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## Energy Emergency Response in Russia

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## Definitions

#### **Definitions** (1)

Emergency is a situation on certain territory, formed as a result of accident, dangerous natural phenomenon, disaster, natural calamity or other catastrophe, that may cause or have caused human casualties, damage to human health or environment, considerable material losses, violation of conditions of living environment.

#### **Definitions** (2)

**Emergency prevention** is a package of preliminary actions aimed at:

- maximum possible reduction of risk of emergency
- preservation of human health
- reduction of environmental damage and material losses, should they occur

#### **Definitions** (3)

**Emergency liquidation** is a complex of rescue and other urgent works carried out in the event of emergency and aimed at:

- saving lives and preserving human health
- reduction of environmental damage and material losses
- localization of emergency zones
- > termination of their specific hazards

#### **Definitions** (4)

For the sake of this presentation *Accident* is a contingency or emergency situation on energy facilities, or other event greatly impeded the functioning of energy facilities.

# Russian United State System of Prevention and Liquidation of Emergency Situations (REPLS)

#### **Elements of the REPLS**

REPLS comprises: authorities, forces and means: of federal executive authorities, executive authorities of subjects of the Russian Federation, local authorities, organizations authorized to resolve the issues on protection of population and territories from emergencies.

REPLS consists of functional and territorial subsystems and acts on federal, interregional, regional, municipal and facility levels.

#### **Functional subsystems**

Functional subsystems of REPLS are established by federal executive authorities and authorized organizations in order to arrange works on protection of population and territories from emergency in relevant sectors of economy. For instance, the Ministry of Energy of the Russian Federation is responsible for energy subsystem.

#### **Territorial subsystems**

Territorial subsystems of REPLS are located in subjects of the Russian Federation to prevent and liquidate emergencies within their territories.

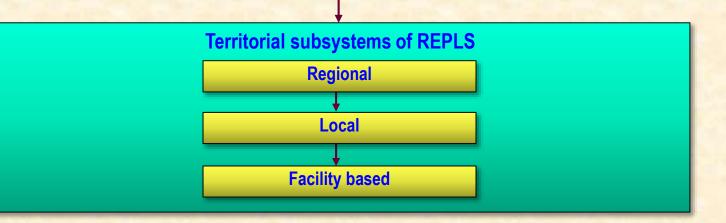
They consist of brunches corresponding to administrative division of related territories.

#### General structure of the REPLS

Government commission on prevention and liquidation of emergency situations and fire safety

Russian Ministry for Civil Defense, Emergencies and Elimination of Consequences of Natural Disasters (RMES)

**National Management Center for Crisis Situations of RMES (NCC)** 



#### Main goals of the REPLS (1)

- Develop and implement legal and economic norms on protection of population and territories from emergencies
- Implement targeted scientific and technical programs aimed at preventing emergencies and improve sustainability of organizations as well as social facilities in emergency situations
- Ensure preparedness for actions of authorities, forces and facilities, destined and chosen for prevention and liquidation of emergencies

#### Main goals of the REPLS (2)

- Collect, process, exchange and deliver information on protection of population and territories from emergencies
- Prepare population for action in emergency situations, including organization of explanatory and preventive work among population
- Organize public informing on emergency situations, including emergency population warning
- Forecast the threat of emergency and assess its impact
- Create reserves of financial and material resources for liquidation of emergency situations

#### Main goals of the REPLS (3)

- Implement state expertise and state supervision for protection of population and territories from emergencies
- Implement measures on social protection of population affected by disaster, carrying out humanitarian actions
- Realize the rights and duties of population on protection from emergencies, as well as those directly involved in the liquidation
- Cooperate with foreign states with the aim of protection of population and territories from emergencies

#### **Coordination and management**

At each level of REPLS there are coordinating bodies, permanent control bodies, daily management bodies, forces and facilities, reserves of financial and material resources, communication and alarm systems, systems of notification and informing the public about emergency.

Control bodies of REPLS are equipped with engineering controls, communication, notifications and life support facilities, which are always ready for use.

#### Forces and facilities of REPLS (1)

REPLS has in its disposal specially prepared forces and facilities: of federal executive authorities, of executive authorities of subjects of the Russian Federation, of local authorities, of organizations and public associations, destined and chosen for prevention and liquidation of emergency situations.

#### Forces and facilities of REPLS (2)

Civil defense forces and facilities may be involved in organization and implementation of measures for prevention and liquidation of emergency situations on federal and regional level in accordance with related federal low.

Forces and facilities on each level of REPLS contain forces and facilities of permanent readiness, designed for rapid response to emergencies and execution of works on liquidation of them.

#### Forces of permanent readiness

The basis of the permanent readiness forces constitute: rescue services, emergency rescue units, services and other formations, equipped with special machinery, facilities, equipment, tools and materials to provide the possibility of execution rescue and other urgent works in the emergency area for at least 3 days.

#### Means for emergency liquidation

For the sake of liquidation of emergency are needed:

- reserve fund of the Government of the Russian Federation for prevention and liquidation of emergencies and consequences of natural disasters
- > stocks of material assets belonging to state material reserves for urgent works aimed at elimination of consequences of emergencies
- ➤ reserves of financial and material resources owned by federal executive authorities, by authorities of subjects of the Russian Federation, local authorities and organizations

# Energy subsystem of the REPLS controlled by the Ministry of Energy of the Russian Federation

#### **REPLS' energy subsystem**

The responsibility for functional subsystem of REPLS related to energy is rested on the Russian Ministry of Energy (RME).

The Situation and Analysis Centre (SAC) of RME, as a daily management body of REPLS, carries out monitoring the situation in fuel and energy complex (FEC). Under Centre's supervision are: technological violations, accidents, contingency and emergency situations in energy facilities, and other events that may impede the work of energy facilities, measures to protect staff conducting rescue and different urgent works.



#### Functional energy subsystem of REPLS controlled by the Ministry of Energy of the Russian Federation

Government Functional subsystem of prevention and liquidation of emergencies in FEC organizations commission on prevention and (at facilities) and in organizations (at facilities) administrated by the Russian Ministry of Energy liquidation of emergency situations and **Coordinating organ** fire safety Commission on prevention and liquidation of emergency situations and fire safety of the Russian Ministry of Energy **Russian Ministry** for Civil Defense, **Emergencies and** Permanent operating management body Elimination of Consequences of Natural Disasters Department of operational control and management in the power sector **National** Management Daily management body Center for Crisis Situations **Situation and Analysis Centre (SAC)** Territorial subsystems of REPLS Communication and alarm systems, information support Regional **Forces and means** Local Reserves of financial and material resources For FEC organizations and organizations administrated by the Russian Ministry of Energy At facilities

#### Information activity (1)

I. Warning about the threat of accident requires gathering operating data on external factors that impede the functioning of energy facilities (weather conditions, earthquakes, floods, fires, terrorist attacks, etc.) This information comes from: Meteorological Center of Russia, Geophysical Service of the Russian Academy of Sciences, National Management Center for Crisis Situations and so on; is organized in the SAC and brought to the Russian Ministry of Energy and FEC organizations.

#### Information activity (2)

II. Informing on the fact of the accident and on progress in its liquidation requires gathering operating data on actual accidents at locations of energy facilities.

Organized information is reported to the Russian Ministry of Energy and delivered to management of FEC companies, federal executive organizations and other organizations, participating in REPLS.

#### Information activity (3)

The information receiving by SAC is aggregated, analyzed and published in a variety of analytical and reference materials, which are prepared monthly, quarterly and year-end, as well as at request from the Russian Ministry of Energy.

The SAC monitoring and information exchange system is regularly upgraded in order to:

- increase the number of operational data sources
- actualize previous agreements
- implement new software and hardware tools

# Legal and regulatory base of REPLS and its energy subsystem

#### Legal and regulatory base of REPLS

Federal Law of 21 December 1994 № 68-FZ "On protection of population and territories from natural and man-made emergencies".

#### **Russian Federation Government Resolutions:**

- of 30 December 2003 № 794 "On the united state system of prevention and liquidation of emergency situations",
- of 24 March 1997 № 334 "On the procedure for collection and exchange of information in the Russian Federation on protection of population and territories from natural and man-made emergencies".

#### Regulatory base of REPLS

#### Orders of the Russian Ministry of Emergency Situations:

- of 26 August 2009 № 496 "On approval of the Regulation on the system and the procedure for information exchange in the framework of a united state system of prevention and liquidation of emergency situations",
- of 07 July 1997 № 382 "On the entry into force of instructions on the timing and forms for presentation the information on protection of population and territories from natural and man-made emergencies",
- of 08 July 2004 № 329 "On approval of the criteria for information on emergency situations".

#### Regulatory base of energy subsystem

#### **Orders of the Russian Ministry of Energy:**

- of 09 June 2011 № 222 "On the functional subsystem of prevention and liquidation of emergency situations in FEC organizations (at facilities) and organizations (at facilities), administered by the Russian Ministry of Energy",
- of 10 August 2015 № 555 "On the organization of alerting the heads of the Russian Ministry of Energy on technological violations, accidents, acts of unlawful interference, contingency situations, emergencies or other events in FEC facilities, impeding their functioning".

# THANK YOU FOR YOUR ATTENTION!