



Good practice

Mitigation Instruments For Fire Security in Tallinn (Estonia)

During the VIII MiSRaR seminar Tallinn presented the Mitigation Instruments for Fire Security in North Tallinn.

At the register of abandoned buildings there are 96 objects in North Tallinn:

- Demolished: 23
- With faults: 12 (open windows and doors)
- Without faults: 31 (closed windows and doors)
- Renovated: 3
- In use: 14
- Not in use 13: (stone boxes, not a danger but with open doors and windows)

From these 96 one third 38 belong to the city:

- Demolished: 10
- With faults: 6
- Without faults: 12
- In use: 6
- Not in use: 4

In North Tallinn there were 32 fires in abandoned buildings. In Tallinn there were all together 105 fires in abandoned buildings in 2010.

Safety center in North Tallinn received 979 calls in 2010, but real fires were:

- 95 fire in buildings
- 8 fire in cars
- 33 dry grass fires (old grass in the spring is dry and gets fire easily in parks or coastal area away from houses)
- 113 garbage can fires

Calls to Safety center were 9,6 per 1000 habitants what is higher than the average in Tallinn 8,5.

Fire Safety Bureau:

- 5 high buildings: 2 has ATS systems and ATS will be installed to 3 others in 2012.



- Social houses: 9 are in accordance with the safety regulations, in Paljassaare social house the ATS system has to be installed.
- Schools: 7 are in accordance with the safety regulations, in 3 ATS systems are missing.
- Kindergarten: all are in accordance with the safety regulations and have ATS systems. In one kinderkarten the electricity system will be changed in 2012.
- Industrial buildings that are situated in North Tallinn area: 2 new factories are according to the fire safety regulations, 4 old ones are not and need to be renovated or rebuilt.



In 2010 there were 3 casualties in fires and 9 were injured. Water accident calls were received 3 and there were no casualties.

Fire safety problems are in apartment houses as most of them are wooden houses and with stove heating and the licenses are not needed to rebuild stoves, ovens and fire-places. The following faults are registered while checking the complaints:

- Stoves are rebuilt to fire-places and as a result the smoke goes to neighbors' apartments.
- Some smoke-pipes are removed to make more room to the apartments and as a result the ventilation is disturbed as chimney has been deformed.
- Chimnies are old in the houses and need to be renovated or rebuilt.
- Apartments have been built to attics where the pillars have benn put on chimnies.
- In many apartments deformed stoves and ovens are in use.



Existing fire safety rules and acts give good possibilities for multifunctional use of wooden material in different types of buildings. Fire safety rules and acts allow to also build 3-4 store wooden houses according to special safety regulations that are different from the regulations of stone houses from which the most important regulation is the fire safety – for example installation of sprinkler systems that are connected to normal water system and avoid fires in

apartments and fires spreading from one apartment to another quite efficiently.



Government Act No 315:

Fire spreading from one building to another should not put in danger the safety of people or cause material and social damage.

1. The distance from one building to another should be large enough (8 meters) not to allow the spreading of fire from one building to another.
2. If the distance between the buildings is less than 8 meters then the spreading of the fire has to be restricted with other kind of measures:
 - a) To use the fire-safe paint
 - b) To install the automatic fire-distinguishing system to the apartments or other system that restricts the spreading of the fire
 - c) To use fire walls between the buildings
 - d) To install fire-safe doors and windows in external walls of the buildings
 - e) To install fire obstacles on fassades and roofs of the buildings

Fire security class TP3 gives the area of small wooden buildings:

1. One-floor house 2400 m²
2. Two-floor house 1200 m²
3. For three- and four-flour houses there are no restrictions for the area and habitants of the building.
4. In bigger wooden-house areas it is important to keep the distances of 8 meters between the houses.
5. If the houses are situated closer than 8 meters from each other then it has to be possible

for the fire trucks and other equipment to approach the houses.

6. The windows and installation openings have to be avoided in close houses not to give the possibility for the fire to spread.
7. One-store store-rooms, terrasses, flour-houses are allowed to build closer than 8 meters to the houses if they are fire-resistant and allow the fire-trucks and other equipment to approach the buildings.

In planning the garden area the danger of vandalism has to be considered:

1. Garbage cans and open garages for cars should not be situated close to the walls of the buildings as they are the most widespread causes of fire.
2. If the garbage cans or open garages are situated close the walls of the buildings then they have to be constructed as fire-safe as possible so the fire can not spread to the buildings.
3. The fire safety hydrants should be situated close-by at the streets that guarantees the quick supply of water in cases of fire.

Approach of safety guards:

1. The distance between the buildings have to be calculated in a way that the fire-trucks and other equipment can approach the buildings.
2. On hire than two-store buildings the balconys are used as safety exits.
3. The distances for the fire trucks are 3,5 meters length, 4 meters height and 12 meters for turning diameter. Fire trucks weight is 30 tonnes.



The MiSRaR project

The MiSRaR project is about Mitigation of Spatial Relevant Risks in European Regions and Towns.

The project is a cooperation between seven partners in six EU member states:

- *the Safety Region South-Holland South, The Netherlands (lead partner)*
- *the city of Tallinn, Estonia*
- *the region of Epirus, Greece*
- *the province of Forlì-Cesena, Italy*
- *the municipality of Aveiro, Portugal*
- *the municipality of Mirandela, Portugal*
- *the Euro Perspectives Foundation (EPF), Bulgaria.*

The goal of the project is to exchange knowledge and experiences on risk mitigation in spatial policies. The project will result in a handbook in which the lessons on the mitigation process are described and the good practices from the partners are presented. The Risk Assessment and Mapping Guidelines for Disaster Management of the European Commission will be implemented in the handbook. The MiSRaR project is cofinanced by the European Regional Development Fund and made possible by the INTERREG IVC programme.

www.misrar.eu

Contact information

Nico van Os, general project manager MiSRaR, Safety Region South-Holland South,

The Netherlands

n.van.os@vrzhz.nl

Jaan kuks, project manager MiSRaR of Tallinn,

jaan@procivitas.ee