



Building Structure and Fire Danger

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Abstract

This project paper is based on the investigations done on many buildings, which have suffered the fire. It tries to give a number of consequences, which may consider problems with the basic structure, and it tries to define which structures resist the fire burden best in extreme conditions of extinction with little amount of water used. Beside the fire burden, considered in this text, most of these buildings were exposed to the artiller and mortar shells used during the war and to the different atmospheric conditions over the years. Authoritative institutions did the investigations, and therefore the results may give considerable contribution in the field of architectural planning and fire protection.

Keywords: fire burden, international legislative- standards and norms, planning the building structure, consequences of devastation

1. INTRODUCTION

One of the preconditions needed to be fulfilled by Bosnia and Herzegovina, in order to get involved in European and World integrations is the acceptance of so-called "New approach in the arrangement of the technical regulations and standards", which can influence many technical fields, including the building construction. Creation of the B&H standards, which ought to be adjusted with the International and European standards, therefore represents the major issue of the government. After gaining the independence in February 1992, Bosnia and Herzegovina accepted the Standardization Law, which means that the country has already accomplished the juridical continuity in the field of the technical regulations including the appliance of the JUS standards and therefore has gained the conditions for the implementation of new directives and standards (BAS-B&H standards).

Problems of fire protection in contemporary conditions should find their solution in early planning phase of the architectural building and in the following phases of construction and maintenance. Developed countries are especially interested for these issues (in this text, we are mentioning three of them: Canada, Germany and Sweden). They are carrying out the investigations based on experiments, which imply exposing the buildings in bad condition, meant for demolition, to the fire, and through doing this, they are gaining fundamental information needed to improve our knowledge considering the issue.

Bosnia and Herzegovina, and especially its capital Sarajevo in period of time 1992-1995, was exposed to the merciless destruction, which implies more then 3.2 millions different caliber artillery and mortar shells. The night of Friday, May 29, 1992, is remembered as a "Night of forty large fires", caused by shelling of different kinds of weapons.

01.11.1992.- from the site controlled by the UN Forces 662 different artillery and mortar shells were fired. 01.02.1993-567 grenades hit the city, and only 16 were fired back. 22.03.1993- UN Forces counted 2330 artillery and mortar shells thrown at the city.

During the war period Sarajevo was a "large scale laboratory" for fire investigation, which included different kinds of buildings, beginning with the national heritage, finishing with the small housing units, and therefore we consider that the analysis of their reconstruction could give significant contribution in the field of fire danger. In the lack of the experimental, specialized and equipped institutions, which should pay attention to this problem, society has to deal with the small amount of interest shown, in terms of technical regulation and technical standardization.