

DVOFAZNO MODELOVANJE BEZBEDNOSTI OD POŽARA PREMA MINIMALNIM TEHNIČKIM ZAHTEVIMA I UNAPREĐENIM ZAHTEVIMA NA PRIMERU VISOKIH STAMBENIH ZGRADA

Sažetak: Bezbednost od požara (BOP) je jedan od osnovnih zahteva koji građevina treba da ispuni tokom svog upotrebnog veka. Ovaj kriterijum ugrađen je i u nacionalna i međunarodna preskriptivna pravila, standarde i preporuke.

Za potrebe kontrole kvaliteta i održivosti projektnih rešenja prilikom izgradnje objekata koje finansira međunarodna zajednica (UN), utvrđeni su minimalni tehnički zahtevi koji uslovljavaju finansiranje izgradnje. Uredba o građevinskim proizvodima EU definiše minimum zahteva koji moraju biti implementirani u nacionalnu legislativu zemalja članica EU. Zemlje zapadnog Balkana (WBC) su, usled svog nepovoljnog ekonomskog položaja i velikih prirodnih katastrofa, korisnici značajnih finansijskih sredstava kroz međunarodne projekte izgradnje i obnove zgrada i infrastrukture, te je obavezna primena međunarodnih preporuka pri realizaciji projekata. Kako su sve zemlje i u procesu pridruživanja EU, neophodno je usklađivanje nacionalnih propisa sa propisima EU.

U radu je data komparativna analiza međunarodnih i evropskih minimalnih tehničkih zahteva bezbednosti od požara sa nacionalnim tehničkim propisima u Srbiji, na primeru visokih stambenih zgrada. Na osnovu rezultata analize, utvrđena je integralna ček-lista minimalnih tehničkih zahteva BOP koja zadovoljava sva tri kriterijuma. Predloženi model procene bezbednosti od požara visokih stambenih zgrada je zasnovan na identifikaciji minimalnih i unapređenih tehničkih zahteva sistematizovanih u integralnoj ček-listi uz uvažavanje performansi objekata i okruženja. Dodatno je dat i primer metode procene rizika sagledanog sa aspekta projektnog menadžmenta. U zaključnom delu date su preporuke za usklađivanje nacionalnih tehničkih propisa sa zahtevanim međunarodnim i evropskim zahtevima BOP.

Ključne reči: visoke stambene zgrade, minimalni tehnički zahtevi, komparativna analiza, bezbednost od požara, ček-liste

TWO-PHASE FIRE SAFETY MODELLING BASED ON MINIMAL TECHNICAL REQUIREMENTS AND IMPROVED REQUIREMENTS FOR HIGH-RISE RESIDENTIAL BUILDING DESIGN

Summary: Fire safety (FS) is one of the basic requirements buildings should meet during their life. This criterion is incorporated in the national and international prescriptive rules, standards and guidelines.

Minimum technical requirements that control the financing of the construction are established for the purposes of quality control and the sustainability of project solutions that are being brought for the construction of facilities financed by the international community (UN). Regulation on Construction Products EU defines the minimum requirements that must be implemented into national legislation of EU member states. The Western Balkan countries (WBC) are, due to their vulnerable economic situation and major natural disasters, users of substantial financial resources through international projects of construction and renovation of buildings and infrastructure, thus, the use of international recommendations in the implementation of projects is obligatory. As all of these countries are in the process of joining the EU, it is necessary to harmonize national regulations with EU regulations.

The paper presents a comparative analysis of international and European minimum technical fire safety requirements with national technical regulations in Serbia, illustrated by the example of high-rise residential buildings. Based on results of the analysis, the integrated check-list for minimum technical FS requirements that meets all three criteria is determined. The proposed model of fire risk assessment of high-rise residential buildings is based on the determined minimum technical fire safety requirements that established integral checklist contains and on assessment of fire risk using methods of scenario events. In addition, an example of risk analysis methods is provided, observed from the aspect of project management. In the conclusion, recommendations for harmonizing national technical regulations with the required international and European requirements FS are given.

Key words: minimum technical requirements, comparative analysis, fire safety, high-rise residential buildings

¹ Doc. dr Mirjana Laban, University of Novi Sad, Faculty of Technical Sciences, Department of Civil Engineering and Geodesy, Trg Dositeja Obradovića 6, Novi Sad, Serbia, mlaban@uns.ac.rs

² Asistent-master Slobodan Šupić, University of Novi Sad, Faculty of Technical Sciences, Department of Civil Engineering and Geodesy, Trg Dositeja Obradovića 6, Novi Sad, Serbia, ssupic@uns.ac.rs

³ Asistent-master Suzana Vukoslavčević, University of Novi Sad, Faculty of Technical Sciences, Department of Civil Engineering and Geodesy, Trg Dositeja Obradovića 6, Novi Sad, Serbia, suzanav@uns.ac.rs

⁴ Asistent-master Nenad Medić, University of Novi Sad, Faculty of Technical Sciences, Department of Industrial Engineering and Management, Trg Dositeja Obradovića 6, Novi Sad, Serbia, nenad.medic@uns.ac.rs