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## Original research article

## Approach of social institutions to preparedness for emergency

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## ARTICLE INFO

## Article history:

Received 13 July 2016

Received in revised form

3 October 2016

Accepted 10 January 2017

Available online xxx

## Keywords:

Social institution

Population

Protection

Evacuation

## ABSTRACT

The third call of the Ministry of Interior of the Czech Republic concerning the support of research, experimental development and innovation, was announced for the period 2013–2015. The Institute of Radiology, Toxicology and Civil Protection of the Faculty of Health and Social Sciences of the University of South Bohemia in Ceske Budejovice submitted an application for research focused on population protection according to population differentiation. The aim of the project was to analyze the current status of evacuation planning from the emergency planning zone according to population differentiation. This article discusses the issue of social institutions preparedness for evacuation from emergency planning zones. Evacuation planning is one of the most important parts of population protection. It has its own specifics and it is necessary to consistently perceive all of the aspects that evacuation includes. Social institutions are one of the important aspects which must be considered. In the emergency planning zones of nuclear power plants there are a total of 10 social institutions.

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## Introduction

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16 To reduce threats in the Czech Republic, the Ministry of  
17 Interior founded the Security Research Programme in the  
18 Czech Republic in the years 2010–2015, where the project  
19 entitled: “Population protection according to population  
20 differentiation”, designed for the period 2013–2015 of the  
21 University of South Bohemia in České Budějovice was accepted

in the 3rd public tender in research, experimental develop-  
ment and innovation.

The aim of the project is:

1. The analysis of the current status of evacuation planning from the emergency planning zones of the nuclear power plants Temelín and Dukovany, according to the differentiation of the population, and to prepare people for the possible disruption in critical infrastructure;

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<http://dx.doi.org/10.1016/j.kontakt.2017.01.001>

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2. Proposing a new methodology for evacuation planning along with integrating new aspects of medical support;
3. Designing manuals for the population for the procedure of handling emergencies with the disruption of critical infrastructure in the context of ethical issues.

The evacuation of people has to be dealt with in the field of fire protection as well as crisis management. Evacuation is addressed in Act no. 239/2000 Coll., on the Integrated rescue system as amended [1] and in regulation no. 380/2002 Coll., of the Ministry of Interior of the Czech Republic, on the preparation and execution of the tasks of population protection [2] (Part Four, § 12–14). Specific actions in this area are in accordance with regulation no. 328/2001 Coll., of the Ministry of Interior of the Czech Republic on some details of the integrated rescue system [3]. It is included in the plans for specific activities, which form part of the emergency plan of the region and the external emergency plan. These plans are: the evacuation plan as part of the emergency plans of the region and the plan for the evacuation of people (external emergency plan). Regulation no. 246/2001 Coll., on the determination of fire safety conditions and state fire supervision in § 33 of the fire evacuation plan governs the procedure for evacuating people, animals and material objects affected or threatened by fire [4].

Evacuation is considered as the most effective and widely used measure that is used for population protection to protect against the possible consequences of threatening or resulting emergencies. This measure applies to the entire population who are at risk in areas of extraordinary events, except for persons who will participate in rescue operations or the management of evacuation, or people who will engage in any emergency action. In the first step, evacuation is planned according to the preference of selected population groups [5].

Evacuation means ensuring the displacement of people, animals, objects of cultural value, technical equipment or machinery, materials necessary for preservation production, and hazardous substances from the places threatened by an extraordinary event. Evacuation is the movement to places that provide evacuees with alternative accommodation, meals, animal housing and storage for things [2].

In the areas of emergency planning of nuclear institutions (Dukovany nuclear power plant, Temelín nuclear power plant), the planned evacuation relates to the population of a part or the whole of the urban area, or a larger territorial area. It is based on the following principles:

- A. In case of a fault in a nuclear power plant technological mechanism, which could result in a radiation accident, the preparation for a direct evacuation is initiated. Direct evacuation means an evacuation which is carried out without the previous sheltering of the evacuees;
- B. In case of a radiation accident, depending on the wind direction, evacuation with sheltering is carried out from the centre and from other selected sectors. Evacuation with sheltering means evacuation conducted prior to sheltering the evacuees and after the reduction of the initial risk of exposure to radioactive cloud.

The basic role of the state is to protect life, health and possessions along with ensuring sovereignty, territorial

compactness and the state's democracy basic protection [6]. All of these are ensured by the set of activities and procedures carried out by authorities, institutions and services. Their aim is to minimize the harmful effect on the population.

One of the most basic ways of securing public safety is evacuation. This involves the relocation of people, animals, objects of great cultural value, technical equipment or machines that are essential for the local economy, or dangerous substances from the dangerous area. This requires the provision of several services such as transportation, housing, logistics, health care, security, information and others [2]. The authorities resort to an evacuation in cases when they are not able to effectively secure the safety of the public or animals in the dangerous area. One of the groups most threatened by such situations are people that rely on the care of others. These people are mostly housed in special social centres with day care and, because they require special attention, their transportation becomes particularly challenging for the authorities [7].

One of the events that most endanger public safety is a large-scale electrical blackout. Blackouts are becoming more and more common and they are usually a side effect of another critical event, i.e. floods, snowstorms and very strong winds. In the past few years blackouts have been an issue in Slovenia. The electricity of 150,000 households was cut off for several days. The situation was further complicated by a snowstorm and Slovenia was literally covered with ice. People were without heating, water and food. The Slovenian government called in the military and asked the European Union for help (including the Czech Republic) [8].

From a historical perspective we can mention a blackout that occurred in Auckland (New Zealand) in which over 1 million people were without electricity for 6 weeks [9,10].

Other large-scale blackouts include those that occurred in north-eastern Canada and the USA; where around 55 million people were impacted [11].

The trend of these blackouts is on the rise and we need to focus our attention on the protection of the public, and mainly on their preparedness. We need to ask ourselves where we should begin and whether this question is valid or not.

### Social institutions

Social services are included in a broader category called public services. These services are financed by the state and are defined by legal definitions. This fact makes them dependent on political decisions at state and local levels. But if they are based on a marketing business contract between the provider and the user, they become a commercial service [12]. Social services are provided to people that are socially disadvantaged, with the aim of improving the quality of their life, integrating them into society or protecting the general public from the dangers these people create [13]. Social services are not governed by one subject. Social services fall under the authority of the Ministry of Labour and Social Affairs of the Czech Republic, which nationally establishes institutions with social care such as special institutions [14]. Health institutions that take care of people with long-term illnesses are established by the Ministry of Health. Educational institutions for children and teenagers are established by the Ministry of

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