildings from earthquakes, such as shock absorbers, dampers, isolators, which ensure a certain flexibility of building structures and keep them in a stable condition.
- Conducting ground surveys and determining the seismic hazard of the construction site. This allows you to set the parameters of the soil on which the building will be built, and take these parameters into account during the development of the building project.

Mandatory compliance with building regulations and rules established to ensure maximum safety of buildings during earthquakes. Introduction to such norms On the territory of Ukraine there are norms and rules that are established to ensure the maximum safety of buildings during earthquakes. These norms include:

- Norms DBN V.1.1-12:2014 "Building climatology". These norms determine the parameters of the environment that affect the design and operation of buildings, in particular, the parameters of earthquake activity are taken into account.
- Norms DBN V.2.2-15:2014 "Buildings and structures. Earthquake resistance. Basic provisions". These norms establish requirements for the design of buildings taking into account seismic activity in a specific area, as well as requirements for materials, structures and construction technologies to ensure maximum seismic safety.
- Normative document DSTU B V.2.6-215:2017 "Buildings and structures. Earthquake resistance. Design, construction, operation and reconstruction". This document contains requirements for the design, construction, operation and reconstruction of buildings taking into account earthquake activity in a specific area.
- Resolution of the Cabinet of Ministers of Ukraine dated September 30, 2015 No. 777 "On the approval of the State Building Standard B.2.6-31:2015 "Reliability of buildings and structures during earthquakes".

Below are several examples of violations of building codes in accordance with seismic activity in the territory of Ukraine:

1. Construction of a tall building without proper seismic resistance: In 2008, a 25-story residential complex "Avenue" was built on Podil in Kyiv. However, the building was not designed for seismic activity, which is especially dangerous in the zone of increased seismic activity in Kyiv. As a result, this can lead to the collapse of the building in a strong earthquake.
2. Construction on unsuitable ground: In Ivano-Frankivsk in 2019, a residential complex was built on the site of submerged rock. This can lead to landslides under the building and potential collapse of the building during seismic activity.
3. Non-observance of building regulations in the reconstruction of old buildings: In many cities of Ukraine, including Kyiv and Lviv, reconstruction of old buildings often takes place without observing proper seismic resistance. For example, old buildings may be demolished and new ones erected in their place, without taking into account adequate measures to improve seismic resistance, leading to the risk of the building collapsing in a strong earthquake.

Use of improper construction materials: In many cases, construction is done with the help of improper construction materials that do not correspond to the building's proper seismic resistance. For example, the use of poor quality cement, rebars and other building materials can cause the building to fail to withstand seismic activity and collapse.

Failure to comply with design and construction standards: Often, construction companies in Ukraine do not comply with the design and construction standards required to ensure adequate seismic resistance of buildings. For example, not all buildings have adequate seismic resistance in areas with increased seismic activity, such as Western Ukraine and the Crimean Peninsula.

These examples demonstrate that failure to comply with building codes can have serious consequences in the event of an earthquake, so compliance with the proper standards is essential to ensure the safety of residents and property.

Among the main reasons for non-compliance with building regulations in Ukraine, corruption, insufficient control function of state bodies, low level of qualification of construction companies and workers, insufficient attention to labor safety and insufficient control over the quality of work can be highlighted.

To solve the problem of non-compliance with building regulations in Ukraine, it is necessary to take a number of measures, such as:

- Strengthening the control function of state bodies dealing with construction issues.

- Implementation of the system of certification of construction companies and workers.
- Provision of training and advanced training of workers in the construction industry.
- Creation of additional mechanisms for ensuring labor safety at construction sites.
- Ensuring effective interaction between construction companies and government bodies dealing with construction issues.
- Strengthening responsibility for violations of building regulations and labor safety.
The application of these measures can help reduce the risk of accidents and improve the safety of construction works in Ukraine.

Conclusions

The problem of non-compliance with building regulations in Ukraine is serious and requires an immediate solution. Failure to comply with building codes can lead to serious consequences such as building collapses, fires and other accidents that can lead to loss of life and property damage.

REFERENCES

1. THE LAW OF UKRAINE About construction regulations (Information of the Verkhovna Rada of Ukraine (VVR), 2010, No. 5, Article 41) <https://zakon.rada.gov.ua/laws/show/1704-17#Text>
2. DBN V. 1.1-12 2014 «Construction in seismic regions of Ukraine».
3. DBN V.2.2-9-2009 PUBLIC BUILDINGS AND BUILDINGS Substantive provisions.
4. Magazine «CONSTRUCTION IN POST-SOVIET COUNTRIES 2021: UKRAINE»
5. Enterprise, economy and law, Vladyslav Tkachenko: «RELATIONSHIP OF BUILDING AND LEGALS TANDARDS IN CONSTRUCTION IN THE CONTEXT OF THE PRESENT RESPONSIBILITIES FOR THEIR BREACH»

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