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Task of IC with hazardous materials

A tűzoltásvezető tevékenységét sokszor utólag ítéljük meg. Kényelmes körülmények között, ráérősen, az asztalunkra kifektetett jogszabályok, intézkedések, útmutatók, jegyzetek, tankönyvek segítségével. Mielőtt ezt megtennénk, tekintsük át a feladatainak egy töredékét, amelyek végrehajtására, illetve a döntéseinek meghozatalára csak másodpercek állnak rendelkezésre.

The presence of hazardous materials in our society is necessary and an indispensable part of our lives. It poses some threat, but it also guarantees safe living conditions for everyone. Without hazardous materials, the civilization of our present time could not have become existent. Therefore, we have to find ways to operate a defense mechanism enabling us to control hazards of any kind that we created for ourselves. Unfortunately, the number of related incidents keeps growing, and this makes us conduct investigations and undertake more researches in this field.

While carrying out rescue operations, the incident commander, as the leader of the team, is responsible for meeting all the related requirements as well as for solving all the problems that may arise during these operations. During the process of restoring order, strategic maneuvers and choices of what tactical actions should be taken can clearly be distinguished. It is always a fundamental principle that no organizing commanders may directly be involved and take part in any work activities.

Strategically response to hazardous material incidents should consist of several series of tasks. Putting together these series of tasks cannot happen without the use of previously gained experience. Working out a strategy must always begin with close examination of the scene, obtaining information, and finding answers to questions like the following:

- What are the features of the material?
- What sort of threat does it pose to the staff and the population?
- What actions should take priority?
- Where to obtain the necessary information?
 - About the: type, quantity and concentration and harmful effects of the hazardous materials;
 - About the harmful effects of the decomposition and combustion products

- About the method of the protection against harmful effects
- About the possible chemical processes, decomposition and combustion products
- About the meteorological indexes

Task of strategy

Strategic actions	Tasks for the civilians	Tasks for deployed forces
Escape from the danger zone	Escape: upwind, or crosswise Locking all doors and windows	Approach: upwind, or crosswise
Lives	Considering their own safety	Risking their own lives while saving others
Giving information	Using any apparatus of communication at hand Verbally	Using special radio communication system
Reports	Using any apparatus of communication at hand	Elevating the level of alert, Using the services of other organizations Giving information to the media
Demarcation of the danger zone	Giving information to all deployed forces	Putting up measuring points considering direction and force of wind
Evacuation	Using any available equipment, vehicles	Giving notification to the Board of Defense Organizing the evacuation
Taking away casualties and bodies	Reporting, Giving first aid	Determining the sequence of rescue, organizing the operations
Sealing the area, and keeping it closed from unauthorized people	Leaving the demarcated area	Keeping citizens out, Closing roads, Guarding evacuated areas

Figure 1: Series of tasks as the basic strategy of performance

How to develop tactics

Deployment tactics mean a series of arrangements, that are suitable for choosing and putting the correct tools in use at the right time and place, while carrying out rescue operations and cleaning up at the scene, without an increase in damage, or danger, and as quickly as possible.

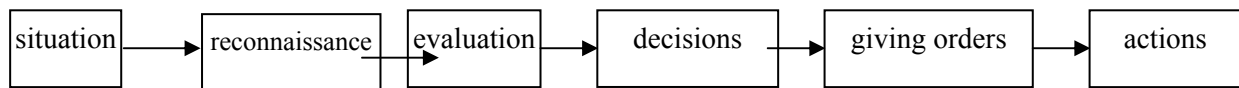


Figure 2 The usual tactical pattern

In order to successfully respond to an incident, the pattern seen in Figure 2 has to be repeated over and over again. Therefore, this pattern is part of the tactical system. In case of an incident, the situation keeps changing all the time and these changes make it possible to judge the correctness of previously made decisions. The functioning of this process must continue until the success of the activity and the completion of the strategy are in accordance.

Tactical pattern in detail:

The *situation* is determined by the following:

- Location (e.g. a city, an uninhabited area, a sewer, a slope, flat ground),
- Time (e.g. during the day, at night, during working hours),
- Meteorological conditions (e.g. windy, calm, sunny, rainy),
- Available resources, equipment (human resources, tools),
- Possibility of calling for help (e.g. distance, available experts),
- Causes of the incident (e.g. accident, overflow, technological hitch).

The purpose of *reconnaissance*:

- Mortal danger,
- Fire and explosion hazard

- Survey, and analysis of the crisis
- Review of all available documents
- Involving local experts.

Key factors in *making decisions*:

- Lives in danger,
- Fire and explosion hazard,
- Risks of contamination, or infection (e.g. poison, acid),
- Dangers of expansion,
- Possible consequences of the decision.

Content of *orders*:

- Selecting people for the task,
- Specifying the task (pl.: cooling, use of foam, use of dry powder, sealing),
- Determination of tools (e.g. what, how, need for protective clothing),
- Setting the goal of task (e.g. cooling, fixing, replacing),
- Determination of tactical methods (e.g. approach).

In the next ten years, exploitation of hydrocarbon resources will continuously be decreasing, while the volume of production in the chemical industry will continue to grow. The frequency of transportation of basic and intermediary type of hazardous materials domestically and from abroad as well as passing through the country is steadily increasing. The structure and the quality of the road network and its capacity for cars are likely to go through a very slow transformation.

Taking transportation of hazardous waste into consideration as well, our roads will be occupied by more and more vehicles transporting hazardous materials, which might lead to more accidents and disasters. Because several main roads pass through residential areas, the centers of these may become exposed to danger.

Being overburdened with dangerous materials, large number of cars, and other means of transportation, the safety of our roads is rapidly deteriorating. That gives authorities and

organizations - licensing and supervising the transportation of hazardous materials - more tasks, and puts greater responsibility on everyone on the job.

Resource: Cziva Oszkár tűzoltó alezredes: A fegyveres erők és a rendvédelmi szervek hazai együttműködésének lehetőségei természeti és ipari katasztrófák felszámolásakor, fejlesztési lehetőségek a „katasztrófavédelmi” törvény hatálybalépése előtt, Budapest (1999),

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