Identification of hazardous objects. Measures to prevent the accidents.

Sergiu Junea
Civil Protection Inspection

- In each territorial administrative unit of the republic
- Engineer protection
- Radiation and chemical protection
- Medical biological protection
Chemically hazardous objects

A chemical hazardous object represents an object where toxic substances are stores, processed, used or transported and that in case of accident or deterioration may cause death or chemical contamination of humans, animals and crops, as well as the chemical contamination of the environment.

On the territory of the there are functioning around 349 chemically hazardous objects with the danger degree of 2, 3 and 4, at which there are used more than 2000 tonnes of very toxic substances, including:

- Liquid chlorine – 260-350 t. (49 objects) / water treatment;
- Liquefied ammonia – 330-559 t. (60 objects) / frigorific installations;
- Sulphure dioxide – 210-320 t. (159 objects) / in the wine industry, sugar and preserves production;
- Ethylmercaptan – <120 t. (73 objects) / gas odorant at
Legislative base

Yearly the CP Inspection

- Inspects 100% of hazardous objects
- Elaborates the Control Act with prescriptions
- Issues the Passport of the hazardous object
- Filling the tables according the established forms
- Carrying out of applications
The registry of chemical and radioactive hazardous objects
(according to the Law No. 1236-XIII of 03.07.1997)

The chemical hazardous objects from the ________________ city, district

<table>
<thead>
<tr>
<th>Nr. d/o</th>
<th>The name of the object</th>
<th>Address (locality) telephone no.</th>
<th>The type of very toxic substance (SPT)</th>
<th>The quantity of very toxic substance, tonnes</th>
<th>The protection measures</th>
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The radioactive hazardous objects from the ________________ city, district

<table>
<thead>
<tr>
<th>Nr. d/o</th>
<th>The name of the object</th>
<th>Address (locality) telephone no.</th>
<th>Type of equipment</th>
<th>Technical destination of equipment</th>
<th>The type and characterization of the ionized radiation source</th>
<th>The number of ionized source manufacture</th>
<th>The activity of ionized source MBk</th>
<th>Radio-nuclide</th>
<th>The number of ionized source manufacture</th>
<th>Date and year of production</th>
<th>NOTES</th>
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TEHNICAL REGULATION

• NORMS AND TECHNICAL-ENGINEERING REQUIREMENTS FOR THE CHEMICAL AND RADIOACTIVE HAZARDUS OBJECTS

RT SPCSE 1.01.2009
Enhances provision of industrial security, prevention of accidents and other production damages at the industrial hazardous objects, provides the preparedness of enterprises that use hazardous objects and increases the preparedness for localization and liquidation of accidents consequences.
# Classification of Chemical Hazardous Objects According to the Chemical Risk

<table>
<thead>
<tr>
<th>№ d/o</th>
<th>Identification of classified objects</th>
<th>Criterion (index) of identification of OEN as chemically hazardous</th>
<th>Numerical criterion indexes used for classification of OEN according to the chemical risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>According to SNiP (Construction Norms and Rules) 2.01.51.90, the chemical dangerous object is OEN, which damage or accident may mass affectation of persoans, animals and plants with very toxic substances (SPT).</td>
<td>The number of population living in the area of possible contamination with SPT.</td>
<td>I: The area of possible contaminatio n includes more than 75 thousands persons.</td>
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<td>II: The area of possible contaminatio n includes between 40 and 75 thousands persons.</td>
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<td>III: The area of possible contaminatio n includes less then 40 thousands persons.</td>
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<td>IV: The area of possible contamination is not exceeding the limits of the object and its sanitary protection zone</td>
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</table>
The technical-engineering requirements for the chemically and radioactive dangerous objects

- Licensing
- Certification on the security during the exploitation process

I. Organizational measures:
- measures to locate the accidents by disconnection the most vulnerable sectors of the technological schemes
- “The Action Plan for protection of personnel and population In case of an accident with release of very toxic substances”.

II. Engineering measures:
- training of the operative and continuous dispatcher services
- Yearly trainings and maneuvers
The radioactive and chemical protection system of the personnel and population

- **Organization of the radioactive and chemical protection system**
  - special requirements regarding the rational localization of the potential hazardous objects and communications
  - Increase of the security of the functioning of vital insurance objects

- **Protection measures for the personnel and population, located near the radioactive and chemically hazardous objects is provided through:**
  - radioactive and chemical control of the contamination
  - Early forecast of the possible contamination area

- **Assurance of execution of radioactive and chemical protection measures**
  - The responsible person for the provision of employees and population protection
  - Fully provision with individual means of protection
When receiving the information about occurrence of an accident at an industrial object the manager has to:

- Activate the subordinated administration bodies, civil protection forces and measures, the subdivision of the National Laboratory Observation and Control Network (RNOCL), command, warning and communications systems;
- Act according the relevant chapters of the “PC Plan in case of Emergency Situations”, to ensure population protection, that may be located in the contaminated zones, its evacuation and sheltering;
- Organize the research;
- To order preliminary activities for the liquidation of the accident;
- Organize the management of the activities for the liquidation of the accidents consequences.
accident consequences liquidation

The economic agents have to:

• a) plan and carry out measures for the localization and liquidation of the accidents consequences;

• b) to establish its own rescue and intervention services or to contract with professional rescue teams or to establish rescue teams that are not included in its personnel;

• c) to establish, according to the legal framework, financial and material resources reserves for the localization and liquidation of the accidents consequences;

• d) to train the employees regarding the measures in case of an accident or incident;
The actions carried out by the administration team, employees and population in case on an accident, accompanied by release of SPT or loss of control on SII.

- President of the Commission of Emergency Situations
- Chief-engineer
- The specialist in the filed of Civil Protection
- the dispatcher on duty
- Chief of the shift
- Employees

The actions carried out by the population near the chemically or radioactive hazardous objects in case on an accident, accompanied by release of SPT or loss of control on SII.
TEHNCICAL REGULATION
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Annexes

• First medical aid

• Guidance of the actions to be taken by the on duty dispatcher in case of an accident at a chemically or radioactive hazardous object or transportation of dangerous loads

• Action Plan for the protection of employees, officers and population in case of an accident accompanied by release of SPT

• The Passport of the chemically hazardous object

• The registry of information and provisions issued in case of an accident

• List of the chemical and radiological risk substances that require a severe control while being imported, exported and transported on the territory of the republic
Cartele de avarie la principalele substanțe, ce conțin:

- Basic properties and the type of risk
- Individual means of protection
- Necessary single time measures, in case of leakage, in case of fire, in case of ignition
- Measures for the first medical aid
• The text of the on duty dispatcher addressed to the employees and population in case of an accident, accompanied by the release of toxic substances with a strong effect or loss of control on a source of ionized radiation
• Guidance on the actions to be taken by the on duty dispatcher of the industrial object in case of an accident, accompanied by the release of toxic SPT
• The order of the actions to be taken by the on duty dispatcher
• The guidance on the response of the responsible person according to the levels of intervention levels of intervention in case of chemical or radioactive accident
• The response measures to chemical or radioactive accidents.
QUESTIONS