

Fire prevention in residential buildings

Audit Report No. OSII-2-6/06/18 of April 10, 2006

Summary

The SAO audited the rescue activities aimed at fire prevention in residential buildings in 2001–2004. The audit assessed the efficiency of the two main measures of fire prevention in the rescue service – shaping fire safe behaviour and ensuring the adherence to fire safety requirements. It was examined whether the organisational preconditions for efficient prevention work and fire safety supervision have been established, which fire prevention measures are being implemented in Estonia and whether the rescue service can provide any examples of well managed prevention work.

The audit was carried out due to the fact that **Estonia is among the first in terms of the ratio of fire fatalities in the European Union.** In 2005, there were 7.9 fires per 1000 people and 9.9 persons per 100,000 people died in fire. In the same period, the number of fires per 1000 people was 2.5 in Finland, 3.8 in Latvia and 4.4 in Lithuania. The number of fire fatalities per 100,000 people was 1.5 in Finland, 10.2 in Latvia and 8.4 in Lithuania.

The experience shows that in most cases, by the time the rescue service arrives, the fire has got so big that rescuing people and property is no longer possible (in the first 3 or 4 minutes in case of a fire in residential building). Therefore, the role of people themselves in preventing fires and taking proper actions in case of a fire is essential. As 82 % of fire fatalities die in residential building fires, the audit focused on preventing residential building fires. The rescue service can successfully contribute to this by prevention and supervision. In several countries with similar climatic condition, a shift has lately taken place in the attitudes of the rescue services from being a rescue focused organisation to being an organisation concentrating on prevention work, and in a longer perspective, this also helps to decrease the burden of reacting to an accident.

Major conclusions

The state has done little to prevent fires. The Ministry of Internal Affairs has not emphasised the importance of the progress in the field of fire safety. The Ministry has not set out explicit objectives to the authorities or officials nor required decisive rationalisation of the activities aimed at fire prevention. The low awareness of people about fire safety indicates that prevention work has been insufficient: 52 % of the people interviewed by the SAO do not protect their home with smoke detectors, fire extinguishers, fire blankets or fireproof doors. The Regulation of the Government of the Republic requiring the installation of smoke detectors to living rooms takes effect only starting from 2009, although installing smoke detectors is not very expensive and its level of efficiency is high. The fire safety inspection in residential buildings is actually insufficient.

The preventive measures that have justified themselves elsewhere in the world have not been implemented enough. Estonia does not organise media campaigns which have been successful in the field of traffic safety. Schools do not provide children with sufficient knowledge of fire prevention in everyday life. The Rescue Board considers the establishment of cooperation networks between rescue services and other institutions and non-profit associations strategically important, but the strategy based on successful partnership was present only in the Järva County Rescue Service.

With the existent amount of money and number of people, prevention of fire accidents can be improved. As the experience of Järva County demonstrates, with the amount of money that is equal to the amount allocated to the rescue services from the state budget, it is possible to notably improve prevention work, if the management is dedicated and willing to implement new approaches, and cooperation partners are active. Although the decreasing number fires and fatalities in Järva County may not indicate a clear decrease in the period under study, there is a strong positive link between the growing awareness of people and the activeness of prevention work by the Rescue Service.

Main proposals

To the Minister of Internal Affairs

- Develop a national action plan for decreasing fires and submit it to the Government of the Republic for approval. In the action plan, set out a specific objective of to what extent and by

what time must the number of residential building fires and fatalities and other indicators decrease; describe measures and resources. On the basis of the action plan, the Ministry of Internal Affairs can evaluate the efficiency of the work of the Rescue Board.

- Ensure the state supervision on the adherence to fire safety requirements (incl. the requirement of smoke detector installation), because the actual supervision, determined punitive measures and implementation of substitutive enforcement (e.g. installation of a smoke detector by the rescue service) enable to guarantee the true adherence to fire safety requirements. If necessary, prepare a proposal for the amendment of law to specify the rights of the state officials exercising supervision over fire safety.

To the Director General of the Rescue Board

- Determine the exact tasks of officials in fire prevention.
- Compile a list of prevention activities that must be implemented in all rescue services, and ensure the necessary methodical support and supply of learning and distribution materials.
- Contribute to the dissemination of prevention and supervision practices to all rescue services.
- Implement a system for carrying out knowledge-based prevention work and assessing the work efficiency of rescue service agencies following the objectives of the national action plan for decreasing the number fires. For this purpose, manage the organisation of data collection and submission format in a way which would enable to get an overview of the causes, results (incl. the material damage caused to the residential buildings) and other circumstances of fire accidents, and organise systematic surveys to ascertain people's awareness about fire safety. Publish the relevant statistics on the Rescue Board web page.

To the Minister of Internal Affairs in cooperation with the Minister of Economic Affairs and Communications

- Initiate the draft amendment to the Regulation No. 315 of the Government of the Republic of 27 October 2004 on "Fire Safety Requirements for Buildings and Parts of Buildings", which will provide for the installation of smoke detectors at least in one room of the dwelling and make the presence of a fire extinguisher in new dwellings mandatory as of 1 January 2007. The Minister of Internal Affairs to organise the notification of residents about this requirement.

The standpoints of the Minister of Internal Affairs, the Minister of Economic Affairs and Communications, and the Director General of the Rescue Board

The Minister of Internal Affairs agreed to most of the proposals by the SAO. The Minister agreed to initiate the preparation of the action plan for fire prevention and deemed it necessary to involve other ministries as well. The Minister agreed that it is necessary to bring the requirement of installing smoke detectors in dwellings into effect sooner than previously planned and that the requirement of the presence of fire extinguishers in new dwellings should also take effect. The Minister also agreed to immediately start the notification of residents about fire safety. However, the letter of the Minister to the SAO did not specify who will do it and how. It is also unclear what will be done to monitor the work of chimney sweeps, although the Minister considers it necessary.

Neither the Minister of Internal Affairs nor the Director General of the Rescue Board deemed it possible to comply with the proposal to ensure state supervision of the implementation of fire safety requirements in residential buildings, reasoning this with the lack of human resources in the Rescue Board and with the fact that according to section 33 of the Constitution, supervisory operations on private property cannot be carried out without the consent of the owner. The SAO finds that total inspection can be replaced by risk-based supervision (e.g. in timber buildings, pensioners dwellings), which can be done with only a few supervisory official. As 86 % of the people interviewed by the SAO indicated that they are willing to cooperate in supervisory operations, the vagueness of jurisdiction should not be a remarkable obstacle in carrying out supervision, if the inspectors' attitude is rather consultative than inspecting. The SAO estimates that the necessary procedures can be established by analogy with the procedures of supervising gas appliances and electrical installations and equipment after the requirement of smoke detector takes effect. The SAO holds that it is essential to establish the conditions necessary for monitoring the adherence to fire safety requirements in residential buildings if the fire safety conditions in residential buildings are to be improved in the nearest future. It is not apparent from the response of

the Minister of Internal Affairs that the growth in the number of supervisory officials is considered to be important.

The Rescue Board did not deem it possible to develop the methods that could serve as a basis for the assessment of material damage caused by residential building fire accidents, saying that this goes beyond their competence and capabilities. The SAO believes that the answer to the question of how to measure the objective the Ministry of Internal Affairs has established in the development plan for 2007–2010 to decrease the material damage caused by fires must be found by the Rescue Board in cooperation with the Ministry of Internal Affairs. If solution is not found, the SAO recommends reconsidering the objective.

The Director General of the Rescue Board considers the surveys about fire safety awareness substantially necessary but unattainable in practice, referring to the cash shortages; he does not respond to the SAO proposal to regularly publish the statistics reflecting the fire safety condition on the Rescue Board web page. The SAO holds that for the purpose of detailed planning of prevention work on fire safety, such surveys are essential. The implementation of information systems referred to in the letter from the Director General of the Rescue Board is welcomed, but it still remains an insufficient measure for carrying out knowledge-based prevention work if it stands alone.

The Minister of Economic Affairs and Communications agreed to the SAO proposal to submit a proposal to amend the Regulations of the Government of the Republic that would bring the mandatory requirement of smoke detectors in dwellings into effect on 1 January 2007 instead of 1 January 2009. The Minister promised also to change the Regulation so that the procedures of technical inspection of electrical equipment would be applied also to the equipment installed in private residences and apartments. The SAO recommends that both the Minister of Internal Affairs and the Minister of Economic Affairs and Communications would notify people about the requirements to be established in sufficient time.

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