

**Law on Ecological Requirements Affecting
Investments**

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[Order No. 1 of the Ministry of Construction, Architecture, and Public Works and the Ministry of Environment on Ecological Requirements for Territorial-Development Planning and Investment Projects, dated 13 June 1991, signed for the Minister of Construction, Architecture, and Public Works by L. Pelovski and by Minister of the Environment D. Vodencharov]

[Text]

Order No. 1
of 13 June 1991
on Ecological Requirements for Territorial-
Development Planning and Investment Projects

Chapter I

General Principles

Article 1. This order defines the ecological requirements for the drawing up and implementation of territorial- and urban-development plans and investment projects.

Article 2. (1) The ecological requirements for territorial and settlement development are a package of norms, requirements, and indicators for the development of the territory and the projects situated therein, for the purpose of environmental protection and restoration simultaneously with the satisfaction of society's needs.

(2) The ecological requirements shall be defined and substantiated as a result of comprehensive ecological studies and shall be drawn up as decisions on territorial development and urban development, technical and technological measures for environmental protection and restoration.

Chapter II

Ecological Requirements for Territorial-Development and Urban-Development Plans

Section I

Basic Requirements

Article 3. Every territorial-development and urban-development (general and detailed) plan shall contain a part on "Environmental Protection and Restoration," which shall include the following:

1. An analysis and assessment of the existing state of natural resources and conditions;
2. A comprehensive assessment of the territory's ecological state;
3. A forecast assessment of the state of the environment;
4. A synthetic schema and program of measures for environmental protection in the territory under consideration.

Section II

Analysis and Assessment of Existing State of Natural Resources and Conditions

Article 4. (1) The analysis and assessment of the existing state of the natural resources and conditions shall mandatorily include the following:

1. Atmospheric air;
2. Surface water and groundwater;
3. State and disturbances of geological base and relief;
4. Soil;
5. Flora and fauna;
6. Impact of noise, vibrations, and electromagnetic radiations;
7. Thermal and radiation pollution of the territory.

(2) Where necessary, an analysis and assessment shall be made of the state of other natural resources and conditions as well.

(3) The purpose of the analysis shall be to discover the state of the individual natural resources and conditions, any change thereof, the possibility of their utilization, as well as measures for their improvement protection.

Article 5. (1) The analysis and assessment of the state of the atmospheric air shall cover the following:

1. Characteristics of the relief, climatic, and meteorological factors affecting the state of the air;
2. Pollution sources and quantity of pollutants by type and composition;
3. Pollution of the ground layer of the atmosphere and the territorial range of the polluted-air zones, with allowance for the existing background.

(2) The criteria for the state of the atmospheric air shall be the maximum allowable norms of harmful substances set by the current prescriptive acts. If interactive harmful substances are present in the atmosphere, their complex interaction must be allowed for.

Article 6. (1) The analysis and assessment of surface water and groundwater shall cover the following:

1. Quantitative and qualitative characteristics of the territory's water resources and rated categorization of the receiving streams;
2. Hydrogeological and hydrological conditions and factors affecting the state and regime of surface water and groundwater;
3. Principal pollution sources, quantity and site of debouchment of waste waters, their composition and treatment method;
4. Principal water consumers and water consumption by water categories;
5. Site of water intake;
6. Changes in the regime of receiving streams due to water use, river corrections, hydraulic structures, and so forth, as well as their impact on the groundwater regime and the territory's overall ecological state.

(2) Criteria for the quantitative and qualitative state of water resources shall be the water economy balance and the current indicators and norms.

Article 7. (1) The analysis and assessment of the soil cover and changes in the geological base and relief shall include the following:

1. Geological, geomorphological, and geochemical conditions of the terrain;
2. Assessment of the state of the soil cover and identification of the disturbed lands (eroded, excessively wet, salinized, acidified, worthless for economic activities, and polluted with harmful substances and wastes);

3. Identification of changes in the geological base and relief as a result of economic activities.

(2) Criteria for the condition of the soils shall be the norms for maximum allowable content of harmful substances and their quality-index categorization.

Article 8. (1) The analysis and assessment of flora, fauna, and protected natural features and territories shall cover the following:

1. Characterization of the vegetation and assessment of its state and of the habitats of rare and threatened plant species;

2. Characterization of the dominant animal species and of the habitats of rare and threatened species;

3. Characterization of protected natural features and territories.

(2) Criteria for the state of flora and fauna shall be their composition by species and abundance, taxonomic characteristics, and the ecosystem's degree of stability.

Article 9. (1) The analysis and assessment of the impact of noise, vibrations, electromagnetic radiations, thermal and radiation pollution of the territory shall cover the following:

1. Acoustic discomfort zones and sources of noise pollution;

2. Zones affected by sources of electromagnetic fields and of heat and radioactive emissions.

(2) Criteria for the state of the environment shall be the prescribed maximum allowable noise levels and the hygienic norms for electromagnetic and radiation pollution of various territories and zones of the settlements.

Section III

Comprehensive Assessment of Territory's Ecological State

Article 10. The analysis and assessment of natural conditions shall be the basis for the comprehensive assessment of the territory's ecological status.

Article 11. (1) The comprehensive assessment shall contain the following:

1. Overall ecological parameters of the territory: the environment's regenerative capacity in respect of its basic elements (oxygen, water, and biomass), maximum allowable (threshold) demographic carrying capacity, allowable degree of disturbance of the ecological equilibrium;

2. Comparative characteristics of the status of the territory under consideration in respect of indicators for anthropogenic load in comparison with the average indicators for the oblast and the country and in comparison with the established norms, as well as consideration of interrelationships with neighboring countries;

3. Territories with ecological problems (those with above-normal pollution, with high population density, with infrastructural overload and a lack of undisturbed natural environment) and possibilities for their improvement, restoration, and protection;

4. Natural resource potential of the environment from the viewpoint of its ecological suitability for economic use and the ecological zoning of the territory;

5. Ecological limitations and requirements for planning decisions.

(2) The criterion for assessment of the territory's ecological state is the ecological equilibrium, expressed in the following package of conditions:

1. Provision of conditions for environmental regeneration;

2. Provision of a preponderance of geochemical and biochemical activity of the environment in balance with the pollution of anthropogenic origin;

3. Provision of a lower anthropogenic load on the environment than the maximum allowable load;

4. Provision of the necessary ecological minimum undisturbed natural environment.

Section IV

Forecast Assessment of the Environment

Article 12. (1) Territorial-development and urban-development measures shall be subject to a preliminary forecast assessment to determine their comprehensive impact on the environment.

(2) Subject to forecast assessment is the possible environmental change in case of an accident at projects that represent a potential risk of a disturbance of the ecological equilibrium.

Article 13. (1) The forecast assessment of the expected state of the environment in consequence of the carrying out of all planned measures shall cover the following:

1. Changes in the anthropogenic load on the environment (settlements, population density, mode of territorial use, and so forth);

2. Changes in the state of individual natural resources and conditions (air, waters, soils, plant and animal kingdoms) and their effect on the ecological equilibrium;

3. Changes in public-health conditions and the ecological threat of the settlements or parts thereof and their population as regards pollution of the biosphere with harmful substances, noise, and other emanations.

(2) The preservation of the ecological equilibrium in the territory shall also be a criterion for assessment of the territorial-development and urban-development plans.

Article 14. The forecast assessment shall be the basis for carrying out the necessary preventive environmental-protection measures and the priority tasks in the development of the territory.

Section V

Synthetic Schema and Program of Environmental-Protection Measures

Article 15. The synthetic schema of environmental protection shall be drawn up on the basis of the comprehensive assessment of the ecological state of the territory and forecast assessments of the impact the planned measures will have on the environment and shall encompass the following:

1. Measures for improving the existing state of the environment and restoring the natural resources and conditions;
2. Preventive measures making possible an ecology-compatible implementation of the planned development of the territory.

Article 16. (1) As part of the synthetic schema of environmental protection, there shall be drawn up a stage-by-stage program of nature-protection measures, with approximate capital investment and mandatory priority.

(2) Given a choice of alternative measures, an ecological-economic assessment shall be made of the different versions.

(3) Territorial-development and urban-development measures for the improvement and protection of atmospheric air shall take the following form:

1. Imposition of restrictions and bans on the siting of industrial enterprises releasing harmful substances with impact analogous to or identical with the existing pollutants and giving rise to an exceeding of the maximum allowable norms, as well as on projects for habitation, recreation, and agricultural production in zones with above-norm pollution of the atmospheric air;

2. Creation of sanitary-cordon zones around industrial complexes or individual polluting enterprises, transportation hubs, municipal works, and so forth;

3. Proposals for technological updating of individual polluters, for removing them outside the confines of the settlements or for closing them down;

4. Restriction on the development of settlements in zones impacted by industrial and other activities;

5. Territorial-development and urban-development solutions for abatement of the health hazards of motor transportation;

6. Landscaping and provision of public services and amenities of the territory.

(4) Territorial-development and urban-development measures for efficient use and protection of water resources shall include the following:

1. Efficient siting of water-retaining systems compatibly with the territory's water-resource potential;

2. Preservation and increase of the territory's water-resource potential through afforestation of the catchment area and stabilization of the banks of the receiving streams;

3. Determination of the necessary degree of treatment of waste waters and the site of their debouchment in conformity with the quantitative and qualitative composition of the waters in the receiving stream, with allowance for combined effect of harmful substances acting in the same way;

4. Mandatory provision for the minimum quantities of water that must flow into the receiving stream under the structures in determining the possibility of a new water intake from the source in the water balance for the purpose of preserving the ecological equilibrium;

5. If the quantitative and qualitative state of the territory's water resources is disturbed, proposals shall be made for their technological restoration or for moving or closing down the polluting or water-retaining bodies.

(5) The territorial-development and urban-development measures for the improvement, restoration, and protection of the soil cover shall be as follows:

1. Zoning of the territory and establishment of ecological regimes (observance of restrictions on land use for nonagricultural needs, restriction on the use of pesticides and mineral fertilizers in highly polluted sectors, and a ban on irrigation with polluted waters);

2. Recultivation of lands disturbed by industrial and other economic activities;

3. Erosion control (creation of erosion control belts, recommendations on land-tillage and irrigation method, afforestation of highly eroded lands, and so forth);

4. Neutralization and utilization of solid domestic and industrial wastes; determination of a site and most efficient and harmless method for their storage.

(6) The principal territorial-development and urban-development measures for the protection of flora and fauna, of specimens of inanimate nature and of protected features and territories shall be the following:

1. Zoning and establishment of ecological regimes in conformity with the state of the plant and animal kingdoms, their ecological, recreational, and economic function, and the location of the protected natural features and territories;

2. Proposals for restructuring the species composition of the forests, and for increasing their productivity and regenerative capacity;

3. Determination of the necessity of putting out plants with nature-protective and public-health functions and of forming an integrated green system in the territory;

4. Determination of the necessity for the protection of unique natural features, unaffected by anthropogenic activity, and habitats of valuable and rare plant and animal species, as well as proposals for their protection.

(7) The territorial-development and urban-development measures for abatement of noise discomfort shall be the following:

1. Zoning and determination of the territory's ecological regimes as they bear on its noise pollution;

2. Improvement of the road and street network and regulation of the rate of traffic flows;

3. Rational interspacing of noise sources and buildings with a different purpose;

4. Proposals for moving noisy production processes outside of settlement;

5. Screening of noise sources by man-made structures, mounds of earth, landscaped strips, nonresidential buildings, and so forth.

(8) The territorial-development and urban-development measures for the abatement of the intensity of electromagnetic fields shall be as follows:

1. Laying the line elements of the technical infrastructure in infrastructural corridors along routes with minimal ecological impact;

2. Establishment of sanitary-cordoning zones around sources of electromagnetic radiations;

3. Landscaping and screening of structures.

(9) To abate thermal pollution of the receiving streams by thermal-radiation sources (nuclear power plants, thermoelectric power plants, and so forth), provision shall be made for isolation of the cooling waters until their temperature becomes normal.

(10) The territorial-development and urban-development measures for protection of the environment from radioactive pollution shall be decided in conformity with the current prescriptive acts.

Chapter III

Ecological Requirements for Investment Projects

Section I

Basic Requirements

Article 17. Every phase of project planning in the investment process shall contain ecological studies and determinations on environmental protection and restoration.

Section II

Scope and Content of the Part on "Ecological Decisions" in the "Preplanning Studies" Phase

Article 18. The ecological determinations shall be formulated in the "Preplanning Studies" phase so that, as early as this phase, a determination may be made of the basic ecological characteristics necessary for a clear-cut ecological expert opinion approving or terminating further planning.

Article 19. (1) The part on "Ecological Determinations" shall be formulated with the following scope:

1. A comprehensive assessment of the ecological state in the region decided upon for siting of the project, this assessment made on the basis of the analyses and assessments of the individual natural conditions;

2. A forecast assessment of the comprehensive impact of the planned project on the environment (natural resources and conditions, change in anthropogenic load on the environment, and ecological equilibrium of the environment);

3. System of determinations and measures for environmental protection;

4. Assessment of the damage from the impact of the project on the environment.

(2) The content of the part on "Ecological Determinations" shall summarize the ecological determinations of the respective planning parts, and the assessments in accordance with Paragraph 2 shall be formulated on this basis.

Article 20. The part on "Ecological Determinations" shall contain the following as regards the protection of the atmospheric air.

1. The quantity—by type and composition—of the gases emitted into the atmosphere by the project being planned and investigations to determine their impact, including a version with most unfavorable meteorological condition and maximum pollution background;

2. Site diagrams with an analysis of the impact on existing objects within the confines of the territory;

3. Determination of a sanitary cordon;

4. Gas-scrubbing and dust-cleaning systems, degree of effectiveness and reliability, comparisons with world-class technical achievements in this area;

5. Introduction of no-waste and low-waste production technologies;

6. Methods of using substances trapped by treatment facilities or ways of disposing of them harmlessly;

7. Methods of monitoring the quantity and quality of the gases emitted into the atmosphere;

8. Methods of insuring safety in the region in the event of an accident at the project.

Article 21. As regards the protection and restoration of water resources, the part on "Ecological Determinations" shall contain the following:

1. The necessary quantity and quality of water resources for the project and a water-intake site;
2. Determination of the influence of the project being planned on the regime of surface water and groundwater in the region, assurance of minimum quantities of water in the water source after the intake of water;
3. Treatment facilities, including efficiency, reliability, modernity;
4. Quantity and quality of waste water, point of debouchment, influence on receiving stream, including a version with most adverse conditions;
5. Introduction of water-conserving production technologies (dry and semidry production processes, no-waste and low-waste technologies, recirculating water supply);
6. Methods of using the sediments from treatment facilities or of disposing of them harmlessly;
7. Measures for conservation of surface water and groundwater in the region of the project (plugging of aquiferous strata, irrigation, bank stabilization, and so forth), depending on the type of project being planned;
8. Measures for protection of biological life in the water basin (provision for the migration of fishes, maintenance of normal temperature regime, silt control, and so forth), depending on the type of project being planned;
9. Methods for monitoring the quantity and quality of extracted water and waste waters;
10. Methods for protection of water resources in the event of an accident at the project.

Article 22. As regards soil protection, the part on "Ecological Determinations" shall contain the following:

1. Substantiation of the acreage and category of land needed for the project being planned;
2. The impact of the project on the soils in the region, including the impact in the process of constructing it;
3. Landscape- and soil-protection measures, including a plan for recultivation of disturbed areas, the order and method of excavation, storage, and utilization of the humus layer from the site of the project, and so forth;
4. Measures for the elimination of adverse aftereffects due to the construction and operation of the project under consideration;
5. Methods for utilization of solid wastes from the production process and construction. If the impossibility of their utilization with modern equipment and technologies is substantiated, sites for their disposal shall be designated, with an assessment of the impact upon

surrounding terrains and water resources in the region, and measures shall be provided for their protection.

Article 23. As regards the protection of flora and fauna, the part on "Ecological Determinations" shall include the following:

1. Determination of the impact of the project under consideration on the flora and fauna, as well as measures for their protection and regeneration;
2. Well-grounded substantiation in case of the necessity to destroy arboreal and other plant species, and provision of compensatory measures;
3. Provision of passageways for animals to cross freely when projects running in a straight line are planned (highways, irrigation canals, and so forth);
4. Optimum regulation of the anthropogenic load on the ecosystems when planning recreational facilities.

Article 24. As regards environmental protection from noise and other emanations, the part on "Ecological Determinations" shall contain the following:

1. Characteristics of the noise, vibrations, electromagnetic and other radiations emitted by the project (level, intensity, duration, operating conditions);
2. Territorial range and site diagram of the impact;
3. Introduction of modern technical and technological solutions for abatement of the emitted noise and other harmful physical factors;
4. Measures for abatement of noise impact (space- and architectural solutions, introduction of modern soundproofing materials, provision of sound barriers, and so forth);
5. Screening of electromagnetic and other radiations;
6. Methods for protection of the region from radiation in case of an accident.

Article 25. The ecological determinations from the "Preplanning Studies" phase shall be included in the technical and economic task of the next stage of planning.

Section III

Scope and Content of the Part on "Environmental Protection and Restoration" in the "Technical Plan" Phase

Article 26. (1) The part on "Environmental Protection and Restoration" in the "Technical Plan" phase, including the comprehensive schedule of target dates and conditions for completion of the construction, shall be drawn up on the basis of ecological determinations from the preplanning studies and represents their technical and technological solution.

(2) Changes of the ecological determinations and measures adopted in the "Preplanning Studies" shall be permitted only if an unforeseen deterioration of the

project's ecological characteristics occurs, or for the purpose of improving them.

Article 27. (1) When for a given project a technical plan is drawn up without preparing studies, the part on "Environmental Protection and Restoration" shall contain both ecological studies and determinations in the scope and content envisaged in the "Preplanning Studies," as per Section II of this chapter.

(2) For cases when a change is necessary in the technical plan of one or more ecological solutions (measures) adopted in the "Preplanning Studies" phase, the requirements envisaged under Paragraph 1 shall apply.

Article 28. All technical and technological solutions for environmental protection and restoration that are worked out in the "Technical Plan" phase shall be included in the technical and economic task for capital construction.

Section IV

Scope and Content of the Part on "Environmental Protection and Restoration" in the "Work Planning" Phase

Article 29. (1) The part on "Environmental Protection and Restoration" in the work plan, including the plan for the organization and completion of project construction, shall be drawn up on the basis of the technical and economic task for capital construction and shall contain detailed planning with dimensioned calculations and blueprints of all structures connected with environmental protection and restoration.

(2) Changes in the ecological solutions in the work plan shall be permissible only if the parameters of the solutions of the preceding planning phases are not changed for the worse.

(3) In the event of an unforeseen worsening of the ecological characteristics of the project, the planning and any construction that has been started shall halt and the part on "Environmental Protection and Restoration" shall be completely reworked in scope and content as per Section II of this chapter.

Chapter IV

Ecological Expert Opinion of Territorial-Development and Urban-Development Plans and Investment Projects

Article 30. (1) The ecological expert opinion on the territorial-development and urban-development plans is a mandatory part of the comprehensive expert opinion of these projects and shall be made pursuant to the Law on Territorial and Settlement Development.

(2) The ecological assessment of investment projects shall be made by expert bodies of the following:

1. Ministry of Environment;
2. Ministry of Construction, Architecture, and Public Works;

3. Obshtina people's council, with the participation of the RIOOS [*rayonnata inspeksiya za opazvane na okolnata sreda*; rayon environmental-protection inspectorate] and the KhEI [*hygiene-epidemiological inspectorate*] for all projects in the territory of the obshtina.

Article 31. (1) The ecological expert opinion of the territorial-development and urban-development plans and investment projects shall evaluate compliance with the following:

1. Observance of the requirements of this order, current prescriptive acts, and technical and standardization prescriptive documents;

2. First-rate devising of ecological studies with the necessary scope and content;

3. Envisagement and elaboration of the necessary territorial-development, urban-development, technical, and technological measures and means for efficient nature management and for protection and restoration of the natural environment;

4. The extent to which equivalent alternatives encompassing modern measures for protection and restoration of the natural environment have been elaborated.

(2) In accordance with Subparagraphs 1 and 2 of Paragraph 1, the ecological expert opinion shall be categorical—in the event of noncompliance with any of these requirements, the plan or draft shall not be approved.

(3) In accordance with Subparagraphs 3 and 4 of Paragraph 1, the ecological expert opinion may also assess the necessity of additional work so as to include unforeseen measures and alternatives.

Chapter V

Ecological Requirements for the Process of Applying Territorial-Development and Urban-Development Plans and Implementing Investment Projects

Article 32. (1) In the event of a change in territorial-development and general and detailed (for at least one ward) urban-development plans, ecological studies shall be made, including an analysis and assessment of the individual natural resources and conditions and a comprehensive assessment of the territory's ecological state.

(2) The corrective measures suggested shall mandatorily be subject to ecological expert opinion in conformity with Article 31.

Article 33. The obshtina people's council shall not approve plans for projects that do not meet the requirements of Article 13, Paragraph 2.

Article 34. (1) Determination of the area for the project being planned shall be made subject to observance of the minimum sanitary-cordoning zones, depending on medical classification, ecological characteristics, and functional purpose of the project.

(2) In the event of a risk of accidental pollution of the atmosphere, the site for the project shall be determined according to the specific geographic and climatic features, with a view to assurance of dispersal of the pollutants and protection of the settlements.

Article 35. Authorization for water intake shall be granted by the competent authorities in conformity with the obshchina's water resources balance. Authorization for the debouchment of waste waters shall be accompanied by a specification for the degree of their treatment, depending on the location and qualitative state of the receiving stream.

Article 36. Through coordination, both the specific ecological requirements for the plan and the method of its implementation shall be determined (requirement for putting the project "into the picture" of the ambient landscape, for recultivation and the landscaping of terrains, for preservation of the protected natural features in the vicinity, for making projects safe in case of an accident, and so forth).

Article 37. No construction permit shall be issued unless there is a favorable conclusion from the authorities in Article 30, Paragraph 2.

Article 38. Construction work on the project shall be carried out in conformity with the elaborated plan, with the surrounding terrain safeguarded against destruction of the soil and vegetation and against pollution from the construction debris.

Article 39. The project shall be put into service in the manner and according to the procedure laid down in the current prescriptive acts, it simultaneously being required that, during the conduct of experimental trials, all precautionary measures be taken for protection of the environment in one fell swoop.

Article 40. During the construction and operation of the projects, the Ministry of Environment shall monitor the observance of the ecological decisions formulated in the project plan, the keeping of the stipulated parameters of the structures within their specified limits, and the discharge of gases and water.

Transitional and Final Provisions

1. This order is issued on the basis of Article 201 of the Law on Territorial and Settlement Development and in connection with Decree No. 45/1991 of the Council of Ministers on the Definition of the Principal Functions and Tasks of the Ministry of Environment (DURZHAVAN VESTNIK, No. 25/1991).

2. This order rescinds the following:

1. The instruction of the Ministry of Construction and Organization of Settlements on the content of the part on "Environmental Protection for Capital Investment Projects," published in the BYULETINA ZA STROITELSTVO I ARKHITEKTURA [Construction and Architecture Bulletin], No. 9/1984.

2. The instruction of the Committee on Environmental Protection regarding the drawing up of the part on "Environmental Protection" in plans for capital investment projects and the procedure for rendering ecological expert opinions, published in BYULETINA ZA STROITELSTVO I ARKHITEKTURA, No. 8/1985.

3. The territorial-development and urban-development plans that have gone into effect shall, as they are applied, be brought into conformity with the requirements of this order.

4. Approved investment projects shall, on request of the obshchina people's council, be brought into conformity with the requirements of this order. Pending the rendering of the ecological expert opinion, construction that has been started shall be halted.

5. All outlays on the drafting of the ecological parts of territorial-development and urban-development plans and investment projects shall be included in the cost of the project, while the ecological expert opinion shall be incurred at the investor's expense.

6. Monitoring of compliance with the order is entrusted to the minister of environment and the minister of construction, architecture, and public works.