

This law prescribes basics for organization of seismic protection in the Republic of Armenia and regulates the relations connected with them.

# CHAPTER 1. GENERAL PROVISIONS

## CHAPTER 1

### GENERAL PROVISIONS

#### Article 1. The legislation on seismic protection

The legislation on seismic protection consists of the present law, other laws and legal acts.

If under international agreement in the field of seismic protection, established standards differ from standards established under the legislation, the standards of international agreement are applied.

#### Article 2. The basic concepts used in the law

In the present law the following basic concepts are used:

1. strong earthquake- an earthquake stronger than 5,5 by magnitude scale;
  2. seismic protection- legal, social, economic, educational, organizational, scientific, engineering and technical, and other special measures directed on ensuring seismic safety of the state and society and its sustainable development;
  3. seismic hazard- threat of possible strong earthquake in region, shown by strong shocks;
  4. seismic zoning- mapping of possible maximum seismic hazard distribution in the region;
  5. seismic situation- general characteristic of current seismic hazard from the point of view of seismic protection;
  6. seismic risk- human, material and other possible losses caused by strong earthquake;
  7. seismic risk reduction- complex, various long-term actions of the state and society (administrative, legal, social, economic, tutorial, educational, scientific, engineering- technical, organizational etc.), directed to the reduction of human, material and other possible losses caused by strong earthquake;
  8. early warning- notification on temporary infringement of population natural vital functions, with the purpose of ensuring its safety;
- seismic protection of buildings and structures- ensuring of seismic stability of buildings, structures;

9. assessment of buildings and structures vulnerability- prediction of buildings, structures behavior at strong earthquake;
10. task forces of seismic protection- specialized, multi-profile formations in the field of seismic protection for rendering an immediate aid to population at strong earthquake or its threat.

### **Article 3. The basic goals of seismic protection accomplishment**

Basic goals of seismic protection accomplishment are:

1. implementation by a plenipotentiary body (hereinafter plenipotentiary body) of unified state policy in the field of seismic protection;
2. ensuring of prevailing of preparedness and warning principles above consequences rehabilitation in the unified state and international interstate policy in the field of seismic protection;
3. equal priority of all elements of seismic risk reduction;
4. involving the governmental bodies, local authorities and society in the realization of the state and interstate programs of seismic risk reduction;
5. internationalization of state programs on seismic risk reduction.

### **Article 4. The work programs on seismic protection**

Seismic protection works in the territory of the Republic of Armenia are realized through the state program on seismic risk reduction (hereinafter Program).

The Program has complex character and consists of short-term (up to 1 year), mid-term (up to 5 years) and long-term (up to 30 years) sub-programs.

The Program includes complex measures with the schedule and responsible executives directed to the reduction of vulnerability of territories to earthquakes and catastrophes connected with them.

As a result of the Program completion the forecast of seismic hazard, seismic risk assessment and reduction are provided.

Annually, until May 1, the head of plenipotentiary body in the field of seismic protection at the session of National Assembly represents a report on conducting the works established by short-term program of seismic risk reduction.

The program is funded from the state budget of the Republic of Armenia, as well as other sources not prohibited by the legislation.

### **Article 5. Seismic protection objects**

From the point of view of seismic risk assessment and reduction, objects of seismic protection are:

1. territory of the Republic of Armenia;

2. territory of administrative – territorial units of the Republic of Armenia;
3. populated regions of the Republic of Armenia;
4. governmental, defence, industrial, agricultural–industrial, hydro–engineering (including reservoirs, dams), power (including NPP), scientific and technical, health and educational institutions;
5. buildings, structures, immovable monuments of history and culture;
6. systems of engineering–transport communication;
7. lifelines (gas pipeline, water supply and sewage).

## **Article 6. Classification of the objects of seismic protection**

From the point of view of seismic risk assessment and reduction, the objects of seismic protection are classified by their importance as:

1. special;
2. significant;
3. general.

The list of the objects by classification, in due course, approved by the Government of the Republic of Armenia.

# **CHAPTER 2. GOVERNMENTAL MANAGEMENT IN THE FIELD OF SEISMIC PROTECTION**

## **CHAPTER 2**

### **GOVERNMENTAL MANAGEMENT IN THE FIELD OF SEISMIC PROTECTION**

## **Article 7. Competency of the Government of the Republic of Armenia in the field of seismic protection**

In the field of seismic protection the Government of the Republic of Armenia:

1. approves the basic directions of state policy;
2. approves the state programs of seismic risk reduction ;
3. establishes the list of the objects of the special, significant and general significance;
4. establishes a plenipotentiary public governing body ;
5. establishes the order of granting licenses for seismic zoning works;
6. fulfills other competencies established by the legislation.

## **Article 8. Competency of plenipotentiary body in the field of seismic**

## **protection**

Plenipotentiary body in the field of seismic protection:

1. develops the basic directions of state policy in the field of seismic protection;
2. is responsible for seismic hazard and risk assessment and seismic risk reduction;
3. coordinates works conducted in the field of seismic risk reduction in the territory of the Republic of Armenia;
4. affirms the prediction of possible strong earthquakes in territory of the Republic of Armenia and possible strong earthquakes at the distance hazardous to the Republic;
5. approves various scale maps of seismic zoning and seismic risk, for the territory of the Republic of Armenia, and seismic microzoning maps for dense populated areas, objects of the special, significant and general importance;
6. affirms expert assessment of seismic risk for the territories of special, significant and general importance objects;
7. organizes preparedness and training of the population to withstand strong earthquakes;
8. coordinates and controls the execution of the state programs in the field of seismic risk;
9. participates in operative vulnerability assessment of buildings and structures with the aim of seismic risk reduction in the zones of high seismic hazard;
10. in due course grants the licenses for works on seismic zoning;
11. fulfills other competencies established by the present law.

### **Article 9. Competency of local authorities in the field of seismic protection**

"Law on local authorities" of the Republic of Armenia, the given and other laws, establish the competencies of local authorities of the Republic of Armenia in the field of seismic protection.

Local authorities in the field of seismic protection:

1. organize works in the field of seismic risk reduction in the territory of community;
2. provide works on preparation of the population to strong earthquake in the territory of community;
3. support executing of the state programs in the field of seismic protection in the territory of community;
4. realize other competencies, established by the legislation of the Republic of Armenia.

### **Article 10. Spheres – subject to licensing in the field of seismic protection**

In the field of seismic protection works on seismic zoning are subject to licensing. The licenses specified are issued only to legal entities, for the period up to three years. For receiving the license the State Tax in the statutory size and course is raised.

## **CHAPTER 3. SEISMIC HAZARD ASSESSMENT**

### **CHAPTER 3**

#### **SEISMIC HAZARD ASSESSMENT**

##### **Article 11. Seismic hazard assessment elements**

Seismic hazard assessment elements are the primary seismic hazard assessment and the secondary seismic hazard assessment.

The primary seismic hazard assessment includes long-term and current assessment of seismic hazard.

The secondary seismic hazard assessment includes assessment of natural and technogene phenomena caused as a consequence of earthquake.

##### **Article 12. Long-term seismic hazard assessment**

Long-term seismic hazard assessment is the prediction of place and intensity of maximal possible shocks on the Earth surface.

As a result of Long-term seismic hazard assessment, in due course, various scale maps of seismic zoning are compiled, approved as normative document by a plenipotentiary body.

The maps of seismic zoning are a basis for designing of seismic resistance construction standards, land use, elaborating of the population settlement schemes of the Republic of Armenia.

The maps of seismic zoning in the obligatory order are taken into account at building up the cities and settlements, and designing the objects of special, significant and general significance.

##### **Article 13. Current seismic hazard assessment**

Current seismic hazard assessment is the prediction with the defined probability of place, magnitude and time of possible strong earthquake.

For assessment of current seismic hazard in the territory of the Republic of Armenia the national multiparameter network of seismic observation operates.

The network consists of national and international observation stations, which are included in a world global network. At seismic stations are directly implemented round-the-clock multiparameter observations and the received

results are transmitted to the data acquisition center of plenipotentiary body, where they are collected in unified databank. After the expert analysis, information, in order, established by a plenipotentiary body, is reported to the President of the Republic of Armenia, the chairman of the National Assembly of the Republic of Armenia, the prime minister of the Republic of Armenia, competent authorities and population.

The plenipotentiary body establishes the order of creation of a network, executing of observations, data acquisition and transmission.

For ensuring the reliability of the information about the natural phenomena and in order to prevent distortion of observations around observation stations conservation zones are created.

## **CHAPTER 4. ASSESSMENT AND REDUCTION OF SEISMIC RISK**

### **CHAPTER 4.**

#### **ASSESSMENT AND REDUCTION OF SEISMIC RISK.**

##### **Article 14. Assessment of seismic risk**

Assessment of seismic risk is the prediction of human, material and other possible losses caused by strong earthquake.

As a result of seismic risk assessment, in the order, established by a plenipotentiary body, various scale maps of seismic risk, included in basis of economic development programs are compiled and approved.

##### **Article 15. Basic tasks of seismic risk reduction**

Basic tasks of seismic risk reduction are:

1. reduction of territories vulnerability;
2. increase of knowledge and preparedness of the population;
3. preparation of government bodies and local authorities to the management of seismic risk;
4. creation of population early warning system;
5. medical preparedness;
6. development of task forces;
7. creation of insurance system;
8. rehabilitation of population and recovering of a zone suffered from the strong earthquake;
9. Seismic risk reduction is realized according to the complex seismic risk reduction state programs.

## **Article 16. Basic principles of territories vulnerability reduction**

Basic principles of territories vulnerability reduction are:

1. seismic zoning of territories;
2. assessment of seismic risk of settlements, objects of the special, significant and general significance;
3. strengthening of existing constructions;
4. increase of seismic resistance of objects of special, significant and general importance and lifelines;
5. presence of rules and standards of seismic resistant construction;
6. accomplishment of the state control on buildings and structures design, measures and requirements on vulnerability reduction during construction and exploitation;
7. prediction of secondary hazard.

## **Article 17. Role of the population in the system of seismic protection**

The raise of knowledge and preparedness of population is provided by means of state training system.

The state training system includes the following subsystems:

1. direct training of various strata of the population, beginning from high schools (instructors, teachers, tutors, doctors etc.);
2. educational programs, methodical manuals, relevant indicative materials;
3. TV and radio programs, publications in mass media;
4. social – psychological preparedness;

The state training system provides the reliability and availability of the given information.

## **Article 18. Preparation of government bodies and local authorities to the management of seismic risk**

The purpose of preparation of government bodies and local authorities is the creation of a unified seismic risk control system for effective utilization of capabilities and assets of the state.

The preparation for seismic risk management should include the following periods: before earthquake (long-term preventive measures), during earthquake (task force), after earthquake (rendering aid, recovering works, rehabilitation of population).

The preparation of government bodies and local authorities includes elaboration of programs on regional and local seismic risk reduction, as well as mutual aid, organization of staff training.

## **Article 19. Order of the population warning about seismic situation at strong earthquake or its threat**

The official warning of the population about strong earthquake or its threat and as well as about a general seismic situation in the Republic of Armenia is realized in order established by the government of the Republic of Armenia.

## **Article 20. Methods of early warning and notification**

Methods of early warning and notification are non-prompt notification, through government bodies, and immediate, automatic notifications by means of a seismic alarm acoustic signal.

In the basis of the non-prompt early warning and notification lays the assessment of current seismic hazard by a plenipotentiary body, which is accompanied by accomplishment of the stipulated measures, in order established by the government of the Republic of Armenia. An overall objective of measures is to avoid significant human and material losses, through the preliminarily planned actions.

The immediate early warning and notification is transfer of a signal about the destructive seismic wave propagating from earthquake source to a settlement, via technical automatic system.

## **Article 21. Task force system**

Task force system in the field of seismic protection includes the program of actions and necessary means and is directed on rendering prompt and efficient aid to the population with the purpose of ensuring the minimum human and material losses.

The program of actions, in due order, is approved by the government of the Republic of Armenia. The program of actions is a list of complex measures taken in case of earthquake with the appropriate schedule and responsible executives.

In areas suffered from earthquake task force (hereinafter forces) realize:

1. search and rescue works;
2. rendering of the first medical aid by rescuers and population to the population, suffered from earthquake;
3. rendering of medical aid by the system of public health services;
4. examination of psychological state of the people and organization of explanatory works with the population;
5. recovery of communication and other subsystems of life-support.
6. organization of an information service;
7. organization of material-technical support;
8. ensuring of the public order;



9. neutralization of damaged buildings;
10. assessment of preliminary damage grade of buildings and structures, and consequences in the earthquake zone;
- installation of a dense network of seismic observation stations, seismogeological and macroseismic research in the earthquake zone;
11. other works on liquidation of strong earthquake consequences.

By the decision of the prime minister of the Republic of Armenia, the task forces participate in the works on earthquake consequences liquidation, occurred abroad the Republic of Armenia.

## **Article 22. Medical preparedness**

Medical preparedness is based on the forecast of possible sanitary losses at earthquake.

Medical preparedness supposes:

1. preparation of the specialized medical establishments;
2. preparation of medical and not medical experts, with the purpose of rendering the first medical aid;
3. planning of medical establishments arrangement, depending on the location of high seismic risk zones;
4. accomplishment of mutual actions between medical services and government bodies and local authorities.

## **Article 23. Principles of recovery**

The stage of recovery of a zone suffered from strong earthquake is the intermediate between the stages of an emergency seismic situation and reconstruction. The duration and the strategy of recovery stage defines the government of the Republic of Armenia.

The accomplishment of recovery works is based on the following principles:

1. planning of possible amount of probable recovery works before the catastrophe and their adjustment after the catastrophe;
2. ensuring of cooperation between government bodies and local authorities, non-governmental organizations, society for the solution of recovery tasks;
3. creation of the conditions for population active participation in recovery works in the disaster zone;
4. creation of the conditions for attracting an international investments to the disaster zone.

## **Article 24. Essence of recovery works**

Recovery works suppose:

1. revision of existing seismic hazard assessment maps and compilation of new maps (including seismic microzoning maps);
2. presence of recovery program for settlements in earthquake zone and general layout;
3. elaboration of seismic resistant construction strategy in earthquake zone;
4. assessment of technical state of preserved buildings and structures, granting of the certificate for their exploitation;
5. demolition of high emergency and destroyed structures and clearing of the site;
6. construction of new settlements, residential areas, buildings;
7. recovering of objects of public health services, culture, common, industry, education and science, lifelines, religious facilities;
8. solution of environment protection tasks.

#### **Article 25. Aid for the population and its rehabilitation**

The purpose of aid rendering to the population and its rehabilitation is the reduction of material and psychological losses of the state after an earthquake.

Rendering of aid to the population and its rehabilitation is a multi-stage one: operative (first few days), short-term (first month), mid-term (first year) and long-term (more than one year).

Rendering of aid to the population and its rehabilitation are based on the following principles:

1. preliminary planning of works amount on rendering aid and rehabilitation before the catastrophe and their adjustment right after the catastrophe;
2. active participation of government bodies and local authorities and society.

#### **Article 26. The order of earthquake insurance in the Republic of Armenia**

The insurance of life, health and asset of the citizens of the Republic of Armenia, as well as assets of governmental management bodies and local authorities, legal entities from earthquake is realized in order established by the law "On insurance" of the Republic of Armenia.

## **CHAPTER 5. THE RESPONSIBILITY FOR OFFENCES IN THE FIELD OF SEISMIC PROTECTION**

## CHAPTER 5

### THE RESPONSIBILITY FOR OFFENCES IN THE FIELD OF SEISMIC PROTECTION

Article 27. The responsibility for offences in the field of seismic protection

The offences committed in the field of seismic protection arouse the responsibility according to the order established by the legislation of the Republic of Armenia.

## CHAPTER 6. FINAL PROVISION

### CHAPTER 6

#### FINAL PROVISION

Article 28. Entry into force of the law

The present law comes into force from the moment of its official publication.

President of the Republic of Armenia

Robert Kocharyan

July 6, 2002

AL - 376 - N