



LT9800081

**Environmental Protection Department  
of the Republic of Lithuania  
Lithuanian Information Institute**

# **The Environmental Protection in the Republic of Lithuania**

**Information bulletin No 1**

INIS-LT--<sup>005</sup>~~9801~~

*R*

**Vilnius, 1992**

**29 - 38**

**We regret that  
some of the pages  
in this report may  
not be up to the  
proper legibility  
standards, even  
though the best  
possible copy was  
used for scanning**

**Environmental Protection Department  
of the Republic of Lithuania  
Lithuanian Information Institute**

# **The Environmental Protection in the Republic of Lithuania**

**Information bulletin No 1**

**Vilnius, 1992**

**© Environmental Protection Department of the Republic of Lithuania  
Lithuanian Information Institute**

## CONTENT

Law on environmental protection of the Republic of Lithuania .....	5
The Lithuanian Republic Law on Taxes on the State Natural Resources .....	20
The Act of the Government of the Republic of Lithuania N 190, "On rates on Taxes on the State Natural Resources" .....	22
Appendix. Rates of taxes on the State Natural Resources .....	23
Lithuanian Republic Law on Taxes on Environmental Pollution ...	24
Appendix 1. The main tariffs of taxes on the water pollution .....	26
Appendix 2. The main tariffs of taxes on the atmosphere pollution	27
Appendix 3. The calculation of the increased and favourable tariff	29
The Act of the Supreme Council of the Republic of Lithuania "On coaring into Force of the Lithuanian Republic Law on Taxes on Environmental Pollution" .....	29
The Temporary instruction in the Application of the Law on Taxes on Environmental Pollution .....	31
Appendix. Examples of the calculation of Taxes on Environmental Pollution .....	35
The Procedure for Establishment of Standards for Emission of Pollutants into Environment and for Issuance of Permits for Usage of Natural Resources .....	39

# **LAW ON ENVIRONMENTAL PROTECTION OF THE REPUBLIC OF LITHUANIA**

## **CHAPTER 1.**

### **Article 1. Definitions**

**In this Law:**

1.1. **ENVIRONMENT** shall mean the system functioning in nature and comprising its interconnected components (the earth's surface and entrails, air, water, soil, flora and fauna, organic and inorganic matter), as well as natural and anthropogenic ecological systems.

1.2. **ENVIRONMENTAL PROTECTION** shall mean the protection of the environment from physical, chemical, biological or other hazardous effects arising from the utilization of natural resources.

1.3. **NATURAL RESOURCES** shall mean the elements of organic and inorganic nature which used or may be used by man in order to satisfy his needs.

1.4. **ECOLOGICAL SYSTEM** shall mean the functional system of organic and inorganic elements, the components of which are joined by their interrelations, and the processes of metabolism and energy exchange.

1.5. **NORMS OF ENVIRONMENTAL QUALITY** shall mean the restrictions approved by a competent state body determining the impact of economic activities on the environment.

1.6. **STANDARDS OF ENVIRONMENTAL QUALITY** shall mean the normative technical documents approved by a competent state body, prescribing the obligatory technical characteristics (norms, conditions, requirements) for production and other areas of standardization in the preservation of the environment and the health of the people.

1.7. **LIMITATION OF NATURAL RESOURCES** shall mean the establishment of norms of utilization of natural resources, taking into consideration the information related to the amount of natural resources, their renewal, and preservation for the future.

1.8. **INJURIOUS EFFECTS TO THE ENVIRONMENT** shall mean the deterioration or loss of the natural functions of the ecological system or its components.

1.9. **ECOLOGICAL MONITORING** shall mean a systematic observation of the environment, including its state and the dynamics of its components, as well as an assessment and forecast of the anthropogenic effects.

1.10. **ECOLOGICAL EXAMINATION** shall mean the compliance of planned, designed and executed economic activities with the laws, legislative acts and standards of environmental protection, ascertainment of the degree

of existing and possible ecological threats, as well as the professional assessment of the expediency of such activities.

1.11. ECOLOGICAL INFORMATION shall mean all of the information concerning the state of environmental quality.

1.12. ECONOMIC ACTIVITIES shall mean economic and other activities affecting the environment.

## **Article 2. Objectives of the Law**

2.1. This Law shall establish the main rights and duties of legal and natural persons guaranteeing:

1) the right of the population of the Republic of Lithuania to healthy and safe environment;

2) harmonic development of the interaction between the society and nature; and

3) the preservation of the species of animate organisms and their habitats.

2.2. Other laws and legislative acts regulating the utilization of natural resources and environmental protection shall be adopted on the basis of this Law.

## **Article 3. Units of Environmental Protection**

The units of environmental protection shall be the environment of the territory of the Republic of Lithuania and natural resources which are under jurisdiction of the Republic of Lithuania.

## **Article 4. Principles of Environmental Protection**

4.1. In the Republic of Lithuania, environmental protection shall be the concern and duty of the State and of each of its inhabitants.

4.2. The policy and practice of the administration of environmental protection shall direct social and individual interests towards the improvement of environmental quality, encourage the users of natural resources to seek ways and means to avoid or diminish hazardous impact on the environment, and to make technological processes ecologically safe.

4.3. Natural resources must be utilized in a rational and composite way, taking into consideration the possibilities of preservation and renewal of nature, as well as natural and economic specifications of the Republic of Lithuania.

4.4. Environmental protection shall be based on comprehensive, correct and timely ecological information.

## **Article 5. Competence of the Supreme Council of the Republic of Lithuania in the Field of Environmental Protection**

The Supreme Council of the Republic of Lithuania, shaping the state policy of environmental protection shall:

- 1) approve the main trends of the policy of environmental protection and the utilization of natural resources;
- 2) approve the long-term and purposive programmes of the state pertaining to environmental protection, as well as the subsidies from the State budget aimed at financing the measures of environmental protection;
- 3) create the system of state bodies implementing the policy of environmental protection and the utilization of natural resources; and
- 4) ratify and denounce the main international treaties concerning environmental protection of the Republic of Lithuania and utilization of natural resources.

## **Article 6. The State Administration of Environmental Protection**

6.1. In the Republic of Lithuania, the state administration of environmental protection, pursuant to their competence, shall be carried out the Department of Environmental Protection, the Government of the Republic of Lithuania, and the local governments. Each of these institutions shall be responsible for the implementation of functions prescribed to them by laws.

6.2. The Department of Environmental Protection of the Republic of Lithuania, shaping and implementing the state policy of environmental protection shall:

- 1) prepare, and, in conjunction with the Government of the Republic of Lithuania, submit for approval to the Supreme Council of the Republic of Lithuania the main trends of the policy of environmental protection and utilization of natural resources, as well as long-term and purposive state programmes related to the protection of the environmental and utilization of natural resources;
- 2) prepare, and, in conjunction with the Government of the Republic of Lithuania, approve the proposals of environmental protection which are of national significance, as well as other projects of environmental protection, and provide the mechanism for their implementation;
- 3) prepare draft laws on environmental protection and adopt legislative acts concerning the issues of environmental protection and utilization of natural resources;
- 4) approve the limits of the utilization of natural resources, provide the order of the registration of natural resources and terms of their utilization;
- 5) organize ecological monitoring;



6) approve the legislative acts and standards of environmental protection;  
7) coordinate the projects of economic activities and carry out the state ecological examination;

8) coordinate and, pursuant to its competence, implement international treaties and obligations of the Republic of Lithuania on the issues of environmental protection and utilization of natural resources; and, upon the authorization of the Supreme Council or Government of the Republic of Lithuania, sign such treaties;

9) carry out the state control of the utilization of natural resources and environmental protection and control the implementation of international treaties and obligations;

10) organize and coordinate purposive scientific research works in the field of environmental protection;

11) submit proposals to the Supreme Council of the Republic of Lithuania concerning the establishment of protective zones, and declare areas of the environment national natural monuments; and

12) carry out functions prescribed by other laws.

6.3. The Government of the Republic of Lithuania, implementing the national policy of environmental protection, shall:

1) prepare, and in conjunction with the Department of Environmental Protection, submit for approval to the Supreme Council of the Republic of Lithuania, programmes and proposals of national significance related to the utilization of natural resources and environmental protection;

2) establish, finance and supply programmes, plans, and projects for environmental protection of national significance, and finance purposive research works;

3) keep the registration of state national resources and, within the established limits, distribute national resources to users;

4) organize ecological education and instruction;

5) prepare draft projects of norms and standards of environmental quality, and promote the introduction of ecologically safe technology and production by users of natural resources;

6) in conjunction with the Department of Environmental Protection of the Republic of Lithuania, conclude international treaties of the Republic of Lithuania related to the utilization of natural resources and environmental protection, and implement them in accordance with their competence;

7) coordinate the activities of the bodies of state power and local governments concerning the utilization of natural resources and environmental protection; and

8) carry out other activities prescribed by laws.

6.4. Local governments, implementing the policy of environmental protection on their territories:

1) shall organize the implementation of laws on environmental protection and decisions of the Department of Environmental Protection and the Government of the Republic of Lithuania in the field of environmental protection, and within the limits their jurisdiction, adopt decisions concerning the utilization of natural resources and environmental protection, ascribed to them by the Government of the Republic of Lithuania, and supervise their implementation;

2) shall prepare, approve and implement the programmes, plans, and projects of environmental protection and utilization of national resources in the territory under their jurisdiction;

3) shall form and have at their disposal local government environmental protection funds, shall establish the amount of subsidies allocated for environmental protection, and shall document the necessity of subsidation from the state budget;

4) shall, within the established limits, distribute national resources which are at their disposal;

5) may, in agreement with the Government of the Republic of Lithuania and the Department of Environmental Protection, establish norms on their own territory which are stricter than state standards, and may create local nature preserves and monuments; and

6) shall carry out other activities prescribed to them by laws.

## **CHAPTER 2.**

### **THE RIGHTS AND DUTIES OF CITIZENS AND PUBLIC ORGANIZATIONS OF THE REPUBLIC OF LITHUANIA**

#### **Article 7. Rights and Duties of Citizens and Public Organizations**

Citizens and public organizations shall have the right:

1) to receive accurate and up-to-date ecological information;

2) to take part in the discussion and implementation of programmes and projects of economic activities;

3) to demand that economic activities which are hazardous to the environment be terminated;

4) to request state ecological examinations;

5) to carry out public ecological examinations;

6) to organize public inspections of environmental protection;

7) to demand that state authorities and institutions organize ecological education and instruction, and to freely advocate concepts of environmental protection; and

8) to insist upon the punishment of persons guilty of endangering the environment, and officers, who have improperly carried out the duties of environmental protection ascribed to them;

#### **Article 8. Duties of State Authorities, Administrators, and Inspectors in Guaranteeing the Rights of Citizens and Public Organizations**

State authorities, administrators, and inspectors, pursuant to their jurisdiction, must:

1) establish ecologically-based standards of environmental protection which can be achieved by technological means, supervise their changes, and inform the public thereof;

2) either comply with or justifiably decline the proposals of citizens or public organizations concerning environmental issues;

3) publicly announce plans of economic activities which may have a hazardous impact on the environment;

4) prevent the violation of laws, norms and standards of environmental protection by subjects engaged in economic activities;

5) either carry out or justifiably decline to carry out a state ecological examination if the public so requests;

6) evaluate the findings of state ecological examinations, and either take them up as matters of importance or justifiably turn them down;

7) guarantee that the damages caused to the environment by unlawful activities be redeemed, and persons guilty of these damages be punished;

8) organize ecological education and instruction; and

9) encourage the participation of citizens and public organizations in environmental protection;

#### **Article 9. Duties of Citizens and Public Organizations**

Citizens and public organizations of the Republic of Lithuania must protect the environment, use natural resources in an economical way, and avoid violation of the rights and interests of other users of natural resources.

#### **Article 10. Rights and Duties of Foreign Citizens and Stateless Persons**

Foreign citizens and stateless persons must abide by the rights and duties of the citizens of the Republic of Lithuania as established by this Law, if other laws of the Republic of Lithuania do not provide otherwise.

### **CHAPTER 3.**

## **UTILIZATION AND REGISTRATION OF NATURAL RESOURCES**

### **Article 11. The Object of the Utilization of Natural Resources**

The object of the utilization of natural resources shall be the existing natural resources which are in the jurisdiction of the Republic of Lithuania.

### **Article 12. Objects of Special Utilization**

12.1. The objects of special utilization shall be:

1) protected territories: reserves of the state, national parks, regional parks, natural reserves, protective zones, and areas of local significance and special purpose;

2) the natural framework, identified and formed as the system of territories of ecological compensation, consisting of protected and other ecologically significant and sufficiently natural territories which maintain the stability of the landscape; and

3) natural monuments, species and communities of flora and fauna protected by the State.

12.2. Protection of the objects used for special purpose shall be regulated by separate laws.

### **Article 13. State Registration of Natural Resources**

The procedure of state registration of natural resources, as well as the custody of the cadastre shall be determined by the Government of the Republic of Lithuania and the Department of Environmental Protection.

### **Article 14. Users of Natural Resources**

14.1. Natural resources may be used by legal and natural persons.

14.2. The basis of the utilization of natural resources shall either be the right of ownership or the right of utilization:

14.3. The users of natural resources must:

1) evaluate the possible impact of economic activities on the environment;

2) utilize natural resources in a rational and economical way;

3) implement means of either eliminating or deteriorating hazardous impact on the environment;

4) take measures to avoid endangering the environment, and in the event that hazardous effects do occur, must immediately eliminate the cause of such effects and inform the appropriate officers and institutions of the occurrence;

5) avoid violation of the rights and legitimate interests of other users of natural resources;

6) redeem the damages caused by unlawful activities which have hazarously affected the environment; and

7) fulfill the legitimate requirements of environmental protection institutions and their officers.

## **CHAPTER 4.**

### **REGULATIONS OF ECONOMIC ACTIVITIES**

#### **Article 15. Forecast of the Impact on the Environment**

15.1. Legal and natural persons, applying for permit to engage in economic activities, shall, at their own expense, prepare and submit to the Department of Environmental Protection of the Republic of Lithuania documents concerning possible impact of such activities on the environment.

15.2. The Department of Environmental Protection of the Republic of Lithuania shall evaluate the documents concerning the possible impact of economic activities on the environment and present a motivated conclusion, which is requisite in order for a state institution to issue a permit to engage in economic activities.

15.3. The procedure of the preparation of documents concerning the possible impact of economic activities on the environment shall be established by the Department of Environmental Protection of the Republic of Lithuania in conjunction with the Government of the Republic of Lithuania.

#### **Article 16. Planning of Economic Activities**

16.1. Legal and natural persons wishing to construct, reconstruct, or expand units of economic activities must prepare project documentation. Such documentation must include means to utilize natural resources rationally, to avoid industrial accidents and eliminate their causes and consequences, and to guarantee the observation of the norms of environmental quality. Such project documentation shall be coordinated with the Department of Environmental Protection of the Republic of Lithuania.

#### **Article 17. Construction, Reconstruction, or Expansion of Units of Economic Activities**

17.1. Legal and natural persons may construct, reconstruct, or expand units of economic activities only if they have project documentation which is in compliance with the requirements provided for in Article 16 of this Law.

17.2. Parties involved in the construction, reconstruction, or expansion of units of economic activity who do not have project documentation as detailed in Article 16 of this Law, or who are not complying with the requirements of environmental protection, or who, in the process of construction,

reconstruction or expansion of these units violate restrictions of environmental protection, shall be liable in the manner established by law.

17.3. The imposition of liability shall not prevent institutions of administration and control of environmental protection established in Article 6 of this Law, as well as their officials, from discontinuing, in the established manner, activities of construction, reconstruction or expansion.

#### **Article 18. Pre-operation Review of Newly-Built, Reconstructed, or Expanded Units of Economic Activities**

18.1. The operation of newly-built, reconstructed, or expanded units of economic activities shall be permitted only if they comply with the requirements of environmental protection set forth in the documentation of their construction project.

18.2. Officials of the Department of Environmental Protection shall be present in the review of newly-built, reconstructed, or expanded units of economic activities.

#### **Article 19. Operation of Units of Economic Activities**

19.1. Prior to operating units of economic activities, legal and natural persons must obtain a permit (ecological passport) for the utilization of natural resources and the discharge of pollutants into the environment in the manner established by the Department of Environmental Protection.

19.2. Legal and natural persons shall operate units of economic activities under the conditions established in the permit for the utilization of natural resources and the discharge of pollutants into the environment and shall not exceed the norms and standards of environmental quality.

19.3. Legal and natural persons, while operating units of economic activities which are potentially hazardous to the environment), must, at their own expense, monitor the degree of environmental pollution and its impact on the environment, guarantee that information concerning the pollution be available to the public, and provide conditions for pollution control.

19.4. Legal and natural persons, while operating units of economic activities, must keep records of the utilization of natural resources and the discharge of pollutants in the manner established by the Department of Environmental Protection of the Republic of Lithuania.

19.5. Legal and natural persons operating units of economic activities which do not require permits for the utilization of natural resources and the discharge of pollutants into the environment, must comply with the norms and standards of environmental quality established for such units.

## **Article 20. Production and Use of Toxic and Injurious Chemicals**

20.1. Legal and natural persons using toxic and injurious chemicals must comply with the regulations promulgated by competent state institutions for the utilization, storage, transportation or dumping of such materials. These persons shall be responsible for all costs incurred for utilization, storage, transportation, and dumping.

20.2. Production or importation of toxic or injurious materials in or into the Republic of Lithuania shall be permitted only following the state examination.

20.3. Lists of toxic and injurious materials, prepared by respective departments, shall be approved or renewed by the Ministry of Health of the Republic of Lithuania and the Department of Environmental Protection.

20.4. Regulations for the production, transportation, use, storage and dumping of chemicals having a hazardous impact on the ozone layer shall be established by the Department of Environmental Protection of the Republic of Lithuania.

20.5. The importation, stationing, or production of chemical weapons of mass destruction is prohibited in the Republic of Lithuania.

## **Article 21. Production and Use Radioactive Matter**

20.1. In the Republic of Lithuania, both the reprocessing of radioactive matter used for the production of nuclear weapons or for fuel elements of nuclear power plants and the reprocessing of spent nuclear fuel is prohibited.

21.2. In the Republic of Lithuania, the importation, stationing or production of nuclear weapons is prohibited.

21.3. Regulations for the record-keeping, importation, use, transportation, storage, and dumping of radioactive matter, as well as norms of radiation safety shall be established by the Department of Environmental Protection and the Ministry of Health of the Republic of Lithuania.

## **Article 22. The Production, Propagation, and Use of Microorganisms**

22.1. Regulations and standards concerning registration of the sources of microorganisms and other biological pollutants, and of their production, propagation, importation, transportation, use, storage and treatment, shall be established by the Department of Environmental Protection and the Ministry of Health of the Republic of Lithuania.

22.2. In the Republic of Lithuania, importation, stationing, and production of biological weapons is prohibited.

## **Article 23. Waste Management**

23.1. Users of natural resources must keep records of waste and must comply with regulations concerning the identification, utilization, storage, dumping, and treatment of waste. Users shall also be responsible for costs incurred from the management, storage, dumping, and transportation of waste.

23.2. Legal and natural persons shall be liable for toxic, injurious, and radioactive waste which is the result of production until it is recycled or treated in the established manner.

23.3. Sites for the containment, storage, dumping, and treatment of toxic and radioactive waste shall be allotted by the Government of the Republic of Lithuania in the established manner.

23.4. Toxic, injurious, and radioactive waste shall be stored, dumped, and treated in special installments or storage facilities.

23.5. The management of toxic, injurious, and radioactive waste shall be regulated by the Department of Environmental Protection. All other waste shall be managed by local governments.

23.6. The importation of waste into the Republic of Lithuania for storage, treatment, or dumping is prohibited.

23.7. The regulations for transit transportation of toxic and radioactive materials shall be established by international treaties of the Republic of Lithuania.

## **Article 24. Emergency Situations**

24.1. An emergency situation is a hazardous environmental state which, as the result of nature, accidents, economic activity, or other events, exceeds standards of environmental quality.

Areas in which an emergency situation has occurred shall be declared zones of ecological danger or ecological disaster.

24.2. In accordance with the Department of Environmental Protection, areas in which the permissible concentrations of pollutants are constantly exceeded shall be declared zones of ecological danger by the respective local governments.

24.3. In accordance with the Department of Environmental Protection, areas in which, as the result of nature, accidents, economic activities, or other events, the environment has either degraded irremediably or has become unsuitable for living shall be declared zones of ecological disaster by the Government of the Republic of Lithuania.

24.4. Areas which are declared zones of ecological disaster shall be marked by special signs.



24.5. In zones of ecological danger or disaster, activities hazardous to either the people or the environment shall be suspended, restricted, or prohibited. The administration of zones of ecological danger shall be determined by the local governments. In zones of ecological disaster the administration shall be determined by the Government of the Republic of Lithuania in conjunction with the Department of Environmental Protection.

24.6. In the event of an emergency situation, the subjects of economic activities shall eradicate both the cause and the consequences, shall inform the public, the local governments, the Ministry of Health, the Government, and the Department of Environmental Protection, and shall fulfil other regulations established by the administration.

24.7. The Government of the Republic of Lithuania and the local governments shall have the right to utilize special services, organizations, and residents in order to eradicate the causes and consequences of ecological disasters, and to adopt decisions concerning the evacuation of inhabitants.

24.8. Costs incurred from the eradication of ecological disasters shall be the responsibility of the legal and natural persons at fault. In other cases they shall be the responsibility of the State.

## **CHAPTER V**

### **THE SYSTEM OF MONITORING THE ENVIRONMENTAL STATE AND RESTRICTING NEGATIVE ENVIRONMENTAL EFFECTS**

#### **Article 25. The System of Monitoring the Environmental State**

25.1. A uniform system of ecological monitoring shall be established for the surveillance of the environmental state and its components. Local governments, ministries, departments, and other users of natural resources shall administer municipal, branch, and enterprise monitoring.

25.2. The content, structure, and procedures of enterprise, municipal, and complex monitoring shall be established in accordance with the monitoring regulations which are sanctioned by the Department of Environmental Protection upon agreement with the Government.

#### **Article 26. The System of Restricting Negative Environmental Effects**

26.1. The negative effects of economic activities on the environment shall be restricted by norms, standards, limitations, legal measures, and economic regulations.

26.2. In the Republic of Lithuania, standards of environmental quality shall be established concerning the concentration of pollutants in the environment

and in the individual components of the environment, the discharge of pollutants into the environment, the utilization of chemicals and other substances which are hazardous to the environment, the utilization of natural resources, noise, vibration, electromagnetic fields and other effects, radiation safety, and general anthropogenic activities.

26.3. An ecological examination must be carried out before the production, manufacturing, and introduction of new technology takes place.

### **Article 27. The Ecological Examination**

27.1. The ecological examination may be either state, departmental, or public.

27.2. The Department of Environmental Protection shall organize and carry out the state ecological examination. State, departmental, and public ecological examinations shall be executed according to the laws and regulations already established.

Specialists from both Lithuanian and international organizations may be asked to join the state ecological examination commission.

27.3. The verdict of the state ecological examination is obligatory for legal and natural persons.

## **CHAPTER VI THE ECONOMIC MECHANISM OF ENVIRONMENTAL PROTECTION**

### **Article 28. Economic Means of Environmental Protection**

Ecological and economic interests of the State shall be coordinated by the economic mechanism of environmental protection set forth in the laws and other legal acts of the Republic of Lithuania. This consists of:

- 1) taxes for the utilization of natural resources;
- 2) taxes for environmental pollution;
- 3) regulation of crediting;
- 4) state subsidies;
- 5) pricing policies;
- 6) economic sanctions and compensation for damages; and
- 7) other ecological taxes and measures.

### **Article 29. Implementation Methods of Economic Environmental Protection Measures**

The introduction of low-waste technology and the manufacturing of ecological production shall be promoted by tax reduction, credit privileges, and state subsidies.

## **Article 30. State Financing of Environmental Protection Measures**

30.1. Environmental protection measures shall be financed by the users of natural resources, the state government, and local governments, in accordance with appropriate legislative acts.

30.2. State budget funds allocated for environmental protection shall be utilized in accordance with the directions and programs determined by the Government of the Republic of Lithuania and the Department of Environmental Protection.

30.3. Additional sources of environmental financing shall be the State Fund for Environmental Protection and the local government funds environmental protection.

30.4. The Supreme Council of the Republic of Lithuania shall establish the procedure for the formation and distribution of the State Fund of Environmental Protection.

## **CHAPTER VII LIABILITY FOR VIOLATION OF THE LAW OF ENVIRONMENTAL PROTECTION AND THE SETTLEMENT OF DISPUTES CONCERNING ISSUES OF ENVIRONMENTAL PROTECTION**

### **Article 31. Legal Responsibility**

Legal and natural persons who violate the regulations of the law of environmental protection shall be subject to disciplinary, administrative, material, and criminal liability under the laws of the Republic of Lithuania.

### **Article 32. Forms of the Compensation for Damage Caused to the Environment by Unlawful Activities**

Legal and natural persons who, by way of unlawful activities, cause damage to the environment, to the life or health of a given person(s), or to the property or interests of other legal and natural persons, must compensate all losses, and, if possible, must to restore the environmental state of the object in question.

The Government of the Republic of Lithuania, upon the agreement of the Department of Environmental Protection, shall establish the methods and rates to compensate for damages caused to the environment.

### **Article 33. Claims for Compensation of Damage Caused by Unlawful Activities**

The following natural and legal persons shall have the right to make claims for damages caused by unlawful activities:

1) legal and natural persons whose health, property, or interests have been damaged;

2) officers of the Department of Environmental Protection of the Republic of Lithuania, the procurator, and other public organizations, when damage has been done to the interests of the State.

#### **Article 34. Settlement of Disputes on Issues Concerning Environmental Protection**

34.1. Local governments, the Government of the Republic of Lithuania, the Department of Environmental Protection, the Supreme Council, Arbitration, and the Court shall, within their jurisdiction settle disputes on issues concerning environmental protection in the manner established by law.

34.2. Disputes between legal and natural persons of the Republic of Lithuania and foreign states shall be settled in the manner established by law of the Republic of Lithuania, unless international agreements of the Republic of Lithuania provide otherwise.

### **CHAPTER VIII INTERNATIONAL COOPERATION OF THE REPUBLIC OF LITHUANIA IN THE AREA OF ENVIRONMENTAL PROTECTION**

#### **Article 35. The Participation of the Republic of Lithuania in International Cooperation on Issues Concerning Environmental Protection**

35.1. The Republic of Lithuania, guiding itself by universally recognized and proclaimed principles, shall conclude international agreements on issues concerning environmental protection, and shall participate in the activities of international environmental protection organizations.

35.2. The Republic of Lithuania, cooperating with other states on issues concerning environmental protection, shall:

- 1) seek both regional and universal ecological safety;
- 2) resolve regional and global problems concerning environmental protection;
- 3) provide objective information on the ecological situation in Lithuania to the states concerned;
- 4) control and regulate general issues concerning natural resources;
- 5) cooperate in the eradication of negative consequences of ecological disasters and accidents;
- 6) develop scientific and technical relations; and
- 7) fulfill other international obligations concerning environmental protection.

**Article 36. The Relation Between the Law of Environmental Protection of the Republic of Lithuania and International Agreements on Environmental Protection**

36.1. The laws of the Republic of Lithuania must comply with international agreements, ratified by Lithuania, on issues concerning environmental protection and universally recognized norms of environmental protection.

36.2. If an international agreement of the Republic of Lithuania on issues concerning environmental protection established regulations other than those provided by the laws of the Republic of Lithuania, the regulations must conform with the norms and standards of environmental quality established in the Republic of Lithuania.

*Bronius Kuzmickas*

Vice President Supreme Council

Republic of Lithuania

Vilnius, 21 January, 1992

No. 2223

**LITHUANIAN REPUBLIC  
LAW ON TAXES ON STATE OWNED  
NATURAL RESOURCES**

Taxes on state owned natural resources constitute a form of the ownership implementation on them.

The objective of this law is to increase the responsibility of the users of natural resources for efficient and economical utilization of the national wealth put at their disposal, and to compensate the expenditures made by State on investigation of natural resources and on the measures implemented for the preservation of the quality and amount thereof.

**I. Object of Taxation and Taxable Entities**

**Article 1.** State owned natural resources shall be taxable objects. Taxes not prescribed by this Law shall be established by other Laws.

**Article 2.** Taxable entities liable to pay taxes for state owned natural resources shall be juridical and physical persons, extracting state natural resources owned by the Republic of Lithuania, in the order established by Law.

## **II. Tax Rates and the Procedure for their Establishing**

**Article 3.** Juridical and physical persons shall pay taxes at the established rate in accordance with the amount and quality of the extracted natural resources.

## **III. Tax Deduction**

**Article 4.** The land users, utilizing for their own needs (not for commercial purposes) the raw materials for manufacturing of construction materials as well as the water, which are in the plot of land allotted to them, are exempt from taxes.

## **IV. Procedure for Paying Taxes and Control Over Their Payment**

**Article 5.** The amount of tax due shall be calculated according to established form and paid by the users of the natural resources.

**Article 6.** Taxes shall be paid once in three months, on or before the 15th day of the first month in the next calendar quarter by advance payments in equal installments calculated from the total amount of tax due for given taxable year. The total amount of the tax shall be calculated based on amount of resources planned to be utilized. At the close of the taxable year the amount of tax shall be recalculated based on the amount of the resources extracted factually. It should be done on or before February 1 of the following year and the annual accounts shall be deposited with the State Tax Inspectorate.

**Article 7.** Environmental Protection Department of the Republic of Lithuania shall control the accuracy of tax calculation. Tax shall be paid for any concealed amount of resources and economic sanction shall be applied by increasing the established tax rate tenfold.

**Article 8.** For juridical and physical persons failing to keep accountancy of State owned natural resources in prescribed way, the amount of natural resources used is determined relying on data provided by State Environmental Quality Service.

**Article 9.** Taxpayers who were timely not subjected to taxation shall be liable to pay taxes for the period not exceeding two preceding years. The period for which corrections in the erroneously imposed tax may be done, as well as the required amounts of tax may be refunded or recovered, shall also embrace not more than two years.

**Article 10.** Failure to pay the required tax by due date shall subject the taxable entity to liability for interest at the rate of 0.5% for each day that the tax remains unpaid.

**Article 11.** Taxes on State owned natural resources are included into production costs and paid into the State budget. Upon application of economic sanctions, funds shall be recovered from the surplus profit of the taxpaying entity and paid into the State Fund of Nature protection.

*Vytautas Landsbergis*

Chairman of the Supreme Council of the Republic of Lithuania Vilnius,

March 21, 1991

No I- 1163

**DECISION OF THE GOVERNMENT  
OF THE REPUBLIC OF LITHUANIA**

No 190 of May 13, 1991

Vilnius

**On Tax Rates on the State Owned Natural Resources**

Implementing the Decision of the Supreme Council of the Republic of Lithuania "On Coming into Force of the Lithuanian Republic Law on Taxes on State Owned Natural Resources" No 1-1164, of March 21, 1991, the Government of the Republic of Lithuania resolves:

1. To fix the tax rates on the State owned natural resources in accordance with the Appendix.

2. To commission the State Geological Service:

2.1. to compile a map of Lithuania distinguishing districts with gravel, building sand and clay deposits in respect to their long term usage prospects.

2.2. to group the gravel, building sand and clay deposits in accordance with the tax rates on State owned natural resources; to provide all the concerned institutions and organizations with the documentation indicated in paragraphs 2.1 and 2.2. This Decision comes into force on July 1, 1991.

*G.Vagnorius*

Prime Minister of the Republic of Lithuania

. . . . .

Appendix to the Decision  
of the Government of the Republic of Lithuania  
No 190 of May 13, 1991

**TAX RATES ON STATE OWNED NATURAL RESOURCES**

Title	unit	rate(SUR)	notes
<i>Mineral resources:</i>			
oil	t	13	
gas	1000m <sup>3</sup>	0.32	
dolomite (building stone)	m <sup>3</sup>	0.043	
limestone	t	0.084	
chalk	t	0.021	
clay(for cement)	t	0.105	
clay(for bricks)	m <sup>3</sup>	0.342	districts with good prospects
		0.525	districts with bad prospects
sedimentary silicon	t	0.105	
sand (quartz, from Anykščiai)	t	0.492	
building sand and gravel (volume of deposit mill. m <sup>3</sup> ):			
less than 0.5	m <sup>3</sup>	0.145	district with good prospects
0.5-1.5	m <sup>3</sup>	0.121	"
1.5-5	m <sup>3</sup>	0.092	"
5-10	m <sup>3</sup>	0.064	"
>10	m <sup>3</sup>	0.052	"
0.5	m <sup>3</sup>	0.188	district with bad prospects
0.5-1.5	m <sup>3</sup>	0.134	"
1.5-5	m <sup>3</sup>	0.108	"
5-10	m <sup>3</sup>	0.09	"
>10	m <sup>3</sup>	0.065	"
soil for construction purposes	m <sup>3</sup>	0.02	
peat, silt	t	0.2	
<i>Groundwater:</i>			
for household needs*	m <sup>3</sup>	0.02	
for industrial needs	m <sup>3</sup>	0.1	
<i>Mineral Water</i>	m <sup>3</sup>	0.5	
<i>Surface Water:</i>			
for industries and agriculture	m <sup>3</sup>	0.01	
for cooling purposes			
in thermoelectric power-plants	m <sup>3</sup>	0.001	
for cooling purposes			
in Ignalina nuclear PP	m <sup>3</sup>	0.003	
for hydroenergetics**	m <sup>3</sup>	0.00005	

**K. Čilinskas**

First Deputy Head of Staff, Government of the Republic of Lithuania

\* the usage of ground water is not taxed, except that from waterworks

\*\* except small local hydroelectric power-plants.



# **THE LITHUANIAN REPUBLIC LAW ON TAXES ON ENVIRONMENTAL POLLUTION**

Taxes on pollution serve as an economic element of environmental protection which stimulate pollution abatement and reduce the harmful impact on environment.

The definitions used in this Law: by the greatest permissible pollution (GPP) is meant the greatest permissible quantity of pollutants, emitted into environment from the polluting sources per time unit, which, being combined with the impact of the other polluting sources and with reference to the plans for the development of enterprise, does not exceed the existing environmental quality norms.

by temporarily permitted pollution (TPP) is meant the temporarily permitted quantity of pollutants, which is emitted into environment per time unit and is fixed for definite period - until the GPP is reached.

by standard is meant the permitted quantity of pollutants emitted into environment during the taxation period (GPP or TPP).

## **I. Taxable Objects and Taxable Entities**

**Article 1.** The taxable objects are physical, chemical and biological pollutants having negative impact on man and environment. Taxes are determined depending on the amount and noxiousness of pollutants with regard to the existing standards and the amount of pollution they are permitted to emit under their permit.

**Article 2.** Taxes on environmental pollution shall be paid by juridical and physical persons which pollute the environment and to whom the permits are issued.

## **II. The Tax Rates and the Procedure for their Establishment**

**Article 3.** The tax rates are established per one ton of pollutants. In case of water and air pollution, depending on extent of deviation from the standard, the tax rates are split into following groups:

- 1) basic (main)
- 2) increased
- 3) preferential

**Article 4.** For the pollution of water the polluter shall be liable to pay tax at following rate:

- if the standard is not exceeded, - in accordance with the basic rate, provided in Appendix 1 to this Law;
- if the issued standard is exceeded, - the increased rate, calculated by formula 1, provided in Appendix 3, is applied.

**Article 5.** For the emission of the pollutants into atmosphere from the stationary sources the polluter shall be liable to pay taxes at following rate:

1) if the issued standard is not exceeded - in accordance with the basic rate, provided in Appendix 2 to this Law,

2) if the issued standard is exceeded - in accordance with the increased rate, which is calculated as follows:

a) for the power-plants - according to formula 1 in Appendix 3

b) for industrial plants - according to formula 2 in Appendix 3. For the each ton of pollutants emitted by mobile sources the enterprise pays in accordance with the basic rate, provided in Appendix 2 to this Law.

Vehicles with catalytic neutralizers [converters] are exempt from taxation.

**Article 6.** In case the amount of pollutants emitted is less than GPP, the basic rate shall be reduced according to formula 3 in Appendix 3.

**Article 7.** Juridical and physical persons who implement the pollution abatement techniques at their own expense and reach at least a 25% rate of pollution reduction, shall be exempt from taxation in accordance with the basic rate in order to recover their expenditures for pollution control, however, this is limited to a period not longer than 3 years.

**Article 8.** Juridical and physical persons failing to maintain the accountancy of emitted pollutants in the determined way should pay the taxes which are calculated relying on data provided by State Environmental Quality Service officers.

### **III. The Procedure of Payment and the Auditing**

**Article 9.** The amount of taxes shall be calculated following the given form and paid by taxable entities.

**Article 10.** Taxes shall be paid by quarterly advance payments in equal installments from the total estimated amount of annual tax and are calculated every quarter [3 months] before the 15th day of the first month in the following quarter in accordance with the basic rate for the standard amount of pollutants. At the end of the year the amount of taxes shall be recalculated relying on the actual amount of emitted pollutants and calculations presented to the State Tax Inspectorate before February 1.

**Article 11.** Environmental Protection Department of the Republic of Lithuania together with the Ministry of Finance of the Republic of Lithuania audit the accuracy of tax calculations. Taxes shall be paid for any concealed amount of pollutants and the economic sanction applied will be tenfold the amount of the basic rate.

**Article 12.** Juridical and physical persons for whom the tax was not imposed on time shall be liable to pay taxes for a period not exceeding the two preceding years. The period for which corrections in the erroneously imposed tax may be

made, as well as the required amounts of tax may be refunded or recovered, shall also embrace two years.

**Article 13.** Failure to pay the required tax by the due date shall incur liability for interest at the rate of 0.5% for each day that the tax remains unpaid.

*V. Landsbergis*

Chairman of the Supreme Council of the Republic of Lithuania

Vilnius, April 2, 1991, No 1-1188

Appendix 1  
to the Lithuanian Republic Law  
No 1-1188 on Taxes on Environmental Pollution,  
adopted on April 2, 1991

**THE BASIC RATES OF THE TAXES FOR THE WATER POLLUTION\***

No	Pollutant	the basic rate, SUR	No	Pollutant	the basic rate, SUR
1	aluminium	928	27	urea	93
2	arsenic	9280	28	cobalt	92800
3	atrazine	92800	29	xylene	9280
4	nitrogen (total)	232	30	magnesium	12
5	BOD	232	31	manganese	46400
6	bens(a)pirene	92800000	32	methanol	4640
7	benzol	928	33	oil and its products	9280
8	chlorides	1	34	naphthalene	116000
9	chlorophoss	92800000	35	sodium trichloracetate	13456
10	chromium (total)	46400	36	nickel	46400
11	cyanides	9280	37	prometrine	9280
12	zinc	46400	38	rodanides	4640
13	2,4-D	46400	39	simazine	92800000
14	DDT, DDE, DDD	92800000	40	detergents	4640
15	dalapon	232	41	stibium	9280
16	phenols	464000	42	stirol	4640
17	fluorides	928	43	sulphates	5
18	formaldehyde	4640	44	sulphides	92800000
19	phosphamide	331760	45	suspended solids	46
20	phosphorus (total)	789	46	lead	35312
21	furfurole	464	47	turpentine	2320
22	iron	1531	48	toluol	928
23	mercury	4640000	49	vanadium	464000
24	cadmium	9280	50	copper	92800
25	calcium	3	51	vinylacetate	2320
26	potassium	9			

\*for the substances which are not included into this list, but for which the greatest permissible concentration (GPC) is set (except the nitrogen in inorganic compounds) the rates (T) are calculated by formula:  $T = 464 \cdot A_i$ , where the index of relative aggressiveness of substance  $A_i$  is calculated in the way shown in "Temporary Methods to Calculate the Economical Efficiency of Implementation of Environmental Measures and to Estimate the Damage Suffered by National Economy due to Environmental Pollution". (Approved by the Decision No 254/284/134/ of the State Planning Committee of the USSR, Presidium of the Academy of Sciences of the USSR on October 1, 1983. Moscow, Ekonomika Publishers, 1986).

**BASIC RATES OF THE TAXES FOR AIR POLLUTION\***

No	Pollutant	the basic rate, SUR	No	Pollutant	the basic rate, SUR
1	acetaldehyde	208	25	chloroform	224
2	acetone	11	26	chloropropene	3873
3	acetic acid	71	27	inorganic compounds of chromium (6)	50000
4	acrolein	600	28	HCN	1410
5	aluminium oxides	190	29	cyclohexanone	73
6	ammonia	52	30	zinc oxide	1225
7	hydrocarbons	6	31	dibutylphthalate	173
8	carbon oxide	5	32	dichlorodifluoromethane (freon 12)	1
9	carbon tetrachloride	10	33	dichlorethane	12
10	arsenic oxide	7905	34	difluorchloromethane (freon 22)	1
11	nitrogen oxides (recalculated as NO <sub>2</sub> )	206	35	dimethylethylamine	548
12	nitrogen acid	142	36	dimethylformamide	71
13	barium chloride	2236	37	HCl	78
14	benzaldehyde	104	38	ethanol (ethyl alcohol)	1
15	3,4-benz(a)pyrene	6300000	39	ethylacetate	17
16	benzylalcohol	43	40	ethylbenzol	39
17	gasoline (recalculated as carbon)	6	41	ethylene	4
18	benzol	55	42	ethylene oxide	224
19	boric acid	87	43	epichlorhydrin	87
20	1,3-butadiene	8	44	phenol	1550
21	butanol	39	45	compounds of fluorine	4900
22	butylacetate	9	46	HF	4900
23	chlorine	447	47	fluorotrichloromethane (freon 11)	1
24	chlorbenzol	17			

\*for the substances which are not included into this list, but for which the greatest permissible concentration (GPC) is set (except the nitrogen in inorganic compounds) the rates (T) are calculated by formula:  $T = 5 \cdot A_i$ , where the index of relative aggressiveness of substance  $A_i$  is calculated in the way shown in "Temporary Methods to Calculate the Economical Efficiency of Implementation of Environmental Measures and to Estimate the Damage Suffered by National Economy due to Environmental Pollution". (Approved by the Decision No 254/284/134/ of the State Planning Committee of the USSR, Presidium of the Academy of Sciences of the USSR on October 1, 1983. Moscow, Ekonomika Publishers, 1986).

No	Pollutant	the basic rate, SUR	No	Pollutant	the basic rate, SUR
48	formaldehyde	1200	79	stirol	387
49	phosphorus anhydride	347	80	fly-ash	208
50	furfurole	66	81	butter acid	123
51	inorganic compounds of mercury	112000	82	inorganic compounds of lead	112000
52	cadmium oxide	35355	83	turpentine	2
53	colophony	27	84	trichlorethane	19
54	caprolactam	50	85	trichlorethylene	12
55	cobalt oxides, metallic cobalt	8650	86	1,1,2-trifluor 1,1,2-trichlorethane (freon 113)	0.3
56	xylol	12	87	tricrezol	775
57	maleic anhydride	173	88	toluol	7
58	manganum and its oxides (recalculated as MnO <sub>2</sub> )	35350	89	vanadium pentoxide	6125
59	methanol (methyl alcohol)	25	90	vinylacetate	32
60	methylacrilate	87	91	vinylchloride (dust)	1732
61	methylchloroform (1,1,1, trichlorethane)	20	92	coal powder (dust)	200
62	methylenchloride	2	93	coal ash originating from Donetsk, Moscow region:	350
63	methylenmercaptan	14450		Kuznetsk, Ekibastuz, -	
64	naphthalene	316		KaragandaBeriozovo,	400
65	oxides of Na, Mg, Sr, Mo, V, Bi	76		Nazarovo, Angren:	300
66	sodium sulphate	39	94	dust from cement production	225
67	NaOH	1096	95	dust from peat	300
68	nickel and its oxides	27375	96	dust of gypsum, limestone, lime,	
69	nickel sulphate	27375		dried and ceramic clay	125
70	ozon	1061	97	solid particles emitted by vehicles	1500
71	perchlorethylene	50	98	organic and inorganic dust	98
72	amorphous selenium	245	99	talc	175
73	selenium (4) oxide	86603	100	dust of mica	350
74	SO <sub>2</sub>	110			
75	sulphur acid and SO <sub>3</sub>	245			
76	hydrogene sulphide	274			
77	silicon oxide	4166			
78	formic acid	87			

**THE WAYS TO CALCULATE THE INCREASED AND PREFERENTIAL TARIFFS:**

- 1)  $T_0 = T \times (1 + F/N)$ ,
- 2)  $T_i = T \times (1 + 4 \times F/N)$ ,
- 3)\*  $T_f = T_0 \times 1 - [(2 \times (N - F))/N]$

where:

$T_0$  is the main tariff (SUR/t),  
 $T_f$  is the preferential tariff (SUR/t),  
 $T_i$  is the increased tariff (SUR/t),  
 $F$  is the factual amount emitted pollutants (t),  
 $N$  is the standard (permit).

---

\* in case it amounts to less than 50% of GPP, the tax should not be paid

**THE DECISION OF THE SUPREME COUNCIL OF THE  
REPUBLIC OF LITHUANIA**

**On Coming into Force of the Lithuanian Republic Law  
on Taxes on Environmental Pollution**

The Supreme Council of the Republic of Lithuania decides:

1. The Lithuanian Republic Law on Taxes on Environmental Pollution comes into force starting from July 1, 1991.

2. The environmental pollution tax tariffs are amended and supplemented in these cases:

- when the taxes on pollution types, which previously were not covered by this Law, are set;
- when the new pollutants and pollution sources are taxed;
- when the overall environmental situation in Lithuanian Republic has changed;
- when the new standards are set.

3. Environmental Protection Department of the Republic of Lithuania before June 1, 1991 has to:

1) in cooperation with the Lithuanian Republic Ministry of Finances prepare instructions how to calculate and pay the taxes on environmental pollution;

2) set the standards for the greatest permissible pollution (GPP) and temporary permitted pollution (TPP) for the environmental polluters;

3) prepare the draft decisions of the Supreme Council of the Republic of Lithuania "On economic sanctions for accidental spill of pollutants into the environment; non-point pollution; above-standard emission of pollutants into atmosphere; and for dumping of waste in the sites which are not allocated for that purpose or without permission".

4) present to the Supreme Council the proposals on amendments and supplements to this decision before January 1, 1992.

4. It is determined that the taxes paid in accordance with main and preferential tariffs are included in production costs. Seventy percent (70%) of the amount of taxes are transferred to Municipal Environmental Funds and 30% are transferred to the Lithuanian Republic state budget.

Industrial amalgamation "Akmencementas", Maeikiai Oil Refinery, Fertilizers Plant "Azotas" in Jonava and the Chemical Plant in Kedainiai should transfer 50% to the Municipal Environmental Fund and 50% to the state budget.

Lithuanian State Regional Power Plant transfers 10% and 90% accordingly.

5. Taxes paid by power plants differ depending on the type of fuel used.

6. The funds collected applying the economic sanctions, are recovered from the tax-payers remaining profit and are transferred to the state budget.

*V. Landsbergis*

Chairman of the Supreme Council of the Republic of Lithuania  
Vilnius, April 9, 1991

Ratified:  
E.Vėbra  
Director General  
Environmental Protection  
of Department of the Republic  
Lithuania  
July 18, 1991

Ratified:  
E.Kunevičiėnė  
Minister of Finances  
of the Republic  
of Lithuania  
July 18, 1991

## **TEMPORARY INSTRUCTION FOR APPLICATION OF THE LAW ON ENVIRONMENTAL POLLUTION**

1. The taxes for the emission of pollutants into environment are paid by physical and juridical persons for whom the standards for emission of pollutants into environment are issued in accordance with the Environmental Protection Department's Order No 11 of January 31, 1991 "On the Issuance of Permits for the Usage of Natural Resources."

2. The standard, which is contained in the permit for the usage of natural resources, serves as a basis for taxation on emission of pollutants.

3. In case the standard is not issued due to polluter's fault, "The methods for calculation of damages caused to nature by violation of environmental protection laws" are applied.

4. The factual amount of pollutants to be taxed is defined relying on the data obtained from tax-payers own laboratory and on that, collected by the laboratories of Environmental Protection Department. In case the tax-payer violates the existing control procedure defined in the "Instruction on State Accountancy for Water Usage and Sewage Control", the tax is paid corresponding to the amount of pollutants, fixed by environmental control service officers.

5. Enterprises, whose sewage after being collected in accumulation tanks, is sprinkled into environment (except filtration and irrigation fields), pay the tax following the procedure described in the Law on taxes for Environmental Pollution.

6. The tax-payers pay one fourth part of the total amount of tax before the 15th day of April, August and October for the first, second and third quarters accordingly, following the form for calculation of advance payments, which is adduced in Appendix 1 to this Instruction.

6.1 The tax-payers present their advance payment calculations to the Regional Environmental Protection Agencies before the March 1 of the current year. Regional Agencies, on their own turn, having checked and supplemented the above mentioned calculations with their conclusions, present them to according Tax Inspection before the March 20 of the current year.



6.2 The tax-payer is notified about the miscalculations found before the March 20.

6.3 The tax-payers transfer advance payments in terms prescribed in the conclusions of Regional Environmental Protection Agencies. In case of unduly payment the State Tax Inspection recovers the tax without debate.

7. At the end of the year the tax-payers, relying on the data about the factual emissions, recalculate the amount of taxes to be paid themselves, and present the annual account of taxes (provided in the Appendix 2 to this Instruction) to the Regional Environmental Protection Agency before February 1; the annual account which is adduced in Appendix 3 to this Instruction, however, is presented to the State Tax Inspection. Taxes are paid before February 5. For the fourth quarter the amount of taxes is calculated this way:

7.1 if the factual amount of emitted pollutants does not exceed the established TPP standard, the difference between the calculated amount of taxes on the quantity of factually emitted pollutants per year, and the amount of taxes paid during the first three quarters equals:

$$A_4 = (F - 3/4N) \times T_0$$

where

$F$  is the quantity of pollutants factually emitted ( $t$ );

$N$  is the annual standard for the emission of pollutants;

$T_0$  is the basic rate for the emission of one ton of pollutants, which is given in Appendix 1 to the Law on Taxes on Environmental Pollution;

7.2 if the quantity of factually emitted pollutants exceeds the standard, the tax to be paid equals a quarter of the annual amount of taxes on the standard emission of pollutants\*

$$M_4 = 0,25 M$$

and a) the water polluters pay the economic sanction for the periods during which the standard was exceeded. The sanction for concrete above-standard pollution period equals to the difference between the amount of taxes on factually emitted volume of pollutants, paid in compliance with increased rate and the amount of taxes on standard pollution during the same period:

$$S_t = F_t \times T_p - N_t \times T_0$$

Where

$S_t$  is the economic sanction for the above-standard discharge of concrete pollutant during the period  $t$ ;

$F_t$  is the factual discharge of concrete pollutant during the period  $t$ ;

$T_p$  is the increased rate, calculated by formula  $T_i = T_0 \times (1 + F_t/N_t)$

$N_t$  is the standard emission of pollutants during the period  $t$

---

\*In case for some periods the standard was exceeded, but the yearly values of standard were not violated, the water polluters shall pay the tax following the procedure described in point 7.1 and they shall also pay the economic sanction following the procedure described in point 7.2 a).

The annual amount of sanction is built adding up the sanctions for all the above-standard pollution periods, which occurred during the year.

$$S = \sum_i S_i$$

$S$  is annual economic sanction

b) in case of air pollution the economic sanction is paid for the annual above standard amount of pollutants emitted into atmosphere.

The sanction equals to difference between the sum of taxes for factual amount of emitted pollutants in compliance with the increased rate and the sum of taxes for a standard pollution in compliance with basic rate.

7.3 in case the factual amount of emitted pollutants equals to the standard, the taxes equal to a quarter of the annual amount of taxes for the standard emission of pollutants.

$$M_4 = 1/4 M$$

7.4 in case the factual amount of emitted pollutants is less than the issued GPP standard, payable amount of taxes equals to the difference between the amount of tax on factually emitted amount of pollutants per year, which is calculated using the preferential rate and the amount of tax paid during the first three quarters of the year.

7.5 The fine for the concealed pollution is calculated this way:

$$M_n = T_o \times F_n$$

where

$F_n$  - the amount of concealed pollutants and the sanction of tenfold rate is applied:

$$S = 10 \times M_n$$

7.6 In case the amount of taxes paid in first three quarters exceeds that to be paid for the whole year, the difference is returned to the tax payer within 5 days, after the account was presented.

8. Taxes on Environmental pollution in accordance with the basic and preferential rates are included into production costs and are paid the municipal (regional) State Tax Inspection's revenue account.

8.1 The State Tax Inspection transfers 70% of these taxes to the Municipal Environmental Protection Funds and 30% - to the State budget of the Republic of Lithuania.

8.2 50% of the taxes on environmental pollution paid by the amalgamation "Akmencementas", Maeikiai Oil Refinery, "Azotas" Fertilizers Factory in Jonava and Chemical plant in Kedainiai are transferred by the State Tax

Inspection to the Municipal Environmental Protection Fund. 90% of them are transferred to the State budget.

9. The economic sanctions are paid from the tax-payer's remaining profit and are transferred to the State Environmental Protection Fund.

10. In case the tax is not paid in time, or the same is true for the supplementary taxes imposed during inspections, the fine at interest rate of 0.5% is invoiced for every overdue day.

11. In case the polluting plant doesn't operate for a certain period of time, Environmental Protection Department corrects the annual standard for the pollutants emission into environment in accordance with the factual operation time.

12. The pollutants existing in water which is used by enterprises (i.e. the background volume of pollutants) are not taxed. The taxed amount of pollutants  $Q$  equals:

$$Q = Q_g - Q_{pr}$$

where

$Q_g$  is the amount of pollutants in the water, discharged from the polluting source.  
 $Q_{pr}$  is the amount of pollutants in the incoming water.

13. Article 7 of the Law on Taxes on Environmental Pollution is applicable only to those polluters, which succeed to reduce GPP at least for 25%. In case they fail to reach the foreseen values, the non-paid taxes are recovered.

14. The tax on storm-water discharge shall be paid starting from January 1, 1993.

15. The tax-payers calculate the fees for subscribers [water-users] following the norms enlisted in contracts and estimate the share of the tax which should be paid by water-user to the tax-payer for every type of pollutant.

16. In case the subscriber [water user] whose activity was approved by the Government or the Municipality, spoils the operation of the water purification plant by pollutants, the tax for the violation of standard, in accordance with the increased rate, is paid by the Government or Municipality.

17. Environmental protection officers audit the accuracy of tax calculation at least once in two years. The audition is officially recorded in Act (3 copies) which is signed by the inspector and the head of the polluting plant.

18. One copy of the audition Act is left with the tax payer, the other is sent to the Regional Environmental Protection Agency and the third one is forwarded to the tax inspection.

19. During the audit additionally imposed or deducted taxes are paid (rebated) within 15 days after the audition act was signed.

20. During the audit additionally imposed or deducted economic sanctions are paid (rebated) to the State Environmental Protection Fund in accordance with the procedure described in paragraph 19 of this instruction.

## Appendix

### Examples how to calculate the taxes on environmental pollution.

1. The Permit contains following TPP standards on discharge of pollutants:

BOD<sub>5</sub> - 1200 t

Suspended solids - 1000 t

Oil products - 10 t

In the course of the year the enterprise factually discharged 1100 t of BOD<sub>5</sub>, 1010 t of suspended solids and 8 t of oil products. It was recorded that the standards were exceeded for one month.

In the Appendix 1 to the Law on Taxes on Environmental Pollution it is indicated that the basic rate ( $T_0$ ) for BOD<sub>5</sub> equals to 236 SUR, the basic rate for the suspended solids is 46 SUR and for oil products it is 9280 SUR.

In the first quarter the enterprise will have to pay: for the BOD<sub>5</sub>:

$$M_1^{BOD_5} = 0,25M = 0,25(N \times T) = 0,25(1200 \times 232) = 69600 \text{ SUR}$$

for the suspended solids

$$M_1^{ss} = 0,25M = 11500 \text{ SUR}$$

for oil products:

$$M_1^{\text{oil.prod.}} = 0,25M = 23200 \text{ SUR}$$

All in all the enterprise in the first quarter shall pay 104300 SUR. The same amount of tax shall be paid by enterprise in second and third quarters. At the end of the year the enterprise recalculates the tax anew in accordance with the factual amount of pollutants emitted.

Since the BOD<sub>5</sub> standard wasn't exceeded, the amount of tax for BOD<sub>5</sub> in the fourth quarter should be following:

$$M_4 = (F - 0,75N) \times T_0 = (1100 - 0,75 \times 1200) \times 232 = 46400 \text{ SUR}$$

The standard for suspended solids was exceeded. In this case the enterprise has to pay the tax which equals to one quarter of its yearly amount (11500 SUR) as well as the sanction, which equals  $S_t = F_t \times T_p \cdot N_t T$

To find the amount of tax which should be paid for this pollution, it is necessary to define the increased rate ( $T_p$ ). It is calculated using formula 10 given in Appendix 3 to the Law on Taxes for Environmental Pollution.

$$T_p = T_0(1 + F_t/N_t)$$

The duration of overstandard pollution is one month, so

$$F_t = 1/12F = 1/12 \times 1010 = 84,17t, \text{ and}$$

$$N_t = 1/12N = 1/12 \times 1000 = 83,33t$$

$$\text{Then } T_p = 46 \times (1 + 84,17/83,33) = 92,46 \text{ SUR}$$

Subsequently,

$$S_t = 84,17 \times 92,46 - 83,33 \times 46 = 3949,06 \text{ SUR}$$

The oil product standard wasn't exceeded. That is why the recalculated sum of tax at the end of the year is following:

$$M_4 = (F - 3/4N) \times T_0 = 4640 \text{ SUR}$$

Altogether the enterprise for the discharge of pollutants into recipients has to pay 379389,06 SUR. From this amount:

255200 SUR for BOD<sub>5</sub>, 4600 SUR for the suspended solids as well as 3949 SUR of sanction, and 7424 SUR for the oil products.

2. Following standards for the emission of pollutants into atmosphere were issued in the permit:

SO<sub>2</sub> - 10500t - TPP standard

CO - 40000t - TPP standard

NO - 8000t - TPP standard

H<sub>2</sub>S - 20t - GPP standard

In fact enterprise emitted 11000t of SO<sub>2</sub>, 40000t of CO and 7800t of NO and 18t of H<sub>2</sub>S.

In Appendix 2 to the Law on Taxes Environmental Pollution it is indicated that the basic rate for 1 ton of SO<sub>2</sub> is 110 SUR, CO - 5 SUR, NO - 206 SUR, H<sub>2</sub>S - 274 SUR.

For the first quarter the enterprise will have to pay:

for SO<sub>2</sub> -

$$M_1^{SO_2} = 0,25(N \times T_0) = 0,25(10500 \times 110) = 288750 \text{ SUR}$$

for CO -

$$M_1^{CO} = 0,25(40000 \times 5) = 50000 \text{ SUR}$$

for NO -

$$M_1^{NO_2} = 0,25(80000 \times 206) = 412000 \text{ SUR}$$

for H<sub>2</sub>S -

$$M_1^{H_2S} = 0,25(20 \times 274) = 1370 \text{ SUR}$$

All in all for the first quarter the enterprise will have to pay 752120 SUR. They shall pay the same amount of tax for the second and third quarters.

At the end of the year the enterprise recalculates the amount of payment in accordance with the data on factual emission of pollutants.

The standard for SO<sub>2</sub> was exceeded, so in the fourth quarter the enterprise shall pay the fee equal to one fourth of the annual amount of the total tax, i.e. 288750 SUR and sanction, which equals to:

$$S = FxT_p - NxT_0.$$

In order to calculate the sanction using formula 2 in Appendix 3 to the Law on Taxes on Environmental Pollution, the increased rate should be determined:

$$T_p = T_0(1 + 4xF/N) = 110x(1 + 4x11000/10500) = 570,9 \text{ SUR};$$

$$\text{then } S = 11000x570,9 - 10500x110 = 521490 \text{ SUR}.$$

The standard for CO is not exceeded, the amount of CO factually emitted is that given in the permit. So the amount of fee is one fourth of its annual amount, i.e. 412000 SUR.

The standard for NO wasn't exceeded, that is why the recalculated amount of tax at the end of the year is:

$$M_4 = (F - 0,75N)xT_0 = 7800 - 0,75x8000)x206 = 370800 \text{ SUR}$$

The standard for H<sub>2</sub>S wasn't exceeded and since this is a GPP standard, the preferential tax rate should be determined first of all:

$$T_L = T_0x[1 - 2x(N-F)/N] = 274[1 - 2x(20-18)/20] = 219,2 \text{ SUR}$$

In the fourth quarter the recalculated amount of tax is:

$$M_4 = FxT_4 - (M_1 + M_2 + M_3) = 20x219,2 - 4110 = 4384 - 4110 = 274 \text{ SUR}$$

Thus for emission of pollutants the enterprise shall pay 8091029,3 SUR altogether. 1155000 SUR of it is for the SO<sub>2</sub> and economic sanction is 5214900 SUR; for CO - 20000 SUR; for NO - 1606800 SUR and for H<sub>2</sub>S - 4329,2 SUR.

3. The BOD<sub>5</sub> yearly TPP standard in the permit which was issued to the polluting enterprise was 1500 t.

Factually the enterprise discharged 1100 t of BOD<sub>5</sub>.

In Appendix 1 to the Law on Taxes on Environmental Pollution it is fixed that the basic rate for BOD<sub>5</sub> discharge equals to 232 SUR.

For the first quarter the enterprise shall pay the tax which equals to one fourth of the sum which is determined in accordance with the calculated annual amount of pollution:

$$M_1 = 0,25M = 0,25 (NxT_0) = 87000 \text{ SUR}$$

For the second and third quarters the enterprise shall pay the same amount of tax.

At the end of the year the enterprise recalculates the amount of tax in accordance with factual discharges. Since the TPP standard wasn't exceeded, the amount of tax for the BOD<sub>5</sub> to be paid in the fourth quarter equals to:

$$M_4 = (F - 0.75N) \times T_0 = (1100 - 0.75 \times 1500) \times 232 = 5800 \text{ SUR.}$$

Since the amount of tax paid for the first three quarters exceeds the amount of tax which had to be paid for the whole year, the difference (5800 SUR) shall be refunded to the enterprise before February 5.

4. The BOD<sub>5</sub> yearly TPP standard in the permit which was issued to the polluting enterprise was 1000 t.

Factually enterprise discharged 900 t of BOD<sub>5</sub>.

Appendix 1 to the Law on Taxes on Environmental Pollution it is fixed the basic rate for BOD<sub>5</sub> discharge equals to 232 SUR.

For the first quarter the enterprise shall pay the tax which equals one quarter of the the sum which is determined in accordance with the calculated annual amount of pollution:

$$M_1 = 0.25M = 0.25M(N \times T_0) = 58000 \text{ SUR}$$

For the second and third quarters the enterprise shall pay the same amount of tax.

At the end of the year enterprise recalculates the tax in accordance with factually emitted amount of pollutants. Since the TPP standard isn't exceeded, the amount of taxes to be paid for the discharge of BOD<sub>5</sub> in the fourth quarter shall equal to:

$$M_4 = (F \times 0.75N) \times T_0 = (900 \times 0.75 \times 1000) \times 232 = 34800 \text{ SUR.}$$

However, it was traced that for the one period of time the standard (mg/l or kg/h) was exceeded. For this period the economic sanction shall be applied.

The duration of violation was two weeks. Daily standard is, 1000/365 t = 2.74 t/day. It means, 38.36 t of BOD<sub>5</sub> could be discharged during that period. Factually 45 tons were discharged. The increased rate is calculated following way:

$$T_i = 232 \times (1 + 45/38.36) = 504.14 \text{ SUR/t. In this case the sanction shall amount to } S = 504.16 \times 45 - 232 \times 38.36 = 22687.2 - 8899.52 = 13787.68 \text{ SUR.}$$

•

Ratified by Environmental Protection Department  
of the Republic of Lithuania by Order No 11, on January 31, 1991

**THE PROCEDURE FOR ESTABLISHMENT OF STANDARDS  
FOR EMISSION OF POLLUTANTS INTO ENVIRONMENT  
AND FOR ISSUANCE OF PERMITS FOR USAGE  
OF NATURAL RESOURCES**

Relying on the Law on Environmental Protection Department of the Republic of Lithuania and in order to secure the rational usage of resources and to improve their protection, the following procedure for issuance of GPP standards for emissions into surface waters and atmosphere, waste standard registration as well as for issuance of permits for usage of natural resources, is established:

**The determination of GPP standards for emissions into surface waters, atmosphere and determination of waste standards**

The objects, which economic or other type of activities have negative effect on environment must prepare the greatest permissible pollution and waste generation standards (i.e. of emissions into surface waters and atmosphere; generation of hazardous and other types of waste). After being approved by local health authorities and municipalities these draft standards along with the background papers are forwarded to Regional Environmental Protection Agency for final approval.

By Greatest permissible pollution into surface waters we mean the quantity of pollutants, which is discharged under certain conditions with sewage per time unit, and which doesn't violate the recipient water quality standards established in "Rules for Protection of Surface Waters from Sewage Pollution" (these rules should be observed, not until the new ecological standards for our Republic will be set).

By Greatest permissible pollution into atmosphere we mean the quantity of noxious substances which is emitted by single or complete set of polluting sources in given area per time unit, which, being combined with the impact of the other polluting sources and with reference to the plans for the development of enterprise, doesn't exceed the Near-to-the-Surface Greatest Permissible Concentration values.

By Greatest permissible concentration (GPC) in the water body we mean the biggest concentration of polluting substance in water, under which it is still suitable for certain use.



By greatest permissible concentration (GPC) in atmosphere we mean the single marginal allowable concentration of chemical substance in the air in human settlements, inhibiting no reflectory reaction of human beings after exposure to it for 20-30 minutes.

Having no data about the single greatest permissible concentration, there is possible marginal permissible mean daily concentration of chemical substance in the air of human settlements which has to have no harmful impact on human beings (directly or indirectly) for indefinitely long period of time.

Preparing the draft GPP standards for the enterprise one should evaluate all the previously approved project documentation (the project solutions for reconstruction, expansion, re-arranging of production, technical and economical calculations as well as different development schemes for industrial area).

For enterprises to be built or reconstructed the GPP standards must be established at design stage, i.e. they should be provided in the environmental chapter of project documentation.

In cases when the operating enterprise discharges into surface waters or emits into atmosphere the substances for which the GPC (or approximate harmless impact levels) are not determined, the enterprise must apply appropriate scientific organizations to establish these values and to evaluate their overall impact. Then, having provided the copy of the above mentioned application to the Regional Environmental Protection Agency, the Temporary Permissible Pollution (TPP) standard the existing situation, may be established.

The enterprises possessing no technical possibilities to reach the GPP standards (e.g. absence, or scanty capacity of sewage and air treatment equipment, unavailability of treatment technologies, etc.) must foresee concrete measures to reach GPP as well as the ways for their implementation. In these cases Temporary Permissible Pollution standards (TPP) are established.

In some cases GPP standards for discharges into surface waters and emissions atmosphere as well as those for waste generation should be revised before their expiration - upon changes in ecological situation occur, as well as having closed the old or having put into operation new plants (i.e. polluting sources), having changed the production type or its technology, having implemented more effective pollution abatement techniques a.s.o.

When the there necessity arises, the GPP and TPP standards with respect to current ecological situation may be revised and made more stringent.

The GPP (TPP) standards are calculated, and, if necessary, specified, as well as the approvals from authorities are collected by the enterprises, farms, institutions and organizations themselves.

The GPP standard establishment procedure is not applicable to determine the emission standards from mobile sources.

### **1.1. The Determination of the Greatest Permissible Pollution Standards for discharge into Surface Waters**

In compliance with the valid Lithuanian Government decision all the surface waters in Lithuania should meet the standards set for fisheries reservoirs.

GPP standard for surface waters shall be calculated according the formula:

$$GPP = q_{max. sew.} \cdot C_{sew}; \text{ (g/h), where}$$

$q_{max. sew.}$  - maximum hourly debit of sewage discharged into surface waters,  $m^3/h$

$C_{sew.}$  - fixed permissible concentration of polluted sewage  $g/m^3$  (or  $mg/l$ ).

Calculating the greatest permissible amount of pollutants to be emitted, the annual amount of sewage waters ( thousand  $m^3/year$ ) shall be multiplied by the fixed permissible concentration.

The GPP and TPP standards for certain periods (the daily, monthly, quarterly standards) are calculated using the yearly values of GPP and TPP. When the seasonal differences occur, or in some other special cases (repairs in or reconstruction of sewage treatment plants, malfunction during certain period, etc.) the GPP and TPP standards are calculated using the standards for certain periods.

In case the background values of pollution level in the water body doesn't exceed those established for fisheries, the permissible  $C_{sew.}$  values should be found through sewage mixing calculations in the given water body.

One can calculate the mixing by means indicated in "Reference Book for Design of Sewerage in Human Settlements and Industrial Enterprises" (1981).

For the calculations of mixing it is advisable to use the Frolov-Rodsiler formula:

$$q \cdot C_{sew.} + y \cdot Q \cdot C_u = (q + y \cdot Q) \cdot C_1,$$

which enables to find:

$$C_{sew.} = \frac{y \cdot Q}{q} \cdot (C_1 - C_u) + C_1$$

$q$  - the calculated amount of sewage water being discharged into water body, l/sec,

$Q$  - the calculated debit of the river ( the 95% probability average river debit of the driest month, and the fixed environmental debit for rivers with regulated flow), l/sec,

$C_{sew}$  - concentration of polluted sewage, mg/l,

$C_1$  - permissible concentration of pollutant in the river in mixing point, mg/l,

$C_u$  - background value of pollutant concentration in the river, mg/l,

$y$  - mixing coefficient

The mixing coefficient for Venta, Minija, Jūra, Šešupė, Dubysa, Nevėžis, Neris, Šventoji, Žeimena, Merkys, Mūša, Merkys, Nemunėlis, Nemunas shall be calculated using formula:

$$y = \frac{1 - b}{1 + \frac{Q}{q} \cdot b}, \text{ where:}$$

$$b = e^{-a\sqrt[3]{L}} = \frac{1}{2.72 a\sqrt[3]{L}},$$

$$e = 2.72$$

$a$  = coefficient considering hydraulic factors of mixing

$L$  = distance between the outlet and mixing point in vortex:

$$a = \xi + \sqrt[3]{\frac{D}{q}}, \text{ where}$$

$\xi$  coefficient, which depends on where the outlet is situated:

on the coast  $\xi = 1$ ,

in the river bed  $\xi = 1.5$

$\varphi$  - coefficient of meandering

$$\varphi = \frac{L_\varphi}{L_t}, \text{ where}$$

$L_\varphi$  - the length of the river following the vortex from outlet to expected mixing point ( in water bodies designated for fisheries purposes it is 0.5 km)

$L_t$  - straight line distance from outlet till mixing point, km

$D$  - coefficient of turbulency

$$D = \frac{V_{aver} \cdot H_{aver}}{200}, \text{ where}$$

$V_{aver}$  - average velocity of stream in the mixing area, m/s, i.e. from outlet till the point for which the calculation is made

$H_{aver}$  - average river depth in the mixing area

For all the other rivers and small streams the mixing coefficient  $y$  is 1.

By these calculations of mixing we find to what extent the sewage water should be treated, so that the water quality in recipient meets the standards set for fisheries.

The concentration of pollutants in sewage water which is discharged within the boundaries of city, has not to exceed the GPP set for fisheries water bodies.

In case several pollutants possessing the same limiting index of harmfulness, the sum of ratios of their actual concentration and their GPP must not exceed 1.

$$\frac{C_1}{GPP_1} + \frac{C_2}{GPP_2} + \dots + \frac{C_n}{GPP_n} \leq 1$$

In case the background level of pollution in the surface waters (in recipient) for some pollutants exceeds the limits set for fisheries purposes, the calculations of mixing are not done. Then determining the GPP standard for discharged water, the concentration of pollutants' ( $C_{sew.}$ ) has not exceed GPP set for fisheries purposes.

Following the recommendations of Baltic Marine Environment Protection Commission (HELCOM) it is fixed that the mean yearly concentrations of total nitrogen and total phosphorus in the sewage water which is discharged into recipients from the settlements and cities with population more than 10000 must not exceed 12 mg/l and 1.5 mg/l accordingly.

However, not always it is possible to treat the sewage to such degree without additional purification. This is why temporary (up to 1995 inclusive), the treated sewage with BOD5 value 15 mg/l and suspended solids value of 15 mg/l (unless the mixing calculations allow more) is regarded as treated in accordance with existing standards; and the amount of pollutants which is discharged with sewage of this concentration is regarded as the greatest permissible pollution - GPP.

In case the water discharged from the plant is untreated or treated insufficiently and the foreseen measures as well as the terms for GPP are achieved, TPP standards are fixed.

Fixing TPP standards one should follow the guideline that the amount of discharged pollutants in Republic in 1995 should be reduced by 50% in comparison with year 1989 (based on statistical forms 2tp "water", where

household consumption is presented separately) and in year 2000 all the sewage water should be treated in accordance with existing GPP standards.

Filtration fields from which the sewage doesn't leach, the sewage reservoirs as well as the cropfields, irrigated by sewage are only temporary opportunities to discharge the sewage and the plants doing so should be regarded as potential polluters of environment.

## **1.2. Determination of the Greatest Permissible Pollution Standards for emissions into Atmosphere**

GPP standards for emissions into atmosphere are determined following the recommendations given in "Methods for Calculation of Noxious Substances Concentrations in Atmosphere, emitted by Industrial Enterprises - OHD 86" and in "Instruction for the Rate Setting on Emissions of noxious substances into atmosphere and surface waters" and are registered in the way described in "Guidelines on Preparation and Registration of Draft GPP Standards for Emissions into Atmosphere.

It is recommended to prepare draft GPP standards for:

- all the industrial enterprises, emitting pollutants into atmosphere;
- other plants, emissions from which contain the substances belonging to the first or second dangerousness categories, as well as for the plants emitting more than 50 t of pollutants per year;
- power plants: state regional electric power plant, heat producing power plants, regional boiler-houses, block boiler-houses (for the boiler-houses smaller than block ones it is recommended to determine the standards in accordance with actual emissions).

For the other plants which impact the state of the atmosphere and which maintain the accountancy of emissions, the GPP standards also are determined relying on data on actual emissions.

In order to determine the GPP standard relying on actual amount of emissions, the plants should present the following papers in Regional Environmental Protection Agency:

- the lay-out of the plant;
- the table containing parameters of emission and leaching sources;
- the table of suggested GPP (TPP) standards;
- the plan of measures aimed at reduction of emissions into atmosphere.

Preparing the draft GPP standards for small plants it is recommended to pay attention on: whether it is possible to regulate the amount of discharged substances as well as their impact on environment through the setting of standards (in some case one can say that only drafting the standard) and whether it is possible to carry out the departmental and state control on compliance.

As a basis for standard setting serve the inventory of pollution emitting sources, which must be carried out by all of industrial enterprises (state-owned, cooperative, etc.) irrespective to their departmental subordination, and by all organizations and institutions possessing noxious substances emission sources. Every enterprise, institution or organization carries out the inventory itself or hires a special organization to do it.

The CEO of the Enterprise is responsible for the reliability and completeness of the data.

Inventory of pollutants is made by means of field measurements following the existing standards and the recommendations approved by Environmental Protection Department. In case there is no measurement techniques to trace presence of some of the pollutants it is allowed to use the "branch" calculation methods [different for every type of industries] which are approved by Environmental Protection Department. The field measurements should be verified using balancing method.

Having reconstructed or having changed the production technology it is necessary to specify the results of inventory.

The inventory of emitted pollutants may be performed only by organizations and teams possessing standard instruments and using the methods which, following the existing procedure, are approved by Environmental Protection Department.

The draft GPP standards for industrial amalgamation "Akmencementas", industrial amalgamation "Azotas", Mažeikiai Oil Refinery, Lithuanian regional Power Plant, Kėdainiai Chemical Plant and Ignalina Nuclear Power Plant are checked by respective Regional Environmental Protection Agencies and submitted with preliminary conclusions along with all the documentation to Environmental Protection Department for final approval. The draft GPP standards for the other enterprises are reviewed and approved by Regional Environmental Protection Agencies with respect to the opinion of inspector who inspects the given enterprise.

(Part III of Natural Resources Usage Permit "Emission of pollutants into atmosphere from stationary sources" always is issued by Regional Environmental Protection Agency.)

In operating plants GPP standards are fixed for every substance and for every polluting source with condition that amount of pollutants emitted from this source in combination with the analogous emissions from the other sources in the area of concern, and with respect to the plans for the future development of the enterprise, shall not exceed the greatest permissible concentration (GPC) values. Single maximum (control) and yearly meanings of GPP are fixed.

If during some period, due to reasons depending not on polluter, it is impossible to reduce the emission of noxious substances for they reached the GPP values, the reduction is carried out on stage approach. For every stage (indicating its duration) the TPP should be fixed and concrete steps to reduce it are foreseen as well as the funds should be allocated and responsible persons for the implementation must be appointed.

In case the non-dimensional sum of several substances, which due to interaction produce a harmful effect, exceeds the GPP (though there is no excession of a single ingredient value or only the value of one ingredient is exceeded), the TPP standard for these substances is fixed. In case there remains at least one polluting source in enterprise for which TPP standard on some ingredient is still fixed, it means the TPP standard should be fixed for this ingredient in general.

For the total harmful emissions from the enterprise following inequity should be maintained:

$$C_{\max} + C_{\Phi} < \text{GPP, where}$$

$C_{\Phi}$  - the background concentration of the harmful substance,  $\text{mg/m}^3$ ,

$C_{\max}$  - summed-up maximum near-the-surface concentration of harmful substance,  $\text{mg/m}^3$ .

One can set the GPP standards at the level of actual emissions, however, even in this case the requirements to reduce the emission of substances further on may be risen with regard to technical possibilities (the introduction of the newest dust precipitation equipment or clean technology, the change of production type, etc.)

Having evaluated the technological aspects of production, including the operation in wintertime, the total emission level from the enterprise or distinct plant is determined relying on the GPP (or TPP) values of distinct polluting sources. The yearly emission amounts are determined in accordance with the average annual emissions and they depend on changes in operation modes, on characteristics of technological processes, equipment, raw materials, fuel, etc. (It is not correct to calculate the annual amount of emissions from some of the sources, such as boiler-houses, or ones emitting organic solvents, just multiplying single maximum emission values by yearly operation time.)

In case of accidents there are no GPP values fixed for emissions into atmosphere. The probability of accidents is evaluated and the plan how to tackle their consequences should be prepared.

Determining the GPP it is necessary to require the emergency emissions were evaluated and rated.

For non-connected, small single sources (aeration channels, ventilation shafts) the summed GPP may be fixed.

Determining GPP standards for harmful substances, the background concentration created by neighboring sources should be taken into account. The background concentrations of harmful substances may be determined in two ways:

- according the data from stationary air quality monitoring stations (in Vilnius, Kaunas, Klaipėda, Šiauliai, Jonava),
- by means of calculation, relying on inventory data of polluting sources in enterprises, which are fed into computers along with other relevant data about the given enterprise.

Thus the distribution of substances with different concentrations with respect to other enterprises is obtained. The calculations are executed by rating organizations using computers with uniform program designated for atmospheric pollution calculations.

Determining the background values by means of calculation only the emissions, overlapping with the impact zone of the concerned enterprise, are taken into consideration. The list of enterprises, parameters of polluting sources, and amounts of emitted harmful substances to conduct the above mentioned calculations are provided by Regional Environmental Protection Agencies in accordance with earlier issued methodic guidelines on issuance of background concentrations - Paper No 13-449 of December 12, 1989 of Environmental Protection Inspection of Republic.

In order to receive the background concentration values or data to calculate them one should submit into Regional Environmental Protection Agency an application, containing following data:

- the title of organization concerned, its departmental subordination, address,
- city for which the background evaluation is needed,
- enterprise, to which the background value is issued, indicating whether it is in operation, under construction, under reconstruction or is being expanded,
- address of enterprise, description of its location in the General Plan of the city. In case the enterprise has several production sites or the background values are necessary for several enterprises all the data is presented for each of the sites/enterprises separately, attaching a short description of the site where it is located,
- list of harmful substances which are emitted by enterprise(plant) into atmosphere,
- time period for which the background values are requested; the duration of construction, reconstruction, expansion, terms of putting into operation of the first production line or when the full production capacity will be reached.

Fulfilling the requirements of the Long Range Transboundary Pollution Convention of 1979, it is indispensable issuing the GPP standards to have in



mind that SO<sub>2</sub> emission in Republic until 1993 in comparison with year 1980 should be reduced by 30% and the emission of nitrogen oxides should be stabilized at level of year 1987.

Striving to this goal, it is necessary to identify all the known means (technical and other) for the emission reduction of the above mentioned substances as much as possible.

### **1.3 Establishment of Standards for Household, Hazardous and other Types of Waste**

The draft standards for household, hazardous and other types of waste should be prepared in accordance of Governmental decision No 16-1950 of February 9, 1989.

Draft waste standards should contain the balance sheets of consumed in production raw materials and generated waste, the departmental accountancy and control system should be foreseen as well as the technical solutions for the storage and treatment should be presented, indicating the sites and procedure of implementation.

Since the methods for establishment of waste standards, evaluating the different technologies and production types isn't prepared yet and the GPP standards for household, hazardous and other types of waste aren't fixed, the actual waste amount should be regarded as TPP standard relying on the data obtained from the above mentioned balance sheet.

## **2. Issuance of Permits for Usage of Natural Resources**

### **2.1. Issuance Natural Resources Usage Permits for Plants in Operation**

The draft GPP (TPP) standards and draft waste standards are submitted into regional Environmental Protection Agency together with the draft Permits for Usage of Natural resources.

The decision to issue Permits for Usage of Natural Resources, based on overview of presented GPP or TPP standards, waste balance sheet and in some cases on data on actual emissions of pollutants from stationary sources is made by Regional Environmental Protection Agency.

The Permit for Usage of Natural Resources is issued for five years but the values of GPP or TPP standards for emissions into atmosphere or surface waters in this Permit as a rule are fixed for one year, which subsequently are reviewed and are put into the same Permit for the coming years (up to 1995, inclusive).

The Permit for the Usage of Natural Resources consists of several parts:

1. The Usage of Water

## II. Discharge of Pollutants with Sewage Water

## III. Emission of Pollutants into Atmosphere from Stationary Sources

## IV. Storage of Waste, Landfilling and its Treatment.

If necessity arises the other parts may be added (e.g. usage of mineral resources, usage of soil, etc.).

In case the plant doesn't emit pollutants into atmosphere but pollutes the surface waters and possesses waste, or doesn't spoil the surface waters and hasn't waste but pollutes the atmosphere - then the according part of Permit for Usage of Natural Resources is omitted. In the table of content it should be indicated of what parts and how many pages the Permit consists.

The type of Standard (GPP or TPP) should be clearly indicated in the Permit.

The draft GPP standard is prepared for a period not longer than 5 years. However, the Part III of Permit for Usage of Natural Resources (emission of pollutants into atmosphere from stationary sources) is issued not for the whole 5 year period but in stages:

- for one year, when the certain measures to reach the GPP (TPP) standard values should be undertaken,

- for two-three years when the GPP (TPP) standards are met and neither reconstruction nor production increase and changes in technologies are not anticipated,

- up to one year, in case the enterprise is asked to implement the atmosphere protection measures urgently,

In case the TPP standard is fixed then in column of corresponding year the GPP value is filled in.

All the Plants intaking, consuming or transferring by their own devices more than  $10 \text{ m}^3$  of water per day should have the Part I (The usage of water) of Permit for Usage of Nature Resources.

All the plants discharging more than  $5 \text{ m}^3$  of polluted sewage per day into their own sewerage system and through it into surface waters as well as into accumulation reservoirs filtration or agricultural irrigation fields, should have Part II ( Discharge of Pollutants with Sewage Waters) of the Permit for Usage of Natural Resources.

Part III (Emission of Pollutants into Atmosphere from Stationary Sources) of the Permit for Usage of Natural Resources should:

- all the enterprises contributing to pollution of atmosphere,
- huge power-plants (Regional Electric Power-Plant, Heat Generating Plants, regional boiler-houses),
- boiler-houses which during one year burn:
  - a)  $>1.5 \text{ million m}^3$  of natural gas,
  - b)  $>500 \text{ t}$  of fuel oil,

c) >200 t of coal.

- printing-houses,
- oil supplying enterprises,
- mobile construction units,
- stations of technical service,
- dry-cleaning enterprises,
- gas and oil pipelines,
- gas distribution stations,
- railway units.

For small boiler houses which are subordinated to some department or organization, and which are located in the city or in countryside, the emissions into atmosphere are summed up into one permit, which is mandatory when the foreseen annual fuel consumption for all of these boiler-houses meets the above mentioned criteria.

Part IV (The Storage, Landfilling and Treatment of Waste) of the Permit for Usage of Natural resources should have all the enterprises which generate waste.

The farms and enterprises possessing several sewage treatment units and several outlets or several stationary pollution emission sources into atmosphere, are issued one common Permit containing standards for each of outlet or pollution source.

For the enterprise possessing the storm water outlets the Permit for Usage of Natural Resources is issued following the above mentioned procedure, and is based on "Temporary instruction on Design of Treatment Units for the Run-Off Waters From the Industrial Territories and the Conditions for Their Discharge into Surface Waters".

In order to get the Permit for Usage of Natural Resources, the enterprise must provide the Regional Environmental Protection Agency with draft permit which follows the fixed pattern, approvals from the concerned organizations, obligatory attachments as well as an individual application.

The same procedure is applied whenever the necessity to review the issued Permit for Usage of Natural Resources arises (having put into operation new production capacities, having changed the type of production, etc.).

In order to have a new (to change) Permit it is necessary to apply at least one month before old one's expiration.

Applying for new Permit it is necessary provide:

- an application describing the reasons for change of permit,
- an information sheet on fulfillment of requirements which the current Permit contained as well as data on implementation of once foreseen measures,
- data on compliance with the quality norms fixed for discharges into recipients and emissions into atmosphere as well as data on results of control measurements.

In all cases the Regional Environmental Protection Agency reviewing the data submitted by enterprises for prolongation of Permits for Usage of Natural Resources, supplements it with one, obtained from State inspector who is in charge for inspection of given enterprise.

The CEO of the enterprise, organization or farm as well as the officer from Regional Environmental Protection Agency who approved the submitted data are responsible for its reliability.

The Permit for Usage of Natural Resources should be issued (or refused) within 15 days after the draft Permit or the other data was submitted.

## **2.2 Permits for Design and Construction**

The Act on selection of construction site, signed by representative of Environmental Protection Department system and which is registered according to existing regulations is regarded as an permit for design. In those cases, when the new construction, reconstruction, expansion doesn't require the new territories, the customer along with the designing institution has to get approvals from the concerned organizations in form of a protocol. The protocol which is prepared and registered following the same routine as in case with permit for site selection, also is regarded as permit for design.

The positive decision (approval) on Project documentation made by Environmental Protection Department or its Regional Agency is regarded as an permit for construction.

Putting new plants into operation, 15 days before the State Commission arrives, the plant provides the Regional Environmental Protection Agency with draft Permit for Usage of Natural Resources which is already approved by concerned organizations as well as the other materials which are necessary for issuance of Permit. In case the Act of putting the plant into operation is signed by all members of Commission the Permit for Usage of Natural Resources is also issued; in case at least one of the Commission members doesn't sign the Act - the Permit may be issued only after the Act is confirmed, i.e. the plant is put into operation.

The Permit for Usage of Natural Resources should be written in 4 copies (one for the plant itself, one for the local authorities, one for the Regional Environmental Protection Agency, one for regional inspector).

*V. Bernadišius*

Head, Board of Waters

*M. Bilkis*

Head, Board of Atmosphere

**The Environmental Protection in the Republic of Lithuania**  
**Information bulletin No 1**  
**Environmental Protection Department of the Republic of Lithuania**

LII. SL 395. 92. 900. 298

Printed in Lithuanian Information Institute

Totorių 27, 2600 Vilnius