

LAW OF THE REPUBLIC OF KAZAKHSTAN ON ELECTROMAGNETIC COMPATIBILITY

This Law belongs to statutory legal acts in the sphere of technical regulating and directed to the arrangement of conditions for the provision of equipment electromagnetic compatibility with the purpose to prevent hazard for human and health, property damaging of natural and legal persons, state property and environment as the result of joint equipment malfunction.

Article 1. Basic concepts used in this Law

The following concepts are used in this Law:

- 1) harmonized standard of electromagnetic compatibility – standard providing the fulfillment of requirements determined by present Law;
- 2) applicant – natural or legal person ordered product, service, processes for confirmation of conformance;
- 3) conformity mark – marking serving customers (consumers) informing on products passing of confirmation procedure of conformity with the requirements determined by statutory legal acts in the sphere of technical regulating, standards and other documents. Representation of conformity mark, its technical requirements are determined by authorized body;
- 4) manufacturer of equipment – natural person being the individual entrepreneur, or legal person fulfilling development and manufacture of component, apparatus, system and/or design and assembly of plant;
- 5) emitted electromagnetic disturbance – electromagnetic disturbance spreading in space;
- 6) insulated electromagnetic environment – electromagnetic environment upon which the formation of electromagnetic disturbances by equipment outside of this space region and impact of external electromagnetic disturbances is excluded;
- 7) conducted electromagnetic disturbance – electromagnetic disturbance spreading by conductors;
- 8) quality of electric energy (level of low frequency electromagnetic disturbances in electric mains) – conformity degree of voltage, frequency and harmonic composition of electric current to their determined values;
- 9) minimum necessary (important) requirements – mandatory requirements of electromagnetic compatibility determined for objects of technical regulating to which the validity of present Law applies, being exhaustive and having direct action on the whole territory of the Republic of Kazakhstan, which may be changed only by insertion of modifications and additions to present Law;
- 10) stationary equipment – specific combination of several types of devices and/or other units assembled, installed and assigned for permanent use in predetermined place;
- 11) equipment – products, equipment, apparatus and/or their component parts operating on the basis of laws of electrical equipment, radio engineering and/or electronics and containing components and/or schemes;
- 12) equipment, passive in electromagnetic respect – equipment incapable to form electromagnetic disturbances, operating upon correct application without use of additional security facilities against electromagnetic disturbances in accordance with assignment and able to function without inadmissible degradation in the presence of electromagnetic disturbances corresponding to electromagnetic environment;

13) authorized body – state body authorized to manage, fulfill works control and observance in the sphere of technical regulation and represent the Republic of Kazakhstan in international and regional organizations on standardization, confirmation of conformance and accreditation in accordance with the legislation of Kazakhstan;

14) immunity to electromagnetic disturbance, disturbance immunity – capability of equipment to keep established functioning grade upon the impact of electromagnetic disturbances with regulated parameter values;

15) electric mains of general use – electric mains to which equipment, different consumers may be connected;

16) electromagnetic environment – set of electromagnetic effects in given region of space;

17) electromagnetic disturbance – any electromagnetic effect which may degrade equipment functioning or adversely influence living or abiotic matter;

18) electromagnetic compatibility – capability of equipment to function with established grade in established electromagnetic environment and do not form inadmissible electromagnetic disturbances to other equipment and biological objects.

Article 2. Objects of technical regulating

1. Present Law applies upon regulating of legal relationship connected with the activity of natural persons, Kazakh or foreign legal persons on the development, manufacture, selling (deliveries, sales), use (maintenance) and import into the Republic of Kazakhstan of equipment assigned for application on its territory, as well as upon regulating of legal relationship connected with the activity of the electric energy quality maintenance on its generation, distribution and consumption.

2. Equipment capable to form electromagnetic disturbances and/or disturbances which functioning grade depends on impact of external electromagnetic disturbances are objects of

public authorities shall not prohibit restrict or impede put in circulation of equipment and electric energy and equipment start-up corresponding to the provisions of present Law when equipment are used correctly and installed in accordance with the requirements of operational documentation.

4. Provisions of present Law shall not impede additional special measures on the provision of electromagnetic compatibility determined by the Government of the Republic of Kazakhstan and public authorities and related to start-up use of equipment including:

1) measures directed to the defense of reception or provision of radio-electronic equipment and communication networks functioning in specific conditions of radio-frequency spectrum application;

2) measures providing overcoming of existing predictable problems of electromagnetic compatibility in specific places of equipment application.

5. In the course of exhibitions, fairs and other measures carrying out, the Government of the Republic of Kazakhstan and public authorities shall not impede demonstration of functioning equipment not conforming to the provisions of present Law upon availability of clearly visible mark indicating that this equipment does not conform to the provisions of present Law and not assigned for put in circulation or start-up until they will conform to the provisions of present Law.

Demonstration of functioning equipment shall be fulfilled only under conditions that

high-frequency emitted electromagnetic disturbances:

- 1) magnetic fields;
- 2) electric fields;
- 3) electromagnetic fields including fields caused by continuous vibrations and acyclic processes.

electrostatic discharges.

List of electromagnetic disturbances may be extended by authorized body in the course of equipment development and creation of new equipment types.

Article 5. Conformity with minimum necessary (important) requirements

1. Equipment is considered as conforming to minimum necessary (important) requirements of present Law if such equipment meets the requirements to levels of formed electromagnetic disturbances and its immunity to electromagnetic disturbances determined in harmonized standards of electromagnetic compatibility applying to said equipment, which information is published in accordance with paragraph 3 of present article.

2. Electric energy in general electric mains is considered as conforming to minimum necessary (important) requirements of present Law if such equipment meets the requirements to levels of electromagnetic disturbances (quality of electric energy) determined in harmonized standards of electromagnetic compatibility applying to electric energy, which information is published in accordance with paragraph 3 of present article.

3. Authorized body determines and publishes list of harmonized standards of electromagnetic compatibility in its printing and in information system of general use in electronic-digital form. Such standards may be used on voluntary basis for observance of minimum necessary (important) requirements of present Law.

4. In cases when manufacturer of equipment or supplier of electric energy in general electric mains (guaranteeing supplier, generating electric-net organization) has not applied or has partially applied harmonized standards of electromagnetic compatibility, or in cases when said standards are not available, equipment and electric energy are considered as conforming to minimum necessary (important) requirements of present Law upon positive expertise results of manufacturer (supplier) technical documentation made in the determined order and containing conformance proofs to minimum necessary (important) requirements carried out by conformity recognition authority and carrying out (upon the necessity) of additional tests, examinations and modeling.

Article 6. Confirmation of equipment conformance

1. Equipment assigned for put in circulation and application by end consumers not being passive in electromagnetic respect is subject to compulsory confirmation of conformity with minimum necessary (important) requirements of present Law in the form of:

- 1) acceptance of declaration of conformance;
- 2) carrying out of compulsory certification.

Order of equipment reference to passive in electromagnetic respect is determined by the Government of the Republic of Kazakhstan.

2. Compulsory conformity recognition of equipment assigned for put in circulation and application by end consumers to minimum necessary (important) requirements of present Law in the form of acceptance of conformance declaration is fulfilled under conditions that manufacturer has applied harmonized standards of electromagnetic compatibility.

3. Confirmation of conformance in the form of acceptance of conformance declaration is carried out in respect of equipment assigned for put in circulation and application by end consumers and related to:

- 1) products of heavy, energy and transport engineering;
- 2) electric machines;
- 3) products of chemical and oil engineering;
- 4) metal and wood working machinery;
- 5) products of machine-building application;
- 6) devices and facilities of general industrial automation;
- 7) agricultural machines;
- 8) equipment for traffic regulating; agricultural equipment maintenance and auxiliary communication facilities.

Indicated list may be changed and added in the course of science and equipment development and creation of new equipment types.

4. Conformance declaring of equipment in technical in paragraph 2 of present article is fulfilled according to scheme of acceptance of conformance declaration on the basis of proper proofs and proofs received with participation of third party.

Technical documentation, operational documentation as well as test reports issued by test

- 11) radio-navigation facilities;
- 12) atomics;
- 13) vessels;
- 14) medical equipment;
- 15) cultural-household, household, educational products, theater-specific enterprises.

Indicate list may be changed and added in the course of science and equipment development and creation of new equipment types.

8. In cases when manufacturer of equipment indicated in paragraph 7 of present article in which respect confirmation of conformity with minimum necessary (important) requirements of present Law is carried out in the form of compulsory certification, has not applied or has partially applied harmonized standards of electromagnetic compatibility, or in cases when indicated standards are not available the conformity recognition of said equipment is fulfilled in the form of compulsory certification by conformity recognition authority taking into consideration expertise (analysis) results of technical documentation made by the applicant in the determined form and carrying out (upon the request) of additional tests, examinations and modeling.

Basis content of documentation submitted to the conformity recognition authority in case when manufacturer of equipment has not applied or has partially applied harmonized standards of electromagnetic compatibility or in cases when indicated standards are not available, is set in article 10 of present Law.

Compulsory certification of equipment indicated in paragraph 7 of present article is fulfilled according to following schemes:

1) accredited laboratory of electromagnetic compatibility carries out standard sample tests of products; conformity recognition authority issues certificate of conformity with the applicant (upon positive results of tests);

2) accredited laboratory of electromagnetic compatibility carries out standard sample tests of products; conformity recognition authority issues certificate of conformity with the applicant (upon positive results of tests) and fulfills control inspection (tests of products samples);

3) accredited laboratory of electromagnetic compatibility carries out tests of products consignment; conformity recognition authority issues certificate of conformity with the applicant (upon positive results of tests);

4) accredited laboratory of electromagnetic compatibility carries out tests of each products unit; conformity recognition authority issues certificate of conformity with the applicant (upon positive results of tests);

5) conformity recognition authority carries out expertise of manufacturer technical documentation made in the determined order (upon the necessity) results of additional tests in accredited laboratory of electromagnetic compatibility, examinations and modeling; issues certificate of conformity with the applicant (upon positive results of tests).

9. Upon the request of the applicant the procedure of conformity recognition in the form of compulsory certification may be applied to equipment indicated in paragraph 3 of present article which confirmation of conformance is fulfilled in the form of acceptance of declaration of conformance.

10. The validity of certificate of conformance is determined by conformity recognition authority but no more than three years. The validity of certificate of conformity with products consignment or single equipment is not subject to determination. Declaration of conformance is accepted for the period not exceeding 10 years.

Article 7. Conformity recognition of stationary equipment

1. Stationary equipment not being passive electromagnetic respect is subject to compulsory confirmation of conformity with minimum necessary (important) requirements of present Law in the form of acceptance of declaration of conformance according to article 6 of present Law.

The order of stationary plants referent to passive in electromagnetic respect is determined by the Government of the Republic of Kazakhstan.

List of stationary plants subject to compulsory confirmation of conformity with minimum necessary (important) requirements of present Law is determined by authorized body.

2. Equipment being in circulation and assigned for application by end consumer used in stationary equipment shall conform to all provisions of present Law including the procedures fulfillment of conformity recognition determined in article 6 of present Law.

Article 8. Conformity recognition of electric energy

1. Electric energy supplied by manufacturers of electric energy to general electric mains and supplied by owners of general electric mains exclusively to legal persons and/or persons fulfilling entrepreneurial activity is subject to compulsory confirmation of conformity with minimum necessary (important) requirements of present Law in the form of acceptance of declaration of conformance.

2. Generating organizations delivering electric energy to general electric mains fulfill declaring of the conformance according to acceptance scheme of declaration of conformance on the basis of proper proofs.

3. Guaranteeing suppliers and electric organizations delivering electric energy exclusively to legal persons and/or persons fulfilling entrepreneurial activity fulfill declaring of the conformance according to acceptance scheme of declaration of conformance on the basis of proper proofs and proofs received with participation of third party.

Documentation confirming availability electric energy quality management, technical and operating documentation, test protocols issued by laboratories on electric energy quality; test results carried out by the applicant may be applied as proper proofs.

The following may be applied as proofs received with participation of third party:

- 1) test protocols carried out by accredited laboratory on electric energy quality fulfilling conformance tests to the requirements of harmonized standards of electromagnetic compatibility;
- 2) quality system certificate of electric energy supplier in which respect the supplier's capability to provide conformity with minimum necessary (important) requirements of present Law has been confirmed by conformity recognition authority issued this certificate, and certification object control (supervision) has been provided.

Declaring of electric energy conformance fulfilled according to the following schemes:

- 1) the applicant adduces its own proofs of conformance in technical documentation; accepts declaration of conformance;
- 2) accredited laboratory on electric energy quality carries out tests of electric energy in checkpoints of electric mains; the applicant accepts declaration of conformance (upon positive results of tests);
- 3) the applicant submits quality system certificate in which respect the capability of electric energy supplier to provide conformity with minimum necessary (important) requirements of present Law has been confirmed by conformity recognition authority issued this certificate, and certification object control (supervision) has been provided; the applicant accepts declaration of conformance.

4. Electric energy in general electric mains delivered to owners of following mains is subject to compulsory certification in the determined order:

- 1) persons using its such energy for personal, family, domestic and other needs not connected with entrepreneurial activity (hereafter referred to as "consumers");

2) consumers simultaneously with legal persons and persons fulfilling entrepreneurial activity;

3) organizations where electric energy is delivered to consumers directly via electric mains.

Compulsory certification of electric energy is fulfilled according to the following schemes:

1) accredited laboratory on electric energy quality carries out tests of electric energy in checkpoints of electric mains; conformity recognition authority considers documents of applicant made in the determined order; issues certificate of conformity with the applicant and fulfills certified electric energy inspection control (tests in checkpoints);

2) accredited laboratory on electric energy quality carries out tests of electric energy in checkpoints of electric mains; conformity recognition authority considers documents of applicant made in the determined order; carries out analysis of execution condition; issues certificate of conformity with the applicant (upon positive results); fulfills certified electric energy inspection control (tests in checkpoints and analysis of execution condition);

3) conformity recognition authority carries out expertise (analysis) of technical documentation of electrical energy supplier in the determined order, and (upon the necessity) results of additional tests carried out by accredited laboratory on electric energy quality, examinations and modeling; issues certificate of conformity with the applicant (upon positive results).

5. In cases when supplier of electric energy (guaranteeing supplier, generating or electric-net organization) has not applied or has partially applied harmonized standards of electromagnetic compatibility, or in cases when indicated standards are not available, confirmation of electric energy conformance is filled in the form of compulsory certification in accordance with paragraph 8 of article 6 of present Law.

Article 9. Conformance evaluation of equipment put in operation without allocation in the market

Manufacturers of components and plants independently fulfilling their start-up on the territory of the Republic of Kazakhstan without put in circulation shall implement evaluation of their conformity with minimum necessary (important) requirements of present Law and write down the results of evaluation in technical documentation.

Article 10. Technical and operating documentation

1. Manufacturer of equipment shall prepare technical documentation for such equipment (component, apparatus, system, plant) put in circulation or assigned for application without put in circulation. Technical documentation is used upon confirmation of conformity with minimum necessary (important) requirements of present Law and shall be kept by manufacturer for the submission, upon the necessity, upon the fulfillment of measures on state control (supervision) for the observance of statutory legal acts requirements in the sphere of technical regulating.

2. Technical documentation shall provide the possibility to evaluate the conformance of equipment to minimum necessary (important) requirements of present Law and shall cover process of development (design), manufacture (assembly, mounting) and maintenance of equipment in volume adequate for the fulfillment of conformance evaluation.

Technical documentation shall contain following information:

1) name and address of manufacturer;

2) assignment and general description of equipment;

3) evaluation of electromagnetic environment upon correct application of equipment;

4) designs, drawings, electrical and wiring diagrams, technical conditions for elements important for the provision of electromagnetic compatibility as well as descriptions and explanations necessary for comprehension of abovementioned drawings and diagrams, as well as peculiarities of equipment functioning;

5) technical explanation of procedures used by manufacturer for confirmation of conformity with minimum necessary (important) requirements of present Law;

6) problems of electromagnetic compatibility indicated by manufacturer in operating instruction;

7) list of standards and other normative documents used for the observance of conformance;

8) results of fulfilled measurements and calculations;

9) test protocols, certificates of conformance and other documents confirming the conformance.

3. Manufacturer shall provide equipment (component, apparatus, system, plant) put in circulation as well as equipment assigned application without put in circulation with maintenance documentation.

Manufacturer shall provide equipment maintenance documentation with information on

2. Authorized body informs manufacturers of equipment (seller, their authorized representatives, persons fulfilling functions of foreign manufacturers) and suppliers of electric energy on conformity recognition authorities fulfilling compulsory certification of equipment and electric energy in cases when the ~~applied~~ has not applied ~~or~~ as partially applied harmonized standards of electromagnetic compatibility or in cases when said standards are not available.

3. Laboratories fulfilling tests of equipment and electric energy with the purpose to confirm their conformity with minimum necessary (important) requirements of present Law are accredited in the order determined by the ~~legislation~~ of the Republic of Kazakhstan.

Upon accreditation of laboratories of electromagnetic compatibility and electric energy quality, the verification of test results reproducibility fulfilled by these laboratories by carrying out of inter-laboratory comparison tests.

4. Upon the fulfillment of compulsory certification, accredited laboratories of electromagnetic compatibility and electric energy quality carry out product tests on terms of the