



Institute for  
Environment and  
Sustainability



# LEGISLATION ON MINING WASTE MANAGEMENT IN CENTRAL AND EASTERN EUROPEAN CANDIDATE COUNTRIES

A Report of the JRC Enlargement Project:

Inventory, Regulations and Environmental  
Impact of Toxic Mining Wastes in  
Pre-Accession Countries  
"PECOMINES"



EUROPEAN COMMISSION  
DG-JOINT RESEARCH CENTRE  
Institute for Environment and Sustainability  
Soil and Waste Unit

EUR 20545 EN

# LEGISLATION ON MINING WASTE MANAGEMENT IN CENTRAL AND EASTERN EUROPEAN CANDIDATE COUNTRIES

## **Author and Editor:**

*Tamás Hámar*

*Joint Research Centre, Institute for Environment and Sustainability, Soil and Waste Unit*

## **Technical Editor:**

*Marco D'Alessandro*

## **Project Manager:**

*Giovanni Bidoglio*

## **Experts of the Steering Committee who contributed to Annex II:**

*Primoz Bizilj, Peeter Eek, Michal Gientka, Ognian Gubev, Ingrida Kavaliauskiene, Vladimirs Krutofals, Monika Lipovska, Martin Lutonsky, Dusan Marc, Csaba Markó, Erki Niitlaan, Petru Stratulat, Valeri Trendafilov and Serban Veliciu*

## **Project Members:**

*Stefan Sommer, Győző Jordán, Erik Puura, Marc Van Liedekerke and Anca-Marina Vijdea*

*In bibliographies, this report should be referred to as:*

*Hámar, T. 2002: Legislation on mining waste management in Central and Eastern European Candidate Countries - Joint Research Centre of the European Commission, Ispra, EUR 20545 EN, 196 p.*

## **LEGAL NOTICE**

Neither the European Commission nor any person acting on behalf of the Commission is responsible for the use which might be made of the following information.

A great deal of additional information on the European Union is available on the Internet. It can be accessed through the Europa server (<http://europa.eu.int>)

EUR 20545 EN

© European Communities, 2002

Reproduction is authorised provided the source is acknowledged

*Printed in Italy*

# CONTENTS

<b>EXECUTIVE SUMMARY .....</b>	<b>1</b>
<b>1. INTRODUCTION .....</b>	<b>4</b>
<b>2. OBJECTIVES .....</b>	<b>5</b>
<b>3. METHODOLOGY .....</b>	<b>6</b>
<b>4. RESULTS .....</b>	<b>8</b>
4.1. CONCLUSIONS ON THE SCREENING OF THE ACQUIS COMMUNAUTAIRE .....	8
4.2. Conclusions on the screening of national legislation in Candidate Countries .....	9
4.2.1. Regulatory framework .....	9
4.2.2. Mining legislation .....	11
4.2.2.1. Ownership .....	11
4.2.2.2. Data management .....	12
4.2.2.3. Licensing .....	12
4.2.2.4. Environmental aspects .....	13
4.2.2.5. Mining safety .....	14
4.2.2.6. Mine closure .....	14
4.2.2.7. Economics .....	15
4.2.3. Environmental legislation .....	15
4.2.3.1. Licensing and environmental impact assessment .....	15
4.2.3.2. Liability and sanctions .....	16
4.2.3.3. Waste management legislation .....	17
4.2.4. Water management legislation .....	17
4.2.5. Other legislation .....	18
4.2.6. International affairs .....	18
<b>5. DETAILED ANALYSIS .....</b>	<b>21</b>
5.1. SCREENING OF THE EU COMMUNITY LEGISLATION WITH REGARD TO MINING .....	21
5.1.1. The Treaties .....	21
5.1.2. Mining legislation .....	21
5.1.3. Environmental legislation .....	23
5.1.4. Waste management legislation .....	24
5.1.5. Water management legislation .....	26
5.1.6. Industrial pollution control and risk management legislation .....	27
5.1.7. Other legislation .....	28
5.1.8. Judgements of the European Court of Justice .....	28
5.2. ANALYSIS AND INTERPRETATION OF THE CANDIDATE COUNTRIES' ANSWERS .....	30
5.2.1. Regulatory framework .....	30
5.2.2. Mining legislation .....	31

5.2.2.1. Ownership .....	31
5.2.2.2. Data management .....	33
5.2.2.3. Licensing .....	34
5.2.2.4. Environmental aspects .....	35
5.2.2.5. Mining safety .....	37
5.2.2.6. Mine closure .....	38
5.2.2.7. Economics .....	38
5.2.3. Environmental legislation .....	39
5.2.3.1. Licensing and environmental impact assessment .....	39
5.2.3.2. Liability and sanctions .....	40
5.2.4. Waste management legislation .....	41
5.2.5. Water management legislation .....	42
5.2.6. Other legislation .....	43
5.2.7. International conventions .....	44
<b>6. REFERENCES .....</b>	<b>45</b>
6.1. LITERATURE .....	45
6.2. REGULATORY WEB LINKS .....	45
<b>7. ANNEXES .....</b>	<b>47</b>
ANNEX I Regulatory questionnaire .....	47
ANNEX II Answers to the regulatory questionnaire .....	52
ANNEX III The legislation of Central and Eastern European Candidate Countries relevant to mining waste management, available in English .....	164
ANNEX IV Working definition .....	169
ANNEX V A collection of definitions from the EU acquis communautaire relevant to mining waste management and environmental affairs in general .....	170



# EXECUTIVE SUMMARY

## Key Findings

### *Mining in Community law*

- The Treaties of the European Community declare the promotion of a policy of using natural resources prudently and rationally to avoid their unconsidered exhaustion. Mineral resources are important non-renewable natural resources in both Member States and Candidate Countries. The exhaustion of mineral resources, the security of a continuous supply of raw material, the environmental impact of this voluminous waste stream and the enlargement of the European Union are issues requiring the establishment of a common mining waste management regulation and a more explicit minerals policy.
- The mining industry has a particular status in the *acquis communautaire*. Issues like worker health and safety, the supply of strategic minerals and development of the industry are covered by dozens of directives, regulations and communications. After the decades of primacy of coal and metals the hydrocarbon extractive industry received a privileged status. The Directive *on the conditions for granting ... of hydrocarbons* and the Directive *on coordinating the procurement procedures ...* include elements of a mineral policy. The daughter Waste Directives, the Water Framework Directive and the proposed amendment of the Seveso II Directive grant a waiver for the hydrocarbon industry.
- Mineral extracting activities are excluded from the scope of major environmental Directives (Waste Framework, Seveso II, ICCP) or have received a certain freedom of interpretation (EIA, Landfill Directive). Mining-related, sometimes inconsistent provisions are found in the Waste Framework Directive and its daughter Directives (Waste Shipment, Landfill, European Waste Catalogue), and in other thematic directives (Water Framework). This is reflected in the increasing number of related cases submitted to the European Court of Justice.
- The terminology in use for mining and mining waste is heterogeneous. There is a major difference if mineral processing is included (Council Decision on Mines Safety, Seveso II Directive vs. Waste Directives). Based on the traditional use of the term "mining" and considering the environmental risks, the on-site physical, chemical and biological processing of extracted minerals shall

be defined as an integral part of the mining production chain.

- Two recent Commission Communications declare that mining is increasingly influenced by other competing land uses, such as urban development, agriculture and nature conservation. The balanced consideration of economic, environmental and social aspects to ensure the sustainable development of this industry is needed, and a coherent Community policy is necessary. The follow-up actions are the amendment of the Seveso II Directive, the drawing up of a Reference Document on Best Available Techniques and the preparation of a Mining Waste Directive, which shall provide a framework for dealing with the discrepancies.

### *National regulations on mining in Candidate Countries*

#### *Regulatory framework*

- In Central and Eastern European Candidate Countries democratic legislative, judicial and executive powers are well distributed among the different state bodies. There are typically three or four levels of legislation (Parliament, Government, Ministers and Local Governments) which all issue regulations relevant to the mining industry. The judicial system has at least two levels. The first level of appeal is ensured within the public administration.
- The key authorities in the mining field are the Ministry of Economy and the Ministry of the Environment with a trend towards the latter having increasing responsibility. There are a variety of sub-ordinate licensing authorities such as environmental, mining, geological and water authorities and local governments. National Geological Surveys are usually the state agencies which manage information with regard to mineral resources, mining locations and mining waste inventory.

#### *Mining legislation*

- All Candidate Countries have a recent act on mining (or on subsoil use, or on subsurface resources). In most countries the mining acts (used here as a collective term) apply to exploration, establishment of mining acreage, exploitation, break in operation, mineral processing, reclama-

tion and post-closure control. There is a great diversity in the horizontal scope, e.g. hydrocarbons have a separate law in Romania; secondary, tertiary mining processing and transportation facilities are excluded in some countries. In countries with marine territories the law extends to the seabed or even sea salt. In countries with uranium reserves both mining acts and nuclear energy legislation apply to uranium mining.

- In general, mineral resources are the original and exclusive properties of the State but exceptions exist where the ownership of or access to mineral resources or part of them belong to the landowners (Latvia, Lithuania, Poland). Almost all countries have a separate legal document on national mineral policy issued by the Government or a Ministry. In some countries the mineral policy is embedded in mining acts or in the Environmental Strategy.
- Open competition rules the scene when giving access to the exploration of mineral deposits but there are differences and exceptions. Concession tenders are announced and evaluated for strategic minerals. Giving access to the exploitation is in close relation to exploration rights, thus ensuring investment safety. The break in mining operation is a critical issue since no safety procedures or reclamation apply in many of the abandoned mines, and with no operator or legal successors (orphan mines), they pose a high risk to the environment. Many countries do not have specific regulations on this.
- In the case of both concession contracts and simple licensing the environmental impacts must be presented, which does not necessarily mean the submission and approval of a separate environmental impact assessment study. In most countries environmental liability guarantees such as opening bank deposits, taking out liability insurance and setting an indemnity are required and prescribed by law. The voluntary environmental auditing system (EMAS) is very rarely implemented, if ever. Local public and local governments may block the mining licensing process during approving the spatial plan, granting the exploitation, or the environmental licensing procedure.
- Countries with long-standing underground mining traditions have detailed regulations on mining safety. However, tailing pond safety is not a priority topic. Closure is not regulated in the same detail as the opening of mines. While there are specific provisions with regard to reclamation in most countries, this is not the case for aftercare. The general picture with orphan mines is that the

State takes care of them eventually.

- A generalised classification of mines on the basis of their legal status and the analysis of the potential environmental impact of the different categories allows us to conclude that mining sites without a legal owner which are out of operation but not reclaimed pose a considerable risk to the environment. In Candidate Countries there are numerous small and illegal mining pits, mainly in the aggregate industry, having an unfavourable impact on the landscape and soil and water resources. Operating mines under strict authority control means less potential hazard to the environment.

### *Environmental legislation*

- In all Candidate Countries there are acts on environmental impact assessment (EIA) where mining is listed. In some countries it is the literal adoption of the EU legislation, others leave a certain degree of freedom for interpretation. Mining waste management and mining impacts are generally not among the high priorities of National Environment Policies. None of the countries included mining activities in the scope of their Integrated Pollution Prevention Control (ICCP) regulations by adopting the ICCP Directive directly.
- Public hearings are a must in the EIA approval procedure, but their legal effect is limited. The environmental liability tools are the suspension of the activity, the obligation of paying an environmental fine, financial compensation of the damages and lawsuits under the national civil and criminal code.
- Nature conservation acts typically refer to geological values, protected landscapes and protected minerals, stones and fossils, but do not cover economic mineral reserves. The classification systems of nature conservation areas differ according to the number of categories of the levels of protection. Exploration and exploitation of mineral resources is possible under certain conditions at the lowermost levels of protection.
- Acts on industrial accidents and natural catastrophes or chemical acts exist in some countries, but do not cover mining accidents. The EU Seveso Directive has not yet been adopted in some countries.
- Spatial planning and land management plans consider mineral resources and mining sites, but they are generally not regulated in the spatial planning acts. There are generally no provisions for competing land-uses. If there are, mining is at the end.

### *Waste legislation*

- In many countries mining waste is included in the scope of waste legislation. Because of the direct adoption of the Waste Directives, inconsistencies are transferred into national waste legislation. Hazardous waste related provisions apply to hazardous mining wastes but none of the countries have specific provisions on hazardous mining wastes. The Landfill Directive has not been adopted in most of the countries. Radioactive waste is definitely not covered by national waste legislation.

### *Water legislation*

- In most countries, the Ministry of the Environment, its regional environmental authorities and river basin directorates are the major authorities for water management. All countries have issued water management acts and the most recent pieces have already assimilated some elements of the Water Framework Directive. Potable water supply deserves the highest priority everywhere. Industrial water use, including mine water, is at a low level of interest, if mentioned at all. Regulations on the protection of potable water resources are rather diverse.
- The water authority license is obligatory for all mine water use. In some countries a water management action plan for accidents is required from the mining operator, but regulations might limit this requirement to certain water extraction volumes. There are no specific regulations on the water monitoring system for the mining activities. This is determined during the licensing procedures on a case-by-case.

### *Data management*

- In all Candidate Countries there is an annually updated national mineral resource registry, managed typically by National Geological Surveys, which also hosts geological data and mining waste data. Mining waste inventories are typically not updated annually. In general, the collection and storage of mining operation data is not managed satisfactorily and there are no central archives of mining maps. Considering the long-term environmental risks of abandoned mining sites, mining void geometry, backfilling history and waste heap location data are essential information for planning closure and aftercare measures.
- Hazardous waste registers exist in most countries.

Waste generators are obliged to report and supply quantitative and qualitative data of hazardous waste production, treatment, and transportation to environmental authorities, but centralised on-line inventories are rare.

Water use data are supplied by the mine operators and generally collected by the regional water or environmental authorities, but there are differences in the data management.

In general, information on mine water use can be extracted from these data bases.

### *Economics*

- For all the countries examined, mining companies must pay royalties according to extracted volumes. Granting a reduction of royalty payment due to environmental investments by the company is very rare. In most countries mining royalties are the incomes of both local and central government funds at different ratios. In principle, some environmental funds can be used to finance mine reclamation. In some countries, mining companies do not pay environmental fees, levies and charges. In other countries they pay according to mining emissions and waste volumes. Mining operators must pay for practically all water use. The basis for calculation of the fee is the volume and quality of the water and in some countries, its intended use and the contamination level as well.

### *Acknowledgement*

- The author would like to express his gratitude to all colleagues at the PECOMINES project and to national legal experts of the project Steering Committee whose active involvement was essential for the successful carrying out of the regulatory work programme and for the completion of the present report. Acknowledgement is made to colleagues Luca Marmo and Fotios Papoulias at DG Environment, whose helpful comments improved the quality of the text and to Martin Hedemann-Robinson who helped with mapping the judgments of the European Court of Justice. The author's special thanks is given to Giovanni Bidoglio, Stefan Sommer and Marco D'Alessandro for their continuous support and for performing the unpleasant task of reviewing the draft. He has also appreciated the patience of colleagues at ERMITE and OMENTIN projects and to other interested colleagues in waiting for the publication of the results.



# 1. INTRODUCTION

The occurrence and concentration of economic minerals are highly heterogeneous throughout the Earth's crust (the so-called lithosphere). The extraction of minerals by humans ("mining" in general) exposes natural substances (rocks) and employs man-made chemicals which are toxic for the biosphere. Waste generated by mining activities is one of the largest waste streams. In the European Union it is responsible for 18 % of the overall waste generation. Mining has an impact on all elements of the environment. Its point- and diffuse-source type of pollution implies long-distance, catchment-scale, transboundary impacts. Abandoned mining waste heaps and excavation spaces present long-lasting, often historical pollution hazards. Catastrophic environmental impacts of operating mines are frequent around the world.

The introduction of new subjects into the *acquis communautaire* should consider existing relevant national regulations in Member States and Candidate Countries. The environmental impact of mining has been a well-studied topic ever since the development of environmental science (e.g. Down and Stocks, 1977; ERL, 1983; and references therein). However, the extractive industry mostly remained the subject of national legislation and was left out of the scope of supranational and international legislation. Environmental impacts of mining are among the questions frequently put to the Commission in the European Parliament (e.g. Official Journal 2001/C 318 E/148, or 2000/C 330 E/121-122) and mining affairs have been raised at the European Court of Justice as well.

The recent mining accidents in Europe have drawn the attention of the public, professionals and policy makers. The European Community responded promptly in two Commission communications (COM(2000)265, COM(2000)664). Legal experts and mining professionals published several papers on the implications of the current Community legislation on mining waste management (Heber, 1995; Anckorn and del Olmo, 1999; Hontelez, 2000; Heberstreit and Kerschbaumer, 2001; Lucas, 2001; Midzic et al., 2001). However, most of them studied the applicability of major environmental directives exclusively, without screening the history and the complexity of the *acquis communautaire*.

It is necessary to prevent possible, future accidents like the dam failure at Aznalcóllar (Spain) in April 1998, which polluted the catchment of Doñana National Park with toxic mud and acid waters, and the accident at Baia Mare (Romania) in January 2000, which caused cyanide pollution throughout the Tisza River region. These events have demon-

strated the inadequacy of the current technical, institutional and legislative framework in European countries. Regarding the Candidate Countries, the transposition of the *acquis communautaire* and its implementation through adequate national legislation and enforcement authorities are prerequisites for EU membership. On the other hand, all Community regulatory initiatives shall take into account the specific conditions in the Candidate Countries.

In the context of the JRC Enlargement initiative intended to involve Candidate Countries in research projects supporting their development, implementation of EU legislation and their adoption of the *acquis communautaire*, the JRC Institute for Environment and Sustainability launched a project dealing with the inventory, regulations and environmental impact of toxic mining wastes in Candidate Countries (named PECOMINES). This report presents a comparative survey of the national legislation of nine Central and Eastern European Candidate Countries (Bulgaria, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia and Slovenia) relevant to mining waste management, and in a broad sense mining and mineral policy in general.

A draft of this report was delivered as a supporting document for the mining waste related legislative initiative of the EC, especially contributing to the drafting of the new Mining Waste Directive. Dealing with many aspects associated to mining waste e.g. water management, environmental protection and mining legislation this report might serve to map other environment-related topics in the national legislation of Candidate Countries. It might be a useful handbook for those who want to invest into the mineral industry of this rapidly developing region.

As a background document the report includes an in-depth study of the Community legislation with regard to mining waste management and the extractive industry in general. It also highlights some contradictions and niches of the EU legislation in force, which require certain corrections to promote the sustainability of the mining industry on a Community scale in the context of the enlargement and integration efforts.

The information provided in this volume with regard to legislation and mining waste management practices in Candidate Countries complements the efforts of the European IPPC Bureau at the JRC Institute for Prospective Technological Studies which is preparing the "Reference Document on Best Available Techniques for Management of Tailings and Waste-Rock in Mining Activities".

## 2. OBJECTIVES

The main objective of the PECOMINES project is to involve Candidate Countries in a research action on the environmental impact of mining waste in collaboration with the EC Directorate General Environment and with the European Environment Agency. The three specific objectives are (Fig. 1):

- to develop and demonstrate of an harmonized methodology for the **inventory** of hazardous mining waste in Pre-Accession countries in relation to "sensitive" catchment areas. This combines an indicator approach according to the DPSIR (Driving forces, Pressures, States, Impacts, Responses) framework and an analysis of satellite remote sensing;
- to compare criteria for the safe disposal of mining waste and for the assessment and reclamation of contaminated areas in Candidate Countries with **regulations** adopted by EU Member States and with the existing EU legislative framework in the area of waste;
- to contribute to the **assessment** of the consequences of mining accidents in a perspective of ecosystem protection, by comparing local approaches and measures for impact evaluation.

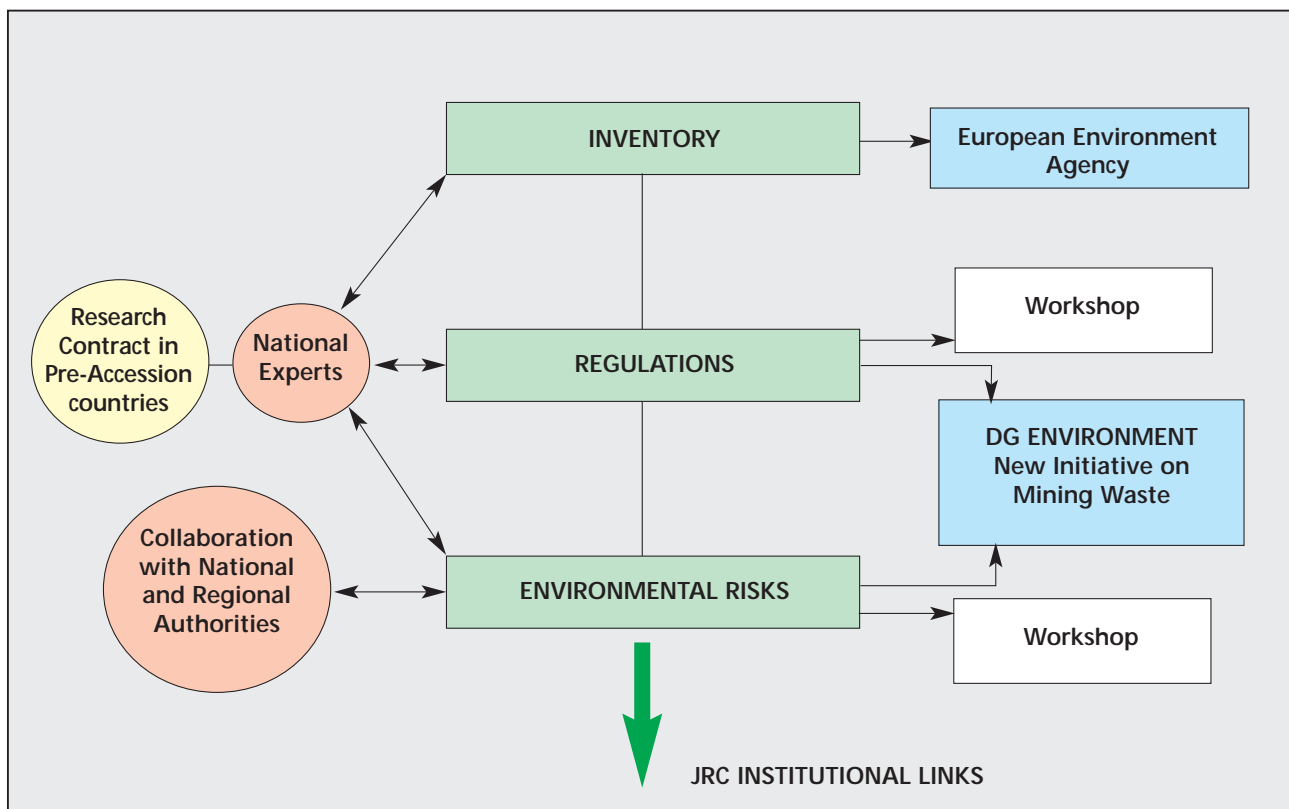
Protecting the ecosystem against toxic mining waste requires comprehensive legislation and technical standards, which take full account of the vulnerability of the environment within the catchment area downstream of mining sites.

However, differences exist between countries thereby hindering any significant progress of preventive and remedial actions, especially in the case of trans-boundary accidental events.

The results of a BRGM (Bureau de Recherches Géologiques et Minières) study pointed out that the national legislation of the Member States shows a great variety of regulatory solutions and practices in this field. In collaboration with national experts, a comparison of existing guidelines in Candidate Countries was started, focusing on the whole mining process (from geosurvey to aftercare), all mineral commodities, and a broad context of regulations on extractive industries (including water management, environmental protection, nature conservation, spatial planning, etc. legislation).

The original regulatory ideas developed in some of these Countries after the political and economical changes of the late eighties, could also be useful in the development of EU legislation on mining.

### Project Structure



### 3. METHODOLOGY

The **literature survey** showed that mining waste legislation was not a topic for publication in Candidate Countries in the past. The **web search** contributed to the collection of useful homepage addresses and of relevant national and Community legislation and international convention texts in English. A **project homepage** was established as an electronic workspace where most of the produced documents were uploaded.

It soon became apparent that basic regulatory terms have different interpretations among experts. Therefore, a collection of terms in use in the relevant chapters of the *acquis* was compiled using EUR-Lex in order to establish a common understanding of basic terminology in the PECOMINES project. The application and interpretation of legal definitions are the best, if not exclusively acceptable, within their legal environment. This is why a short reference of the source EU directive (or decision, regulation, proposal) was added in brackets to all definitions. With this respect, the **glossary** might be considered for wider public use as well.

A major milestone and methodological tool either was the first project **Workshop** held at Ispra, in late October 2001. A **Steering Committee** was formed by national experts on mining waste management in the studied Candidate Countries, who were selected on the recommendation of relevant national ministries and services in charge. The Steering Committee ensured the scientific quality and relevance of the project by:

- reviewing the objectives, proposed methodology and deliverables in the light of the expertise and needs of the Candidate Countries;
- providing information on the availability of and access to relevant information pertinent to management of mining waste in their countries;
- providing a point of reference for the three main project objectives (inventory, regulations and impact assessment) in each country.

The Steering Committee recognised that:

- A working definition of mining waste and a common terminology are needed, which should provide a common understanding of critical issues and avoid critical terms that might restrict the scientific scope of the project (i.e. careful use of words like waste, toxicity, etc).
- The Inventory and the Impact Assessment work packages will consider all metallic minerals and

energy producing minerals such as coal, oil shale, uranium and industrial minerals. Construction minerals (e.g. sand, gravel, decoration rocks etc.) and hydrocarbons (oil and gas) will be excluded, but countries may include voluminous drilling mud ponds in the inventory, because certain types of them are classified as hazardous in the European Waste Catalogue. Topsoil and backfilled inert overburdens will be excluded. The Regulatory work package will consider all wastes and environmental impact generated by the mining process from exploration to aftercare, also including abandoned mines.

- The proposed approach for data and information collection in relation to the Inventory work package based on the use of questionnaires as preliminary step was accepted. However, a common set of criteria should be specified in order to ensure that all sites of comparable relevance are covered in the countries.
- The proposed methodology of mapping relevant national legislation and regulatory framework was accepted. A comparison with mining waste regulations of some Member States would be of interest as well.
- As a prompt follow-up action, a working definition of mining waste was formulated and circulated among the experts (see in Annex IV).

The **Second Meeting of the Steering Committee** (Orta, May 2002) reviewed and discussed the preliminary report on legislation circulated in April 2002 that was also sent for comments to DG Environment. Each country's representatives expressed their opinion on how respective national legislation were reported. The summary of the legislation in the existing draft referred to the situation on 31<sup>st</sup> December 2001. In the light of recent legislative changes in some countries, it was decided to update the report on 30<sup>th</sup> June 2002.

Moreover, contacts were established with DG Environment, EEA, JRC-IPTS and BRGM. **Personal consultations** with national legal experts were maintained throughout the project.

For the screening of relevant national legislation the **questionnaire** was deemed to be an adequate tool. The questionnaire was structured into five thematic units containing a total of 73 questions. Following the review of relevant legislative and regulatory frameworks, questions were organised according to mining and environmental legislation (including waste

and water management). The fourth unit focused on regulations related to spatial planning, nature conservation and all other specific regulations that were not considered. In the end two questions addressed international agreements and conventions.

The questionnaire required state-of-the-art reviews rather than "yes or no" answers. Alternative terminology or explanatory notes for better understanding were shown in italics within the questions. National legal experts were asked to give as detailed citation of regulations as possible, down to article numbers. In order to make the work easier experts could provide answers in two phases. To answer questions

related to licensing procedures and authority framework flow charts and figures were recommended. Together with the answers experts were requested to send those regulations in English which were not already available. The most important regulations containing quantitative threshold values, environmental impact assessment methodology or specific mining waste management provisions were acceptable in the national language as well. In spite of our best efforts no contribution arrived from the Czech Republic. Considering the common origin of their legislation with the Slovak Republic, this does not significantly affect the information review and interpretation.



## 4. RESULTS

### 4.1. CONCLUSIONS ON THE SCREENING OF THE ACQUIS COMMUNAUTAIRE

The large-scale pollution events of Aznalcollár (Spain) and Baia Mare (Romania) associated with mining activities have demonstrated the inadequacy of the current technical, institutional and legislative framework in some European countries. As socio-economic aspects and environmental impacts of the mining industry have pan-European implications, their management, including regulation, would be best addressed at a Community level. The mining industry is characterised by the moving of large volumes of inert and hazardous materials, with a high potential for environmental impacts. Therefore waste management is the essential part of this industry.

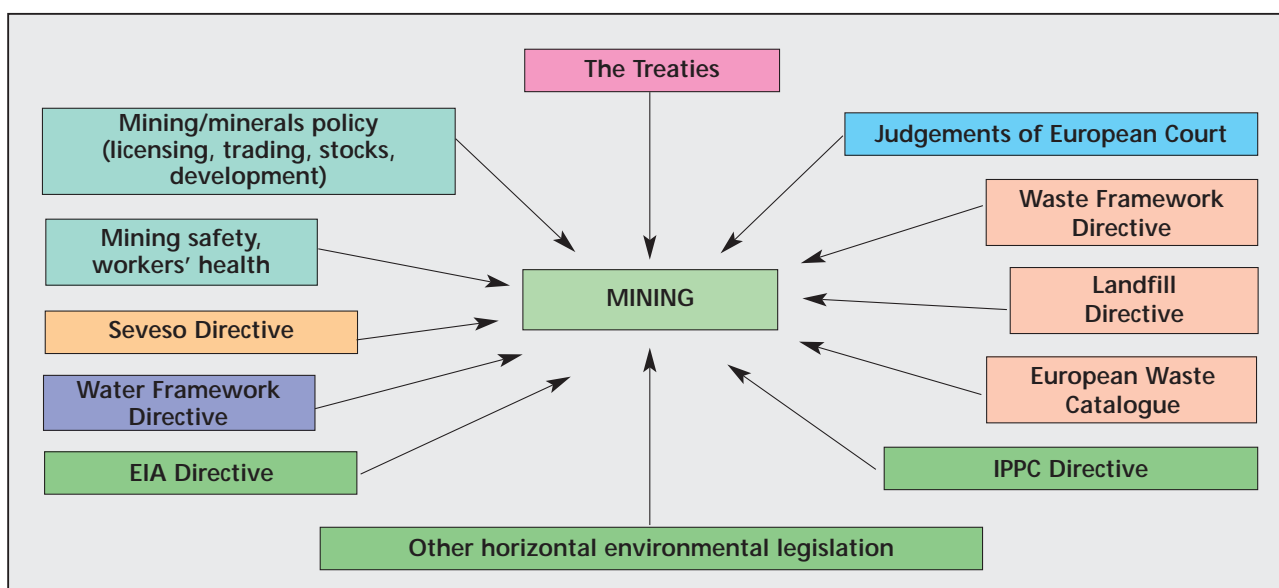
The Rome Treaty, the Euratom Treaty and the Amsterdam Treaty declare the promotion of a policy of using natural resources prudently and rationally to avoid their unconsidered exhaustion. Accordingly, the common supply policy of ores is based on the principle of equal access. Mineral resources, being important non-renewable natural resources, are subjects of this policy. However, there is some delay in implementing this policy in the Community legislation. Although there is a variety of thematic Community policies, a specific minerals (and/or mining) policy does not exist yet. The exhaustion of non-renewable resources in Europe, the safety of continuous raw material supply with regard to external risks, and the higher degree of integration ensuring the Community's competitiveness all favour setting out the framework of such a Community policy.

An in-depth study of the relevant Community legislation leads to the conclusion that the mining industry was in a favoured status with respect to other industrial sectors (Fig. 2). Recently and in the late nineties mineral extracting activities were excluded from the scope of many important environmental directives (e.g. Waste Framework, Landfill, Seveso II, ICCP Directives) or received a greater freedom for interpretation (EIA Directive). Mining-related contradictory provisions can be identified within individual Directives (e.g. Waste Framework Directive) and their daughter Directives (Waste Shipment, Landfill Directive, European Waste Catalogue), or in other thematic regulations (Water Framework Directive).

The available definitions and terminology in use are rather heterogeneous. Besides changes in wording, the main difference is if mineral processing (or "treatment") is included or not (e.g. Council Decision on Mines Safety..., Seveso II versus Waste Directives). Based on the traditional meaning of "mining" and considering the environmental risk posed, the primary, on-site physical, chemical (and biological) processing of exploited raw minerals should be treated and defined as an integral part of the mining production chain in all parts of the Community legislation.

A difference in treatment of certain sectors of the mining industry segments can be identified. After decades of primacy of coal and metals in the acquis, the hydrocarbon extractive industry received particular attention in Community legislation. Directive 94/22/EC of the European Parliament and of the Council on the conditions for granting and using

### Legal environment of mining in the acquis



authorizations for the prospection, exploration and production of hydrocarbons, and the Council Directive 93/38/EEC on coordinating the procurement procedures ... show elements of a Community minerals policy. However, the daughter Waste Directives and recently the Water Framework Directive granted a generous waiver for the hydrocarbon industry to allow fluid mining waste to be re-injected into the geoenvironment. Similarly, the proposed amendment to the Seveso II Directive prolongs the privileged status of the hydrocarbon extractive industry.

Mining is increasingly influenced by other competing land uses, such as urban development, agriculture and nature conservation. The balanced consideration of economic, environmental and social aspects to ensure the sustainable development of the mining industry is needed, and a coherent Community policy is necessary. The two Communications of the European Commission published in the year 2000 made valuable statements on the legal status of the mining industry. The proposed follow-up actions of the Aznarcollar and Baia Mare (and Baia Borsa) accidents include the amendment of the Seveso II Directive, the drawing up of a BAT reference document and the preparation of a Mining Waste Directive. In addition, the preparation of new legislation on environmental liability (including its implementation in national civil codes) was speeded up.

## **4.2. CONCLUSIONS ON THE SCREENING OF NATIONAL LEGISLATION IN CANDIDATE COUNTRIES**

### **4.2.1. Regulatory framework**

In all countries the basic constitutional legislative, judicial and executive powers are well distributed among the different state bodies. The democratically elected National Assembly (or Parliament) is the highest legislative and political body that makes acts. The Government (or Cabinet of Ministers) and the Ministers mean an overlap between the legislative and executive power by being authorised to issue Government Decrees and Ministerial Decrees to implement acts. In some countries state institutions have the right to issue orders that are legally binding regulatory tools.

According to the level of decentralisation of public administration, the situation is diverse with regard to the role of county or municipality governments. In most countries these have the right to issue orders, representing the lowermost level of legislation. Moreover, local governments may authorise the exploitation of mineral commodities of local impor-

tance (sand, gravel, clay, etc.) in some countries (e.g. Estonia and Poland) and might even be owners of mining companies (e.g. in Hungary), which might lead to conflicts.

In Candidate Countries citizens have the right to ask for a jurisdiction concerning their rights or obligations. This judicial system has different, but at least three levels (Fig. 3). The first level of appeal is ensured within the public administration system. In some countries licensing authorities have a second instance of appeal, in other countries the supervisor Ministry or county governments perform the second level appeal procedures. Local municipal courts and county courts give the first judicial level "sensu stricto" and some countries have special public administration courts. Supreme Courts are at the top of the judicial system but the Constitutional Courts might be drawn into the appeal procedure in certain cases.

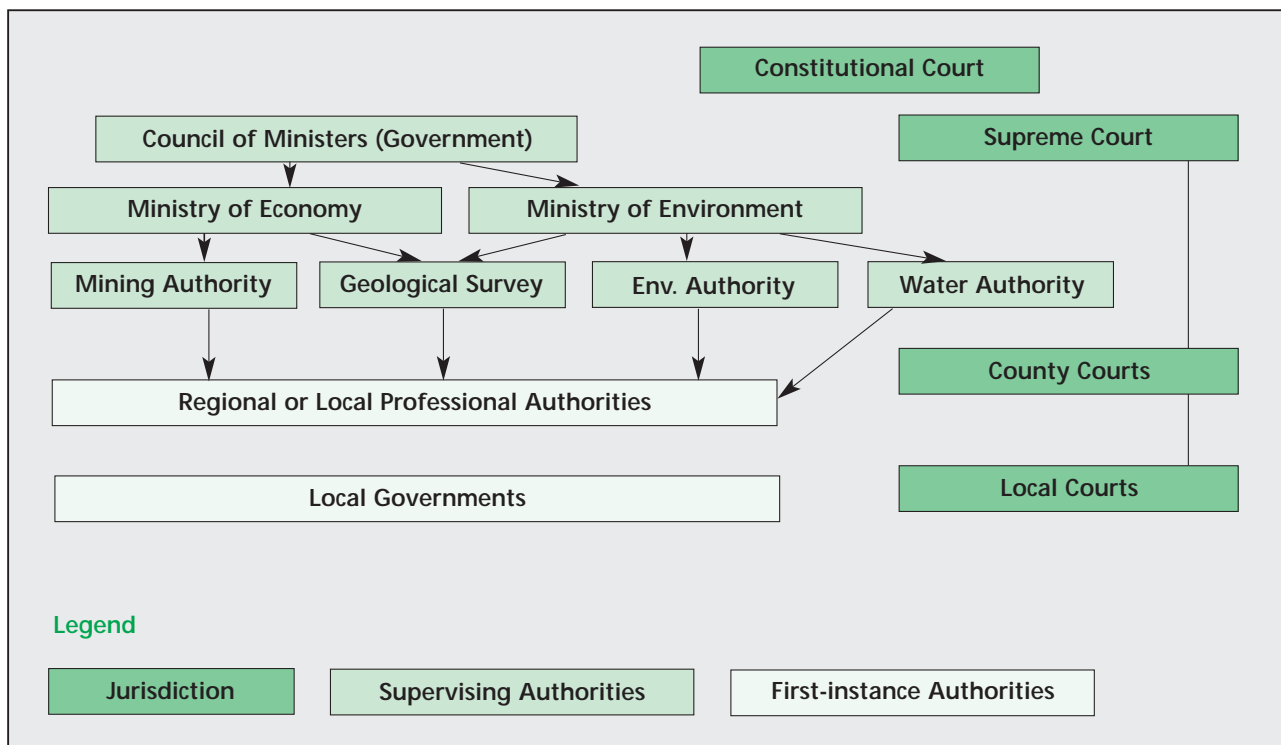
The key actor authorities in the mining field are the Ministry of Economy (or Ministry of Industry and Resources and National Agency for Mineral Resources in Romania) and the Ministry of the Environment (or Ministry of the Environment and Spatial Planning in Slovenia, Ministry of the Environment and Water Management in Hungary). The related tasks are distributed among these ministries with a trend towards the latter having increasing responsibility. There is a variety of subordinate licensing authorities. In general, environmental authorities have a distinguished role. The picture is more diverse with regard to the responsibility of mining authorities, geological agencies, water authorities and local governments. In some countries the authorisation of the mining authority covers almost the whole licensing spectrum with the obligatory involvement of the other interested professional authorities in the licensing procedure (e.g. Hungary and Romania), while in many countries mining authorities do not exist or their authority extends to supervision of mining operation safety exclusively. National Geological Surveys are commonly the state authorities managing all information with regard to mineral resources and reserves, mining locations and mining waste inventory. In a few countries they act as a licensing co-authority, incorporated in many granting procedures (e.g. exploration license, environmental license, etc.) as well. Generally, these professional authorities have local county offices (or inspectorates) which act on the first instance. Special national solutions can be observed as well.

The legislation framework relevant to mining is shown in Fig. 4. The Constitution and the Civil Code are the basis for mining related legislation everywhere. There are separate acts on mining (or subsurface resources, etc.), on environmental protection and on water management. In most countries, acts

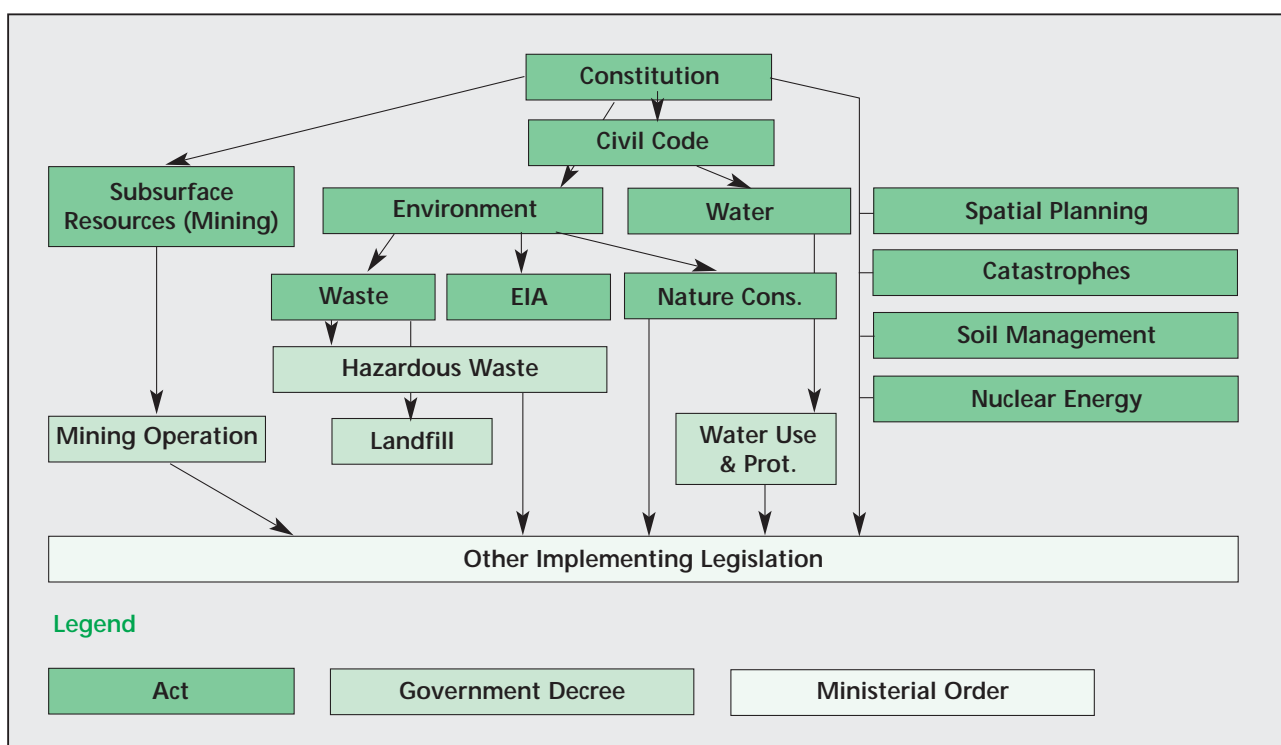
on spatial planning and on nuclear energy have relevant provisions too. There are numerous government and ministerial decrees for the implementation

of the above acts. Local municipal orders have relevance in some countries.

## Typical Regulatory Framework of Mining in Candidate Countries



## Typical Legislation Framework of Mining in Candidate Countries



## 4.2.2. Mining legislation

### 4.2.2.1. Ownership

All Candidate Countries have new, specific legislation on mining (Act) but there is frequently a reference to ownership of minerals in other basic acts as well as the Constitution or the Civil Code. Mining law was a high priority for new legislation in the nineties after the political and economic changes. Typically, the first legislative ideas were followed by corrective actions as reflected by the large number of subsequent amendments of the mining acts.

In most countries the mining acts (used here as a collective term) cover geological survey, exploration, establishment of mining acreage, exploitation, breaks in operation, mineral processing, mine closure and reclamation. There is a great variety in the horizontal scope of the mining acts. For example, hydrocarbons (oil and gas) have a separate law in Romania. Secondary and tertiary mining processing and transportation facilities are in the scope (e.g. in Hungary), or excluded (e.g. oil and gas pipelines in Poland, Bulgaria and others). In countries with marine territories the law extends to bottom sediments or even sea salt. In general, groundwater extraction is excluded from the scope of the mining acts, but in some countries it is included.

The ownership of mineral resources is a basic concern not only in the establishment of a national mineral policy and licensing practices, but also in relation to reclamation and responsibilities for the decontamination of abandoned orphan sites. The regulations are

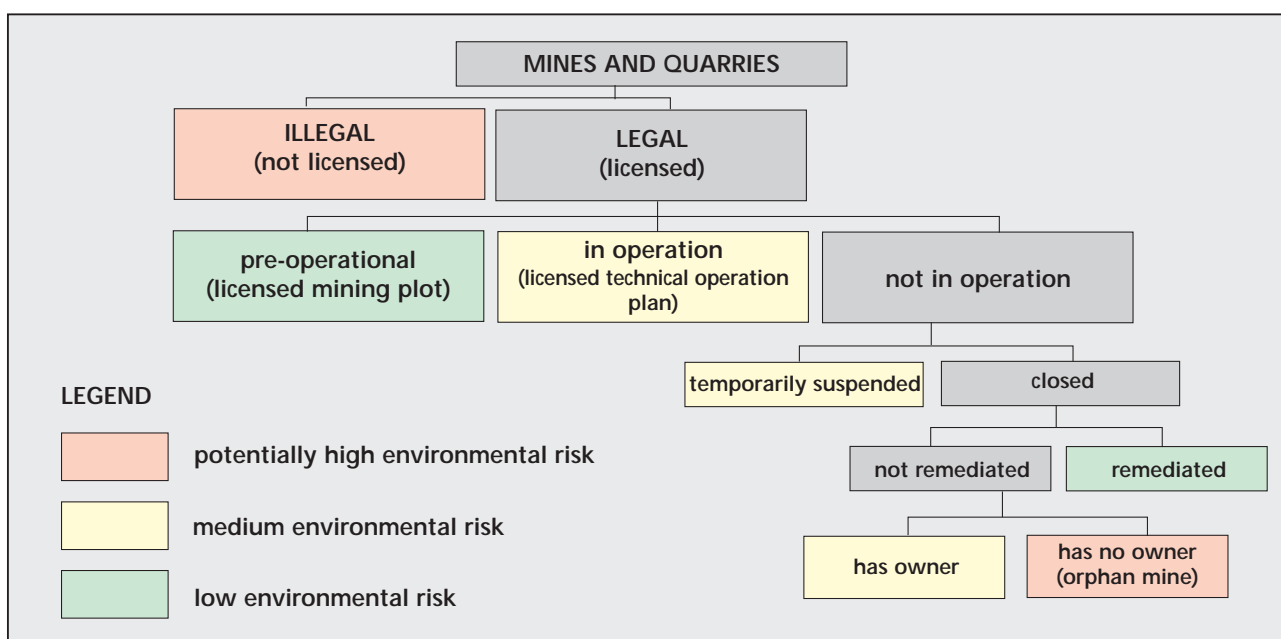
heterogeneous in this respect. Generally, mineral resources are the original and exclusive properties of the state. In Latvia the subsoil and all mineral resources therein belong to the landowner. The Cabinet of Ministers, in the interests of the State, has the right to limit the rights of landowners. The use of mineral resources and deposits of State importance (hydrocarbons and groundwater) may be alienated from the landowners.

In Lithuania the right of ownership exclusively belongs to the State, but a private landowner is allowed to use construction minerals (sand, gravel) for his own needs (not for selling) without asking for the license for mining activities. In such a case the quarry cannot be bigger than 0.5 ha and deeper than 2 m. In Poland, the ownership of mineral resources depends on the type of exploitation. Mineral resources exploited by underground mining are owned by the State Treasury. Mineral resources exploited in open pits are owned by the landowner.

In Romania, the owner of mineral resources is the State. Mineral resources are exclusively public property, but construction rocks, peat accumulations and mineral water, located on private lands owned by individuals, can be used by the landowner only for his own needs, and the landowner is exempted from paying taxes and mining royalties.

A generalised classification of mines on the basis of their legal status (Fig. 5) and the analysis of the potential environmental impact of the different categories allows us to conclude that the mining sites without a legal owner which are out of operation, but

## Legal Classification of Mines





not reclaimed pose the highest risk for the environment. In Candidate Countries numerous small illegal mining pits exist, mainly in the aggregate industry, which have an unfavourable impact on the landscape and the soil and water reserves. Operating mines under strict authority control reduces the risk to the environment, but catastrophic releases due to accidents still have the most serious environmental impacts.

Almost all countries have a separate legal or quasi-legal document on national mineral policy. Most of them were issued by a high authority, such as the Government or the Ministry of Industry and Resources, etc.. In other countries, the elements of a national mineral policy are embedded in the Constitution, the mining or subsoil acts or in the Environmental Strategy.

#### **4.2.2.2. Data management**

In all countries there is an annually updated national mineral resources registry. In most cases it is managed by the National Geological Survey which typically belongs to the Ministry of the Environment. Exceptions exist, e.g. the Hungarian Geological Survey belongs to the Ministry of Economy. In Romania this inventory is managed by the National Agency for Mineral Resources, acting under Government subordination and directly coordinated by the Minister of Industry and Resources.

In most countries geological data are also hosted by the National Geological Survey, or in some countries by a separate National Geofund. The owner of geological data is generally the State, but exceptions exist if the data acquisition is financed by private companies and/or carried out in the framework of an exploration license or a concession leasing contract. The exclusive right of the company to its data is limited in some countries under certain conditions. For example, in Estonia and in Hungary it is limited to the duration of the exploration; in Latvia, the State can use private data on the basis of specific agreements or in emergency situations.

Generally, geological data and information acquired by private companies are made confidential by the provision of a regulation or by the declaration and classification made by the company. Some information remains public, e.g. in Hungary the licensee's name and address, the type of mineral concerned, the duration of the license and the co-ordinates of the area involved. The duration of restrictions might be the whole licensed or contracted period, or defined in years (5 years in Latvia) or a combination of these. Mineral reserve data of individual mining sites are typically confidential. Integrated, cumulative data are of public access and are usually published annually.

The collection and storage of mining operation data is not managed satisfactorily in most of the Candidate Countries. This is a critical point considering the long-term environmental risks of closed mines and of abandoned mining sites. Mining void geometry, backfilling history and waste heap location data provide essential information for planning closure and aftercare measures. Operation data are collected by the companies themselves and submitted to Geological Surveys and/or to mining authorities. It seems that many countries do not have a central database for mining operation maps. It is rather unclear how the EU requirement of free access to data of environmental concern by interested parties applies to mining operation data.

#### **4.2.2.3. Licensing**

The practice for giving access to the exploration of mineral deposits in Candidate Countries is similar to the practice of Member States and other countries. The concept of open competition rules the scene, but there are some differences. In almost all countries, open concession tenders are announced and judged for strategic minerals of state importance such as hydrocarbons and metals by high-level authorities with the involvement of other Ministries and professional authorities. The areas for the bidding are delineated mainly on the basis of the potential occurrence of the given minerals, but additional elements of spatial planning are considered in some countries. If the competition does not work, then a simple regulatory licensing approach prevails on a first-come-first served basis in Hungary. For the exploration of economically less important minerals the general practice is the licensing by the competent authorities. There is a wide spectrum of these, from the Ministry of the Environment through the government agency level (Mining Authority, Geological Survey and National Mineral Resources Agency) to the local chief at county level (e.g. in Poland), depending on the type of mineral and the planned exploitation volume.

Giving access to the exploitation (mining, extraction) of minerals is in relation to the exploration rights, which ensures great safety of investment for companies. The actual start of mining operation requires additional permits concerning mining technical safety, environmental aspects, etc. in all countries. This permit is typically given on the approval of a technical operation plan, which contains elements of mineral management (e.g. planned exploited volumes), technical operation details (e.g. blasting plan), mining safety plans (including emergency plans), water use, emission figures, land use and other environmental aspects.

A rather detailed scheme from Hungary is presented where well-defined licensing steps lead to the start of mining activities "sensu stricto". The first obligatory step for the start of exploitation is the establishment of a mining plot. The final report of the geological exploration is the documentation to support the application, which should prove the existence of an economic mineral reserve and that the planned mining activity is viable. The license is issued by the mining authority, with the involvement of professional co-authorities, the representative of the local government and the owners of the surface land. In addition, in order to start the mining activity a technical operation plan and a construction license must be approved by the mining authority based on the consent of other authorities.

The break in mining operation is a critical issue, since many of the abandoned mines which have not been safely closed and reclaimed, and with no mining operator or legal successor (orphan mines), pose a high risk to the environment and directly to human health and safety. The story of orphan mines frequently starts with a licensed or illegal break(s) in operation due to financial difficulties, dramatic market fall, exhaustion of mineral reserves, and/or environmental liability problems of the mining company. Some countries do not have specific regulations on this. In most countries these interim breaks are exclusively granted by the Mining Authority. As reported, a time limit for the duration of break exists only in Hungary, where it can last for three years. After three years the authorities can initiate final closure and reclamation of the mine site.

#### **4.2.2.4. Environmental aspects**

In general, during the concession contracting and the licensing of mining exploitation the applying company must present an environmental impact assessment. This does not necessarily imply the submission and approval of a separate environmental impact assessment study and statement. In some countries an EIA is not needed for all mining projects at the preliminary licensing stage, nevertheless the environmental aspects are taken into account by the incorporation of environmental authorities into the licensing procedure. A separate environmental license based on an environmental impact assessment is required before the location permit in Slovenia, before the approval of the technical operation plan in Hungary, or before start of the mining operation in Bulgaria, Lithuania and Romania.

In most countries environmental liability guarantee requisites are required such as opening bank deposits, taking out liability insurance or setting an indemnity. The mining authority may require the com-

pany to adopt one of these procedures. The adoption and especially the implementation of the EMAS in the Candidate Countries is very rare.

There is a wide spectrum of solutions in the transfer of mining rights. In some countries it is impossible: the new company must proceed through the complete regulatory (contracting and/or licensing) procedure. In other countries the consent of a high-level authority is needed while in more liberal cases the consent of the mining authority might be sufficient if the new company proves the same environmental liability as was required from the original operator.

Local public and the local government may block the mining licensing process in all countries even during the spatial plan approvals, during the exploitation license, or during the environmental licensing.

In most countries there are no specific provisions for mining waste management within the mining legislation. Handling of mining waste may be defined in mining technical documentation in accordance with environmental regulations. In a few countries some basic provisions appear in the mining law with regard to waste management. For example in Bulgaria there are requirements concerning the optimum extraction of the reserves and useful components in primary processing, the depositing and storage of the soil materials and technological waste and the reclamation of the damaged terrain.

In Hungary, for the extraction of minerals from waste rock heaps, the same rules apply as for open-pit mining. When establishing a mining plot, technical documentation must be submitted, in which the licensee describes the environmental impacts of the waste rock heaps and processing plants. In addition, he must estimate the physical and chemical characteristics of the operational by-products and wastes. Accordingly, the approval of a technical operation plan is required to start the exploitation of waste rock heaps. For closure and reclamation the same regulations apply as for open-pits.

In half of the countries there is a specific regulation in the mining legislation with regard to water management. In Romania and in Slovakia the law stipulates that the mining company is entitled to use groundwater for its own purposes. In Slovenia the case is similar but if mine waters have an outlet to the surface the rules for industrial waste waters apply.

In Hungary waters are mentioned in the aspects of mining safety, environmental protection, water management, and common areas of these e.g. exploiting minerals by dredging lakes and rivers or extracting geothermal energy from water. The mining entrepreneur may use the water produced for the interest of

safety and operational needs. The quantity of water to be used shall be determined by the water management authority. Since there are hundreds of sand and gravel pits in Hungary operating at, below or just a few meters above the groundwater table a Government Decree on the utilisation of mine lakes regulates this field. The water authority has a special right to supervise the utilisation of these lakes by judging the plan of utilisation, which shall be submitted within a year after the issue of the mining authority's resolution on the mine closure.

#### 4.2.2.5. Mining safety

Countries with long-standing underground mining tradition and significant production figures have a wide range of detailed regulations on mining safety (e.g. Slovakia, Poland and Romania). This topic is usually covered by the mining law and other subordinate decrees, orders, guidelines and standards. Countries with limited mining activities e.g. Latvia and Lithuania do not have specific mining safety regulations or they are in preparation.

Tailing pond safety is not a high priority topic in mining safety legislation if it is considered at all. In Bulgaria and Slovakia it is covered while in Poland it is regulated mainly in the Building Law. In Romania specific regulations on tailing ponds are covered by the Law and special Orders are issued by the Ministry of Water and Environment Protection and the Ministry of Industry and Resources. In Hungary a specific regulation on tailing ponds is being drafted.

In Hungary direct provisions exist in the Decree of the Minister of Economy on the minimum level of safety and health protection requirements to be implemented in mines. It prescribes that waste rock heaps, disposals and tailing ponds shall be designed in a way which supports their stability; and mining works shall be planned in a way which helps to prevent or to decrease the risk of dam slope collapse or sliding. The height and slope angle of dams shall be designed whilst considering both material quality and stability and the technology.

Countries with mining tradition regulate the required measures in case of mining accidents. In some countries the Workers Protection Act applies as well. In general, underground mines shall have a rescue team and the company shall inform the mining authority without delay about accidents. Safety assessments and emergency plans for underground mines are obligatory in almost all countries with a significant mining industry. These are approved by the mining authority during the licensing of operation.

#### 4.2.2.6. Mine closure

The licensing procedure and involvement of authorities in the case of mine closure is similar to the opening of the mines but not regulated in such a detailed way. Some countries with minor mining activities do not have specific provisions on it but even in these cases a certain regulatory practice exists. The license is typically based on the approval of a closure plan, environmental aspects are represented by the consent of the environmental protection authority for which in some countries an environmental impact assessment study is the prerequisite. Consequently, the reclamation and post-closure monitoring are covered by the mine closure licensing procedure. While there are specific provisions with regard to reclamation requirements in most countries, this is not the case for post-closure monitoring. It is usually prescribed by the environmental authorities in their permit for mine closure.

The status of orphan mines is not regulated in Estonia and Latvia at all. In most countries this problem is touched in the mining act at least. The solutions vary according to the ownership of the given mineral commodity and to the extraction technology. For example in Poland the landowner is responsible for the reclamation of open pits if the operator disappears without a legal successor. In Slovenia local communities take care of the reclamation of orphan mines by looking for financial support from government funds.

In Hungary the mining rights (including all liabilities) of any bankrupt mining companies without legal successor are announced by the Hungarian Mining Office for tender in the Official Journal of the Ministry of Economy. If the transfer of these rights and obligations is unsuccessful for a year, the mining authority deletes the license from the register and initiates the necessary measures in order to cover the costs of closure, reclamation, etc. from the preserved financial guarantees of the company. If this sum does not cover the total cost, the obligation of reclamation and environmental clean-up returns to the State who is the original owner of minerals. The general picture is that sooner or later in all countries the State takes care of the reclamation of orphan mines.

Except for Romania, there are no specific legislative regulations on mine reclamation. In Bulgaria specific quasi-regulative instructions exist, in the rest of the Candidate Countries prescriptions are set only in the authorities' decisions. Countries have no provisions in the environmental legislation with regard to decontamination or reclamation of mining sites.

Reviewing the legal situation and likely environmental consequences of mines with different status a general conclusion can be drawn that illegal and orphan mines pose the highest potential risk to the environment over the long term.

#### 4.2.2.7. Economics

Mining companies must pay royalties according to primary extracted volumes in all studied countries. In Latvia it is called a "natural resource tax" but in other countries as well it is paid typically as an annual tax, but it may also be paid more frequently (e.g. quarterly for oil and gas in Hungary).

In some countries a fee for land use must be paid too. In Latvia and in Poland royalties might be reduced because of the minimisation of environmental impacts and optimisation of mineral extraction.

However, in Poland a new amendment of the geological and mining law will make this impossible. In Hungary deferred terms may be applied for enhanced recovery of hydrocarbons and geothermal energy but not directly for waste management. In Latvia sand and gravel extraction from unconfined groundwater is supported by tax reduction. In Slovakia, in addition to royalties, an annual standard fee must be paid according to the acreage.

In Bulgaria mining royalties become the undressed part of the central State budget. In Hungary 90 % is forwarded to the central State budget and 10 % to the Environmental Fund from which reclamation of orphan mines are managed.

In most countries mining royalties are incomes of both local and central government at different ratios. In principle, most of these funds can be used to finance reclamation but none of them is specially dedicated to this purpose.

All countries have a Central Environmental Fund. In some countries this fund is explicitly used to clean-up and reclaim mining sites (in Bulgaria, Estonia and Hungary) or at least could be so intended theoretically (in Poland and Latvia), but in some countries it is not applicable (in Lithuania and Slovenia).

#### 4.2.3. Environmental legislation

##### 4.2.3.1. Licensing and environmental impact assessment

Every country studied has a separate framework act on environmental protection. These laws were among the first thematic legislative acts issued in the beginning or the middle of the nineties, soon after the political changes. The revolutionary legislation generally did not prove to be mature documents and consequently has been amended frequently. In the late nineties the EU accession required further modifications, as a result, totally new environmental legislation was accepted recently in some countries (e.g. Poland). It seems that the man-made environment is not explicitly included in the scope of the environmental acts of some countries.

In all countries there are high-level separate regulations on environmental impact assessment (EIA), mainly acts or government decrees. These acts list all types of activities and facilities for which an EIA must be conducted and submitted with the request for licensing. In many countries, where these acts are in place they give a detailed description of the EIA methodology to be applied. If not, manuals, guidelines and officially recommended handbooks for detailed EIA methodology are available (e.g. in Latvia as shown in Fig. 6). In almost all countries mining is listed in environmental legislation as an activity with obligatory environmental impact assessment. In some states it is according to the literal adoption or an interpreted adoption of the EU legislation in force (the amended 85/337/EEC Directive). Other countries still leave a greater degree of freedom for national conditions.

In all countries a public hearing is obligatory in the environmental licensing process as associated with the EIA approval procedure. In Estonia two public hearings are compulsory, first before acceptance of the EIA programme by the environmental authority and second before acceptance of the report.

In Hungary after a detailed environmental impact statement has been submitted, the environmental inspectorate shall hold a public hearing, unless the activity falls under military secrecy.

However, in each country the legal effect of public hearings is limited. Although environmental authorities incorporate the comments of the public into the justification of their resolutions, these comments are not decisive.

It seems that the involvement of the local government in the licensing procedures (other than EIA) might represent the opinion of local public more effectively.

The detailed analysis of relevant emission and pollution threshold values is beyond the limits of the present report. The national legal experts provided a great deal of legislation in national languages the summary of which requires more time. In general it can be stated that in this field as well the harmonisation with the EU acquis is at an advanced stage in all countries. Therefore national limit values do not differ significantly from those set in the EU Directives.

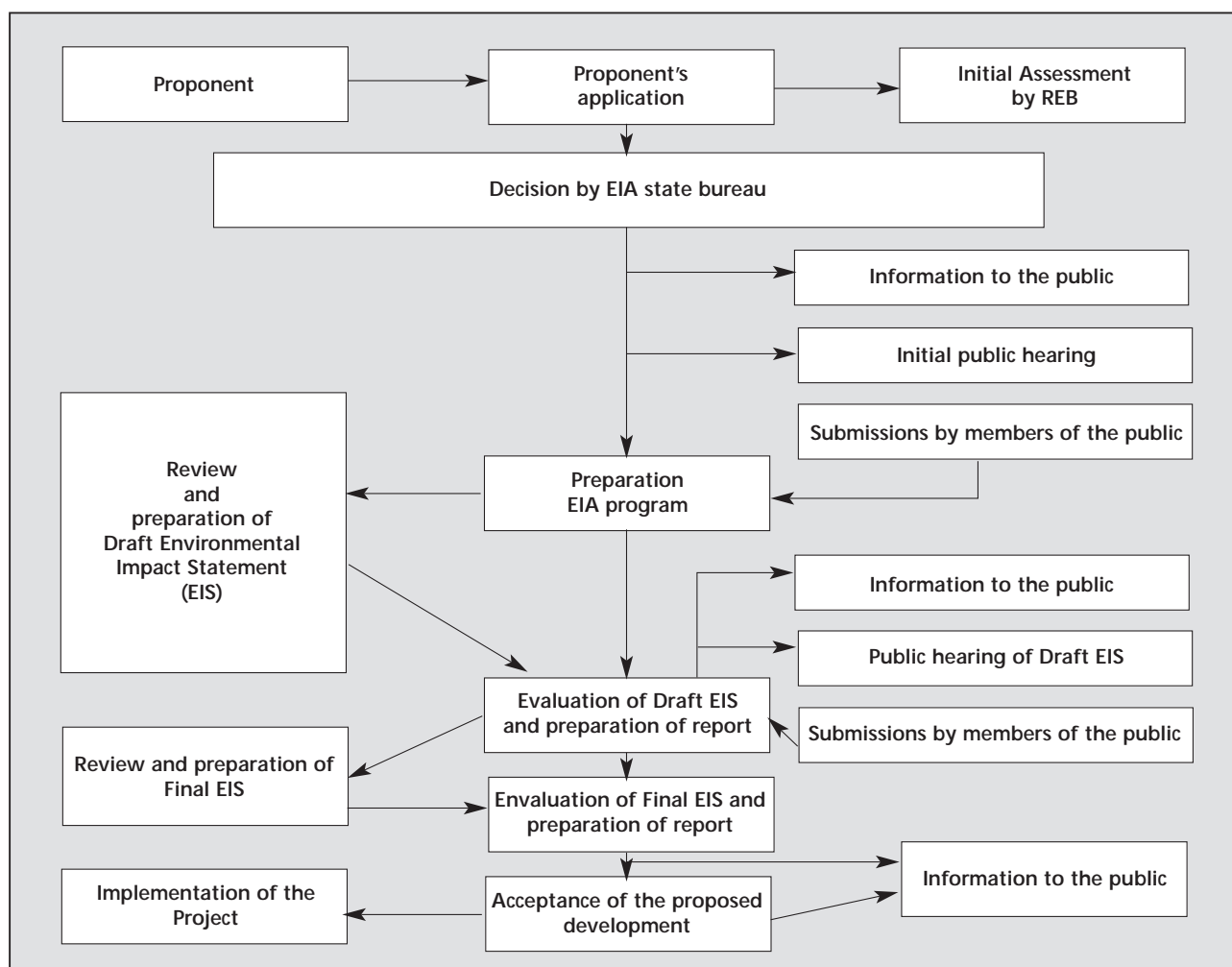
In Candidate countries the environmental legislation just about adopts the concept of integrated pollution prevention control (IPPC). In some countries it is in the form of a separate act while in other countries it is the amendment of the environmental act implemented by separate, lower level new decrees. None of the countries involved mining activities in the scope of their ICCP regulations by adopting the EU ICCP Directive mechanically.

All countries have issued a National Environment Policy



## Environmental impact assessment procedure in Latvia

(according to Cabinet of Ministers Regulations no 213. of June 15, 1999)



or Programme as accepted by a Parliament resolution. Mining waste management and mining affairs are not among the top priorities in most countries. However, mining related environmental risks and necessary measures are mentioned in detail in the Environmental Policy of Estonia and Hungary.

### 4.2.3.2. Liability and sanctions

In most countries environmental liability is regulated in both environmental and in mining legislation. The liability tools are the suspension of the activity, the obligation of paying an environmental fine, financial compensation of damages and furthermore lawsuits under the national civil and criminal code, which might end in the elimination of the company or the imprisonment of individuals as well.

In Bulgaria and Slovakia environmental damage is not the subject of either the civil or the criminal code. In other countries there are very stringent and detailed provisions on it in the criminal code (e.g.

Estonia and Latvia) such as arrest, forced labour, fines, confiscation of property and imprisonment up to 20 years (!). In Hungary both the civil and the criminal code regulates the field but with less dramatic sanctions (max. imprisonment is three years). According to the civil code the liability for environmental damage is universal.

In some countries mining is in a distinguished position of being excluded from environmental fees, levies and charges (in Bulgaria, Hungary, Lithuania, Romania and Slovenia). In other countries companies must pay quarterly for mining emissions (Latvia). In Estonia there is a pollution tax for waste landfills, i.e. when part of the mining waste is used in the mining area it is not taxed, when it is disposed of outside the quarries (after enrichment) it is taxed. In Poland it is subject to fees which cover all types of mining waste, except the overburden of brown coal mining. The calculation depends on the type of waste, e.g. sand (from the processing of natural aggregate) is cheaper than processing metal ore waste.

#### 4.2.3.3. Waste management legislation

All countries have a specific set of regulations on waste management which was issued in the middle and the end of the nineties as a second wave of environmental legislation. There are typically waste acts and several subordinate implementing decrees. In half of the countries, mining waste is included in the scope of waste legislation (Estonia, Hungary, Lithuania, Romania and Slovenia). However, because of the direct adoption of EU Waste Directives, in some countries contradictions have already been transferred into national legislation with regard to mining waste, e.g. a major waste act does not include mining waste in scope, but the waste catalogue lists it. Radioactive waste is excluded from all national waste legislation.

There are different waste classification systems in Candidate Countries. All countries classify and define waste and hazardous waste. Most countries define municipal (or household) waste, Bulgaria defines industrial waste and construction waste, Hungary classifies liquid waste as well. Most of the Candidate Countries have already adopted the European Waste Catalogue item by item. It means there are no specific definitions for mining waste. There are a few exceptions e.g. in Bulgaria mining waste is defined in the Subsurface Resources Act as "Technological waste shall be rock and earth mass obtained as a result of exploration, extraction and processing of subsurface resources, which is stored at depots of approved design, inclusive of metallurgical slag, cinder and ash from thermal power stations and thermal stations, phosphogypsum, pyrite dross, ablations, slurries, etc.". In Romania mining wastes are defined as "residuals of mining exploitation and mineral processing". There are no separate regulations on mining waste management in any of these countries.

All countries have hazardous waste-related provisions in their waste legislation and some of them have separate regulations on hazardous waste management. These provisions may apply to hazardous mining wastes but none of the countries have specific provisions on hazardous mining wastes. As described earlier, most national waste legislation has already adopted the waste acquis.

Hazardous waste registers exist in most countries by the force of waste acts but it seems that these registers are still under development. Waste generators are obliged to report and supply the required quantitative and qualitative data of hazardous waste production, treatment, transportation, etc. to local environmental authorities but the complete installation and management of central on-line inventories are among the tasks of the near future in most countries.

In some countries (e.g. Poland, Hungary and Romania) there are databases that function as a mining waste inventory. However, these are not updated periodically, or not designed exclusively for mining waste. In other countries there is no such inventory (e.g. Latvia) or it is just being established (e.g. in Slovenia).

The EU Landfill Directive with all its technical regulations has been implemented in a few countries (e.g. Estonia, Hungary). Some countries have specific national legislation on landfills, which takes into account the local geological setting as well (e.g. Latvia).

#### 4.2.4. Water management legislation

In most of the countries studied the Ministry of the Environment is the highest and the main authority for water management. This task is delegated to their regional environmental authorities and in some countries to river basin directorates (Bulgaria, Slovenia) or regional water authorities (Poland). In some countries regional governments or local bodies have tasks and authority in water management issues as well.

Each country issued a specific act on water management in the middle or in the end of the nineties. These acts cover both surface and ground waters and the most recent ones implement the concepts of the EU Water Framework Directive (e.g. in Slovenia). No definite priorities are provided by national water regulations, except in Bulgaria and Hungary. Explicitly or implicitly the potable water supply is of the greatest importance in all countries. Industrial (or economic) water use, which applies for mine water, is at a low level of interest if mentioned at all. Each country has detailed regulation of the system of protecting potable water reserves, the provisions of which are rather diverse.

In most countries the water authority license is obligatory in all cases of water use which applies to mining activities. In some countries certain sets of criteria are provided (volume limits, protected watershed, etc.), according to those smaller mining activities are not necessarily obliged to license the water use. There are no specific regulations on the water monitoring system for mining activities. In all countries this is determined during the licensing procedures case by case.

In all countries, with the exception of Slovakia, mining operators must pay for practically all water use. The basis of the calculation of the fee (or tax) is the volume, water quality (type of water reserve exploited) and in some countries the type of use (Hungary, Slovenia) and the contamination level (Latvia) as well.

In Latvia, Hungary and Slovenia the mining operator must produce a water management action plan or at least the presentation of measures to be implemented if there is an accident. However, regulations might limit this requirement to certain extraction volumes (e.g. more than 5m<sup>3</sup>/h in Hungary). In Romania Government Decision No.181/8.02.2002 on approval the Programme of actions for diminishing aquatic environment and subterranean waters pollution due to evacuation of some dangerous substances is an established legal framework for preventing surface and groundwater pollution with injurious consequences on the aquatic environment and public health. The monitoring Programme and the inventory of affected waters is coordinated by MWEP.

Water resource data are supplied by the users and generally collected by the regional water or environmental authorities but there are differences in the central database management. In some countries it is run centrally by the Ministry of the Environment, in other countries there are separate databases for surface waters and ground waters, managed by Hydrological Institutes or Geological Surveys. The mine water use could be extracted from these databases but in most countries only indirectly, following a search of mining company data or the type of industrial use, or the water use fees. Poland is the only exception where mine water use is registered in the MIDAS database.

#### **4.2.5. Other legislation**

It is common practice in Candidate Countries for spatial planning and land-use management plans to consider mineral resources and mining sites but in general it is not explicitly regulated in the spatial planning acts. Exceptions are Poland and Latvia where this is clearly mentioned in relevant regulations. Other legislation have relevant provisions on this topic in some countries (Building Acts and Mining Acts). The practice is that different scale development plans (country, regional, local) have different requirements and resolution of mineral reserves and mining facilities. In general, this is probably the result of the practice of the approval procedure of these plans.

There are generally no hierarchy provisions for competing land uses. However, in Estonia and Hungary there are traces of such concern but mining is in the middle or at the end of these lists.

Most countries have a nature conservation act, which refers to geological values, protected landscapes, protected minerals, stones and fossils but does not cover economic mineral reserves. There are rather diverse classification systems for nature conservation areas with a wide range in the number of categories from two (Romania) to seven (Latvia). Exploration and exploitation of mineral resources is possible under certain conditions at the lowermost levels of protection.

A few countries (e.g. Bulgaria and Hungary) have separate acts on industrial and natural catastrophes but these do not cover mining accidents, except in Romania. In other countries relevant decrees and chemical acts (Estonia, Latvia) or acts on natural catastrophes (in Slovenia) have been issued but none of them include mining matters. The remaining countries (Lithuania, Poland) do not have regulations on catastrophes. In general it can be concluded that there is a delay in the adoption and implementation of the Seveso II Directive in the Candidate Countries.

Countries with no uranium mining have no specific regulations on it (Latvia, Lithuania). In other countries both mining acts and radioactive (or atomic energy) legislation apply to uranium mining.

#### **4.2.6. International affairs**

Candidate Countries are actively participating parties of international conventions relevant to mining and environmental matters in general (see Tables). Of course, some geographically defined conventions do not apply to all countries (Danube Convention, Baltic Sea Convention), and some conventions have not come into force yet.

The list of bilateral agreements on environment related affairs shows that diplomatic efforts consider these problems and most countries communicate with each other on this topic.

Title of Convention	Place of Convention	Opened for signature	Entered into force	Bulgaria	Czech Republic	Estonia	Hungary	Latvia
Control of Transboundary Movement of Hazardous Wastes and their Disposal	Basel	22.03.89	05.05.92	signed/ratified /16.02.96a	signed/ratified /30.09.93d	signed/ratified /21.07.92a	signed/ratified /21.05.90AA	signed/ratified /14.04.92a
Protection and Use of Transboundary Watercourses and International Lakes	Helsinki	17.03.92	06.10.96	18.03.92/	/12.07.00r	18.03.92/16.06.95	18.03.92/02.09.94	18.03.92/10.12.96
Cooperation for the Protection and Sustainable Use of the Danube River	Sofia	29.06.94	22.10.98	29.06.94	29.06.94	—	29.06.94	—
Transboundary Effects of Industrial Accidents	Helsinki	17.03.92	19.04.00	18.03.92/12.05.95	/12.06.00	18.03.92/17.05.00	18.03.92/02.06.94	18.03.92/
Law of the Non-navigational Uses of International Watercourses	New York	21.05.97	—	—	—	—	20.07.99/26.01.00AA	—
Environmental Impact Assessment in a Transboundary Context	Espoo	25.02.91	10.09.97	26.02.91/12.05.95	30.09.93/26.02.01	/25.04.01	26.02.91/11.07.97	/31.08.98
Access to Information, Public Participation in Decision-making and Access in Environmental Matters	Aarhus	25.06.98	30.10.01	25.06.98/	25.06.98/	25.06.98/02.08.01r	18.12.98/03.07.01r	25.06.98/
Civil Liability for Damage Resulting from Activities Dangerous to the Environment	Lugano	21.06.93	—	—	—	—	—	—
Biological Diversity	Rio de Janeiro	05.06.92	29.12.93	12.06.92/17.04.96r	04.06.93/03.12.93AA	12.06.92/27.07.94r	13.06.92/24.02.94r	11.06.92/14.12.95r
Wetlands of International Importance	Ramsar	02.02.71	21.12.75	/24.01.76	/01.01.93	/29.07.94	/11.08.79	/25.11.95
Long-range Transboundary Air Pollution	Geneva	13.11.79	16.03.83	13.11.79/09.06.81r	/01.01.93d	/07.03.00a	13.11.79/22.09.80r	/15.07.94a
Prevention of Marine Pollution by Dumping Wastes and Other Matter	London	29.12.72	30.08.75	—	—	—	/06.03.76	—
United Nations Convention on the Law of the Sea	Montego Bay	10.12.82	16.11.94	/15.05.96	/21.06.96	—	—	—
Protection of the Marine Environment of the Baltic Sea Area	Helsinki	09.04.92	17.01.00	—	—	/ . .95	—	/ . .94
c: formal confirmation								
r: ratification								
A: acceptance								
AA: approval								
a: accession								
d: succession								



Title of Convention	Place of Convention	Opened for signature	Entered into force	Lithuania	Poland	Romania	Slovak Republic	Slovenia
				signed/ratified	signed/ratified	signed/ratified	signed/ratified	signed/ratified
Control of Transboundary Movement of Hazardous Wastes and their Disposal	Basel	22.03.89	05.05.92	/24.04.99a	/22.03.92r	/27.02.91a	/28.05.93a	/07.10.93a
Protection and Use of Transboundary Watercourses and International Lakes	Helsinki	17.03.92	06.10.96	18.03.92/28.04.00	18.03.92/15.03.00	18.03.92/31.05.95	/07.07.99r	/13.04.99r
Cooperation for the Protection and Sustainable Use of the Danube River	Sofia	29.06.94	22.10.98	—	—	29.06.94	29.06.94	29.06.94
Transboundary Effects of Industrial Accidents	Helsinki	17.03.92	19.04.00	18.03.92/02.11.00	18.03.92/	—	—	—
Law of the Non-navigational Uses of International Watercourses	New York	21.05.97	—	—	—	—	—	—
Environmental Impact Assessment in a Transboundary Context	Espoo	25.02.91	10.09.97	/11.01.01	26.02.91/12.06.97	26.02.91/29.03.01	28.05.93/19.11.99	/05.08.98
Access to Information, Public Participation in Decision-making and Access in Environmental Matters	Aarhus	25.06.98	30.10.01	25.06.98/	25.06.98/	25.06.98/11.07.00r		25.06.98/
Civil Liability for Damage Resulting from Activities Dangerous to the Environment	Lugano	21.06.93	—	—	—	—	—	—
Biological Diversity	Rio de Janeiro	05.06.92	29.12.93	11.06.92/01.02.96r	05.06.92/18.01.96r	05.06.92/17.04.92r	19.05.93/25.08.94AA	13.06.92/09.07.96r
Wetlands of International Importance	Ramsar	02.02.71	21.12.75	/20.12.93	/22.03.78	/21.09.91	/01.01.93	/25.06.91
Long-range Transboundary Air Pollution	Geneva	13.11.79	16.03.83	/25.01.94a	13.11.79/19.07.85r	14.11.79/27.02.91r	/28.05.93d	/06.07.92d
Prevention of Marine Pollution Matter	London	29.12.72	30.08.75	—	/22.02.79	—	—	/25.06.91
United Nations Convention on the Law of the Sea	Montego Bay	10.12.82	16.11.94	—	/13.11.98	/17.12.96	/08.05.96	/16.06.95
Protection of the Marine Environment of the Baltic Sea Area	Helsinki	09.04.92	17.01.00	/ . .97	/ . .99	—	—	—
c: formal confirmation								
r: ratification								
A: acceptance								
AA: approval								
a: accession								
d: succession								

## 5. DETAILED ANALYSIS

### 5.1. SCREENING OF THE EU COMMUNITY LEGISLATION WITH REGARD TO MINING

#### 5.1.1. The Treaties

Mining affairs accompanied and affected the history of the European Community from the very beginning. The name of the important mineral resource “coal” appears in the name of the European Coal and Steel Community, the first legal predecessor of the European Union. Although early Community legislation is mostly restricted to trade regulations, including major strategic minerals, the **Rome Treaty** (1951) establishing the Community declares among its objectives in Article 3(d) “... to promote a policy of using natural resources rationally and avoiding their unconsidered exhaustion”. This statement is far ahead of its time, by presenting a major element of the concept of sustainability.

Chapter VI of Title II of the **Euratom Treaty** (1957) establishes specific provisions concerning raw material supplies. Article 52(1) provides that “supply of ores, source materials and special fissile materials shall be ensured ... by means of a common supply policy on the principle of equal access” to sources of supply. Article 52(2a) prohibits “all practices designed to secure a privileged position for certain users”. Article 52(2b) establishes a supply Agency and confers on it a “right of option on ores, source materials and special fissile materials produced in the territories of Member States and an exclusive right to conclude contracts relating to the supply of ores, source materials and special fissile materials coming from inside the Community or from outside”.

Decades later the **Amsterdam Treaty** (1997) implemented a coherent Community policy on the environment by adopting the internationally accepted concept of sustainable development. According to its Article 174(1) this policy shall contribute to pursuit of the objective of “prudent and rational utilisation of natural resources”. Mineral resources are obvious subjects of these Community policies, as being important non-renewable natural resources for developed industrial society. However, there is some delay in implementing these policies in the Community legislation as shown below.

#### 5.1.2. Mining legislation

The computer search for the term “mining” in the official legislation database EUR-Lex gives a score of 299, only one of which is for “mining waste” (78/319/EEC already repealed).

**Council Decision 74/326/EEC on the extension of the responsibilities of the Mines Safety and Health Commission to all mineral-extracting industries** defines mining as “*mineral-extracting industries: the activities of prospecting and of extraction in the strict sense of the word as well as of preparation of extracted materials for sale (crushing, screening, washing), but not the processing of such extracted materials*”. The application and interpretation of legal definitions are the best, if not exclusively acceptable, within their legal environment, but the exclusion of mineral processing from the mining industry is questionable. Another definition is given in **Council Directive 92/104/EEC on the minimum requirements for improving the safety and health protection of workers in surface and underground mineral-extracting industries**: “*surface and underground mineral-extracting industries: all industries practising: - surface or underground extraction, in the strict sense of the word, of minerals, and/or - prospecting with a view to such extraction, and/or - preparation of extracted materials for sale, excluding the activities of processing the materials extracted*”. The cited **Council Directive 92/91/EEC concerning the minimum requirements for improving the safety and health protection of workers in the mineral-extracting industries through drilling** gives a definition which basically applies for the hydrocarbon extracting industry, “*mineral-extracting industries through drilling: all the industries practising: - extraction, in the strict sense of the word, of minerals through drilling by boreholes, and/or - prospection with a view to such extraction, and/or - preparation of extracted materials for sale, excluding the activities of processing the materials extracted*”.

The early mining related legislation is located in chapter “12. Energy” of the acquis. It is limited to

- mine safety and worker health (e.g. **Council Directive 83/477/EEC on the protection of workers from the risks related to exposure to asbestos at work**; **Council Directive 92/104/EEC on the minimum requirements for improving the safety and health protection of workers in surface and underground mineral-extracting industries**);
- regulations and policy resolutions on developing the mining industry (e.g. **Council Resolution of 28 July 1989 on the development of the Community mining industry**);
- conditions of sale of coal (e.g. **ECSC High Authority: Decision No 4-53 of 12 February 1953 on the publication of price lists and conditions of sale applied by undertakings in the coal and iron ore industries**) etc.

There is a definite Community policy on energy supply (e.g. **Decision 1254/96/EC of the European Parliament and of the Council laying down a series of guidelines for trans-European energy networks**); but only traces of a mineral policy with respect to

- coal (e.g. **Resolution of the ECSC Consultative Committee on Coal Policy in the Community**),
- radioactive minerals (e.g. **Council Resolution of 4 June 1974 concerning the supply of enriched uranium of the Community**);
- oil and gas (e.g. **Council Directive 68/414/EEC imposing an obligation on Member States of the EEC to maintain minimum stocks of crude oil and/or petroleum products**);

and most of this legislation originates from the cold war years, including the times of the first oil crisis.

**Directive 94/22/EC of the European Parliament and of the Council on the conditions for granting and using authorizations for the prospection, exploration and production of hydrocarbons** is the first and still the only Directive which regulates mainstream mining activity at the Community level. This Directive clearly adopts and implements the concepts of

- the free movement of goods, services, persons and capital;
- open economic competition;
- the integration of the Community internal energy market;
- public procurement procedures in the field of hydrocarbon extraction.

Article 5 prescribes criteria for authorising hydrocarbon exploration and production, including

- protection of the environment, and
- the planned management of resources (sustainability).

Implementation of the Directive is successful in practice, areas opened for hydrocarbon exploration are announced by the Member States in the Official Journal from time to time (e.g. 2001/C 308/05), thus the Directive is a good example for the Community-scale regulation of mining affairs.

**Council Directive 93/38/EEC on coordinating the procurement procedures of entities operating in the water, energy, transport and telecommunications sectors** is inline with the above-mentioned Directive. Among the relevant activities for the purposes of the Directive Article 2 lists *“the exploitation of a geo-*

*graphical area for the purpose of exploring for or extracting oil, gas, coal or other solid fuels”*. Besides hydrocarbons (oil and gas) coal and other solid fuels are also included. No definition is given for “other solid fuels”, but oil shale and uranium might be considered here. Moreover, the fixed networks for gas or heat (including geothermal energy?) public service or the supply of gas or heat to these networks are mentioned in the scope of the Directive as well. For the above activities ECU 400 000 is the estimated value of the lower limit for supply and service contracts and ECU 5 000 000 for works contracts, not including VAT, for which the Directive shall apply. Specific exclusions are provided in Articles 3 and 9, and in Annexes IV and V for certain entities in Member States.

Another direct financial regulation is given in Article 4(2) of the **Council Directive 77/388/EEC on the harmonization of the laws of the Member States relating to turnover taxes**. It classifies mining activity as an economic activity covered by the Directive, for which the harmonised value added tax Community regulations shall apply.

Mining activities extracting radioactive substances are explicitly covered by the **Council Directive 96/29/Euratom laying down basic safety standards for the protection of the health of workers and the general public against the dangers arising from ionizing radiation**. As written in Article 4 prior authorisation is needed for *the “exploitation and closure of uranium mining”*. All the provisions with regard to workers and public health of the Directive shall directly apply for the mining of uranium and other radioactive minerals (e.g. thorium).

Commission communications have no legal outreach to Member States but might reflect Community sector policies and executive action plans orienting the players of the field. **Communication from the Commission on “Promoting sustainable development in the EU non-energy extractive industry” (COM(2000) 265)** was the first document to tackle the problem of the sustainable mining industry. In spite of its limited scope (non-energy minerals) this Communication gave a complex review of the mining industry and made several valuable statements such as:

- mining is increasingly influenced by other competing land uses, such as urban development, agriculture and nature conservation;
- the balanced consideration of economic, environmental and social aspects to ensure the sustainable development of the industry is needed;
- a coherent Community policy is necessary;

just to mention the most important ones.

Among its follow-up actions the Communication envisaged issuing an Action Plan which was published as the **Communication from the Commission on "Safe operation of mining activities: a follow-up of recent mining accidents"** COM(2000) 664. This Communication briefly described the Aznalcollar accident and presented the Baia Mare accident in detail, with as conclusion the lessons to be learnt. It gives an overview of the relevant Community environmental legislation with special emphasis on tailing pond safety and identifies three key actions as follow-up:

- amendment of the Seveso II Directive;
- an initiative on the management of mining waste;
- a BAT reference document under the IPPC Directive.

These activities started in 2001.

In June 2001 the Committee on the Environment, Public Health and Consumer Policy of the European Parliament in co-operation with the Committee in Industry, External Trade, Research and Energy accepted a report on monitoring the follow-up actions (COM(2000) 664 - C5-0013/2001 - 2001/2005(COS)) with a motion for a Parliament Resolution to support and accelerate the above measures.

### 5.1.3. Environmental legislation

Chapter 15 (Environment, consumers and health protection) and especially subchapters 15.10.20.10 (Nuclear safety and radioactive waste), 15.10.20.20 (Water protection and management), 15.10.20.50 (Chemicals, industrial risk and biotechnology), 15.10.30.30 (Waste management and clean technology) of the *acquis communautaire* contain the most direct provisions relevant to mining waste management.

In the horizontal environmental legislation **Council Directive 85/337/EEC as amended by Council Directive 97/11/EC on the assessment of the effects of certain public and private projects on the environment**, the so-called EIA Directive, has the most direct provisions on mining activities. It requires an environmental impact assessment of economic activities which are likely to have significant effects on the environment. Among projects of obligatory assessment as listed by Annex I several types can be applied for mining waste management activities:

*"3.b) Installations designed ... solely for the final disposal of radioactive waste, solely for the storage (planned for more than 10 years) of irradiated*

*nuclear fuels or radioactive waste in a different site than the production site.*

*4. Installations for the production of non-ferrous crude metals from ore ... by ... chemical ..processes.*

*5. Installations for the extraction of asbestos ...*

*...9. Waste disposal installations for ... landfill of hazardous waste (i.e. waste to which Directive 91/689/EEC (2) applies).*

*10. Waste disposal installations for ... chemical treatment ... of non-hazardous waste with a capacity exceeding 100 tonnes per day.*

*11. Groundwater abstraction or artificial groundwater recharge schemes where the annual volume of water abstracted or recharged is equivalent to or exceeds 10 million cubic metres.*

*...14. Extraction of petroleum and natural gas for commercial purposes where the amount extracted exceeds 500 tonnes/day in the case of petroleum and 500 000 m<sup>3</sup>/day in the case of gas.*

*15. Dams and other installations designed for the holding back or permanent storage of water, where a new or additional amount of water held back or stored exceeds 10 million cubic metres.*

*16. Pipelines for the transport of gas, oil or chemicals with a diameter of more than 800 mm and a length of more than 40 km.*

*...19. Quarries and open-cast mining where the surface of the site exceeds 25 hectares, or peat extraction, where the surface of the site exceeds 150 hectares."*

Annex II lists those types of projects for which the Member States have the freedom to judge whether to require the assessment or not. Direct references to mining activities are:

*"2. Extractive industry*

*(a) Quarries, open-cast mining and peat extraction (projects not incl. in Annex I);*

*(b) Underground mining;*

*(c) Extraction of minerals by marine or fluvial dredging;*

*(d) Deep drillings, in particular:*

*- geothermal drilling,*

*- drilling for the storage of nuclear waste material,*

*- drilling for water supplies, with the exception of drillings for investigating the stability of the soil;*

*(e) Surface industrial installations for the extraction of*



coal, petroleum, natural gas and ores, as well as bituminous shale.

### 3. Energy industry

(d) Underground storage of combustible gases;

...(g) Installations for the processing and storage of radioactive waste (unless incl. in Annex I);

...10. Infrastructure projects

...(g) Dams and other installations designed to hold water or store it on a long-term basis (projects not incl. in Annex I);

...(i) Oil and gas pipeline installations (projects not incl. in Annex I);

...(l) Groundwater abstraction and artificial groundwater recharge schemes not included in Annex I;

### 11. Other projects

...(b) Installations for the disposal of waste (projects not included in Annex I);

(c) Waste-water treatment plants (projects not included in Annex I);

(d) Sludge-deposition sites;

...13. Any change or extension of projects ..."

For all these activities the associated **Directive 2001/42/EC of the European Parliament and of the Council on the assessment of the effects of certain plans and programmes on the environment** shall apply. By adopting the UNECE Espoo Convention Article 7 of the Directive contains a provision on transboundary consultation between Member States if the project is likely to have significant effect on the environment in another Member State.

Legal experts paid great attention to the applicability of other Community thematic and horizontal environmental legislation e.g.:

**Regulation 761/2001/EC of the European Parliament and of the Council on allowing voluntary participation by organisations in a Community eco-management and audit scheme (EMAS);**

**Regulation 1980/2000/EC of the European Parliament and of the Council on a revised Community eco-label award scheme;**

**Council Directive 90/313/EEC on the freedom of access to information on the environment;**

**Council Directive 84/360/EEC on the combating of air pollution from industrial plants;**

**Council Directive 92/43/EC on the conservation of natural habitats and of wild fauna and flora;**

**Communication from the Commission on "Environmental agreements" (COM(96) 561);**

**Community Mechanisms for the co-ordination of the Civil Protection Interventions in case of Emergencies (COM(2000) 593);**

**Proposal for a Directive of the European Parliament and of the Council on environmental liability with regard to the prevention and remedying of environmental damage (COM(2002) 0021)**

However, the detailed discussion of these documents is out of the scope of the present paper because their application for mining affairs is simple or just irrelevant. Some of them are quasi-legislative documents and/or have no specific reference with regard to mining.

### 5.1.4. Waste management legislation

**Council Directive 75/442/EEC on waste as amended by Council Directive 91/156/EEC and by Commission Decision 96/350/EC** is the so-called Waste Framework Directive of the Community. In its preamble it encourages the conservation of natural resources and in Article 1 it defines waste as "*any substance or object in the categories set out in Annex I which the holder discards or intends or is required to discard*". Article 2 excludes from scope:

"(a) gaseous effluents emitted into the atmosphere;

(b) where they are already covered by other legislation:

(i) radioactive waste;

(ii) waste resulting from prospecting, extraction, treatment and storage of mineral resources and the working of quarries;

...(iv) waste waters, with the exception of waste in liquid form;"

At present there is no specific Community legislation on this type of waste, there the Directive applies to waste from the extractive industry. This is supported by the fact that waste categories (Annex I) include

"Q11 Residues from raw materials extraction and processing (e.g. mining residues, oil field slops, etc.)" and disposal operations (Annex IIA) involve:

"D1 Deposit into or onto land (e.g. landfill)

... D3 Deep injection (e.g. injection of pumpable discards into wells, salt domes or naturally occurring repositories, etc.)

D4 Surface impoundment (e.g. placement of liquid or sludgy discards into pits, ponds, or lagoons, etc.)

... D12 Permanent storage (e.g. emplacement of containers in a mine)".



**Council Directive 91/689/EEC on hazardous waste as last amended by Commission Decision 2001/118/EC as regards the list of wastes** lists and codifies all waste types according to:

- generation source (01-12, 17-20),
- waste composition (13-15), and
- other criteria (16).

The so-called European Waste Catalogue (EWC) lists twenty-three types (!) of mining waste (*"Wastes resulting from exploration, mining, quarrying, and physical and chemical treatment of minerals"*), covering the potential waste spectrum rather well, of which six are classified hazardous:

*"01 03 04\* acid-generating tailings from processing of sulphide ore"*

*01 03 05\* other tailings containing dangerous substances*

*01 03 07\* other wastes containing dangerous substances from physical and chemical processing of metalliferous minerals*

*01 04 07\* wastes containing dangerous substances from physical and chemical processing of non-metalliferous minerals*

*01 05 05\* oil-containing drilling muds and wastes*

*01 05 06\* drilling muds and other drilling wastes containing dangerous substances".*

Other mining wastes can be classified as hazardous if they are considered to display one or more of the properties listed in Annex III to Directive 91/689/EEC and have one or more characteristics as listed in Article 2 of the Commission Decision 2001/118/EC.

Other EWC classified waste can be generated during mining activities as well (e.g. "wastes from soil and groundwater remediation"). However, it is worthwhile mentioning that a Commission Decision has somewhat limited legal binding force on Member States, unlike Regulations and Directives.

For mining waste management the most relevant daughter directive of the Waste Framework Directive is **Council Directive 1999/31/EC on the landfill of waste**, not only because many of the landfills are located in abandoned mining pits but also because the application and implementation of this Directive is in the remit of interested authorities.

The main problem arises from Article 3, which excludes *"the deposit of unpolluted soil or of non-hazardous inert waste resulting from prospecting and extraction, treatment, and storage of mineral*

*resources as well as from operation of quarries"* from the scope of the Directive.

It definitely means that the provisions of the Landfill Directive with regard to landfill classes, design, licensing, waste acceptance, monitoring and after-care procedures shall apply for the management of hazardous, non-inert waste generated by mining activities.

In Article 2 definitions are given for the terms "non-hazardous" and "inert" waste.

The definition of "inert" is acceptable and useable with some common sense but it will be the cornerstone of many jurisdiction procedures in the future, presumably not exclusively in mining waste affairs.

Another relevant point of the Directive is that it defines underground storage as *"a permanent waste storage facility in a deep geological cavity such as a salt or a potassium mine"*.

The strangest provisions of the *acquis* with regard to mining waste are in the **Council Regulation 259/93/EEC as adapted by Commission Decision 1999/816/EC on the supervision and control of shipments of waste within, into and out of the European Community**.

Its Annex II contains the Green List of Wastes, wastes of liberal shipment.

*"GD. Wastes from mining operations, these wastes to be in non-dispersible form:*

*Natural graphite waste,*

*Slate waste, whether or not roughly trimmed or merely cut, by sawing or otherwise*

*Mica waste*

*Leucite, nepheline and nepheline syenite waste*

*Feldspar*

*Fluorspar waste*

*Silica wastes in solid form excluding those used in foundry operations*

*...GG. Other wastes containing principally inorganic constituents, which may contain metals and organic materials*

*...Neutralized red mud from alumina production".*

This list of mining waste is far from being representative for the extractive industry. It neither reflects any logic in the environmental hazards or risk with regard to transboundary shipment of waste.

Annex III, the Amber List of Wastes of more stringent shipment provisions contains metal-bearing residues which might be applicable for certain processing wastes.

### 5.1.5. Water management legislation

Community water legislation is as extensive as that on waste but has much less direct reference to mining activities. The Water Framework Directive (**Directive 2000/60/EC of the European Parliament and of the Council as amended by Decision 2455/2001/EC of the European Parliament and of the Council establishing a framework for Community action in the field of water policy**) calls for measures to be taken at the watershed level including *"measures required to prevent significant leakage of pollutants from technical installations, and reduce the impact of accidental pollution incidents"* and *"systems to detect or give warning of such events"*. This water policy has many parts, which will affect the extractive industry. The most direct provisions are in Article 11 "Programme of measures":

*"3 Basic measures are the minimum requirements to be complied with and shall consist of:*

*...(j) a prohibition of direct discharges of pollutants into groundwater ...:*

*Member States may authorise*

- *reinjection into the same aquifer of water used for geothermal purposes;*
- *injection of water containing substances resulting from the operations for exploration and extraction of hydrocarbons or mining activities;*
- *injection of water for technical reasons into geological formations from which hydrocarbons or other substances have been extracted or into geological formations which for natural reasons are permanently unsuitable for other purposes;*
- *reinjection of pumped groundwater from mines and quarries or associated with the construction or maintenance of civil engineering works;*
- *injection of natural gas or liquefied petroleum gas (LPG) for storage purposes into geological formations which for natural reasons are permanently unsuitable for other purposes."*

Annex VIII of the Water Framework Directive lists the main pollutants where characteristic pollutants generated by mining activities appear as:

*"...4. Substances and preparations, or the breakdown products of such, which have been proved to possess carcinogenic or mutagenic properties or properties which may affect steroidogenic, thyroid, reproduction or other endocrine-related functions in or via the aquatic environment.*

*5. Persistent hydrocarbons and persistent and bioaccumulable organic toxic substances.*

*6. Cyanides.*

*7. Metals and their compounds.*

*8. Arsenic and its compounds.*

*...10. Materials in suspension."*

The provisions of the Water Framework Directive are in accordance with the regulations on mining water re-injections of **Council Directive 80/68/EEC on the protection of groundwater against pollution caused by certain dangerous substances**. The dangerous substances include zinc, copper, chromium, lead, arsenic, cadmium, and mercury (Annex I, II). Art. 5 and 7 require Member States to perform a prior investigation concerning the disposal or tipping for the purpose of dangerous substances leading to indirect or direct discharges to groundwater.

The recent **Proposal for a European Parliament and Council Decision on an action programme for integrated groundwater protection and management** (596PC0315) in Action line 4 "Control of point source pollution from activities and facilities which may affect groundwater quality" defines the following actions relevant to mining:

- inventory of potential point sources, such as contaminated land, landfills, mines and quarries in use or abandoned, including tips, tailings and dewatering, underground storage depots, old wells...;
- based on inventories priorities and decommissioning plans should be drawn up for abandoned mines...;
- improving the national authorisation system ...etc.

There are many more directives in the Community water legislation, which are relevant to qualitative or quantitative water management affected by routine mining operations or accidents. In these regulations there are no direct references to mining and most of them will be amended or repealed according to the transitional provisions of the Water Framework Directive. The most important ones are:

- **Council Directive 75/440/EEC concerning the quality required of surface water intended for the abstraction of drinking water in the Member States**
- **Council Directive 76/160/EEC concerning the quality of bathing water**
- **Council Decision 77/795/EEC establishing a common procedure for the exchange of information on the quality of surface fresh water in the Community**

- Council Directive 98/83/EC on the quality of water intended for human consumption
- Council Directive 76/464/EEC as amended by Council Directives 86/280/EEC and 88/347/EEC on pollution caused by certain dangerous substances discharged into the aquatic environment of the Community
- Council Directive 78/659/EEC on the quality of fresh waters needing protection or improvement in order to support fish life.

#### 5.1.6. Industrial pollution control and risk management legislation

**Council Directive 96/82/EC on the control of major-accident hazards involving dangerous substances** (Seveso II Directive) aims at the prevention of major accidents which involve dangerous substances and the limitation of their consequences for man and the environment. The Directive introduced an obligation for industrial operators to implement a major-accident prevention policy and a safety management system including safety reports, internal and external emergency plans involving a detailed risk assessment using possible accident scenarios in order to prevent major accidents. The Directive shall apply to establishments where dangerous substances are present in quantities listed in Annex I. Many mining sites would fall within these limits, however, Article 4 of the Directive excludes

*"(b) hazards created by ionizing radiation*

*...(e) the activities of the extractive industries concerned with exploration for, and the exploitation of, minerals in mines and quarries or by means of boreholes*

*(f) waste land-fill sites"* from scope.

Annex VI of the Directive lists criteria for the notification to the Commission for the prevention and mitigation of major accidents to qualify immediate damage to the environment, including any of the following :

*"permanent or long-term damage to terrestrial habitats:*

*0.5 ha or more of a habitat of environmental or conservation importance protected by legislation,*

*10 or more hectares of more widespread habitat, including agricultural land,*

*significant or long-term damage to freshwater and marine habitats,*

*10 km or more of river or canal,*

*1 ha or more of a lake or pond,*

*2 ha or more of delta,*

*2 ha or more of coastline, open sea,*

*significant damage to an aquifer or underground water."*

Several of these criteria were fulfilled during the recent mining accidents and are being fulfilled at less-known malfunctions in mining operations. The Directive leaves some margin for interpretation of its coverage that could be used to include processing activities and/or tailing ponds or dams in its scope. The European Commission proposed to amend the Seveso II Directive to unequivocally include the mineral processing of ores, tailing ponds or dams used in connection with them. Such activities would only be covered by the Directive if dangerous substances were involved and present in quantities beyond the threshold levels set out in its Annex I. Therefore, the qualifying limits of substances must be lowered and the list of dangerous substances extended as well.

According to the proposal (COM (2002) 340) for a European Parliament and Council Directive amending Seveso II Article 4 (e), (f) are being replaced by:

*"(e) the exploitation (exploration, extraction and processing) of minerals in mines, quarries, or by means of boreholes with the exception of chemical and thermal processing operations and storage related to those operations which involve dangerous substances as defined in Annex I of this Directive;*

*(f) the offshore exploration and exploitation of minerals, including hydrocarbons;*

*g) waste land-fill sites with the exception of active tailings disposal facilities, including tailing ponds or dams, containing dangerous substances as defined in Annex I of this Directive and used in connection with the chemical and thermal processing of minerals."*

Among other amendments an important one is the new Article 12(1) second subsection:

*"Member States shall ensure that their land-use and/or other relevant policies and the procedures for implementing those policies take account of the need, in the long term, to maintain appropriate distances between establishments covered by this Directive and residential areas, buildings and areas of public use, major transport routes, recreational areas, and areas of particular natural sensitivity or interest, and, in the case of existing establishments, of the need for additional technical measures in accordance with Article 5 so as not to increase the risks to people."*

Accordingly, Annex I, Part 2, Category 9 *"Dangerous for the environment"* is being proposed for amendment to lower the qualifying quantities of subcategories *"very toxic to aquatic organisms"*, *"toxic to aquatic organisms"* and *"may cause long term adverse effects in the aquatic environment"*.

**Council Directive 96/61/EC of 24 September 1996 concerning integrated pollution prevention and control (IPPC Directive)** provides the framework provisions concerning the licensing and emissions of some industrial installations. Installations covered by Annex I of the Directive are required to obtain an operating permit. For *"everyday pollution"*, permits must contain emission limit values or equivalent parameters. These shall be based on the use of Best Available Techniques (BAT). In addition, permits must include provisions for other than normal operating conditions, relating to start-up, leaks, malfunctions, momentary stoppages and final cessation of operations.

The Directive covers the overall environmental impact of the production process, i.e. air, water and soil pollution, generation of process residues, use of energy, etc. The focus shall be on prevention rather than *"end-of-pipe"* abatement. In the Directive, a distinction is made between new or substantially changed installations and existing installations. For the latter category Member States have until October 2007 to ensure compliance.

Section 2.5. (a) of Annex I covers *"installations for the production of non-ferrous crude metals from ore, concentrates or secondary raw materials by metallurgical, chemical or electrolytic processes"*, which might apply for a minor segment for the extractive industry. Annex I under the category *"3. Mineral industry"* lists five types of installations for the secondary production of mineral products (e.g. manufacture of ceramic products), which can not be considered as mining activities even in a broad interpretation. Annex I lists

*"5.1. Installations for the disposal or recovery of hazardous waste as defined in ... with a capacity exceeding 10 tonnes per day"*

*"...5.3. Installations for the disposal of non-hazardous waste as defined in ... with a capacity exceeding 50 tonnes per day"*

*5.4. Landfills receiving more than 10 tonnes per day or with a total capacity exceeding 25 000 tonnes, excluding landfills of inert waste"* as well.

According to these categories the Directive covers the part of the mining sites where tailing ponds and waste rock heaps are associated. They could either not be production sites (if they are in isolation from

the actual site of production), nor producing *crude metals* (if they produce for instance *concentrates*), or not be regarded as landfills falling under category 5.4 of Annex I. of the Directive. However, most of the dams probably meet these thresholds.

Landfills are not defined in the Directive, but the Landfill Directive provides for a definition, *"a waste disposal site for the deposit of the waste onto or into land"*. Storage of waste prior to recovery or treatment for a period less than three years as a general rule and storage of waste prior to disposal for a period of less than one year are excluded from the definition of a landfill. On the basis of the above definition, it is likely that a vast majority of tailing dams are indeed covered.

#### 5.1.7. Other legislation

**Council Directive 89/106/EEC as amended by Council Directive 93/68/EEC on the approximation of laws, regulations and administrative provisions of the Member States relating to construction products** was out of the scope of all published studies. According to its Article 1 a construction product means any product which is produced for incorporation in a permanent manner in construction works, including both buildings and civil engineering works. This definition shall not apply for a mining facility or installation. However, its Annex I formulates universal, essential requirements, which would apply for mining works e.g. tailing ponds as well (shall be satisfied for an economically reasonable working life):

*"...1. Mechanical resistance and stability"*

*The construction works must be designed and built in such a way that the loadings that are liable to act on it during its constructions and use will not lead to any of the following:*

*(a) collapse of the whole or part of the work;*

*(b) major deformations to an inadmissible degree;*

*(c) damage to other parts of the works or to fittings or installed equipment as a result of major deformation of the load-bearing construction;*

*(d) damage by an event to an extent disproportionate to the original cause..."*

#### 5.1.8. Judgements of the European Court of Justice

Case-law has its special role in continental law. The judgements of the European Court of Justice shall be taken into account in mining affairs too. There are well below one hundred mining-related cases. The subject in most of these appeals is of economic ori-



gin (debate on the supply of financial state-aid, deferred terms of tax and royalty payments, anti-dumping of mining products, exploration tenders, etc.), personal affairs (occupational diseases, early retirement schemes for miners, employees' rights). Only a few appeals were related to environmental affairs and extraction rights. More cases are related to mineral supply contracts e.g. uranium (Case C-357/95, C-161/97) or coal (Case C-128/92). The parties involved in these jurisdiction procedures are individuals, mining companies, Member States and the European Commission itself.

For a long time the only European Court appeal in mining v. environmental affairs was **Case 291/84** (European Court Reports 1987, p. 3483) between the Commission of the European Communities and the Kingdom of the Netherlands. It is related to the failure to fulfil the obligations of Council Directive 80/68/EEC on the protection of groundwater against pollution caused by certain dangerous substances. The issue concerns the failure to implement Article 4 of the Directive, which allows Member States to authorise the re-injection of mining production waste waters into aquifers. The Court concluded that The Netherlands failed to fulfil this obligation.

The first judgement in mining waste management "sensu stricto" was the criminal proceedings against Euro and Adino **Tombesi (C-304/94)** who were accused of discharging marble rubble and debris produced by a third party without obtaining authorisation from the competent authority. The Court affirmed that this material fell within the remit of the EU waste legislation. It was irrelevant for the Court that the substance might have an economic value for its reutilization or that it might be classified as a reusable residue. The concept of "waste" in Article 1 of Council Directive 75/442/EEC on waste, as amended, is not to be understood as excluding substances and objects which are capable of economic reutilization, even if the materials in question may be the subject of a transaction or quoted on public or private commercial lists. In particular, a deactivation process intended merely to render waste harmless, landfill tipping in hollows or embankments constitutes disposal or recovery operations falling within the scope of Community rules. The fact that a substance is classified as a re-usable residue without its characteristics or purpose being defined is irrelevant in that regard. The same applies to the grinding of a waste substance. This judgement has implications for the mining industry in that similar considerations apply to the handling of those extracted materials, which the prospector is not looking for but which must be removed in order to access the high grade ore.

The Opinion of the Advocate General in **Case C-9/00** declares that leftover rocks from a quarry are

waste and so should be subject to EU waste handling rules. The Court were asked by Finland's Supreme Court to intervene in a dispute between Vehmassalo municipality and the Turku and Pori region, about which authority should be responsible for granting a quarrying licence to Palin Granit Oy, a granite mining company operating in Vehmassalo. The regional authorities said that around 50,000 cubic metres of leftover granite blocks stored annually near the quarry were waste and that the company's licence application should therefore be considered by the regional environment centre. Vehmassalo supported the company and claimed the blocks were not waste and that it was responsible for the licence.

The Court was therefore asked to clarify the definition of waste for unused quarry stone. The Court rejected claims that the blocks were physically identical to the rock from which they were quarried, were harmless and could be used for applications such as breakwaters without further processing. The decisive factor was that the company had intentionally discarded them after quarrying. The Finnish government's argument that the blocks could not be waste because they were "natural" was also rejected because many "natural" products are included in the European Waste Catalogue. The final judgement of the Court (18<sup>th</sup> April 2002) states that the holder of leftover stone resulting from stone quarrying which is stored for an indefinite length of time to await possible use discards or intends to discard that leftover stone, which is accordingly to be classified as waste within the meaning of Council Directive 75/442/EEC. The place of storage of leftover stone, its composition and the fact, even if proven, that the stone does not pose any real risk to human health or the environment are not relevant criteria for determining whether the stone is to be regarded as waste.

No Advocate General Opinion has yet been given to **C-114/01**, which raises an important question as to whether mining activities should be considered to be outside the scope of the definition of waste in the Waste Framework Directive. The Commission and Finland argue that the reference to 'legislation' in Article 2 of the Directive means EU legislation and thus the Directive applies to the mining sector, given no relevant EU legislation on mining waste exists at the moment. Germany and the UK in contrast argue that the reference to 'legislation' means both national and EU legislation, the effect being that the mining sector is excluded from the scope of the Directive (as a considerable amount of national legislation exists). For a number of reasons the latter argument is not tenable, not least as this would go against the spirit and purpose of the Directive which includes the achievement of a common Community definition of waste and a high level of environmental protection throughout the EU.



In **Case C-6/00** (27/02/2002) between ASA and the Bundesminister für Umwelt, Jugend und Familie the Court has confirmed that the deposit of hazardous waste in a disused mine to secure hollow spaces (mine sealing), does not necessarily constitute a disposal operation for the purposes of the Waste Framework Directive. The deposit must be assessed on a case-by-case basis to determine whether or not it is a recovery or a disposal operation for the purposes of the Directive. It is recovery if its principal objective is that the waste serves a useful purpose in replacing other materials, which would have had to be used for that purpose, thereby conserving natural resources. The judgement refers back to the Advocate General's Opinion in this case, which comments that the intended purpose for the use of the substance must be a 'genuine' recovery operation, so that the substance must share the same properties as the substituted material and must fulfil an independent need for that operation. Consequently, it is the overriding purpose of the operation which counts in determining whether it is recovery or disposal.

## 5.2. ANALYSIS AND INTERPRETATION OF THE CANDIDATE COUNTRIES' ANSWERS

### 5.2.1. Regulatory framework

**1. Please describe the regulatory framework of your country relevant to minerals and mining waste management (*hierarchy system of legislation; most relevant licensing and controlling authorities as environmental, mining, water, geological authorities, both local, regional and central level; levels of appeal in the public administration*). Figures are most welcome.**

In all countries the basic constitutional legislative, judicial and executive powers are distributed among the different state bodies. The democratically elected National Assembly (The Parliament, or Saeima) is the highest legislative and political body that makes acts (or laws). On the top of the legislative pyramid stands the Constitution, the form of which is an act. The Government (or Cabinet of Ministers) and its members constitute an overlap between the legislative and executive power, being authorised to issue government decrees and ministerial decrees (or orders) implementing major acts. In some countries (e.g. Latvia) state institutions (or government agencies) have the right to issue orders that are legally binding regulatory tools. In all countries there are many other quasi-legislative tools such as recommendations, instructions, guidelines, which are issued by ministries and government agencies that might play an important role during Court appeals.

According to the concept and the level of decentrali-

sation of public administration in different countries, the role of the Counties or Municipal Governments varies. In most countries these authorities have the right to issue orders, the territorial scope of which is limited to the administrative land of the settlement. Local government decrees represent the lowermost level of legislation. Moreover, local governments (e.g. Estonia, Poland) may authorise the exploitation of mineral commodities of local importance, such as aggregates (sand, gravel, clay, etc.). In some countries (e.g. Hungary) local authorities may be associated with the ownership of a mining company while being involved in the licensing procedure as well. Therefore the role of local governments in mining affairs is in the focus of debate.

In all countries citizens have the right to ask for a jurisdiction concerning their rights or obligations. This judicial system has different levels (at least three) in all countries. The first level of appeal is ensured within the public administration authority system. In some countries (e.g. Hungary) licensing authorities are entrusted with a second instance of appeal, in other countries this second instance is assigned to the supervisor ministry (e.g. Slovenia) or county governments (e.g. provincial parliaments in Poland). Local municipal courts and county courts give the first judicial level "sensu stricto" and some countries have special public administration courts. Supreme courts are at the top of the judicial system but the Constitutional Courts operating in most countries might be drawn into the appeal procedure. It occurs when the client refers to a serious break or misinterpretation of the law by authorities, or when the law which was the basis of the authority decision seems to go against the Constitution.

The described general legislative and judicial framework applies to minerals, mining and mining waste management. In most countries major authorities in the mining domain are the Ministry of Economy (or M. of Industry and Resources, and the National Agency for Mineral Resources in Romania) and the Ministry of the Environment (M. of the Environment and Spatial Planning in Slovenia, M. of Waters and the Environment in Romania). The related tasks are distributed among these two ministries with a slight trend towards the latter having increasing responsibility. There are a variety of subordinate licensing authorities. The most common case is that environmental authorities have a distinguished role. The picture is more diverse with regard to the responsibility of mining, geological, water authorities and local governments. In some countries the authorisation of the mining authority covers almost the whole licensing spectra with the obligatory involvement of the other interested professional authorities in the licensing procedure (e.g. Hungary), while in many coun-

tries mining authorities do not exist (e.g. Lithuania) or their power extends to the supervision of mining operation safety exclusively (e.g. Poland). National Geological Surveys are commonly the state authorities which manage all information with regard to mineral resources and reserves, mining locations and mining waste inventory. In a few countries they act as a licensing co-authority, incorporated in many granting procedures (e.g. exploration license, environmental license, etc.) as well. Generally, these professional authorities have local county offices (or inspectorates) which act at the first instance. Special national solutions can be observed as well. For example the National Agency for Mineral Resources of Romania is the prime authority of mining management by granting the exploration and exploitation and controlling these activities through its county inspectorates.

## 5.2.2. Mining legislation

### 5.2.2.1. Ownership

**2. Does your country have a separate law (or act) on mining (or use of subsoil, subsurface; including hydrocarbons as well)? If yes, please give its precise title, number, type, date of legislation, date of entry into force, last amendment.**

All Candidate Countries have new, high level specific legislation on mining (act or law) but there is frequently a reference to the ownership of minerals in other basic acts as well as the Constitution (e.g. Bulgaria, Lithuania and Romania) or the Civil Code (e.g. Hungary). In every case mining law was a high priority topic for completely new legislation in the nineties after the political and economic changes of the late eighties. Typically, the first revolutionary legislative ideas were followed by corrective actions, as reflected by the large number of subsequent amendments of the mining laws.

The term “mining law” is not used in most countries. It is a positive sign of the early acceptance and adoption of the sustainability concept that the relevant acts deal with the sustainable management of the complex geoenvironment. This is proved by the title and content of these acts: Subsurface Resources Act (Bulgaria), Earth’s Crust Act (Estonia), Law on the Subsoil (Latvia) and Law on the Underground (Lithuania). In Slovakia two separate acts govern the issue, one is on the protection and utilisation of min-

eral resources and the other is on the mining operation activities. Poland has combined legislation on geology and mining, and only Hungary, Romania and Slovenia have a traditional “Mining Act”, at least according to its title.

**3. What activities/subjects are covered in the scope of the mining act? (*In vertical sense: geological survey, exploration, establishment of mining acreage (or mining plot), exploitation, break in operation, mineral processing, remediation, post closure control (or aftercare); in horizontal sense: all mineral commodities including even oil and gas, geothermal energy, groundwater exploitation, use of underground space in general, oil and gas pipeline facilities, construction of underground facilities etc.*)**

In this question the vertical scope of the mining legislation covers the phases and consecutive elements of the production chain of the extractive industry starting from geological survey to after-care of mining sites as the back-end. The horizontal scope here means the range and types of natural resources and the atypical secondary activities (e.g. secondary mineral processing, other use of subsoil) the law tackles. In most countries the mining acts (used here only as a collective term) in the vertical sense cover geological survey, exploration, establishment of mining acreage (or mining plot), exploitation, break in operation, mineral processing, reclamation and post closure control (or aftercare). Exclusions do exist, for example in Bulgaria the law does not include the institution of breaks in operation and post-closure control. In Latvia the law does not mention the listed activities explicitly.

There is a great variety in the horizontal scope of the mining acts (see Table). For example hydrocarbons (oil and gas) have a separate law in Romania. Secondary and tertiary mining processing and transportation facilities are definitely included (e.g. Hungary), or excluded (e.g. oil and gas pipelines in Poland and Bulgaria) or simply not mentioned. Naturally, in countries with marine territories the law extends to bottom sediments (e.g. Lithuania) or sea salt (e.g. Slovenia). Groundwater extraction is generally excluded from the scope of the mining acts (e.g. Bulgaria, Estonia and Hungary) but in some countries it is included (Latvia, Lithuania and Poland and to a certain extent Romania and Slovenia).

		VERTICAL SCOPE							HORIZONTAL SCOPE				
Country	Title of Act	exploration	mining plot	Operation	break in oper.	processing	closure	Aftercare	all minerals	geothermal energy	groundwater	underground space	oil&gas pipelines
Bulgaria	Subsurface Resources	✓	✓	✓	✗	✓	✓	✗	✓	✗	✗	✗	✗
Czech Republic	Protection and Utilization of Mineral Resources												
Estonia	Earth's Crust	✓	✓	✓	✓	✓	✓	✗	✓	✗	✗	✓	✗
Hungary	Mining	✓	✓	✓	✓	✓	✓	✗	✓	✓	✗	✓	✓
Latvia	Subsoil	✓	✓	✓	✓	✗	✓	✗	✓	✓	✓	✓	✗
Lithuania	Underground	✓	✓	✓	✓	✗	✓	✗	✓	✓	✓	✓	✗
Poland	Geological and Mining	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗
Romania	Mining, Petroleum	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗
Slovakia	Protection and Utilization of Mineral Resources, Mining activity and Explosives	✓	✓	✓	✓	✓	✓	✗	✓	✓	✗	✓	✗
Slovenia	Mining	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗

**4. Who is the original owner of the mineral resources (central state, local government, private landowner, etc.)? Please give details if the ownership varies with regard to different minerals.**

The ownership of mineral resources is a basic concern not only in the establishment of a national minerals policy and licensing practices but in the aspect of responsibility for later reclamation and decontamination of abandoned orphan sites as well. The regulations are heterogeneous in this respect. Most generally the mineral resources are the original and exclusive properties of the central state which is the authorised manager of this public domain. This concept appears in the mining act or Civil Code or the Constitution of Bulgaria, Estonia, Hungary, Romania and Slovenia. However, there are exceptions even in these countries, e.g. in Romania the landowner can use aggregates, peat and mineral water for his own needs.

The other pole is represented by Latvia where the subsoil and all mineral resources therein belong to the landowner. The state, local authorities, individuals and legal entities may be landowners. However, the Cabinet of Ministers, in the interests of the State, has the right to limit the rights of landowners regarding the land and the subsoil belonging to them by imposing limitations on the right to use the property. In the interests of national security, protection of the environment and the subsoil, the use of mineral resources and deposits, and subsoil areas of State importance, and the construction and use of structures of State importance, the land may be alienated from the landowners in compliance with the Law "On the Compulsory Alienation of Real Estate for State and Society Needs". The above-mentioned minerals of State importance are hydrocarbons and groundwater.

In Lithuania the right of ownership of the entrails of the earth belongs exclusively to the State. However, a private landowner is allowed to use construction minerals (sand, gravel) for his own needs, not for sale, without having a license for mining activities, but the quarry cannot be bigger than 0.5 ha and deeper than 2 m.

In Slovakia the owner of the reserved minerals (fossil fuels, metals, industrial minerals) is the State, while for non-reserved minerals the owner is the owner of the allotment.

In Poland the ownership of mineral resources depends on the type of exploitation. Mineral resources exploited by underground mining are owned by the State Treasury and mineral resources exploited in open pits are owned by the landowner.

**5. Does your country have a national minerals policy? If yes, in what legal document it is described? What are the main principles of this policy?**

Almost all countries have a separate legal or quasi-legal document on national mineral policy. Most of them were issued by a high authority such as the Government (Slovenia and Slovakia), Council of Ministers (Bulgaria and Poland), Cabinet of Ministers (Latvia), or the Ministry of Industry and Resources (Romania). Elsewhere the elements of a national mineral policy are embedded in the mining or subsoil acts, or the Constitution (Hungary, Lithuania) or in the Environmental Strategy (Estonia). In general these policies declare the rational, long-term management of mineral resources to guarantee the safe supply of raw material for industry and the protection of the environment. The answers do not give details on the applicable tools of the mineral policies, but licensing practices, production limits and quotas and extra royalties are mentioned as administrative measures. The national mineral policies seem to be static documents, except for Romania where they are reviewed periodically (1-3 years).

**5.2.2.2. Data management**

**6. Does your country have a national mineral resources registry (or inventory)? If yes, name the manager agency(s) or authority(s).**

All countries have a national mineral resources registry. In most cases it is managed by the National Geological Survey which typically belongs to the Ministry of the Environment. Exclusions do exist, for example the Hungarian Geological Survey belongs to the Ministry of Economy. In Romania this inventory is managed by the National Agency for Mineral Resources acting under Government subordination and directly coordinated by the Minister of Industry and Resources.

**7. If yes, is it updated annually by production volumes and other changes in reserve?**

In all countries the mineral resources registry is updated annually, according to the calendar year. Changes of mineral reserves in a deposit are accounted for the reported year typically recording the following items:

- volume of production;
- mining operational losses and dilution;
- results of new explorations;
- re-evaluation and recalculation of mineral reserves, which is accompanied by an economic evaluation in some countries.



In Poland groundwater is accounted for as well as mineral reserves.

#### **8. Who is the owner and holder of geological data?**

In most of the countries the final host (holder) of geological data is the national Geological Survey or, in some countries, a separate National Geofund (e.g. Bulgaria, Slovakia and the Czech Republic). The owner of geological data is generally the State, but if data acquisition is financed by private companies and/or carried out in the framework of an exploration license, or a concession leasing contract the data belong to them. The exclusive right of the private company to its data is limited in time or in the case of an emergency or public interest but detailed conditions were not provided in the answers. For example in Estonia and Hungary this right is limited to the duration of the exploration; in Latvia the State (the Geological Survey) can use private data on the basis of agreement or in an emergency; in Slovenia the State might use private data for public interests.

#### **9. Are these data (both geological and mineral reserves) of free public access? If not, please describe the levels of confidentiality/restrictions (what kind of data, for how long, business or government secret, etc.).**

Generally, geological data and information which were obtained by private exploration are confidential (business secret) by the provision of regulations or by the declaration and classification made by the company. Some information remains public, e.g. in Hungary the name and address of the licensee, the type of mineral concerned, the duration of the license and the co-ordinates of the area involved. The duration of restrictions might be the whole licensed or contracted period (Estonia, Hungary) or defined in years (5 years in Latvia) or a combination of these (Slovenia). In Bulgaria magnetic and gravity data are confidential. For mineral reserves volumetric data of individual mining sites are typically confidential; in Romania this depends on the type of mineral commodity. Cumulative, integrated data are of public access and usually published annually (see answers 6, 7). Once geological data are declared as information on the environment, the existing EU-conforming regulations might apply in most countries. In the case of an emergency or if they are of state interest all data are accessible in all countries.

In principle, the open data are free to the public in these countries but in practice a service payment for the data supply is required everywhere.

#### **10. Who registers and archives the mining operation data?**

The collection and administration of mining opera-

tion data is not managed satisfactorily in the Candidate Countries. This is crucial from the long-term environmental risk point of view and considering the abandoned mining sites. Mining void geometry, backfilling history and waste heap location data provide essential information for planning closure and aftercare measures. Operation data are collected by the companies themselves and shall be submitted to Geological Surveys (or Geofonds) or to local mining authorities (e.g. in Slovakia, Hungary). It seems that this topic is not regulated in most countries, and a reliable central database of mining operation maps, even in analogue format, does not exist.

#### **11. Are these data of free public access? If not, please describe the levels of confidentiality/restrictions (what kind of data, for how long, business or government secret, etc.).**

The treatment of mining operation data is less regulated than the handling of geological data, although e.g. in Latvia operation data are parts of the "geological data". However, the trend is similar: in most countries these are confidential business secrets while ensuring the access of the authorities to them. In most countries it is rather unclear how the general EU requirement of the free access to data of environmental concern by interested parties applies to mining operation data. In a few countries (e.g. Slovakia, Hungary) these data are available for the interested parties.

#### **5.2.2.3. Licensing**

#### **12. What is the process of giving access to the exploration (prospecting) of minerals? (Concession (or leasing) contract of acreage, or licensing by an authority.) Please name the judging and contracting board or licensing authority and the co-authorities, if any, as well.**

The picture of giving access to the exploration of mineral deposits in Candidate Countries is similar to the practice of Member States and to the rest of the world. The concept of open competition rules the scene but there are differences in the details. In almost all countries open concession tenders are announced and judged for strategic minerals of state importance such as hydrocarbons (and in some countries for metals) by high-level authorities such as the Cabinet of Ministers, or the Ministry of the Environment or the Ministry of Economy. Other ministries and professional authorities are associated with the decision making. The areas for the bidding are delineated mainly on the basis of the potential occurrence of the given minerals but the elements of wider spatial planning considerations appear in some countries (e.g. Slovenia). In Hungary this com-



petition did not work due to the lack of applying companies, therefore a simple regulatory licensing procedure exists on a first-come first-serve basis.

For the exploration of economically less important minerals the general practice is the licensing by the competent authorities. There is a wide spectrum of these from the Ministry (M. of the Environment) through the government agency level (Geological Survey, National Mineral Resources Agency) to the local chief at county level (e.g. in Poland) depending on the type of mineral and the planned exploitation volume. Even the purpose of exploitation might be a concern, e.g. in Latvia for personal use of the reserve there is no need for a grant. The incorporation of other interested authorities and to a less extent the interested landowners or the local public into the licensing procedure is probably fulfilled in most countries, but the answers did not clarify this aspect in depth.

**13. What is the process of giving access to the exploitation (extraction, mining) of minerals? (Concession (or leasing) contract of acreage or licensing by an authority; establishment of mining acreage, licensing technical operation plans etc.) Please name the judging and contracting board or licensing authority and the co-authorities, if any, as well.**

**14. What other licences are needed during operation, or for breaks in operation (annual and mid-term technical operation plans approval etc.)?**

The interpretation of the answers given for questions 13 and 14 is combined and presented here. Giving access to the exploitation (mining, extraction) of minerals is related organically to the exploration rights. It means that companies in all countries have great safety of investment. The actual start of mining operation requires additional permits concerning mining technical safety, environmental aspects, etc. in all countries. This permit is typically the authorisation of the "plan of exploitation" or "development programme" or "technical operation plan". It seems that these contain elements of mineral management (e.g. planned exploited volumes), technical operation details (e.g. blasting plan), mining safety plans (including emergency plans), water use, emission figures, land use and other environmental aspects. During a licensed mining operation the annual revision and authorisation of operation plans is the general regulation and practice.

An interesting example for a particular mineral management practice during exploitation licensing is from Latvia. Local authorities issue production permits for common minerals (called 'minerals of local importance') within the volumes determined by the Ministry

of Environmental Protection and Regional Development (represented by the State Geological Survey subordinate to it) as quotas for different periods (up to 25 years). Every year, every holder of a permit (licence) for the use of the subsoil (the Licensee) must obtain an endorsement of the yearly volumes (limits) of production of common minerals from the local Environmental Boards (institutions under Ministry of Environmental Protection and Regional Development).

A rather detailed scheme from Hungary is presented where well-defined licensing steps lead to the start of mining activities "sensu stricto". The first obligatory step to the start of exploitation is the establishment of a mining plot (or "mining acreage"). The documentation to support the application is the final geological exploration report, which should prove the existence of economic mineral reserve and that the planned mining activity is viable. The license is issued by the mining authority with the involvement of professional co-authorities, the representative of the local government and the owners of the surface land. In addition, in order to start the mining activity a technical operation plan and a construction license must be approved by the mining authority based on the consent of other authorities.

**15. How long can a licensed break in mining operation last?**

The break in mining operation is a critical issue since many of the abandoned mines were not closed and reclaimed safely, and have no mining operator or legal successor (orphan mines), posing a high risk to the environment and directly to human health and safety. The story of orphan mines frequently starts with legal (licensed) and illegal break(s) in operation due to financial difficulties, dramatic market fall, exhaustion of mineral reserves, and/or environmental liability problems of the mining company. However, some countries do not have specific regulations on this (Bulgaria, Estonia, Lithuania). In most countries these interim breaks shall be granted by the Mining Authority, exclusively. As reported, a time limit for the duration of break exists in Slovakia and Hungary, where it can last for three years. It must be granted by the approval of a technical operation plan. After three years the authorities can initiate final closure and reclamation of the mine.

#### **5.2.2.4. Environmental aspects**

**16. How are environmental aspects represented when licensing mineral exploration and exploitation? (Involving the environmental authority in the licensing process, environmental liability prescriptions (EMAS, good environmental performance history, financial proof, etc) for the applying company, etc.)**

In general it holds true for Candidate Countries where the environmental impact assessment must be presented by the applying company during the concession contracting and the licensing of mining exploitation. However, it does not necessarily mean the submission and approval of a separate environmental impact assessment study and statement. In some countries a comprehensive EIA is not needed for all mining projects and/or at the earliest licensing phases (Hungary and Latvia) but the environmental aspects are represented by the incorporation of environmental authorities in the licensing procedure. In Slovenia mining rights are awarded on the basis of spatial plans which are harmonised to the interests of environmental protection.

Expert answers do not provide details on the regulatory tools on environmental liability but in most countries requirements are laid down in the role of environmental liability warranties, such as opening bank deposits, taking out liability insurance and setting an indemnity. The mining authority may oblige the company to open a bank deposit or to take out an insurance contract for environmental liability.

The adoption and especially the implementation of the EMAS in the Candidate Countries is very rare if any.

**17. Are the exploration and exploitation licenses transferable to another company? If yes, is the consent of the environmental authority needed and/or the same environmental liability required?**

There is a wide spectrum of solutions in the transfer of mining rights. In some countries it is impossible, the new company must proceed through the complete regulatory (contracting and/or licensing) procedure (e.g. Latvia and Lithuania). In other countries the consent of a high-level authority (e.g. the Government in Slovenia) is needed while in more liberal cases the consent of the mining authority might be sufficient if the new company proves the same environmental liability as that guaranteed by the original operator (Slovakia, Hungary and Romania). The consent of the environmental authority is not mentioned explicitly as a must in these countries' mining law.

**18. In which mining licensing phase(s) is a separate environmental license based on an environmental impact assessment required?**

A separate environmental license based on an environmental impact assessment is required before the concession decision in Poland, the location permit in Slovenia, the approval of the technical operation plan in Hungary and the mining operation in Bulgaria, Lithuania, Romania and Slovakia. In some countries e.g. Latvia and Estonia this is not specified in either mining or environmental law.

**19. Do local government or the local public have the right to block the mining licensing process? If yes, in which licensing phase and how?**

The local public and the local government may block the mining licensing process in all countries even during the spatial plan approvals (e.g. Slovenia and Hungary), during the exploitation license (e.g. Romania, Hungary and Latvia), during the environmental licensing in almost all countries, and during all administrative licensing procedures in Bulgaria. However, in Estonia the State Government can supervise the decision of the local municipality.

**20. Are there specific provisions for mining waste management in the mining legislation? If yes, please describe its definition and the provisions in detail.**

In most of the countries there are no specific provisions for mining waste management within the mining legislation. Handling the mining waste must be defined in mining technical documentation in accordance with environmental regulations.

In a few countries some provisions appear in the mining law with regard to waste management. For example in Bulgaria there are requirements concerning the optimum extraction of the reserves and useful components in primary processing and the depositing and storage of the soil materials and technological waste. The reclamation of the damaged terrain is also taken into account.

In Romania in the Mining Law there are specific provisions on mining waste management (Art. 29). There are Departmental Instructions for designing, realisation and conservation of waste dumps, issued by the Ministry of Industry and Resources. Special provisions for mining waste management are stipulated in the Law on environmental protection, Law on waste management, Government Decision No. 155/1999 on waste management and the introduction of the European Waste Catalogue as well as in Government Decision No. 162/2002 on waste disposal.

In Hungary, for the extraction of minerals from waste rock heaps the same rules apply as for open-pit mining. When establishing a mining plot (or "acreage"), technical documentation must be submitted which describes the environmental impacts of the waste rock heaps and processing plants and assesses the physical and chemical characteristics of the operational by-products and wastes. Accordingly, the approval of a technical operation plan is required to start the exploitation of waste rock heaps and for the closure and reclamation the same regulations apply as for open-pits. Similar regulations appear in the Slovakian mining law.

**21. Is mining water regulated in your mining legislation? If yes, please describe in detail.**

In half of the countries there is a specific regulation in the mining legislation with regard to water management. In Romania the law stipulates that the mining company is entitled to use groundwater for its own purposes. In Slovenia the case is similar but if mine waters have an outlet to the surface the rules for industrial waste waters apply. In Slovakia operators can use mined waters for their own purposes free on the basis of the consent of the water authority.

In Hungary mining waters are mentioned in the aspects of the mining safety, environmental protection, water management and common areas of these e.g. mineral exploitation by dredging lakes and rivers or geothermal energy extraction through water. The mining entrepreneur may use the water produced for the interest of safety and operational needs. The quantity of water used shall be determined by the water management authority. Since there are hundreds of sand and gravel pits in Hungary operating at, below or just a few meters above the groundwater table, a Government Decree on the utilisation of mine lakes regulates this field. The water authority has a special right to supervise the utilisation of these lakes by judging the plan of utilisation, which shall be submitted within a year of the issue of the mining authority's resolution on the mine closure.

**5.2.2.5. Mining safety**

**22. Does your country have detailed regulations on mining safety? If yes, at what level in the legislation? In countries with continental law legislation the hierarchy is generally: constitution, act (or law, or code), government decree (or order), ministerial decree (or order) and Supreme Court resolutions. Decisions, guidelines, recommendations, standards etc. have restricted legal binding force if any.**

Countries with long-standing underground mining traditions and significant production figures have a wide range of detailed regulations on mining safety. This topic is usually covered by the mining law and other subordinate decrees, orders, guidelines and standards. Countries with limited mining (surface quarrying) activities e.g. Latvia and Lithuania do not have specific mining safety regulations or they are in preparation.

**23. Does it cover tailing pond safety or do you have a separate regulation or guideline on it? Please describe.**

Tailing pond safety is not an important topic in mining safety legislation if it exists at all. In Bulgaria and

in Slovakia it is covered in detail while in Poland it is regulated mainly in the Building Law.

In Romania, tailings ponds safety is covered by the Law No. 466/2001 on safety of dams and Ministerial Orders and Norms Nos. 116/289/11.02.2002 on safety in exploitation of dams and tailings ponds, 119/11.02.2002 on tailings dams conservation, 121/11.02.2002 on approval of record-card for dams, 147/11.02.2002 on public statement of characteristics, importance and hazard degree associated with the dams, issued by the Ministry of Water and Environment Protection. There are also Departmental Norms for tailing ponds safety, issued by the Ministry of Industry and Resources.

In Hungary specific regulations on tailing ponds are being drafted. Direct provisions already exist in Decree No. 4/2001 (II. 23.) of the Minister of Economy on the minimal level of safety and health protection requirements to be accomplished in mines. Chapter I/25 "Waste Heaps and Other Disposal Sites" specifies that waste rock heaps, disposals and tailing ponds shall be designed in a way which supports their stability. Chapter III/1. defines that mining works shall be planned in a way which helps to prevent or to decrease the risk of dam slope collapse or sliding. The height and slope angle of dams shall be designed whilst considering material quality, stability and the technology.

Decree No. 44/1997 (VIII. 14.) of the Minister of Industry, Trade and Tourism on mining safety regulations of the reporting and examination of serious mining malfunctions and accidents lists slope, dam and waste rock heap failure among the serious mining operation malfunctions.

**24. What are the prescribed company and authority measures and responses in the case of mining accidents?**

Similarly to answer 22, countries with mining traditions regulate the required measures in the case of mining accidents (e.g. Slovakia and Slovenia). In some countries (e.g. Latvia, Romania and Hungary) the Workers Protection Act applies as well. In general, underground mines shall have a rescue team and the company shall inform the mining authority without delay.

**25. Is it obligatory or voluntary to attach safety assessments at a certain licensing phase or emergency plans for accidents if required at all?**

Safety assessments and emergency plans in case of underground mines are obligatory in all countries with significant mining industry. These are approved by the mining authority during the operation licensing.

#### 5.2.2.6. Mine closure

**26. What is the licensing procedure for mine closure (authorities, environmental regulations, etc.)?**

**27. Does it include remediation and post-closure monitoring?**

The licensing procedure and authorities involved with mine closure are similar to those for opening the mines but not regulated in such a detailed way. Some countries with minor mining activities do not have specific provisions on it (Latvia and Lithuania) but even in these cases a certain regulatory practice exists. The license is typically based on the approval of a closure plan. Environmental aspects are represented by the consent of the environmental protection authority for which in some countries an environmental impact assessment study is the prerequisite. Supplying technical documentation for archives is mentioned in some answers. Consequently, the reclamation and post-closure monitoring are covered by the mine closure licensing procedure. While there are specific provisions with regard to reclamation requirements in most countries, this is not the case for post-closure monitoring. This is usually laid down by the authorities in their resolutions. However, in Slovakia the mine reclamation is authorised by the county office, division of allotments, agriculture and forest management.

**28. What is the legal status of abandoned and not reclaimed (orphan) mines?**

The status of orphan mines is not regulated in Estonia and Latvia at all. In most countries this problem is touched in the mining act at least. The solutions vary according to the ownership of the given mineral commodity and the type of extraction technology. For example in Poland the landowner is responsible for the reclamation of open pits if the operator disappears without a legal successor. In Slovenia local communities take care of the reclamation of orphan mines by looking for financial support from government funds.

In Hungary the mining rights (including all liabilities) of the bankrupted mining company without legal successor must be announced by the Hungarian Mining Office for tender in the Official Journal of the Ministry of Economy. If the transfer of these rights and obligations is unsuccessful for a year, the mining authority deletes the license from the register and initiates the necessary measures to cover the costs of closure, reclamation, etc. from the reserved financial guarantees of the company. If this sum does not cover the total cost, the obligation of reclamation and environmental clean-up sooner or later returns to the State who is the original owner of the minerals.

The general picture is that sooner or later in all countries the State takes care of the reclamation of orphan mines.

**29. Are there specific regulations or guidelines for remediation methodology and technology (e.g. back-filling of shafts, galleries, quarries; thickness of soil cover; etc.)? If yes, please describe in detail.**

Except in Romania, there are no separate legislative regulations on mine reclamation. In Bulgaria specific quasi-regulative instructions exist, in the rest of the Candidate Countries prescriptions are laid down only in the authorities' decisions.

#### 5.2.2.7. Economics

**30. Do mining companies pay a mining royalty for all minerals exploited? If yes, what is the basis of the calculation? Are there any deferred payment terms according to enhanced recovery methodologies or environmental investments?**

Mining companies must pay royalties for extracted volumes in all the countries studied. In Latvia it is called a "natural resource tax". In all countries the royalty is paid like a tax, typically annually, but sometimes more frequently (quarterly for oil and gas in Hungary). In Slovenia a fee must be paid for land use as well. In Latvia and in Poland royalties might be reduced because of the minimisation of environmental impacts and optimisation of mineral extraction. However, in Poland a new amendment of the geological and mining law will make this no longer possible. In Hungary deferred terms may be applied for enhanced recovery of hydrocarbons and geothermal energy, but not directly for waste management. It is left to the professional authorities (geological and mining authorities) to judge whether the technology is an enhanced recovery.

An interesting example is reported from Latvia, where sand and gravel extraction from unconfined groundwater aquifers is supported by tax reduction. In Slovakia in addition to the royalty an annual standard fee must be paid for every km<sup>2</sup> of claim too.

**31. Does the mining royalty become a part of the central or local government income or is at least part of it used for the environmental decontamination/remediation of mining sites?**

In Bulgaria mining royalties become the unaddressed part of the central State budget. In Hungary 90 % is forwarded to the central State budget and 10 % to the Environmental Fund from which reclamation or orphan mines are being managed. In most of the countries mining royalties are incomes of both local and central government with different ratios.



Theoretically most of these funds can be used for financing reclamation but none of these are specially devoted to this. In Romania the mining tax is part of the Environmental Fund which can finance or offer loans for waste management, rehabilitation of affected areas, new cleaning up technologies etc.

### 5.2.3. Environmental legislation

#### 5.2.3.1. Licensing and environmental impact assessment

**32. What is the precise title, number, type, date of legislation, date of entry into force, last amendment and scope of your environmental protection law? (Air, landscape, soil, subsoil (geological formations), water (both surface and groundwater), biosphere (flora, fauna, human) and constructed environment.)**

Every country studied has a separate framework act on environmental protection. These laws were one of the first thematic legislative acts issued in the beginning or the middle of the nineties, soon after the political changes. The revolutionary legislation generally did not prove to be mature documents, being amended frequently in all countries. In the late nineties the preparation for EU accession required further modifications. As a result, completely new environmental legislation was accepted recently in some countries (e.g. Poland). Other concluding remarks cannot be made on the basis of the answers. However, it seems that the man-made, built environment is not included explicitly in the scope of the environmental acts of some countries.

**33. What types of environmental license does the law specify as relevant to mining waste management? (For new facilities and activities, for existing facilities and activities, for temporarily suspended activities, for closure, etc.)**

The environment protection framework laws do not have specific provisions on the licensing of mining waste. Instead this is regulated in the national waste management acts and in the mining acts (see answers 16 and 49).

**34. On what kind of environmental impact assessments are these licenses based? (Or environmental impact statement, or ... study, or ... audit, or ... performance assessment; basic or detailed, prescribed by the authority or voluntary, once in the lifetime of facility or periodical, etc.)**

This question was not formulated well enough or national environmental legislation does not have specific environmental impact assessment categories, especially not with regard to mining waste manage-

ment. It is clear that national regulations on when to apply EIA statements are more and more on the basis of the relevant EU directives.

**35. Are there detailed provisions within the environmental act or is there a separate regulation or guideline on environmental impact assessment procedure and methodology? If yes, please describe and attach even in national language.**

All countries have high-level separate regulations, mainly acts or Government Decrees, on environmental impact assessment. These acts list all types of activities and facilities the licensing for which an EIA shall be made and submitted and give detailed prescription of methodology in many countries. If not, manuals, guidelines and officially recommended handbooks do exist for detailed EIA methodology.

**36. Is mining listed in environmental legislation as an activity with obligatory environmental impact assessment?**

In almost all countries (with the exception of Slovakia) mining is listed in environmental legislation as an activity with obligatory environmental impact assessment. In some states it is the literal or interpreted (e.g. Latvia) adoption of the EU legislation in force (the amended 85/337/EEC directive). Other countries still leave a degree of freedom to national conditions, for example in Poland an EIA is not obligatory for small-scale mining of aggregates, if exploitation is less than 20000 tons per year over an area smaller than 2 hectares. The Hungarian legislation gives more stringent regulations for mining than the acquis, requiring the preparation of a detailed environmental impact for almost all types of mining activities.

**37. Is there a public hearing or other legal action for public acceptance in the environmental licensing process? What is its legal effect?**

In all countries a public hearing is obligatory in the environmental licensing process as associated with the EIA approval procedure. In Estonia two public hearings are compulsory, first before acceptance of the EIA programme by the environmental authority, second before the acceptance of the report. In Hungary after a detailed environmental impact statement has been submitted, the environmental inspectorate shall hold a public hearing, unless the activity falls under military secrecy.

However, in both countries the legal effect of public hearing is limited, the environmental authorities incorporate the comments of the public into their decision. It seems that the involvement of the local government as an authority into the licensing procedures (others than EIA as well), might represent the opinion of local public more effectively.



**38. Are there regulations in environmental legislation laying down limit and threshold values for pollutants in soil, subsoil, surface waters (*fish life, bathing, rivers and lakes*), groundwater (*drinking water*) and air? If yes, please describe in detail what kind of values are defined (*emission, natural background, intervention, decommissioning, clearance level etc. values*) and please attach values even in national language.**

The detailed analysis of relevant emission and pollution threshold values is outside the scope of the present report. The national legal experts provided a great deal of legislation in national languages the summary of which requires more time. In general it can be stated that in this field as well the harmonisation with the EU acquis is at an advanced stage in all countries. Therefore national limit values do not differ significantly from those set in the EU Directives.

**39. Does the environmental legislation adopt the concept of integrated pollution prevention control (IPPC) by regulating emissions at source? If yes, please describe its relevance to mining waste management.**

In Candidate Countries the environmental legislation is just about adopting the concept of integrated pollution prevention control (IPPC). In some countries it is in the form of a separate act (e.g. Estonia) while in other countries it appears as an amendment of the environmental act and implemented by new, lower level decrees (e.g. in Hungary and Romania). None of the countries involved mining activities in the scope of their ICCP regulations by adopting the EU ICCP Directive mechanically.

**40. Does your country have a National Environment Policy and/or Programme? If yes, does it mention mining waste management among priorities? In what context?**

All countries have issued a National Environment Policy or Programme as accepted by a Parliament resolution in most cases. For example in Romania it is issued by the Government, approved by the Parliament and implemented by the Ministry of Water and the Environment. Mining waste management and mining affairs are not among the first priorities, except in Romania, but mining-related environmental risks and necessary measures are mentioned in detail in the Environmental Policy of Estonia and Hungary.

#### 5.2.3.2. Liability and sanctions

**41. How is environmental liability of companies regulated? What are the sanctions?**

Environmental liability is regulated in both the envi-

ronmental and in the mining legislation in most countries. The answers given are rather limited. The liability tools are suspension of the activity, the obligation of paying an environmental fine, the financial compensation for the damages and lawsuits under the national civil and criminal code, which might end in the elimination of the company or the imprisonment of individuals as well.

**42. Is environmental damaging regulated in your criminal code and/or civil code? If yes, how?**

The answers provided for this question do not lead to general conclusions. In some countries environmental damage is not a subject of either the civil or the criminal code (e.g. Bulgaria and Slovakia). In other countries there are very stringent and detailed provisions on it in the criminal code (e.g. Estonia and Latvia) such as arrest, forced labour, fines, confiscation of property and imprisonment up to 20 years (!).

In Hungary, Lithuania and Poland both the civil and the criminal code regulates the field. According to the Hungarian civil code the liability for environmental damage is universal. In Hungary the Government Decree on minor offences classifies mining misdemeanours and sets rather low fines (about 250 Euro).

**43. Is mining waste subject to environmental fees, taxes or other financial regulatory tools? If yes, what types of mining waste (*disposed inert or hazardous, processing residue, backfill, hips for later secondary use*) and what is the term and basis of calculation?**

This question clearly divides the countries into two groups. In some of them mining is in a distinguished position of not having to pay environmental fees, levies and charges (in Bulgaria, Hungary, Lithuania, Romania and Slovenia). In other countries companies must pay quarterly for mining emissions (Latvia). In Estonia there is a pollution tax concerning waste landfills, i.e. when part of the mining waste is used in the mining area it is not taxed, when it is disposed of outside the quarries (after enrichment) it is taxed.

In Poland it is subject to fees which cover all types of mining waste, except the overburden of brown coal mining. The calculation depends on the type of waste, its quantity and period of storing, e.g. sand (from processing of natural aggregate) is cheaper than processing metal ore waste. The matter is regulated by the law shown at the site <http://www.mos.gov.pl/mos/akty-p/odpady.html>. The fees (in Polish zloty per ton) are calculated for storing waste on a dump and 3% quota for every year of storing.

**44. What legal and financial instruments does your legislation define for decontaminating and remediation of mining sites and for environmental restoration**

**works in general if the licensee changes; if the facility closes; if the licensee disappears without succession (*abandoned or orphan sites*)?**

Countries do not have specific provisions in national environmental legislation with regard to decontamination or reclamation of mining sites. Therefore the answers given to questions 28, 41 and 42 apply here as well.

**45. Do you have a State Environmental Fund? If yes, is it intended for reclaiming mines or for cleaning up toxic mining waste sites as well?**

All countries have a state environmental fund. These financial funds generally attract the attention of state budgetary decision-makers that is reflected in the frequent change of their status and independence. In some countries a part of this fund is explicitly intended for the clean-up and reclamation of mining sites (in Bulgaria, Estonia and Hungary) or at least it could be so intended theoretically (in Poland, Latvia and Romania), but in some countries it is not applicable (in Lithuania and Slovenia). See also answers to question 31.

#### **5.2.4. Waste management legislation**

**46. Does the country have separate regulation(s) on waste management? Please give regulation(s) number, title, etc. What is included in the scope of waste legislation? (E.g. are radioactive waste or mining waste also included?)**

All countries have a specific set of regulations on waste management which were issued in the middle and the end of the nineties as a second wave of environmental legislation. There are waste acts and several subordinate implementing decrees on it in most countries. In half of the countries, mining waste is included in waste legislation (Estonia, Hungary Lithuania and Slovenia). However, because of the direct adoption of the EU Waste Directives, in some countries the existing contradictions have already been transferred into national legislation with regard to mining waste, e.g. the major waste act does not include it but the waste catalogue lists mining waste. Radioactive waste is not covered by all national waste legislation.

**47. What are the main principles of waste management?**

National waste acts cite most of the internationally accepted principles of waste management (see detailed answers) with certain differences in priorities according to specific national conditions.

**48. What waste classification does the waste legislation define (e.g. household, hazardous, inert, etc.)? Please give definitions as well.**

There are different waste classification systems in Candidate Countries but most countries refer back to the one-by-one adoption of EU waste classification and the European Waste Catalogue.

All countries classify and define waste and hazardous waste. Most countries define municipal (or household) waste, Bulgaria defines industrial waste and construction waste, Hungary classifies liquid waste as well.

**49. How is mining waste defined and classified in the waste system or in another part of the legislation?**

Most of the Candidate Countries have already adopted the European Waste Catalogue item by item. It means there are no specific definitions for mining waste. The exceptions are the following:

A) Bulgaria, where mining waste is defined in Subsurface Resources Act:

“Technological waste”: rock and earth mass obtained as a result of exploration, extraction and processing of subsurface resources, which is stored at depots of approved design, inclusive of metallurgical slag, cinder and ash from thermal power stations and thermal stations, phosphogypsum, pyrite dross, ablations, slurries, etc.;

B) Romania, where mining wastes are defined as “residuals of mining exploitation and mineral processing”.

C) Poland, where mining waste is defined for the payment of waste fees (see answer to question 43) and it excludes the overburden of brown coal mining.

**50. Is there a separate regulation on mining waste management? If yes, please describe and attach even in national language.**

There are no regulations as separate pieces of legislation on mining waste management in the countries studied. In Hungary, according to §16-17 of the Environmental Protection Act, in the course of and prior to the implementation of projects (construction, mining), the adequate separation of topsoil and its use as agricultural soil, shall be provided for. Utilisation standards must be defined for the mining and exploitation of rock formations and minerals if an Act so provides. The extent of exploitation, the impact on the environment arising when tailings are produced in connection with mining, and the processing of mining products may not exceed the standards established in a regulation, or by an authority decision. The user of an area shall provide for the scheduled restoration or development of the area or for the conditions of the redevelopment thereof after the activities involving the utilisation of land have

been completed - and even as early as during the use of the environment. Act XLIII of 2000 on waste management in its §59 gives authorisation to prepare a ministerial decree on the treatment of mining waste. However, this legislative effort is at an immature state.

**51. Are there any special provisions for hazardous waste classification and management (*collection, treatment, disposal, transportation, etc.*)? Please describe in detail if relevant to mining waste (*if mining waste is classified as hazardous*).**

All countries have hazardous waste related provisions in their waste legislation. Some countries have separate regulation on hazardous waste management (e.g. Estonia, Hungary and Poland). These provisions may apply to hazardous mining wastes but none of the countries have specific provisions on hazardous mining wastes. As described in earlier answers, most national waste legislation have adopted the waste acquis. Therefore the details are not presented here.

**52. Is there a register of hazardous waste? Managed by whom?**

Hazardous waste registers do exist in most countries because they are required by the waste acts but it seems that these registers are still under development. Waste generators are obliged to report and supply the required quantitative and qualitative data of hazardous waste production, treatment, transportation, etc. to local environmental authorities, but the complete installation and management of on-line central inventories are among the tasks of the near future in many countries.

**53. Is there a mining waste inventory (*or cadaster, or catalogue, or database*) in your country? If yes, where and what is its data content?**

In many countries (e.g. Slovakia, Poland, Hungary and Romania) there are databases which function as or form part of a mining waste inventory. However, these are not regularly updated everywhere, or not designed exclusively for mining waste. In other countries there is no such database (e.g. Latvia) or it is just being established (e.g. in Slovenia).

**54. What are the technical provisions (*engineering and natural barriers*) of a landfill for different waste types? Please present them in detail if there are any.**

The EU Landfill Directive with all its technical provisions has been implemented in some countries (e.g. Estonia, Slovakia, Hungary and Slovenia). Some countries have specific national legislation on it, which takes into account the local geological setting as well (e.g. Latvia).

## **5.2.5. Water management legislation**

**55. Please present the authority framework of water management (*both quantitative and qualitative management if separated*) in your country.**

In most of the countries studied the Ministry of the Environment is the highest and the main authority for water management. This task is delegated to their regional environmental authorities and in many countries river basin directorates (Bulgaria, Slovenia and Hungary); in other countries regional water authorities (Poland) perform these duties. In Slovakia the Ministry of Agriculture supervises the quantitative aspects of water management. In Hungary the main water management tasks were carried out by the Ministry of Transport and Water Management and its regional directorates until the summer of 2002 when these affairs were incorporated into the Ministry of the Environment. Before then the Ministry of the Environment had exclusive supervision over water quality. In some countries local governments have tasks and authority in water management as well (Estonia and Hungary).

**56. Do you have a separate law on water management? If yes, please give its title, etc. and scope (*management of both surface and groundwater both qualitatively and quantitatively*)?**

Every country has a separate act on water management which was issued in the middle or in the end of the nineties. These acts cover both surface and groundwater and the most recent ones implement the concepts of the EU Water Framework Directive (e.g. in Slovenia and Slovakia).

**57. Is there a priority among water uses in the water legislation (*e.g. potable water, mineral water, thermal water, irrigation water, mining water etc.*)?**

No definite priorities are provided by national water regulations, except Bulgaria, Slovakia and Hungary. Explicitly or implicitly potable water supply is of the greatest importance in all countries. Industrial (or economic) water use which applies for mine water is at a low level of interest, if mentioned at all.

**58. Is the license of the water authority required for the use of water associated with mining (*incl. exploration*)? If yes, is it obligatory in every case, or is it restricted to certain circumstances (*e.g. karstwater, within a protected watershed, above a given volume*)?**

In most countries a water authority (and/or the environmental authorities) license is obligatory in all cases of water use which might apply for mining activities. In some countries (e.g. Estonia, Latvia, Lithuania and Romania) a certain set of criteria is

provided (volume limits, protected watershed, etc.). According to these criteria, smaller mining activities are not necessarily obliged to license their water use. The only exception is Slovakia where the operator requires a separate license for mine water use.

**59. Does the mining operator have to pay for the water use? In what cases and how is the sum calculated?**

Mining operators must pay for practically all water use in all countries (above the defined limits in certain countries see answer to question 58). In Poland they did not have to pay up to December 2001. The basis of the calculation of the fee (or tax) is the volume and the water quality (type of water reserve exploited). In some countries the intended use (Hungary, Slovenia), and the contamination level (Latvia) is concerned as well. The only exception is Slovakia where mining operators can use mine water for their own consumption free of charge.

**60. Is there a system of physical zones of protection of potable water reserves? If yes, please give quantitative details (*thickness of barrier zones and pillars, travel time of groundwater, etc.*).**

Each country has detailed regulation of the system of protecting potable water reserves. These are rather diverse and their presentation and summary are outside the scope of this report (for details see experts' answers).

**61. What is the provision by law or what is the licensing practice in general considering the number and location of monitoring wells for mining activities?**

There are no specific regulations on the water monitoring system in general, or for the mining activities. In all countries this is determined during the licensing procedures case by case.

**62. Is there a water management action plan required from the mining operator in case of accidents?**

In Bulgaria, Latvia, Hungary, Slovakia, Slovenia, Poland and Romania the mining operator must draw up a water management action plan or at least present measures to be followed in the case of an accident in a separate document or incorporated into the mining operation plan or the environmental impact assessment. However, regulations might limit this requirement to certain extraction volumes (e.g. more than 5m<sup>3</sup>/h in Hungary).

**63. Which agency(s) holds national water resources data? Does it contain water use volumes of mining?**

The given picture is rather diverse. Water resource

data are supplied by the users and generally collected by the regional water or environmental authorities and institutes, but there are differences in the central database management. In some countries it is run centrally by the Ministry of the Environment, in other countries there are separate databases for surface waters and groundwater, managed by Hydrological Institutes or Geological Surveys. The mine water use could be extracted from these databases, but in most countries only indirectly, following a search of mining companies' data or the type of industrial use, or the water use fees. Poland is the only exception where mine water use is registered in the MIDAS database.

## **5.2.6. Other legislation**

**64. Does spatial planning and land management legislation refer to mineral resources and/or mining and/or mining waste management?**

It is common practice in Candidate Countries for spatial planning and land management plans to consider mineral resources and mining sites, but this topic is generally not regulated explicitly in the spatial planning acts with the exception of Poland, Romania, Slovakia and Latvia, where it is clearly mentioned in relevant regulations. Other legislation has relevant provisions on this topic in some countries (Building Act, Mining Act). In Hungary a ministerial decree of the Minister of Environmental Protection provides some protection of mineral reserves against new establishments.

**65. Do development plans (*municipal, regional, country-scale*) consider and display mineral resources, proven mineral reserves, active mines, abandoned mines, mining waste sites and other mining facilities (*such as pipelines, shafts, tailing ponds, conveyor lines, etc.*) by regulation or by practice?**

Development plans consider and indicate major mineral reserves, active and abandoned mines in most countries. Mining waste sites are usually not considered. The different scale plans (country, regional, local) have different resolution on these objects. As was presented in the answer to question No. 64, this is generally not regulated in the legislation. Instead, this is probably the result of the approval procedure of these plans.

**66. Are there any declared primacy or hierarchy among competing land-uses (*mining, agriculture, forestry, regional and infrastructure development, nature conservation etc.*) in spatial planning legislation, or elsewhere in your legislation or in Supreme Court decisions?**

There are generally no hierarchy provisions for competing land-uses. However, in Estonia and Hungary



there are traces of this concern but mining is in the middle or in the end of these lists. The more general picture is that the regulatory practice places mineral exploitation after nature conservation and landscape protection.

**67. Is there an act of nature conservation (or included in the environmental law)? If yes, are mineral reserves listed in its scope as to be protected?**

Most countries have a nature conservation act which refers to geological values, protected landscapes, protected minerals, stones and fossils but does not cover economic mineral reserves.

**68. At what levels of nature conservation (e.g. national park, state park, state forest, local nature conservation area, natural monument, etc.) are exploration and exploitation of mineral resources still allowed?**

There are rather diverse classification systems for nature conservation areas with a wide range in the number of categories, from two (Romania) to seven (Latvia). Exploration and exploitation of mineral resources is possible under certain conditions at the lowermost levels of protection.

**69. Do you have a separate act on industrial and/or natural catastrophes? If yes, does it define or list mining accidents or catastrophes?**

Only a few countries (e.g. Bulgaria and Hungary) have a separate act on industrial accidents and natural catastrophes but those do not cover mining accidents, except in Romania. In other countries relevant decrees and chemical acts (Estonia, Latvia) or act on natural catastrophes (in Slovenia) were issued but none of them include mining matters. The other countries do not have regulations on catastrophes (Lithuania, Poland and Slovakia). In general it can be concluded that there is a long delay in adopting the EU Seveso Directive in the Candidate Countries which might be fortunate when considering its coming amendment.

**70. Are there any other specific provisions relevant to mining waste management in your legislation that were not covered in the questionnaire? If yes, please describe.**

No other relevant provisions were reported by national legal experts.

**71. If uranium mining and/or uranium mining waste is not dealt with in the mining and waste legislation does the nuclear energy act have relevant provisions to it? Please describe the situation.**

Countries with no uranium mining have no specific regulations (Latvia, Lithuania). In other countries both mining acts and radioactive (or atomic energy) legislation apply for uranium mining.

#### **5.2.7. International Conventions**

**72. The participation of the country in international environmental agreements and conventions. (No need to answer, Tamás Hámor of JRC fills it.)**

Candidate Countries are actively participating parties of international conventions on mining and environmental matters in general (see Table). Naturally, some conventions do not apply to certain countries (Danube Convention, Baltic Sea Convention), and a few have not come into force yet.

**73. Please list those bilateral environmental agreements your country has with neighbour countries, which are relevant to transboundary environmental impacts.**

The list of bilateral agreements on environment related affairs shows that diplomatic efforts consider these problems and most countries communicate with each other in this field. However, the lists given by experts do not coincide perfectly.

## 6. REFERENCES

### 6.1. LITERATURE

- Anckorn, J. F. – del Olmo, A. G. 1999: The implications of current European directives and the future of mining in Europe – IMWA Congress, Seville, pp. 791-803.
- Bontoux, L. - Leone, F. 1997: The legal definition of waste and its impact on waste management in Europe - JRC-IPTS, Seville, 117 p., EUR 17716
- BRGM 2001: Management of mining, quarrying and ore-processing waste in the European Union - Orleans, 83 p.
- DOE - HMSO 1995: Minerals planning policy and supply practices in Europe - London, 96 p.
- Down, C. G. - Stocks, J. 1977: Environmental impact of mining - Applied Science Publishers, London, 371 p.
- Environmental Resources Limited 1983: Environmental impact of future coal production and use in the EEC - Graham and Trotman, Brussels, 158 p.
- Faragó, T. - Kocsis-Kupper, Zs. 2000: Accidental transboundary water pollution: Principles and provisions of the multilateral legal instrument - WWF, Budapest, 71 p.
- Heber, M. 1995: Transmission and implementation of EEC environmental laws and regulations – UNESCO-IUGS-COGEONENVIRONMENT Training Workshop on Geoscience for Environmental Planning, Budapest, pp. 239-249.
- Hebestreit, C. – Kerschbaumer, D. 2001: The effects of EU legislation on the European mining industry in the field of environment and health & safety, and the tasks of Euromines – IMIL Euromin 2001 Conference, Budapest, 9 p.
- Hontelez, J. 2000: The environmental performance of the mining industry and the action necessary to strengthen European legislation in the wake of the Tisza-Danube pollution - European Environmental Bureau, Brussels, 30 p.
- Höglund, L. O. 2001: EU - Towards a new mines directive - Main priorities - Kemakta Konsult AB, 19 p.
- International Atomic Energy Agency 2001: Impact of new environmental and safety regulations on uranium exploration, mining, milling and management of its waste - IAEA, Vienna, 244 p.
- International Mine Water Association 2000: Proceedings of the 7<sup>th</sup> IMWA Congress, Katowice, 671 p.
- Lammers, J. G. 2001: International responsibility and liability for damage caused by environmental interferences – Environmental Policy and Law, 31/2., pp. 94-105.
- Long, K. L. 1995: Economics of mining law - Nonrenewable resources V. 4, No. 1, pp. 74-82.
- Lucas, C. 2001: The Baia Mare and Baia Borsa accidents: Cases of severe transboundary water pollution - Environmental Policy and Law, 31/2., pp. 106-111.
- Midzic, S. – Kroll, A. – Amezaga, J. M. 2001: Legal aspects of sustainable water resources management – Regional Conference on Water Law, Teslic, pp. 1-15.
- OECD 2000: Reducing the risk of policy failure: Challenges for regulatory compliance - Paris, 91 p.
- Otto, J. M. 1997: A national mineral policy as a regulatory tool - Resources Policy, V. 23, No. 1/2, pp. 1-7.
- Symonds Group 2001: A study on the costs of improving the management of mining waste - Report to DG Environment, European Commission, East Grinstead, 55 p.
- Warhurst, A. - Noronha, L. (eds.) 2000: Environmental policy in mining, Corporate strategy and planning for closure - Lewis Publishers, Boca Raton, 513 p.
- Weiss, N. L. (ed.) 1985: Mineral Processing Handbook - Society of Mining Engineers, New York, 2078 p.
- WWF, 2000: Suggested action at the European Union level to prevent unregulated, accidental pollution from metal mining activities – WWF International European Freshwater Programme, Report on "Toxic waste storage sites in EU countries", Brussels, 9 p.

### 6.2. REGULATORY WEB LINKS

#### International

<http://www.unep.net/profiles>

Web site of the United Nations Environment Programme with country profiles, including limited regulatory framework description.

<http://www.cia.gov/publications/factbook/indexfld.html>

Public database of the Central Intelligence Agency with brief description of countries' constitutional, legislative, judicial, executive status, ratification of international agreements and environmental legislation.

<http://www.mos.gov.pl/enimpas/legislations.shtml>

Homepage of the United Nations Economic Commission for Europe operated by the Ministry of the Environment of Poland with English reviews and texts of the most important international (including EU Candidate Countries) regulations.

<http://www.asser.nl/EEL/>

Homepage of European Environmental Law with links and downloadable texts of Candidate Countries' regulations.

## European Union

<http://europa.eu.int/eur-lex/en/index.html>

The official web site of the EU *acquis communautaire* including legislation in force, legislation in preparation, other official documents etc. Unfortunately, more and more regulations cannot be downloaded free of charge.

<http://europa.eu.int/comm/environment/docum/index.htm>

<http://europa.eu.int/comm/environment/enlarg/home.htm>

[http://europa.eu.int/comm/environment/waste/facts\\_en.htm](http://europa.eu.int/comm/environment/waste/facts_en.htm)

Official web sites of the European Commission, Directorate General Environment from which preparatory legislative documents, communications, reports and other documents in the environmental field can be downloaded.

<http://www.asser.nl/EEL/index.htm>

Homepage of European Environmental Law with English versions of some PECO regulations and with excellent links in the region.

<http://eippcb.jrc.es>

Homepage of the European Integrated Pollution Prevention and Control Bureau. Relevant Best Available Technology Reference Documents (BREF) are available (e.g. ferrous and non-ferrous metal processing) as well as draft BREF on monitoring. The home site of the mining waste BREF Technical Working Group.

<http://www.minewater.net/ermite>

Homepage of the EU FP5 "ERMITE" project with publication on mining water legislation.

## Candidate Central and Eastern European Countries

<http://www.moew.government.bg/legislation/legislation.html>

Homepage of the Ministry of the Environment and Water of Bulgaria with all of the relevant legislation in English.

<http://www.apmb.ro>

Homepage of the Baia Mare Environmental Protection Agency (Romania) with the English version of some environmental legislation.

<http://www.namr.ro>

Web site of the National Agency for Mineral Resources, Romania with the English text of the mining, petroleum and environmental laws.

[http://www.rec.org/REC/Programs/SofiaInitiatives/Ecolnstriments/Improving\\_env.html](http://www.rec.org/REC/Programs/SofiaInitiatives/Ecolnstriments/Improving_env.html)

Homepage of the Regional Environmental Centre with downloadable documents and with thematic lists of regulations in the given countries.

<http://www.mos.gov.pl>

Homepage of the Ministry of the Environment of Poland with the English texts of the most important regulations.

<http://www.sazp.sk/slovak/periodika/sprava/psr/index.html>

Homepage of the Slovak Republic State of the Environment Report with the English texts of all relevant legislation.

<http://www.lgt.lt>

Web site of the Lithuanian Geological Survey with the English text of the Act on Use of Underground resources.

<http://www.envir.ee>

Web site of the Estonian Ministry of the Environment with the English text of most relevant regulations.

<http://www.varam.gov.lv>

Homepage of the Ministry of Environmental Protection and Regional Development of the Republic of Latvia with the English versions of some environmental legislation.

<http://www.ubavie.gv.at/infoterra/bulgaria/legis.htm>

Web site of the Federal Environment Agency Ltd. of Austria with a detailed list of environmental legislation of Bulgaria.

<http://www.sigov.si/mop/vsebinska/angl/oglasna.html>

Web site of the Ministry of the Environment and Spatial Planning of Slovenia with English versions of some of the most important laws and documents.

<http://www.kum.hu/euint>

Hungary's EU integration website with country report.

## 7. ANNEXES

### ANNEX I

#### REGULATORY QUESTIONNAIRE OF THE PROJECT "INVENTORY, REGULATIONS AND ENVIRONMENTAL IMPACT OF TOXIC MINING WASTES IN PRE-ACCESSION COUNTRIES"

##### A JRC Project in Association with Central and Eastern European Candidate Countries

#### INTRODUCTION

It is clarified in several recent publications and EU Commission communications that there is no specific regulation on mining waste management in the European Union legislation ("acquis communautaire") and the application of the Community regulations on the topic is constrained. As a previous study pointed out, the situation of legislation within the Member States is rather similar.

The present project of the Directorate General Joint Research Centre dealing with mining waste management of the Candidate Countries is a great opportunity to bring and implement new regulatory ideas into the EU acquis in close connection with DG Environment. One of the first steps in this work is the acquisition of information by the enclosed regulatory questionnaire.

The questionnaire is structured into thematic units which make answering and interpreting easier. Following the review of relevant legislative and regulatory framework, questions are organised according to mining and environmental legislation (including waste and water management). Chapter IV gathers regulations of spatial planning, nature conservation, etc. and gives way to present all other special national regulations that have not been addressed. In the end two questions address international agreements.

The questionnaire requires state-of-art reviews rather than "yes or no" answers. Alternative terminology or explanatory notes for better understanding are shown in italics within the questions. Please give your answer in a separate Word document, beginning with the number of the question and give as detailed citation of regulation as possible, down to article numbers. In order to make the work easier experts may provide answers in two phases, most urgent questions are highlighted **in bold** for which answers are expected by **15<sup>th</sup> December** 2001. The answers to the remaining, but equally relevant questions are due by 15<sup>th</sup> January 2002.

To answer questions related to licensing procedures and authority frameworks flow charts and figures are most welcome. Together with the answers experts are requested to send those regulations in English which are not available for the project. Most important regulations containing quantitative threshold values, environmental impact assessment methodology or specific mining waste management provisions are acceptable in national language as well. Inquiries concerning the questionnaire should be addressed to Tamás Hámor (tamas.hamor@jrc.it).



## QUESTIONNAIRE

NAME OF THE COUNTRY

NAME OF NATIONAL LEGAL EXPERT(S)

### I REGULATORY FRAMEWORK

1. Please describe the regulatory framework of your country relevant to minerals and mining waste management (*hierarchy system of legislation; most relevant licensing and controlling authorities as environmental, mining, water, geological authorities, both local, regional, and central level; levels of appeal in the public administration*). Figures are most welcome.

### II MINING LEGISLATION

#### Ownership

2. Does your country have a separate law (or act) on mining (or use of subsoil, subsurface; including hydrocarbons as well)? If yes, please give its precise title, number, type, date of legislation, date of entry into force, last amendment.

3. What activities/subjects are covered in the scope of the mining act? (*In vertical sense: geological survey, exploration, establishment of mining acreage (or mining plot), exploitation, break in operation, mineral processing, remediation, post closure control (or aftercare); in horizontal sense: all mineral commodities included even oil and gas, geothermal energy, groundwater exploitation, use of underground space in general, oil and gas pipeline facilities, construction of underground facilities etc.*)

4. Who is the original owner of the mineral resources (*central state, local government, private landowner, etc.*)? Please give details if the ownership varies with regard to different minerals.

5. Does your country have a national minerals policy? If yes, in what legal document it is described? What are the main principles of this policy?

#### Data management

6. Does your country have a national mineral resources registry (or inventory)? If yes, nominate the manager agency(s) or authority(s).

7. If yes, is it updated annually by production volumes and other changes in reserve?

8. Who is the owner and holder of geological data?

9. Are these data (*both geological and mineral reserves*) of free public access? If not, please describe the levels of confidentiality/restrictions (*what kind of data, for how long, business or government secret, etc.*).

10. Who registers and archives the mining operation data?

11. Are these data of free public access? If not, please describe the levels of confidentiality/restrictions (*what kind of data, for how long, business or government secret, etc.*).

#### Licensing

12. What is the process of giving access to the exploration (*prospecting*) of minerals? (*Concession (or leasing) contract of acreage, or licensing by an authority.*) Please nominate the judging and contracting board or licensing authority and the co-authorities, if any, as well.

13. What is the process of giving access to the exploitation (*extraction, mining*) of minerals? (*Concession (or leasing) contract of acreage or licensing by an authority; establishment of mining acreage, licensing technical operation plans etc.*) Please nominate the judging and contracting board or licensing authority and the co-authorities, if any, as well.

14. What other licences are needed during operation, or for break in operation (*annual and mid-term technical operation plans approval etc.*)?

15. How long a licensed break in mining operation can last?

#### Environmental aspects

16. How environmental aspects are represented when licensing mineral exploration and exploitation? (*Involving environmental authority in the licensing process, environmental liability prescriptions (EMAS, good environmental performance history, financial proof, etc) for the applying company, etc.*)

17. Are the exploration and exploitation licenses transferable to another company? If yes, is the consent of the environmental authority needed and/or the same environmental liability required?

18. In which mining licensing phase(s) is a separate environmental license based on an environmental impact assessment required?

19. Does local government or local public have the right of blocking the mining licensing process? If yes, in which licensing phase and how?
20. Are there specific provisions of mining waste management in the mining legislation? If yes, please describe its definition and the provisions in details.
21. Is mining water regulated in your mining legislation? If yes, please describe in details.

#### Mining safety

22. Does your country have detailed regulations on mining safety? If yes, of what level in the legislation? *In countries of continental law the hierarchy of legislation is generally: constitution, act (or law, or code), government decree (or order), ministerial decree (or order), Supreme Court resolutions. Decisions, guidelines, recommendations, standards etc. have restricted legal binding force if any.*
23. Does it cover tailings ponds safety or do you have a separate regulation or guideline on it? Please describe.
24. What are the prescribed company and authority measures and responds in case of mining accidents?
25. Is it obligatory or voluntary to attach safety assessments at a certain licensing phase or emergency plans for accidents if required at all?

#### Mine closure

26. What is the licensing procedure of mine closure (*authorities, environmental regulations, etc.*)?
27. Does it include remediation and post-closure monitoring?
28. What is the legal status of abandoned and not remediated (orphan) mines?
29. Are there specific regulations or guidelines for remediation methodology and technology (*e.g. backfilling of shafts, galleries, quarries; thickness of soil cover; etc.*)? If yes, please describe in details.

#### Economics

30. Does mining companies have to pay a mining royalty after all minerals exploited? If yes, what is the basis of the calculation? Are there any deferred terms of paying according to enhanced recovery methodologies or environmental investments?
31. Does the mining royalty become a part of the central or local government income or at least part of it is used for environmental decontamination/remediation of mining sites?

### III ENVIRONMENTAL LEGISLATION

#### Licensing and environmental impact assessment

32. What is the precise title, number, type, date of legislation, date of entry into force, last amendment and scope of your environmental protection law? (*Air, landscape, soil, subsoil (geological formations), water (both surface and groundwater), biosphere (flora, fauna, human), constructed environment.*)
33. What types of environmental license does the law prescribe relevant to mining waste management? (*For new facilities and activities, for existing facilities and activities, for temporarily suspended activities, for closure, etc.*)
34. On what kind of environmental impact assessments are these licences based? (*Or environmental impact statement, or ... study, or ... audit, or ... performance assessment; basic or detailed, prescribed by the authority or voluntary, once in the lifetime of facility or periodical, etc.*)
35. Are there detailed provisions within the environmental act or is there a separate regulation or guideline on environmental impact assessment procedure and methodology? If yes, please describe and attach even in national language.
36. Is mining listed in environmental legislation as an activity with obligatory environmental impact assessment?
37. Is there a public hearing or other legal action for public acceptance in the environmental licensing process? What is its legal effect?
38. Are there regulations in environmental legislation prescribing limit and threshold values for pollutants in soil, subsoil, surface waters (*fish life, bathing, rivers, lakes*), groundwater (*drinking water*), air? If yes, please describe in details what kind of values are defined (*emission, natural background, intervention, decommissioning, clearance level etc. values*) and please attach values even in national language.
39. Does the environmental legislation adopt the concept of integrated pollution prevention control (IPPC) by regulating emissions at source? If yes, please describe its relevance to mining waste management.
40. Does your country have a National Environment Policy and/or Programme? If yes, does it mention mining waste management among priorities? In what context?

## Liability and sanctions

41. How is environmental liability of companies regulated? What are the sanctions?
42. Is environmental damaging regulated in your criminal code and/or civil code? If yes, how?
43. Is mining waste a subject to environmental fees, taxes or other financial regulatory tools? If yes, what types of mining waste (*disposed inert or hazardous, processing residue, backfill, hips for later secondary use*) and what is the term and basis of calculation?
44. What legal and financial instruments your legislation defines for decontamination and remediation of mining sites and for environmental restoration works in general in case of change in person of the licensee; in case of closure of the facility; in case of disappearance of the licensee without succession (*abandoned or orphan sites*)?
45. Do you have a State Environmental Fund? If yes, is it addressed for remediation of mines or clean-up of toxic mining waste sites as well?

## III/A WASTE MANAGEMENT LEGISLATION

46. Does the country have separate regulation(s) on waste management? Please give regulation(s) number, title, etc. What is included in the scope of waste legislation? (*E.g. radioactive waste, mining waste also included?*)
47. What are the main principles of waste management?
48. What waste classification does the waste legislation define (*e.g. household, hazardous, inert, etc.*)? Please give definitions as well.
49. How is mining waste defined and classified in waste system or in other part of legislation?
50. Is there a separate regulation on mining waste management? If yes, please describe and attach even in national language.
51. Are there any special provisions for hazardous waste classification and management (*collection, treatment, disposal, transportation, etc.*)? Please describe in details if relevant to mining waste (*if mining waste is classified as hazardous*).
52. Is there a register of hazardous waste? Managed by whom?
53. Is there a mining waste inventory (*or cadaster, or catalogue, or database*) in your country? If yes, where and what is its data content?
54. What are the technical prescriptions (*engineering and natural barriers*) of a landfill for different waste types? Please present it in details if there are such.

## III/B WATER MANAGEMENT LEGISLATION

55. Please present the authority framework of water management (*both quantitative and qualitative management if separated*) in your country.
56. Have you got a separate law on water management? If yes, please give title, etc. and its scope (*management of both surface and groundwater in both qualitative and quantitative manner*)?
57. Is there a priority among water uses in the water legislation (*e.g. potable water, mineral water, thermal water, irrigation water, mining water etc.*)?
58. Is the license of the water authority required for the use of water associated with mining (*incl. exploration*)? If yes, obligatory in every case, or is it restricted to certain circumstances (*e.g. karstwater, within protected watershed, above a given volume*)?
59. Does the mining operator have to pay for the water use? In what cases and how is the sum calculated?
60. Is there a system of physical zones of protection of potable water reserves? If yes, please give quantitative details (*thickness of barrier zones and pillars, travel time of groundwater, etc.*).
61. What is the provision by law or what is the licensing practice in general considering the number and location of monitoring wells for mining activities?
62. Is there a water management action plan required from the mining operator in case of accidents?
63. Which agency(s) holds national water resources data? Does it contain water use volumes of mining?

## IV OTHER LEGISLATION

64. Does spatial planning and land management legislation refers to mineral resources and/or mining and/or mining waste management?
65. Do development plans (*municipal, regional, country-scale*) consider and display mineral resources, proven mineral reserves, active mines, abandoned mines, mining waste sites, other mining facilities (*as pipelines, shafts, tailing ponds, conveyor lines, etc.*) by regulation or by practice?
66. Are there any declared primacy or hierarchy among competing land-uses (*mining, agriculture, forestry, regional and infrastructure development, nature conservation etc.*) in spatial planning legislation, or elsewhere in your legislation or in Supreme Court decisions?
67. Is there an act of nature conservation (*or included in the environmental law*)? If yes, are mineral reserves listed in its scope as to be protected?

68. At what levels of nature conservation (e.g. *national park, state park, state forest, local nature conservation area, natural monument, etc.*) are exploration and exploitation of mineral resources still allowed?
69. Do you have a separate act on industrial and/or natural catastrophes? If yes, does it define or list mining accidents or catastrophes?
70. Are there any other specific provisions relevant to mining waste management in your legislation that wasn't touched in the questionnaire? If yes, please describe.
71. If uranium mining and/or uranium mining waste is not dealt with in the mining and waste legislation does the nuclear energy act has relevant provisions to it? Please describe the situation.

## V INTERNATIONAL CONVENTIONS

72. The participation of the country in international environmental agreements and conventions. (*No need to answer, Tamás Hámor of JRC fills it.*)
73. Please list those bilateral environmental agreements your country has with neighbour countries, which are relevant to transboundary environmental impacts.



## **ANNEX II**

Answers to the Regulatory Questionnaire

**COUNTRY: Bulgaria**

**NATIONAL LEGAL EXPERTS: Valeri Trendafilov, Ognian Gubev**

**COUNTRY: Estonia**

**NATIONAL LEGAL EXPERTS: Peeter Eek, Erki Niitlaan**

**COUNTRY: Hungary**

**NATIONAL LEGAL EXPERTS: Tamás Hámor, Csaba Markó**

The authors express their gratitude to Ágnes Czine (Budapest County Court), Elizabeth Erdélyi (Hungarian Geological Survey), Gabriella Jelinek (Ministry of Transportation and Water) and Gábor Szabados (Hungarian Mining Office) for their helpful comments.

**COUNTRY: Latvia**

**NATIONAL LEGAL EXPERT: Vladimirs Krutofals**

**COUNTRY: Lithuania**

**NATIONAL LEGAL EXPERT: Ingrida Kavaliauskiene**

**COUNTRY: Poland**

**NATIONAL LEGAL EXPERT: Michal Gientka**

**COUNTRY: Romania**

**NATIONAL LEGAL EXPERTS: Petru Stratulat, Serban Veliciu**

**COUNTRY: Slovak Republic**

**NATIONAL LEGAL EXPERTS: Monika Lipovska, Martin Lutonsky**

**COUNTRY: Slovenia**

**NATIONAL LEGAL EXPERTS: Dusan Marc, Primoz Bizilj**

## I Regulatory framework

1. Please describe the regulatory framework of your country relevant to minerals and mining waste management (*hierarchy system of legislation; most relevant licensing and controlling authorities as environmental, mining, water, geological authorities, both local, regional, and central level; levels of appeal in the public administration*). Figures are most welcome.

### BULGARIA

SUBSURFACE RESOURCES ACT - 12.03.1999

REDUCTION OF THE HARMFUL IMPACT OF WASTE UPON THE ENVIRONMENT ACT - 18.09.1997.

WATER ACT – 13.07.1999

INSTRUCTION No. 1/12.12.1994 – FOR TREATMENT OF RADIOACTIVELY CONTAMINATED MATERIALS, FACILITIES AND WASTE FROM URANIUM MINING LIQUIDATION

COUNCIL OF MINISTERS DECREE No. 140/23.07.1992 – FOR RESTRUCTURING OF ORE EXPLOITATION AND CLOSURE OF NON EFFECTIVE OPERATIONS

COUNCIL OF MINISTERS DECREE No. 74/27.03.1998 ON THE URANIUM MINING AND PROCESSING CONSEQUENCES LIQUIDATION

REGULATION No. 12/06.11.1998 – FOR REQUIREMENTS OF THE SITES FOR WASTE TREATMENT FACILITIES

Regulation for the terms and procedure for mandatory coordination of the annual designs for prospecting, exploration, extraction and primary processing of subsurface resources, of the designs for liquidation or preservation of geological survey and mining sites and of the designs modifications and additions. SG No. 6/21.01.2000.

### ESTONIA

The main law in this field is "*Earth's crust act*" (RT I 1994, 86/87, 1488). Based on this act the Minister of Environment issued several regulations, as "*Order of application and granting the exploration permit*", "*Order of application and granting the extraction permit*". The register of valid permits must be published every year. The right to carry out the exploration and extraction is given with the licences, regulation of licenses is given by the Minister of the Economy. Permits are granted by the Ministry of the Environment or by the local environmental agency depending on the importance of deposit, as being of state importance or of local importance.

### HUNGARY

In Hungary the basic constitutional powers as legislative, judicial and executive are distributed among the different state bodies (see Figure). The democratically elected National Assembly (The Parliament) is the highest legislative and political body that makes acts. On the top of the legislation hierarchy pyramid stands the Constitution, the form of which is an act. There is another act, the Civil Code, which is somewhat above other acts in the hierarchy.

The Government and its members, the Ministers present an overlap between the legislative and executive power because they are authorized to issue Government Decrees and Ministerial Decrees, which shall be in accordance with acts. The same holds true for local governments, which have the right to issue orders, the territorial scope of which is limited to the administrative area of the settlement. Local government decrees represent the lowermost level of legislation. All other quasi-legal forms as orders, guidelines of government agencies (e.g. Hungarian Mining Office, Hungarian Geological Survey), technical standards of national or international organizations (e.g. ISO), individual resolutions of authorities have no universal binding force but might have important role in judicial appeals.

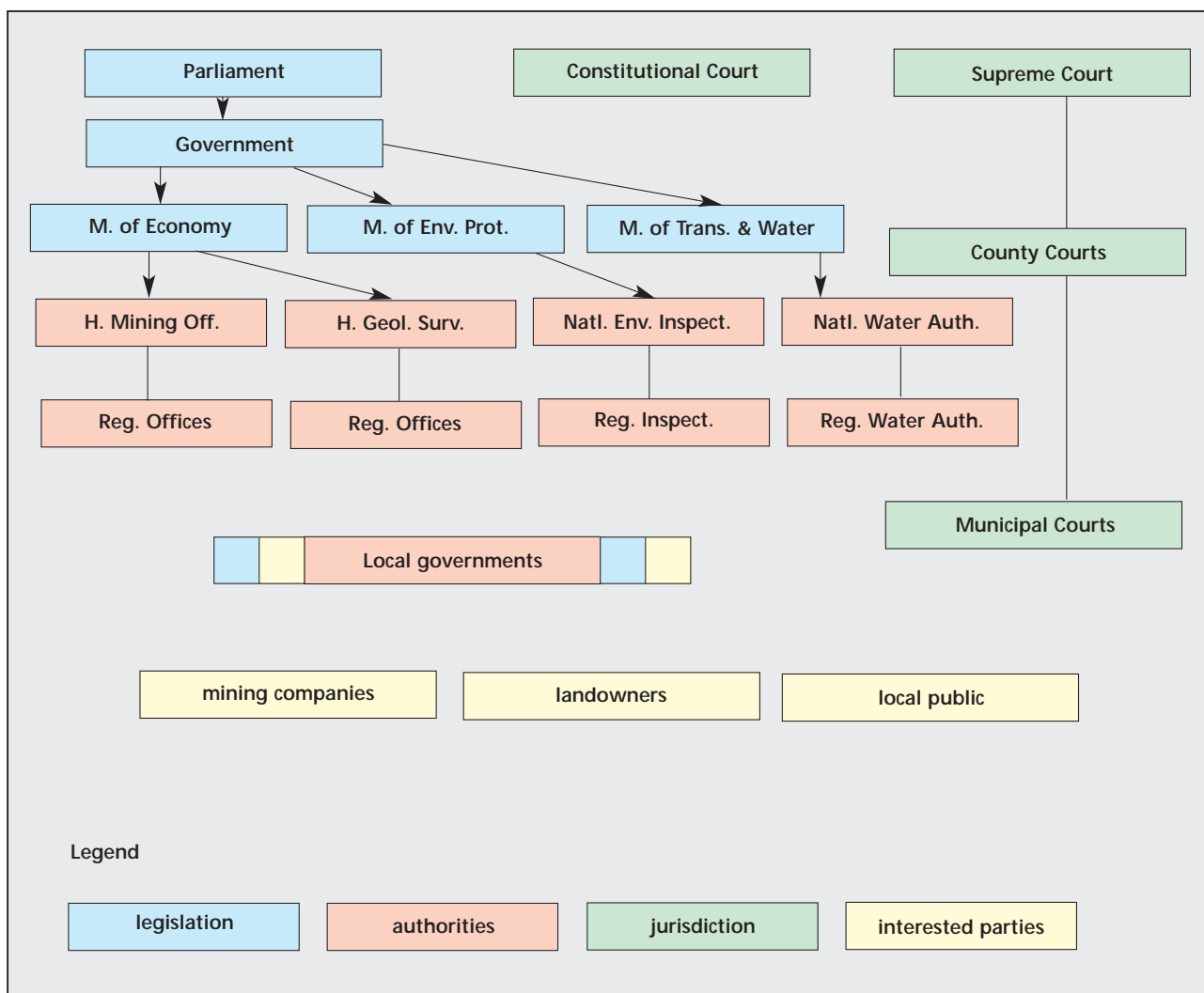
According to the §57 of the Constitution every citizen has the right to turn to the court for a jurisdiction concerning his/her rights or obligations. The judicial system in Hungary has three levels. Local municipal, district and thematic (labour affairs) courts constitute the first level. Nineteen county courts and the Budapest Municipal Court give the second level. However, in the public administration appeals county courts mean the first court level. The Supreme Court is on the top of the judicial system, its standard resolutions are obligatory for all juries. The Constitutional Court is not part of the judicial system in a strict sense but it has a special role and power in the legislation and indirectly in the public administration as well.

The public administration legal procedures have long-standing traditions as defined by the Act IV of 1957 (as amended several times) on the general rules of state administration. This act recognizes the importance of professional authorities while acknowledging the rights and convenience of interested other parties, as the local public, by ensuring their democratic participation and option of appeal in the licensing process and by establishing the legal institution of a single, integrated co-authority license, respectively. The co-authority system means that in a thematic licensing process (e.g. environmental license) the final resolution is issued by the major professional authority (e.g. local environmental inspectorate) which collects and incorporates the prescriptions of other interested authorities (e.g. local geological, water authorities, local municipality, etc.) to the higher convenience of clients.

The other novelty of the act is that the right of appeal for the client is ensured already within the public administration system, by performing a second instance licensing procedure with the participation of the supervisory level of professional authorities (the central body or supervising ministry of the authority). It means that it is the third-instance level of legal recourse in public administration when the case comes to the first judicial, the county court level.

In mining affairs the main authorities are the Hungarian Mining Office with four regional offices (as first-instance authorities) and the Hungarian Geological Survey with seven regional offices. Both have a government agency status within the auspices of the Ministry of Economy. Other important authorities are the Environmental Protection and Nature Conservation Central Inspectorate (with twelve regional inspectorates and nine national park directorates), the General Directorate of Water Management (with twelve regional directorates), and the Central Service of Plant and Soil Protection (with nineteen regional services). Local municipalities also have a decisive role in mining affairs.

### Key players in mining waste management in Hungary



**MAIN FUNCTIONS OF THE GOVERNMENTAL INSTITUTIONS IN THE SPHERE OF MANAGEMENT OF THE USE OF MINERALS AND ASSOCIATED ENVIRONMENTAL PROTECTION ASPECTS IN LATVIA**

Name of the organisation		Functions
<b>I. Central level</b>		
<b>Cabinet of Ministers</b>		It considers all the draft laws, prepared by the ministries, and submits them to the Saeima (Parliament) for consideration and acceptance. It also publishes regulations, instructions, recommendations and orders. In compliance with Article 81 of the Constitution, it publishes regulations that have the importance of the laws.
<b>Ministry of Economy</b>		It organises competitions for the permits (licences) for pre-investigation, exploration and production of hydrocarbons and issues such permits (licences). It is also responsible for administrative supervision of pre-investigation, exploration and production of hydrocarbons.
<b>The Ministry of Environmental Protection and Regional Development</b>		The principal state institution in the sphere of environmental protection that is responsible for establishing the policy of environmental protection, protection and rational use of natural resources (including minerals); it also plans and controls the introduction and implementation of such policy, develops and prepares for implementation of the legal basis for the environmental protection, upgrades the institutional structure.
<b>Institutions under the Ministry of Environmental Protection and Regional Development</b>		
<b>State Geological Survey</b>		It is responsible for the state geological supervision of the subsoil and its rational use (including collection, storage and generalisation of data on the mineral deposits, their reserves and production of minerals, licensing of exploration and production of minerals)
<b>Environmental Impact Assessment State Bureau</b>		It organises the procedures of the environmental impact assessment of planned mining objects.
<b>Environmental State Inspectorate</b>		It implements state control over the implementation of legal and administrative acts in the sphere of exploration for and production of minerals, remediation of former production sites and environmental protection in general, controls the emissions of contaminants into the environment and activities associated with the toxic waste
<b>Latvian Environment Agency</b>		It manages the state system of environmental monitoring, establishes and maintains the state environmental information system, establishes databases on water and air contamination and toxic waste, analyses information and prepares yearly reports on the status of the environment.
<b>II. Regional level</b>		
<b>Regional Environmental Boards</b>		They control, on the regional level, the implementation of the regulations aimed at protection, use and reproduction of all types of natural resources (including minerals), implementation of the regulations of emissions of contaminants into the environment, collection, use, disposal, decontamination and storage of all types of waste.
<b>Institutions managing the specially protected areas</b>		They issue permits for exploration for and production of minerals in the specially protected areas managed by them. They also supervise compliance with the laws regulating environmental protection and use of natural resources.
<b>III. Local level</b>		
<b>Local authorities (of parishes and towns)</b>		They issue permits for the production of common minerals*; control the use of subsoil and its protection during the production of minerals; control remediation of former mineral production sites. They also develop environmental protection programmes for their areas, control environmental protection in general, organise construction, reconstruction and upgrading of the environmental protection objects.

\* Information on common minerals is given in the answer to Question 13.



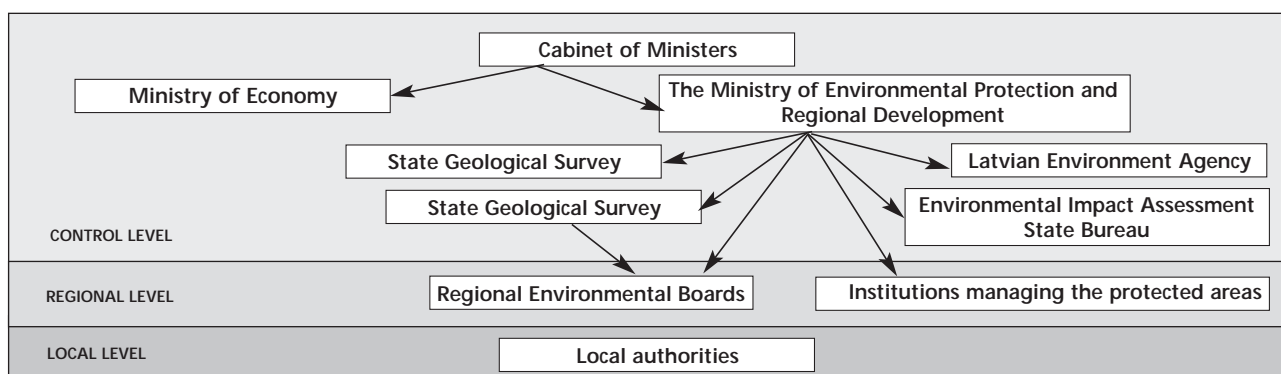
## LATVIA

The system of legal and administrative acts pertaining to minerals, waste management and environmental protection incorporates, in general, the following (in compliance with the Latvian system of legal and administrative acts):

- Laws (passed by the Saeima (Parliament)).
- Regulations are approved by the Cabinet of Ministers if the law has specifically empowered the Cabinet of Ministers to do so or if the item in question is not covered by the law.
- Statutes of the state governmental institutions. They are approved by the Cabinet of Ministers (for the state governmental institutions under supervision) or by a Minister (for the state governmental institutions under the ministries).
- Instructions (published by the Cabinet of Ministers or by ministers for the institutions if the law or regulations have specifically empowered them to do so or if the item in question is not covered by the law).
- Recommendations (published by the Cabinet of Ministers or by ministers for the institutions under them if the law or regulations envisage that that institution has a right to choose making a concrete decision).
- Orders (published by the Cabinet of Ministers or by ministers for the separate state institutions and officials under them in cases envisaged by the legislation and regulations of the Cabinet of Ministers).

The system of principal legal and administrative acts pertaining to minerals, waste management and environmental protection is shown in Table. Main institutions at different level in the sphere of the use of minerals and associated aspects of environmental protection are shown on a diagram (see Table), while main functions of those institutions in the above sphere are shown in the table following the diagram.

Institutions managing the sphere of the use of minerals and associated environmental protection aspects in Latvia



## LITHUANIA

Investigations of underground, its use and protection in Lithuania are regulated by Constitution of the Republic of Lithuania, the laws of the Republic of Lithuania, decisions made by the Government of the Republic of Lithuania and regulations issued by Ministry of Environment and Geological Survey of Lithuania.

The Ministry of Environment (A. Jaksto 4/9, LT – 2694 Vilnius) forms and implements use, restoration and protection of natural resources and the underground, as well as restoration of damaged lands.

It prepares draft of laws, decrees of the Government and other legal acts on rational use, restoration and protection of underground resources. It establishes an order for use and restoration of mineral resources, limits and conditions, order of issuing permits. It organizes preparation of programs and projects on land reclamation, organizes use of abandoned quarries and peat-land for plantation of valuable plant species. The Lithuanian Geological Survey under the Ministry of Environment (S. Konarskio 35, LT-2600 Vilnius) organizes and carries out state geological exploration of the underground of onshore and offshore of the territory of the Republic of Lithuania. Within its competence regulates use, protection and exploration of the underground. Accumulates and stores information on the underground. Creates and develops a system of geological information, implements modern information processing technologies (GIS), manages the State Register of Mineral Resources and Drilled Wells of the Underground, manages the Fund of Geology. The Survey organizes and carries out mapping, exploration and forecast of mineral resources, issues licences and executes their control, prepares summaries of mineral resources, manages the inventory of resources, regulates the use of resources. Carries out the state regulation of works related with oil. Regional Environmental Protection Departments of the Ministry of Environment (there are 8 Regional Environmental Protection Departments in the Republic of Lithuania) are responsible for the control of mining activities and reclamation (remediation) of damaged land.

PRINCIPAL LEGAL AND ADMINISTRATIVE ACTS PERTAINING TO MINERALS, WASTE MANAGEMENT AND ENVIRONMENTAL PROTECTION IN LATVIA

Aspect	Law	Regulations of the Cabinet of Ministers
<b>Subsoil, minerals</b>	On the Subsoil (1996)	Regulations on the Use of the Subsoil (1997, No. 239) The Provisions of the Use of Minerals, Deposits and Subsoil Areas of State Importance (2000, No. 307) Regulations for Pre-investigation, Exploration and Production of Hydrocarbons (2000, No. 51) Statute of Competition for the Award of Permits (Licences) for the Contest Procedure for the Award of Permits (Licences) for the Offshore Activities of Hydrocarbon Pre-Investigation, Exploration and Production (2000, No. 52) Regulations on the State Fee for the Oil Production (2000, No. 53) Work safety requirements during exploration for and production of minerals (2002, No. 253)
<b>Mining safety</b>		
<b>Water</b>	On Water Management - <b>under preparation</b>	Regulations on Water Use Permits (1997, No. 155) Obligatory Requirements for the Non-Harmful Character of Drinking Water (1999, No. 63) On Swimming Beaches Management and Sanitary Regulations (1998, No. 300) Regulations on the quality of surface water and groundwater (2002, No. 118) Regulations on the emissions of contaminants in water (2002, No. 34)
<b>Air</b>		Regulations on the air quality (1999, No. 219) Regulations on the Evaluation, Observations, Minimisation and Control of Air Contaminants Resulting from Stationary Contamination Sources (2000, No. 154)
<b>Waste</b>	On Waste Management (2000)	Regulations on the Waste Classifier and Properties Making Waste Hazardous (2001, No. 258) Regulations regarding the establishment of landfills, management, closure and remediation of landfills and dumps (2002, No. 15)
<b>Contamination</b>	On pollution (2001)	Procedures of Identification and Registration of Contaminated and Potentially Contaminated Sites (2001, No. 483)
<b>Natural resource taxation</b>	On Natural Resource Tax (1995)	Regulations "Procedures of calculation and payment of the natural resource tax" (2002, No. 244)
<b>Environmental protection</b>	On Environmental Protection (1991)	Regulations on the Environmental State Monitoring (1997, No. 415)
<b>Protected areas</b>	On the Specially Protected Nature Territories (1993)	General Conditions for the Protection and Use of Specially Protected Nature Territories (1997, No. 354)
<b>Environmental Impact Assessment</b>	On Environmental Impact Assessment (1998)	Procedures for Environmental Impact Assessment (1999, No. 213)
<b>Territorial planning</b>	On Spatial Development Planning (1999)	Regulations on Territorial Planning (2000, No. 423)

## POLAND

### 1. Geological administration (licensing authorities):

a.

MINISTER OF ENVIRONMENT  
(ACTING WITH THE ASSISTANCE OF UNDERSECRETARY OF STATE - CHIEF GEOLOGIST OF THE COUNTRY)

from 1<sup>st</sup> of January 2002 concessions for exploration and exploitation of energetic and metallic raw materials

b.

VOIVODES (PROVINCIAL CHIEFS) AND PROVINCIAL GEOLOGISTS

from 1<sup>st</sup> of January 2002 licenses exploration and exploitation for the rest of raw materials

c.

STAROSTA  
(CHIEF OF COUNTY)

from 1<sup>st</sup> of January 2002 licenses for exploration and exploitation of the common raw materials (as sand and gravel, clays, limestone) on surface to 2 hectares and production to 20000 tons per year.

Levels of appeals from decisions of geological administration are (depending from type of decision and level of administration): higher step of administration, provincial parliaments (Sejmik Wojewódzki) and administrative courts.

Controlling of exploitation (mainly the aspects of safety of exploitation and protection of resources, some environmental aspects) is under the Higher Mining Authority and its provincial branches (from 1<sup>st</sup> of January 2002). Environmental aspects of exploitation are controlled also by voivodes and the State Inspection of Environmental Protection with its provincial branches.

## ROMANIA

### Legislation System

Romanian Parliament (Laws)  
Government of Romania (Decisions, Ordinances, Emergency Ordinances)  
Ministries, Agencies (Orders, Regulations, Departmental Norms, Technical Instructions)

#### *Mineral and Mining Waste Management:*

Ministry of Industry and Resources (MIR)  
National Agency for Mineral Resources (NAMR)  
Ministry of Waters and Environment Protection (MWEP)

#### *Mining Licensing and Controlling:*

National Agency for Mineral Resources (NAMR)

*Regional and local controlling:* NAMR local Inspectorates (20)

#### *Waters and Environment Licensing and Controlling:*

Ministry of Waters and Environment Protection (MWEP)

*Regional and local controlling:* MWEP local (County) Inspectorates

#### *Geological mapping, publishing and making public geological data:*

Geological Institute of Romania (GIR = Geological Survey of Romania)

## SLOVAKIA

Mining waste – waste from mineral resources exploitation – Act No. 44/1988 on the Protection and Utilization of Mineral Resources (the Mining Act) as amended by the Act of SNC SR No. 498/1991 Coll. and the Act No. 558/2001 Coll. and the Act of SNC No. 51/1988 Coll. on Mining Activity, Explosives and on the Mining State Administrations amended by the Act of SNC No. 499/1991 Coll., the Act of the NC SR No. 154/1995 Coll.

Legal authorities active in mining:

Ministry of Economy of the Slovak Republic – central authority of the state mining administration  
Main Mining Office in Banská Stiaavnica – second-stage authority of the state mining administration  
District Mining Office in Bratislava – first-stage authority of the Mining State Administration  
District Mining Office in Prievidza – first-stage authority of the Mining State Administration  
District Mining Office in Banská Bystrica – first-stage authority of the Mining State Administration  
District Mining Office in Spišská Nová Ves – first-stage authority of the Mining State Administration  
District Mining Office in Kosice – first-stage authority of the Mining State Administration

Geological exploration is realized in terms of the Act No.313/1999 Coll. on Geological Works and on State Geological Administration (the Geological Act). Legal authorities in geology:

Ministry of Environment of the Slovak Republic, Section of the Geology and Natural Resources.

The Act No. 138/1973 Coll. on waters (the Water Act) concerns protection and economic utilization of surface and ground waters. Legal authorities active in the water management:

Ministry of Environment of the Slovak Republic, Section of the Environment Compounds Protection  
District Council, Division of Environment  
County Council, Division of Environment

## SLOVENIA

System of legislation:

- laws adopted by National Assembly
- derived regulations adopted by Government or by competent Minister

Licensing and controlling authorities:

Ministry of the Environment and Spatial Planning – Environmental Agency of the Republic of Slovenia;  
Inspectorate of the Republic of Slovenia for the Environment and Spatial Planning – Environment Inspectorate;  
Ministry of the Environment and Spatial Planning – Mining Administration of the Republic of Slovenia;  
Inspectorate of the Republic of Slovenia for the Environment and Spatial Planning – Mining Inspectorate.

Levels of appeal:

when on the first grade are competent local authorities, the competent Ministry is the second grade;  
when on the first grade is competent Ministry, in some cases the second grade is Administrative Court.  
When on the first grade are competent National Assembly or Government there is no appeal possible.

## II Mining legislation

### Ownership

**2. Does your country have a separate law (or act) on mining (or use of subsoil, subsurface; including hydrocarbons as well)? If yes, please give its precise title, number, type, date of legislation, date of entry into force, last amendment.**

## BULGARIA

SUBSURFACE RESOURCES ACT - 12.03.1999. Last amendment 14.12.2001.

## ESTONIA

Yes. Earth's Crust Act (RT I 1994, 86/87, 1488) adopted on 09.11.1994 and enforced from 01.01.1995, and amended afterward several times.



## HUNGARY

There is a separate law on mining called "Act XLVIII of 1993 on Mining" made by the National Assembly (Parliament) and announced (published in the Official Journal) on 13<sup>th</sup> May 1993. It came into force on 14<sup>th</sup> June 1993. It was amended several times (the last amendment was by Act CXXXIII of 2000, which came into force on 1<sup>st</sup> January 2001) but the major amendment was by the Act XII of 1997, which came into force on 24<sup>th</sup> June 1997. Among the numerous implementing legislation (mainly decrees of the Ministry of Economy), the most important one is the Government Decree No. 203/1998. (XII. 19.), which gives detailed provisions to the articles of the mining act.

## LATVIA

Law «On the Subsoil» is in force in the Republic of Latvia since June 4, 1996 (passed on May 2, 1996). Since that time, it was amended twice: in 1999 and 2000.

## LITHUANIA

Basic law regulating the use and protection of the entrails is Law on the Amendment of the Republic of Lithuania Law on the Underground (10/04/2001 No IX-243), date of entry into force 25/04/2001.

## POLAND

No it doesn't, this law is connected with geology in one act – Geological and Mining Law. This law is the "Prawo geologiczne i górnicze" (Geological and Mining Law). The last serious amendment for this law was made 27 July 2001 and comes into force from 1st of January 2002.

## ROMANIA

Romania has separate Laws on mining (Law No.61/1998 – "Mining Law") and on hydrocarbons (Law No.134/1995 – "Petroleum Law"). The Mining Law and Petroleum Law were amended by Government Emergency Ordinance No. 47/2002 (as regards level of royalties). Other amendments are under preparation.

## SLOVAKIA

Acts on mining in force in the Slovak Republic

- a) Act No. 44/1988 Coll. on the Protection and Utilization of Mineral Resources (the Mining Act) as amended by the Act of SNC SR No. 498/1991 Coll. and the Act No. 558/2001 Coll.
- b) Act No. 51/1988 Coll. on Mining Activity, Explosives and on the Mining State Administrations amended by the Act of SNC No. 499/1991 Coll., the Act of the NC SR No. 154/1995 Coll. and the Act No. 58/1998 Coll.  
Act No. 44/1988 Coll. – in force since 1. 7. 1988  
Act of SNC No. 499/1991 Coll. – in force since 1. 1. 1992  
Act No. 558/2001 Coll. – in force since 1. 1. 2002  
Act of SNC No. 51/1988 Coll. – in force since 1. 1. 1988  
Act of SNC No. 499/1991 Coll. – in force since 1. 1. 1992  
Act of NC No. 154/1995 Coll. – in force since 1. 9. 1988  
Act No. 58/1998 Coll. – in force since 1. 6. 1998

## SLOVENIA

Slovenia has a separate Law on Mining, which covers hydrocarbons as well (adopted in National Assembly 30.06.1999, published in OJ of the RS No. 56/99 from 13.07.1999, entry in force on 28.07.1999).

**3. What activities/subjects are covered in the scope of the mining act? (*In vertical sense: geological survey, exploration, establishment of mining acreage (or mining plot), exploitation, break in operation, mineral processing, remediation, post closure control (or aftercare);***

***in horizontal sense: all mineral commodities included even oil and gas, geothermal energy, groundwater exploitation, use of underground space in general, oil and gas pipeline facilities, construction of underground facilities etc.)***

## **BULGARIA**

All listed except:

in vertical sense – break in operation, post closure control;

in horizontal sense – geothermal energy, ground water exploitation, use of underground space, oil and gas pipelines.

## **ESTONIA**

Act prescribes the bases of the research, protect and usage of the earth's crust of Estonia (geological survey, exploration, break in operation, closure control, underground constructions, mining operations, supervision and responsibility). Act does not include ground water.

## **HUNGARY**

The scope of the mining act covers the total mining-related activity chain, as: geological survey, mining exploration, exploitation, break in operation, mineral processing, closure, remediation.

In a horizontal sense it extends to all mineral commodities (including oil and gas); establishment, utilization and termination of waste rock heaps; maintenance, utilization and closure of open spaces of closed underground mines; underground activities of non mineral exploitation purposes using mining methods (as shafts, deep drillings, tunnels and galleries); establishment and operation of pipelines conveying hydrocarbons; the utilization of geothermal energy; all facilities and equipments necessary for the above activities (as mining railways, cableways, stringways, electric cables, explosives). Water, even groundwater holding geothermal energy, works of water management in general, and manual gold-washing are out of the scope (§1).

## **LATVIA**

Law «On the Subsoil» «... determines the procedures for comprehensive, rational and environmentally safe use of the subsoil as well as the requirements for the use and protection of the subsoil» (Article 2).

According to the definition in Article 1 of the above law, «Use of the subsoil – geological investigations, production of mineral resources and the use of the properties of the subsoil».

The same Article states that «geological investigations – all types of geological operations aimed at determining the structure, composition, properties, condition of the subsoil, as well as the regularities of occurrence and distribution of mineral resources and useful properties of the subsoil».

The law formulates the principle and targets of the use of subsoil, determines property rights regarding subsoil, institutions and types of supervision of the use of subsoil, types, terms and users of subsoil, their rights and obligations; it also defines main requirements regarding the procedures of use and protection of subsoil, conditions of the use of geological information, compensation of damage to subsoil and resolution of disputes.

At the same time, the above law does not regulate concretely the types of activities in vertical sense listed in the Questionnaire. In horizontal sense, the above law covers all the minerals in the Latvian subsoil (including groundwater and hydrocarbons) and subsoil areas that, during their certain properties, may be used for the purposes other than production of minerals (e.g., underwater gas storages, underground structures, use of geothermal energy etc.).

## **LITHUANIA**

The Law on the Underground defines the basic rights and obligations of the public institutions of the Republic of Lithuania, as well as of legal and natural persons in exploration, exploitation and protection of the underground of the land territory of the Republic of Lithuania, its continental shelf and economic zone territory in the Baltic Sea starting with the surface of subsoil rocks on land and the surface of the bottom sediments in land waters and the sea.

In vertical sense: geological survey, exploration, establishment of mining plot, exploitation, break in operation, remediation.

In horizontal sense: all mineral commodities, including even oil and gas, geothermal energy, groundwater exploitation and use of underground space in general.

## **POLAND**

All activities shown in the questionnaire except oil and gas pipeline facilities.

## ROMANIA

Activities covered in the scope of the Mining Act:

*In vertical sense:*

- geological survey, exploration and exploitation;
- establishment of mining acreage;
- breaking operation;
- remediation;
- current control as well as post-closure control;

*In horizontal sense:* all mineral commodities, geothermal energy, subterranean aquifers, use of underground space in general.

## SLOVAKIA

Acts on mining, as mentioned in Answer 2 enact:

- principles of the protection and rational exploitation of mineral resources, mainly in the frame of geological exploration, development, preparation and mining of mineral resources deposits, enrichment of mineral resources in relation to their mining. They regularize establishment of protected mineral resources deposit areas for protection of explored deposits of reserved minerals (deposits owned by the Slovak Republic), staking of mining claims for exploitation of reserved minerals deposits, as well as appointment of protected areas for particular impacts into the Earth crust.
- conditions of mining activities performance and activities carried out by methods of mining, mainly from the viewpoint of rational utilization of mineral deposits, working and operational safety, protection of working environment, as well as conditions of explosives using. They regulate permissions for mining activities and activities carried out by methods of mining, issuing of mining licenses for entrepreneurs in mining, permissions for blasting and pyrotechnical works and taking sanctions against Mining Act breaking.

## SLOVENIA

Mining law covers: geological survey, mineral resources management, exploration, exploitation, mining rights, permissions, technical documentation, mining inspection, break in operations, mineral processing, remediation of the environment, post closure control. Regulations cover all mineral resources including oil, gas, sea salt and geothermal energy, construction of underground facilities, in some cases deep groundwater exploitation.

**4. Who is the original owner of the mineral resources (*central state, local government, private landowner, etc.*)? Please give details if the ownership varies with regard to different minerals.**

## BULGARIA

Central State, according to the Constitution.

## ESTONIA

The earth's crust is the upper part of lithosphere, available for the research, the usage of its natural resources and the setting up of underground constructions in the mainland, transboundary watercourses, territorial and coastal waters and exclusive economic zone of Estonia. The bedrock clay, dolomite, phosphorite, crystalline building stone, limestone, oil shale, gyt-tja and sea mud with therapeutic effect (curative mud) and sand used in technological processes (technological sand), which are registered as minerals, are in the state ownership and the real property of other persons does not extend to them. The minerals situated within the limits of the state real property belong to the state.

## HUNGARY

In Hungary the original owner of mineral resources is the central state as given in the Civil Code (Act IV of 1959) under §96, *"The ownership of land shall not extend to the "treasures of the earth," nor does it extend to natural resources."*; and under §177: *"Unless otherwise provided by law, the following shall remain under exclusive state ownership: a) the treasures of the earth, b) underground waters ..."*

This is repeated by the §3 of the mining act that mineral raw materials and geothermal energy in their natural occurrence are the property of the state. As minerals are exploited they are transferred to the property of mining entrepreneurs. In Hungary this holds true for all mineral commodities. The owner is the central state, it practices this right by delegation licensing to local mining authorities (as first instance) or to the Minister of Economy (in case of concession contract). Municipalities, local governments are involved in the licensing process as co-authorities.

## **LATVIA**

Article 3 of the law «On the Subsoil» states that «The subsoil and all mineral resources therein belong to the landowner». In Latvia, the state, local authorities, physical persons and legal entities may be landowners.

Part 2 of Article 5 of the law «On the Subsoil» states as follows: «The Cabinet of Ministers, in the interests of the State, has the right to limit the rights of legal and physical entities regarding the land and the subsoil belonging to them, in cases stated by the legal acts, by imposing the limitations of the right to use the property».

Besides, Part 3 of Article 5 of the law reads as follows: «In the interests of the national security, protection of the environment and the subsoil, the use of mineral resources and deposits of State importance, the use of subsoil areas of State importance, the construction and use of the structures of State importance, the land may be alienated from the landowners in compliance with the Law "On the Compulsory Alienation of Real Estate for State and Society Needs"».

The above-mentioned minerals of state importance are hydrocarbons and groundwater. In compliance with Article 1 of the same law, «a deposit of mineral resources of State importance – a deposit determined as such by the Cabinet of Ministers, located within the Latvian territory or the Exclusive Economic Zone (EEZ), and the reserves of which satisfy the needs of the State or its several regions in a mineral resource». In the areas, where objects of state importance are located, certain limitations of land use and economic activities are imposed. These limitations are mentioned in Part II of the Regulations of the Cabinet of Ministers «The provisions of use of minerals, deposits and subsoil areas of state importance» approved in 2000.

## **LITHUANIA**

The right of ownership of entrails of the earth exclusively belongs to the Republic of Lithuania. The Republic of Lithuania has the exclusive ownership right to its continental shelf, and the economic zone in the Baltic Sea.

Private land owner is allowed to use construction minerals (sand, gravel) for his own needs (not for selling) without having the license for mining activities, but the carrier can't be bigger than 0.5 ha and deeper than 2 m.

## **POLAND**

Ownership of mineral resources depends on the type of exploitation. Mineral resources exploited by methods of underground mining are owned by the State Treasury. Mineral resources exploited in open pit exploitation are owned by landowner.

## **ROMANIA**

The owner of mineral resources is the Romanian State. Mineral resources are exclusively public property (as per Constitution of Romania – Art. 135(4) and Mining Law No. 61/1998 – Art. 1). The useful construction rocks, peat accumulations and mineral water, located on private lands of the natural persons, can be used by the landowner only for its own needs, and they are exempted from paying the taxes and mining royalty, as per Art. 19 of the Mining Law No. 61/1998.

## **SLOVAKIA**

The owner of reserved minerals (exclusively state ownership) stated in the § 3, section 1 of the Mining Act, is the Slovak Republic. The owner of non-reserved minerals (stated in the § 3, section 2 of the Mining Act) is the owner of the allotment, within which the deposit is located.

## **SLOVENIA**

All mineral resources are state owned.

**5. Does your country have a national minerals policy? If yes, in what legal document it is described? What are the main principles of this policy?**



## BULGARIA

Yes, Strategy for the development of geological exploration and protection of subsurface in Republic of Bulgaria up to year 2010. It is approved with the decision of Council of Ministers No. 519/03.07.2001. Main principles:  
Definition of priorities for geological exploration and protection of subsurface in the condition of transition to free market economy;  
Optimization of the state functions;  
Harmonization of the legislation with the EU.

## ESTONIA

Shortly a policy is formulated in Estonian Environmental Strategy, accepted in 1997 by the Parliament.

## HUNGARY

Hungary does not have a definite national minerals policy nor in legal neither in other official format. The mining act cites mineral resources management under several articles (§2 - among general aims of the act; §20 - royalty payment exceptions; §27 - criteria of technical operation plans; §43 - competence of Hungarian Mining Office) and gives a definition as well under §49: *"includes the activities, measures, production programmes, prospecting, exploration and working systems and methods, which serve the economical exploitation of mineral raw materials in such a way that they do not damage the parts of the occurrence not included in the mining activity, and protect them for the purpose of future exploitation; and enable at the same time the reduction of losses, as well as the exploitation of mineral resources so complete as technically feasible and as justified by the market conditions"*. This definition is rather confined and it does not adopt the concept of sustainability in a broad sense.

The mining act gives an authorization for the Minister of Economy under §27 to issue detailed prescriptions on management of mineral resources in a decree. However, all attempts failed to attain a general consensus on working documents prepared during the last eight years.

In practice, the major legal tool of minerals management is the concession procedure described under §8-19. The state can plan and control minerals exploitation on a longer-term by deciding whether to open certain areas for the exploitation of certain minerals in the form of announcing these for open concession tenders. Later, during the evaluation of bids it is a concern how minerals management is proposed by the applying companies. However, due to the limited success of concession, in 1999 the country was opened for simple licensing of mining, in which mineral management considerations are limited.

Another tool for controlling minerals management is provided by the §4 of the implementing Government Decree No. 203/1998. (XII. 19.), which prescribes obligations for paying extra mining royalty in case when the mining operator produces more cut-off than licensed in the technical operation plan or makes unreasonable damage to the mineral reserve itself.

## LATVIA

The principles of the Latvian national policy in the sphere of mineral resources are stated in the concept "The Latvian subsoil", accepted by the Cabinet of Ministers in 1995 and the law "On the subsoil".

The main principles of that policy are as follows:

All the minerals in the subsoil belong to the landowner.

The use of the minerals, that are a non-renewable value, simultaneously in the interest of the landowner, state and society.

Provision of the national economy with the local minerals, as far as it is possible.

Comprehensive, rational and environmentally safe use of minerals.

Regulation of the extent of the use of minerals with the help of limits and quota.

Possibility of commercial mineral production only if a pertinent permit (license) is issued.

## LITHUANIA

The main principles of a national mineral policy are described in Constitution of the Republic of Lithuania (Approved by the citizens of the Republic of Lithuania in the Referendum on 25<sup>th</sup> October 1992, Article 54) and Law on the Amendment of the Republic of Lithuania Law on the Underground.

The State shall concern itself with the protection of the natural environment and shall supervise the moderate utilization of natural resources as well as their restoration and augmentation. The exhaustion of land and entrails of the earth, the pollution of waters and air, the production of radioactive impact, as well as the impoverishment of fauna and flora, shall be prohibited by law.

## **POLAND**

In 1995 the document “Main Issues of State Policy in Domain of Mineral Resources” was accepted by the Council of Ministers and Parliamentary Commission of Natural Resources and Environment. Main principles of this policy are different for the different types of raw materials (e.g. stopping of non-profit exploitation of hard coal mines and giving concession for prospecting and exploitation of natural gas)

## **ROMANIA**

There is the National Geological Programme, containing the mineral resources policy, approved by the Government. This programme is implemented by the Ministry of Industry and Resources (MIR) together with the National Agency for Mineral Resources (NAMR). It is periodically reviewed and updated (1 to 3 years interval).

## **SLOVAKIA**

Raw material policy of the state:

To utilize the mineral resources wealth of the state, a document “Raw Material Policy of the Slovak Republic in the Field of the Mineral Resources” (Article 110/4486/1995/310 since August 1995) was compiled and approved by the Government of the Slovak Republic. The document was prepared by the Ministry of Economy of the Slovak Republic in co-operation with the Ministry of Environment of the Slovak Republic and the Ministry of Construction and Public Works of the Slovak Republic according to the Program Declaration of the Slovak Government. In the raw material policy, the state defines the entire set of all activities, through which it shall secure sources for processing industry, and in this way to create relevant, conceptual and legal frame for concrete decision-making processes and entrepreneur subjects, including the state itself, within the process of utilization of domestic mineral deposits, also in the field of geological exploration and mineral exploitation abroad.

The main principles of the raw material policy of the state:

- utilization of primary and secondary sources,
- creation of a long-termed guaranteed legal environment with rules for integrated function of all state administration authorities in exploration and exploitation of raw materials,
- definition of direct and indirect tools for assuring the raw materials for industry.

## **SLOVENIA**

In the frame of mineral resources management there is a National Mineral Policy Programme in preparation, which should be adopted by the Government this year. It will provide state strategy in exploration and exploitation of mineral resources in the way to preserve the environment and to secure necessary supply of mineral resources for the state needs in the future.

## **Data management**

**6. Does your country have a national mineral resources registry (or inventory)? If yes, nominate the manager agency(s) or authority(s).**

## **BULGARIA**

Yes, Ministry of Environment and Water.

## **ESTONIA**

Yes, Ministry of the Environment.

## **HUNGARY**

The National Mineral Resource Inventory (and Balance) of Hungary is managed by the Mineral Management Department of the Hungarian Geological Survey and its predecessors since the 1950's, as defined in the §25, §48 of the Mining Act and §6 of the Government Decree No. 132/1993 (IX. 29.) on the Hungarian Geological Survey. It is updated each year. The Inventory includes more than 2700 deposits and mines. The Inventory contains quantitative data (resource, reserve, production, status of mine, etc.) and some qualitative data (type of mineral, main constituents, etc.).

## **LATVIA**

In compliance with Article 5 of the law «On the Subsoil», Ministry of Environmental Protection and Regional Development carries out the accounting of reserves of minerals and compiles the Cadastre of minerals. The State Geological Survey of Latvia is directly responsible for the accounting of reserves of minerals and compilation of the Cadastre of minerals based on Order of the Minister of Environmental Protection and Regional Development.

## **LITHUANIA**

Geological Survey of Lithuania is the manager of the Underground Register (Government of the Republic of Lithuania Resolution No. 740 (07/07/1997); entered into force on 07/17/1997).

## **POLAND**

Yes, Poland has a national mineral resources registry. It is the MIDAS database with data on quantity and quality of all known mineral resources and their geographical data (borders). It is updated annually, also containing the production volumes. There is also some information on volumes and type of produced mining waste. Every year part of this data is published in "Balance of Mineral Resources and Groundwater in Poland" (in Polish). The managing authority of this register is Polish Geological Institute.

## **ROMANIA**

The Mineral Resources Registry is managed by NAMR, according to the Art. 40 of the Mining Law.

## **SLOVAKIA**

The Geological Survey of the Slovak Republic – Informatics Division (Geofond) Bratislava.

## **SLOVENIA**

Slovenia has a national mineral resources register, which is managed by Geological Survey of Slovenia for Mining Administration.

### **7. If yes, is it updated annually by production volumes and other changes in reserve?**

## **BULGARIA**

Yes.

## **ESTONIA**

Yes, yearly all changes are amended to register.

## **HUNGARY**

The inventory is updated annually based upon the following data:  
production; prospection and exploration; mining losses; mining dilution; economic evaluation.

## **LATVIA**

In compliance with Paragraph 4 of the Instruction on the accounting of mineral deposits and reserves that was approved by the Minister of Environmental Protection and Regional Development in 1997: "The accounting of mineral deposits and reserves is carried out by the State Geological Survey, compiling, adding to and maintaining the Cadastre of mineral reserves (hereinafter – Cadastre) and preparing the Balance of mineral reserves for each calendar year (hereinafter - Balance)".

In compliance with Paragraph 1.3. of the above Instruction: "The Balance of mineral reserves is a data set on the volume of mineral production, losses and other changes in the reserves during a reported year, as well as on the remaining reserves

of a mineral in the produced deposits as of January 1 of each calendar year". Paragraph 19 of the above Instruction lists the reasons for the changes in the reserves accounted for in the Balance:

"19. Changes of mineral reserves in a deposit are accounted for the reported year recording the following:

volume of production of a mineral;

losses of a mineral (except groundwater);

results of new exploration at a deposit;

results of re-evaluation of mineral reserves;

results of recalculation of mineral reserves due to the fact that earlier information about them was not confirmed".

#### **LITHUANIA**

Yes, it is updated annually by production volumes and other changes in reserve.

#### **POLAND**

Yes, it is updated annually by production volumes and changes in reserves.

#### **ROMANIA**

Yes, it is annually updated.

#### **SLOVAKIA**

The balance of the reserved deposits of the Slovak Republic and the Evidence of non-reserved mineral deposits of the Slovak Republic is processed annually according to a state dated 1<sup>st</sup> January of each year. Actual state and sources changes are shown (for instance exploitation, depreciations, exploitation losses)

#### **SLOVENIA**

This register is updated annually by production quantities and new stocks and every year a balance of mineral resources (only for internal use) is prepared.

### **8. Who is the owner and holder of geological data?**

#### **BULGARIA**

The owner is the state (the state is co-owner in case of permits for exploration or concession), the holder is National Geofund of Ministry of Environment and Water.

#### **ESTONIA**

The owner is the State. During the geological investigation data belong to grant holder.

#### **HUNGARY**

According to the §25 of the mining act and the §6 of the Government Decree No. 132/1993 (IX. 29.) on the Hungarian Geological Survey, the Hungarian Geological Survey is the National Archive for all geological data. Data are to be submitted on a yearly basis.

According to the Joint Decree No. 4/1997 (III. 5.) of the M. of Economy, M. of Environmental Protection and M. of Transport and Water Management on the classification and distribution of geological exploration data to be submitted for the Hungarian Geological Survey, „data” include primary (field) data, and processed and interpreted data as well as reports, maps etc. Data can be delivered both in traditional (paper or printed) and in digital format.

#### **LATVIA**

In compliance with Part 1 of Article 23 of the law «On the Subsoil», «information obtained during geological exploration,



scientific research, as a result of subsoil monitoring and other types of the use of the subsoil belongs to the State if such work was carried out using the funds from the State budget or the budgets of the local authorities. If such information is obtained based on orders from legal or physical entities and funded by them, it belongs to these legal or physical entities».

The State Geological Survey of Latvia is the holder of geological data in accordance with Part 2 of the same Article 23 states that «the local authorities, all legal and physical entities shall transfer all the information obtained as a result of the use of the subsoil, irrespective of the funding of operations, to the State, represented by SGS, concluding an agreement concerning its use”.

«The owner of geological information does not have the right to forbid the use of information if, as a result of failing to use it, potential ecologically dangerous or ecologically dangerous situations or ecological disasters may occur» (Part 3 of Article 23 of the law «On the Subsoil».

## **LITHUANIA**

Holder of geological data is Geological Survey of Lithuania.

## **POLAND**

Owner of geological data is the company, which was financing them. Because most of the works (until 1990) were financed by the State, most of geological data belongs to the State Treasury.

Holder of all geological data is the Polish Geological Institute.

## **ROMANIA**

The owner of geological data is the Romanian State and the holder is the National Agency for Mineral Resources, as per Art. 5(1) and Art. 40(1) of the Mining Law. GIR produces all kind of national geological and geophysical maps and, by its own geological publications, spread the geological information to the public.

## **SLOVAKIA**

Ministry of Environment of the Slovak Republic.

## **SLOVENIA**

Owner of geological data is the company which operate explorations but have obligation to report all the data to the state and state should use them.

**9. Are these data (*both geological and mineral reserves*) of free public access? If not, please describe the levels of confidentiality/restrictions (*what kind of data, for how long, business or government secret, etc.*).**

## **BULGARIA**

The access to the geological data is regulated in Regulation for the National Geofund. Decree No. 264/30.12.1999. ST No. 6/21.01.2000. The rights of using geological information can be obtained against payment according to Tariff of taxes.

The magnetic and gravity data are confidential.

## **ESTONIA**

Yes. During the valid permit investigation information is confidential.

## **HUNGARY**

The following data are public:

Name, address and the legal representative of the concession holder/licensee;

The type of mineral raw material(s) concerned;

Duration of the concession contract/mining license;

Name and co-ordinates of the area involved;

Other terms of the concession contract/mining license are confidential.

Data provided by the concession holder/licensee are confidential -business secret - for the whole duration of the concession contract/mining license.

Please note that in some countries the concession holder/licensee have to declare if they want their data treated as confidential. In Hungary it is declared by the Mining Act. Confidentiality concerns only new data obtained by the present concession holder/licensee or its legal predecessor. After the termination of the concession contract/mining license all data become public.

## LATVIA

The provisions of access to geological information (including information on mineral reserves) are stated in Section VI of the Regulations of the Cabinet of Ministers No. 239 (1997) "Regulations on the use of subsoil" – "The procedures of submitting and use of geological information".

In compliance with the requirements of the above Regulations, the accessibility of geological information to the society depends on the character of information, its ownership and provisions for its use as defined by its owner. E.g., Paragraph 63 reads as follows:

"63. The procedures of the use of geological information are determined by its owner:

63.1 the state, if such information has been obtained using the state budget allocations or as a result of cooperation between the state institutions of the Republic of Latvia and foreign states;

63.2. legal or physical entity, if the information has been obtained at the expense of such entity."

Paragraphs 65, 66 and 69 of the above Regulations determine the levels of accessibility of geological information and features determining such levels:

65. "Geological information can be open or confidential. The latter is the information, the dissemination or loss of which will or may harm the owner's legitimate economic interests.

There are the following types of information access to which is limited:

the content and results of international negotiations, as well as those of the Latvian state institutions and enterprises (companies) with their foreign partners concerning minerals, deposits and subsoil areas of state importance;

geological-economical evaluations and concepts, determining the principal directions of the strategy of the use of minerals, deposits and subsoil areas of state importance;

original data of geological and geophysical exploration and geological reports concerning minerals, deposits and the subsoil areas of state importance;

information about new methods and technology of geological operations which are being developed and are not patented or protected by copyright;

information belonging to a physical or legal entity, the use of which is limited by the provisions of an agreement on the use of geological information.

.....

69. The geological information being the state property is available to all physical and legal entities, if there are no limitations of its use." (Explanations regarding the minerals and deposits of state importance – see answer to Question 4; as regards the agreement mentioned in Paragraph 66.5, it is discussed in more detail in answer to Question 8).

In compliance with Paragraph 67 of the above Regulations, "the use of geological information submitted to the State Geological Fund (SGF) may be limited for a certain time period, which cannot exceed 5 years after the submission of information. SGF is a division of SGS that, according to Paragraph 61 of the Regulations, "is responsible for the collection, storage and use of geological information of the law "On the Subsoil" and there (i.e. the above) Regulations".

Paragraph 68 of the Regulations states that the decisions regarding the limitation of use geological information transferred to the State Geological Fund and belonging to the state are made by Director of SGS.

Paragraphs 70 – 72 and 75 of the Regulations determine concrete provisions of access to different types of information:

"70. The geological information being the state property can be used by physical and legal entities if a permission from SGS is obtained.

71. The geological information being the state property is used free of charge (covering the service costs) by:

71.1. by state institutions if such information is necessary to fulfil the state order, to fulfil the state requirements or for educational purposes;

71.2. legal and physical entities, carrying out scientific research and geological exploration using the state budget allocations - within the limits necessary for the fulfillment of a certain task;

71.3. other physical and legal entities, if such information is not used for commercial purposes.

72. If geological information is to be used for commercial purposes, such information shall be paid for by physical and legal entities. The size of such payment depends on the actual costs of obtaining the information, vintage, demand, quality, sufficiency, the processing level and other factors influencing the efficiency of the use of the subsoil.

...75. The size and the procedures of payments for the geological information belonging to physical and legal entities are determined in agreements on the use of information."

As regards hydrocarbons, some details regarding geological information are given in Section X ("Procedure for the use of Information") of Regulations of the Cabinet of Ministers No. 51 (2000) "Regulations on the hydrocarbon prospecting, exploration and production".

## **LITHUANIA**

Geological data are of free public access with some restrictions (when demanded by the owner of data or due to the State interests).

## **POLAND**

Data on mineral reserves are free public access, published annually ("Bilans zasobów kopalin i wód podziemnych w Polsce" by Polish Geological Institute). Geological data of documented resources are business secret, with access after the permission of Minister of State Treasury or owner.

## **ROMANIA**

Geological data are partial free to public access. The mineral reserves data are confidential or secret depending upon the mineral type (rare and precious metals and radioactive ores), according to the Law No. 182/2002 – Law of Classified Information. Mining companies have access to the confidential or secret data, based on an Agreement of Confidentiality.

## **SLOVAKIA**

Geological data are available for publics in terms of the Act No. 313/1999 Coll. on Geological Works and on the State Geological Administration (the Geological Act) and the Act No. 171/1998 Coll. on Free Access to Information on the Environment.

## **SLOVENIA**

All geological data gathered by exploration and data about mineral reserves, which are collected by state are confident, determined by law, at least three years from the end of explorations or for the time of concession period in case of exploitation.

### **10. Who registers and archives the mining operation data?**

## **BULGARIA**

Mining companies and National Geofund.

## **ESTONIA**

Geological Survey of Estonia

## **HUNGARY**

The Hungarian Mining Office and the Hungarian Geological Survey register mining operation data. Most operation data are stored on mining maps as prescribed by the §33 of the Mining Act. Mining companies are obliged to supply mining operation data during approval of technical operation plans as accompanying documentation but there are provisions for periodical data supply to the National Mineral Inventory as well (see answers 6, 7). The most relevant regulation is the Decree No. 69/1995 (XII. 26.) of the Ministry of Economy on the scale and content of the mining maps. Mining operation maps are stored at the local mining authorities. There is no central database for these.

## **LATVIA**

Each subsoil users submits an annual report regarding the production of minerals to the Regional Environmental Board. Regional Environmental Boards generalise data of the submitted reports, compile composite reports on the production of minerals in the regions and transfer them to the State Geological Survey. Based on that data, the State Geological Survey carries out the accounting of production of minerals and prepares the Balance of minerals in compliance with Article 5 of the law «On the Subsoil».

## **LITHUANIA**

All data about deposits and their utilisation are accumulated in the Underground Register. Mining operation data are registered and archived by the Geological Survey of Lithuania.

## **POLAND**

The main mining operation data are in MIDAS database in Polish Geological Institute.

## **ROMANIA**

The mining operation data are registered and archived by the NAMR in its database.

## **SLOVAKIA**

Actual mining data are registered and archived by district mining offices (see answer 1).

## **SLOVENIA**

Mining operation data is registered and archived by the company, operating the site, some of these data is proceeded to Mining Administration, Mining Inspectorate or to Geological Survey of Slovenia.

**11. Are these data of free public access? If not, please describe the levels of confidentiality/restrictions (*what kind of data, for how long, business or government secret, etc.*).**

## **BULGARIA**

The access to the data is regulated in Regulation for the National Geofund. Decree No. 264/30.12.1999. ST No. 6/21.01.2000. Some data may be a business secret.

## **ESTONIA**

Yes, data are free for public access.

## **HUNGARY**

The access to mining operation maps is regulated by the §20 of the implementing ministerial decree of the mining act. Accordingly, the local mining authority is obliged to ensure the access to these maps for interested parties while complying with the confidentiality classification of the given map. However, "interested parties" and the rules of classification are not defined in the mining legislation.

Data provided for the Geological Survey by the individual concession holder/licensee are confidential - business secret - for the whole duration of the concession contract/mining license. Summarized data (on county, regional etc. levels) are public and published.

## **LATVIA**

The existing legal and administrative acts do not specifically regulate the conditions of access to data in the mining industry. Paragraph 60 of Regulations of the Cabinet of Ministers No. 239 (1997) "Regulations on the use of subsoil", mentioned

in answer to Question 60, mineral production data are treated as geological information. They fall under the conditions of access to geological information that mentioned in answer to Question 9.

Data on the volume of production of minerals are published in the yearly publications of the Latvian Environmental Agency.

## **LITHUANIA**

Annual reports of mining operation data are of free public access.

## **POLAND**

Mining operation data are registered and archived by the Geological Survey. Partially they are business secret. Data archived in MIDAS database are of free public access. Detailed data (like annual operation plan) archived in mining companies are business secret. Part of them, which are essential to land use planning are accessible for local governments.

## **ROMANIA**

Mining operation data are partial free to public access. The mineral reserves data are confidential or secret depending on the mineral type (rare and precious metals and radioactive ores) according to the Law No. 182/2002 - Law of Classified Information. Mining Companies have access to the confidential and secret data based on an Agreement of Confidentiality.

## **SLOVAKIA**

These data are available in terms of § 29 section 5 of the Mining Act and also in terms of the Act No. 211/2000 Coll. on Free Access to Information and on Amendment and Supplementation of Certain Acts (Act on Free Information Access).

## **SLOVENIA**

These data are more or less business secret.

## **Licensing**

**12. What is the process of giving access to the exploration (*prospecting*) of minerals? (*Concession (or leasing) contract of acreage, or licensing by an authority.*) Please nominate the judging and contracting board or licensing authority and the co-authorities, if any, as well.**

## **BULGARIA**

Permits for prospecting and/or exploration.

Competent Authorities according Subsurface Resource Act :

- Council of Ministers - CM
- Ministry of Environment and Water - MEW
- Ministry of Economics - ME
- Ministry of Regional Development and Public Works - MRDPW
- State Agency of Energy and Energy Resources – SAEER

## **ESTONIA**

Application -> public information of the application -> applicant is obligated to send a copy to the local government -> decision about application.

## **HUNGARY**

The mining act acknowledges three types of exploration. The first type is a preliminary surface survey (§4) which does not require a license. The company has to have an agreement with the landowner of the area and to report the locality, duration, methodology, etc. to the mining and the geological authorities 30 days in advance. If the mining authority does not reply in 15 days, the works can start. This type of survey does not pose any exclusive rights for the operator concerning mineral exploitation.



The second type of exploration is defined by §5-7 and §22-23. In areas, which are opened for the mining of certain minerals, the mining authority grants exploration licenses with the involvement of other co-authorities (Geological Survey, Environmental Inspectorate, National Park Directorate, Directorates of Water Management, local municipality) in the licensing process. This license gives an exclusive right to the entrepreneur to explore for the given mineral on the defined area and to initiate the establishment of a mining plot within a certain timeframe. In case of two or more applications for the same area and type of mineral, the order of submitting the documentation is decisive if the other requirements are fulfilled equally.

The third type is the concession (or leasing) as prescribed in §8-19. In areas, which are closed the only way to access to minerals in the concession contract. The Minister of Economy may designate concession areas for which he/she announces an open tender. After evaluation the bids by a ministerial panel (M. of the Interior, M. of Health, M. of Agriculture and Country Development, M. of Economy, M. of Defense, M. of Environment, M. of Transportation, Telecommunications and Water, M. of Finance, M. of Cultural Heritage, Hungarian Geological Survey, Hungarian Mining Office), the winner and the Minister shall conclude to a concession contract in which they agree in a work programme and the guarantees of good performance. This contract gives exclusive right to mineral exploitation for longer term than simple exploration license but does not replace other licenses which are prescribed e.g. establishing mining plot, submitting technical operation plans, etc.

## **LATVIA**

Paragraph 1 of Article 10 of the law "On the subsoil" states that «The use of the subsoil may be initiated only after a permit (license) has been obtained in compliance with the procedures set forward by the Cabinet of Ministers...». This requirement is valid also for the prospecting and exploration for minerals. The procedures for obtaining permits (licenses) for the prospecting and exploration for minerals are different for the following groups of minerals or deposits:

hydrocarbons;

groundwater and deposits of minerals of state importance;

other minerals.

Permits (licenses) for the prospecting and exploration for hydrocarbons are issued by the Ministry of Economy based on competitions (it is envisaged that permits are issued for exploration and subsequent production at once). Decisions regarding holding competitions, acreage offered and composition of the Competition Commission are determined by the Cabinet of Ministers. The Commission incorporates representatives from the Ministries of Economy, Environmental Protection and Regional Development, Finance and Justice, as well as other competent persons. The State Geological Surveys prepares geological information packages for the participants of the competition.

The procedures of prospecting and exploration for hydrocarbons are determined in the territorial sea, continental shelf and Exclusive Economic Zone of the Republic of Latvia prescribed by the Regulations of the Cabinet of Ministers (2000) No. 51 "Regulations for Pre-investigation, Exploration and Production of Hydrocarbons" and No. 52 "Contest Procedure for the Award of Permits (Licenses) for the Offshore Activities of Hydrocarbon Pre-investigation, Exploration and Production".

Regulations determining the procedures of prospecting and exploration for hydrocarbons and competitions for obtaining pertinent permits onshore Latvia under development.

In compliance with the Regulations of the Cabinet of Ministers (2000) No. 307 "The Provisions of the Use of Minerals, Deposits and Subsoil Areas of State Importance", permits for exploration for groundwater and deposits of minerals of state importance are issued by the State Geological Survey based on the results of competitions (sales), organized by the Ministry of Environmental Protection and Regional Development. The same Regulations determine the procedures for holding competitions and obtaining permits in these cases.

In all other cases, permits for prospecting and exploration for minerals are issued by the State Geological Survey based on applications. The procedures for obtaining permits in such cases are determined by the Regulations of the Cabinet of Ministers No. 239 (1997) "Regulations on the Use of the Subsoil".

## **LITHUANIA**

Investigations of the underground may be carried out by legal persons, having a license to carry out this kind of economic activity. The licenses to carry out direct and remote investigations of the underground for legal persons shall be issued by the Geological Survey of Lithuania in the manner prescribed by the Government of the Republic of Lithuania (Government of the Republic of Lithuania Resolution No. 1433(11/29/2001) in force since 12/06/2001).

## **POLAND**

As shown in point 1. For prospecting this is a contract of acreage.

## ROMANIA

Licensing by NAMR. Exploration Licences and Permits for prospecting are issued by NAMR as per provisions of Art. 8 and 9 of the Mining Law. Exploration shall be conducted on the basis of an exclusive license, issued at the request, to the interested Romanian or foreign legal companies selected through a semestrial public offering by the Competent Authority (NAMR), based on a work program and an adequate bank guaranty to be applied for environmental restoration purpose. Prospecting permits are non exclusive, issued upon request of an interested party.

## SLOVAKIA

Geological exploration for reserved mineral deposits can be performed within the exploration area admitted by the Ministry of Environment of the Slovak Republic, Section of Geology and Natural Resources. Geological research can be carried out by warranted organization, based on geological warranty, issued by the Ministry of Environment of the Slovak Republic. District mining offices license, in certain cases, exploration of reserved mineral deposits using mining works.

## SLOVENIA

Spatial plans of state and local communities are base for beginning a process of concession procedure. In accordance with state interest, on behalf of state, government adopt a decree, with which mining rights are awarded. After that, there is a public tender, carried out by competent ministry, on which the holders of mining rights are chosen. These are obliged to sign a concession contract, for exploration maximum for 5 years with a possibility to prolong it for another 3 years.

**13. What is the process of giving access to the exploitation (extraction, mining) of minerals? (Concession (or leasing) contract of acreage or licensing by an authority; establishment of mining acreage, licensing technical operation plans etc.) Please nominate the judging and contracting board or licensing authority and the co-authorities, if any, as well.**

## BULGARIA

Concession of extraction.

Competent Authority is Council of Ministers - CM

Contracting Authorities:

- Ministry of Economics - ME
- Ministry of Regional Development and Public Works - MRDPW
- State Agency of Energy and Energy Resources - SAEER

## ESTONIA

Application -> public information of the application -> applicant is obligated to send a copy to the local government -> decision about application.

## HUNGARY

In both cases of whether the right of exploration was granted by a licensing process or through a concession the first obligatory step to the exploitation is the establishment of a mining plot, as defined by §26 of the mining act. The documentation to support the application is the final report of the geological exploration, which should prove the existence of economic mineral reserve and that the planned mining activity is viable. The license is issued by the mining authority, with the involvement of professional co-authorities (as listed above), the representative of the local government and the owners of the surface land.

In addition, in order to start the mining activity a technical operation plan (§27) and construction licenses (§31) has to be approved by the mining authority based on the consent of other authorities.

## LATVIA

In compliance with the above (see answer to Question 12) Article 10 of the law "On the Subsoil", mineral production (as one of the types of the use of subsoil) can be started only after obtaining a pertinent permit (license). Article 11 of the same law states the cases when such permits (licenses) are not necessary:

"The landowners (physical entities) and the physical entities to whom lands have been allocated for permanent use may use

the subsoil within the limits of lands belonging to them without the permit for the use of the subsoil ... and free of charge in the following cases:

1) the production of common mineral resources mentioned in the Appendix to this Law, excluding the cases when such activities are commercial;

2) To drill and use cased, driven and drilled water wells to the maximum depth of 20 metres ...."

According to Appendix to the law, the following minerals are considered 'common': clay, sand, gravel, loose freshwater limestone, peat deposits with an area up to 5 hectares within the limits of a property belonging to a single owner. Land ownership, within the area where mineral production is planned or an agreement with the landowner for the transfer of the right to use subsoil is a prerequisite for obtaining a license.

The procedures for obtaining permits for the production of minerals are different for the following groups of minerals or deposits:

hydrocarbons;

groundwater and deposits of minerals of state importance;

common minerals;

other minerals.

Hydrocarbon production may be carried out based on a single exploration and production permit, the procedures of obtaining, which are described in answer to Question 12.

Licenses for the extraction of groundwater and production of deposits of minerals of state importance are issued by the State Geological Survey based on competitions, similar to permits (licenses) for exploration (see answer to Question 12). Paragraph 16 of Regulations of the Cabinet of Ministers No. 307 "The Provisions of the Use of Minerals, Deposits and Subsoil Areas of State Importance" states several cases when competitions (sales) are not held:

"16.1. for the production of drinking groundwater by individual users for personal needs (establishment and use of shaft, driven and drilled wells that are over 20 metres deep);

16.2. for the extraction of drinking groundwater at the sites of water production by the local authorities of cities/towns and parishes. If the extraction of drinking water is carried out by an enterprise (company), the local authorities may conduct a competition (sale) after the endorsement by the regional environmental board; ..."

Permits for the production of common minerals (except the deposits of such minerals that have the status of deposits of state importance) are issued by the town/parish local authorities within their administrative boundaries (except the cases when such a mineral deposit occurs within administrative areas of several local authorities). The permits are issued by the local authorities within yearly limits and quotas; the production volumes are determined by the Ministry of Environmental Protection and Regional Development. In all other cases the licenses for the production of minerals are issued by the State Geological Survey.

The license areas for the production of minerals are issued by:

for hydrocarbons – by the Cabinet of Ministers;

for groundwater and mineral deposits of state importance – determined by the Ministry of Environmental Protection and Regional Development;

for common minerals – by the parish/town local authorities;

for other minerals - by the State Geological Survey.

In compliance with the definition of Article 1 of the law "On the subsoil: "license area – a subsoil area (block) or a combination of several areas (blocks) or their parts aimed at a concrete type of the use of the subsoil, within the limits of which a permit (license) for a certain use of the subsoil or a permit for the production of common minerals is valid."

## **LITHUANIA**

The underground resources and caves of the Republic of Lithuania can be exploited by the legal persons, who have acquired a license issued by the Government of the Republic of Lithuania or a State institution authorised by it, and who have concluded an exploitation contract with it, in the manner prescribed by laws of the Republic of Lithuania and the Government of the Republic of Lithuania. (Government of the Republic of Lithuania Resolution No. 792 (07/01/1996), entered into force on 07/06/1996; Government of the Republic of Lithuania Resolution No. 481 (05/16/1997), entered into force on 05/24/1997.

## **POLAND**

As shown in point 1. For prospecting this is a contract of acreage.

## ROMANIA

Bidding-Concession-Exploitation License (issued by NAMR and approved by the Prime-Minister Cabinet), as per Art.10 to 17 of the Mining Law. The exploitation license shall be granted to:

- a) the Titleholder of the exploration license, on its request;
- b) the winner of a public offering, organized by the Competent Authority (NAMR)

The exploitation license shall be granted, through negotiation, based on an application accompanied by:

- a) Feasibility study;
- b) Development plan of the exploitation;
- c) Environmental impact study, approved according to the law;
- d) Environmental rehabilitation plan, accompanied by a bank guaranty.

## SLOVAKIA

An organization (legal or physical subject), who is the owner of geological warranty according to staking of mining claim for exploitation of reserved mineral deposits (or after issuing of territorial decision on exploitation of non-reserved mineral deposits), or after gaining of claim by agreement from other organization

## SLOVENIA

Spatial plans of state and local communities are base for beginning a process of concession procedure. In accordance with state interest, on behalf of state, government adopt a decree, with which mining rights are awarded. After that, there is a public tender, carried out by competent ministry, on which the holders of mining rights are chosen. These are obliged to sign a concession contract, for exploitation it is maximum duration 50 years.

**14. What other licences are needed during operation, or for break in operation (*annual and mid-term technical operation plans approval etc.*)?**

## BULGARIA

Overall and annual technical projects.

## ESTONIA

Mining license, project, development programme, the emergency control plan.

## HUNGARY

The Mining Act gives provisions for the duration of technical operation plans (TOP). In case of underground mines an accepted TOP is valid for two years, and for five years in case of open pits. However, TOPs have to be revised annually and have to be submitted to the mining authority in case of modification (§27).

For the establishment of new mining facilities within the same site construction, environmental, etc. licenses are needed.

## LATVIA

No other licenses are required during mining operations or in order to make interruptions in them. Still, the following documents are necessary to carry out such operations:

- a permit for the transformation of land;
- an approved project for the development of a deposit or a plan for such development (the necessity of a project or plan is determined by the scale of the deposit and complexity of its development);
- a water use permit (if the mining enterprise is a water user – see answer to Question 58);
- a permit for the introduction of contaminants in the air (if air is contaminated during the development of the deposit);
- endorsement of measures aimed at blasting operations (if blasting is used during mining);
- an endorsement of yearly limits for the use of natural resources (production of minerals and introduction of contaminants in the environment); an endorsement of yearly plans of mining operations' development( it is necessary for the biggest mining enterprises with complex conditions of development – use of blasting, development using several production levels, production below the groundwater level).

## **LITHUANIA**

Exploitation of the underground resources and caves shall be possible only on the basis of a plan for exploitation which is co-ordinated with the governor of the county and approved by the Ministry of Environment or a State institution authorised by it.

## **POLAND**

Annual Mining Operation Plan, approved by District Mining Authority.

## **ROMANIA**

According to Mining Law (Art. 28, g) annual operations plans must be approved by NAMR. For breaks in operation is necessary the approval of NAMR.

## **SLOVAKIA**

If the exploitation of mineral deposits is carried out using blasting, a permit for performance of blasting and a permit for take-off explosives are demanded. After a long-termed intermission of exploitation (not more than 3 years) a permission for safety measures for mining workings and quarries is demanded, to secure resumption of exploitation after the reasons leading to stop in deposit exploitation, have diminished.

## **SLOVENIA**

After they got mining right, they have to get location permit, which includes all conditions and agreements of all involved institutions and local communities. Then they sign concession contract and after that, on the basis of mining technical documentation, they get permission for exploration or exploitation and permission for executing mining works.

### **15. How long a licensed break in mining operation can last?**

## **BULGARIA**

Not regulated yet.

## **ESTONIA**

Not regulated.

## **HUNGARY**

According to §30 a break in operation can last for three years and has to be granted by the approval of a technical operation plan. After three years the authorities can initiate final closure and remediation of the mine.

## **LATVIA**

Part 3 of Article 16 of the law "On the Subsoil" determines that:

"(3) The use of the subsoil is terminated if:

3) within a year from obtaining a permit (license), the use of the subsoil has not been initiated;..."

The case of interruption of already initiated activities is not envisaged by the above law, but as a rule, there is a provision in the licenses issued by SGS, that SGS has the right to annul a license if the Licensee has interrupted and not resumed the use of the subsoil within the license area within one year. Still, that provision does not mean an obligatory revocation of a license if the interruption in the mining activities lasts over a year. The reasons for such interruption are taken into consideration considering such cases.

## **LITHUANIA**

Not regulated, it could be described (if necessary) in an exploitation contract.



## **POLAND**

There are no special provisions for break-in operations.

## **ROMANIA**

Breaks in operation could be of 30 days or more with the approval of NAMR (Mining Law Art. 28, g).

## **SLOVAKIA**

A warrantable intermission in mineral deposits exploitation is limited to maximum 3 years period (§ 27 section 12 of the Mining Act).

## **SLOVENIA**

Longer breaks in mining operation should be regulated with an annex to concession contract and it had to be reported to Mining Inspection as well as shorter breaks in operation.

### **Environmental aspects**

**16. How environmental aspects are represented when licensing mineral exploration and exploitation? (Involving environmental authority in the licensing process, environmental liability prescriptions (EMAS, good environmental performance history, financial proof, etc) for the applying company, etc.)**

## **BULGARIA**

Involving environmental authorities in the process.

## **ESTONIA**

In licensing is this not considered. In permitting environmental safety and minimal impact must be guaranteed.

## **HUNGARY**

The mining legislation contains general provisions concerning the accomplishment of environmental protection criteria. In the practice necessary measures of environmental protection are required by the professional authorities during the licensing procedures. The legal basis of the detailed requirements are set in environmental, water and other specific legislation (as shown later). In the mining act, besides the participation of professional co-authorities, there is a special legal institution of "exempted location" where prospecting shall be licensed with the preliminary approval of the interested professional authorities or parties (§22). §49 gives a definition for "exempted location" which includes the built environment, bed of water course or stagnant water, water works, potable water, mineral water, medicinal water, any spring and the designated protective area thereof, protective forest, protective zone around health-resorts and holiday resorts, protected natural area, real estate under the protection of monument of art or archeological protection, and soil in relation to open-pits. In this definition soil means the top 1-4 classes on the national soil classification scheme of 8 categories.

During licensing phases as approving concession contract (§10), granting exploration (§22) environmental liability guarantees as opening bank deposits, taking a liability insurance, setting indemnity are required. The adoption of the EMAS among Hungarian mining companies is very rare if any.

Prescriptions are given in the mining act on the sanctions of undue operation. According to §37 on mine damages, the mining entrepreneur shall compensate for the damages caused by mining activity. The following shall qualify as mine damage: any damages caused by the mining activity in the third parties' real estate, buildings, other components and accessories of the real estate, as well as any damage caused by the withdrawal of water, including the expenses incurred in connection with the prevention, attenuation and termination of damages.

The §41 of the mining act defines the sanctions and guarantees. The mining authority may impose a fine on, and may prohibit the mining activity performed without a license. If the company deviates from the rules prescribed in the regulations or in the license the authority may impose a fine, may suspend the activities, withdraw the license, or may initiate termination of the concession contract and may order remediation of the site. The authority may prescribe the company to open a bank deposit or to make an insurance contract for environmental liability.

## **LATVIA**

Requirements for the use of subsoil (a part of licenses) incorporate those for environmental protection measures obligatory for the Licensee.

In case licenses are issued based on competition, experts of institutions, responsible for environmental protection, are included in the competition commissions. If the licenses are issued without a competition, experts of those institutions are, if necessary, used as consultants to formulate the licensing requirements for the use of subsoil.

## **LITHUANIA**

The procedures of environmental impact assessment are carried out.

Exploration and exploitation of mineral resources in protected areas of Lithuania are forbidden (except plots, where exploitation started before the protected area was established).

Appliance for license and plot plan (M 1:10 000) must be ratified by regional environmental protection department. All applying companies are informed about environmental impact assessment required. Mining activities are allowed after having prepared (and ratified by Lithuanian Geological Survey) the Project of usage of the deposit of mineral resources in two parts: 1-exploitation; 2-environment (including activities on land remediation). Land remediation activities must be finished not later than 1 year after deposit excavation is finished.

## **POLAND**

For every concession Environmental Impact Assessment (EIA) must be done. EIA must be approved by the concession authority. The EIA process is associated with public consultation.

## **ROMANIA**

The applying Company has to appeal to Environmental (local) Authority during the licensing process. EIA (Environmental Impact Assessment) is done for every exploration and/or exploitation sites and that EIA must be approved by the Local Environmental Authority (County Inspectorate). The EIA process is associated with public consultation as per provision of Law No. 137/1995 - Art.11 (Law on the environmental protection).

## **SLOVAKIA**

A geological project is subjected to evaluation by competent authorities from the viewpoint of the landscape and nature protection.

## **SLOVENIA**

As mining rights are awarded on the basis of spatial plans, these are transsectorially harmonised. Environmental and other authorities are involved in the phase, when a mining right holder is seeking for a location permit.

**17. Are the exploration and exploitation licenses transferable to another company? If yes, is the consent of the environmental authority needed and/or the same environmental liability required?**

## **BULGARIA**

Yes. The same environmental liability required.

## **ESTONIA**

Licence not, permit yes. Yes.

## **HUNGARY**

The mining licence is transferable to another company in cases both the concession contract and the license granted by authorities. Whilst in the first case the consent of the Minister of Economy is required, in the latter case the consent of the mining authority is sufficient (§18, 26 of the mining act). The content of the attached documentation required for the appli-

cation for the transfer is as follows:

- the legal declaration of undertaking of all obligations (incl. remediation, decontamination, royalty),
- the account of the exploitable mineral reserves,
- the company registration documents,
- the proofs of financial liability and other human and technical resources,
- agreement on the transfer of ownership of related facilities.

For details on provisions concerning environmental protection requirements in case of bankruptcy procedure see answer under 41.

## **LATVIA**

Part 6 of Article 10 of the law "On the Subsoil" determines that:

"(6) It is prohibited to sell, give away, use as collateral, exchange or otherwise alienate permits (licenses) for the use of the subsoil. If the user of the subsoil changes, the existing permit is cancelled, and the new user shall obtain a new permit in accordance with the procedures contained in this Law. In case the user of the subsoil, the holder of a permit or property rights for the enterprise are changed, the earlier issued permit is cancelled, and, in such a case, the new owner of the enterprise, accepting the obligations contained in the existing permit, may receive a new permit without competition (sale). The change of ownership of a permit for hydrocarbon exploration and production may occur if endorsed by the Cabinet of Ministers."

*(It was already mentioned in answer to Question 3 that the use of subsoil means both exploration for and production of minerals).*

## **LITHUANIA**

Exploration and exploitation licenses are not transferable to another company.

## **POLAND**

Yes, they are transferable under agreement of concession authority, with all environmental liability.

## **ROMANIA**

Yes, according to the Mining Law (Art. 14) and Norms (Art. 31). All provisions of the license, including environmental liability, will be binding for the new Titleholder.

## **SLOVAKIA**

A mining organization may deed its claim to another organization with respective mining permission, with prior agreement of district mining office. An organization to which a claim has been transferred, gains, at the day of assignment, all warranties and obligations set by the Mining Act and by the other generally binding regulations and decisions of the state administration authorities related to performance of mining activity within the exploiting area (§ 27, sections 7 and 11 of the Mining Act). The owner of exploiting area, in the case of approval by the Slovak Ministry of Environment, is allowed to deed his license in relation to exploiting area or one of its parts, to another entity.

## **SLOVENIA**

Mining rights for exploration and exploitation are transferable only with agreement of the Government. In case, when the holder is not a company, mining right is a subject of inheritance.

**18. In which mining licensing phase(s) is a separate environmental license based on an environmental impact assessment required?**

## **BULGARIA**

All the projects for mining operation are subject to EIA.

## CZECH REPUBLIC

## ESTONIA

Before decision.

## HUNGARY

According to the Government Decree No. 20/2001 (II. 14.) on the environmental impact assessment and the Government Decree No. 203/1998. (XII. 19.) on the implementation of the mining act (§13) an environmental license based on environmental impact assessment is required before the technical operation plan is submitted to the mining authority.

## LATVIA

The existing legislation does not envisage a separate environmental license for the mining industry, based on the environmental impact assessment. At the same time, the law "On Environmental Impact Assessment" determines the cases when such an assessment is necessary in the mining industry (see answer to Question 36).

The stages(s), when an environmental impact assessment must be made, are not stated either. Still, Article 3 of the above law contains the following general provision:

"An environmental impact assessment is carried out based on the following principles:

An environmental impact assessment must be made at the earliest possible planning, design and decision-making stage of the planned activities;..."

Regulations of the Cabinet of Ministers No. 14 of January 2002 "Procedures of issuance of technical requirements by regional environmental boards for planned activities that do not envisage an environmental impact assessment" determine:

"2. The Technical Requirements determine environmental protection requirements for planned activities (hereinafter - Activities) at the site. ... The Technical Requirements are necessary for the activities which, after carrying out the initial assessment, do not require an environmental impact assessment in compliance with the law "On the environmental impact assessment" or the activities mentioned in Appendix 1 to the above Regulations."

Among the types of activities, mentioned in Appendix 1, for which Technical Requirements are necessary, the following ones are included:

"2. Extractive industries:

- 2.1. open-pit production of minerals and peat;
- 2.2. production of minerals, using river and sea dredging;
- 2.3. reed and sapropel production in the internal water bodies;
- 2.4. activities associated with the use and drilling of deep wells:
  - 2.4.1. geothermal wells;
  - 2.4.2. water supply wells, except those drilled to investigate topsoil stability."

Paragraph 13 of the above Regulations defines the content of Technical Requirements:

"13. Technical Requirements determine the following environmental protection requirements:

- 13.1. environmental quality threshold values and emission threshold values in surface water, groundwater, air, topsoil, subsoil and other types of environment to safeguard its quality;
- 13.2. requirements regarding the site of activities, paying special attention to the requirements of administrative acts pertaining to:
  - 13.2.1. waterways, water bodies, environmental and natural resource protection zones, specially protected nature areas, specially protected species and biotopes, as well as micro reserves and specially protected forest areas;
  - 13.2.2. cultural monuments and cultural-historical landscapes;
  - 13.2.3. especially vulnerable territories;
  - 13.2.4. geological processes;
- 13.3. requirements regarding groundwater protection;
- 13.4. requirements regarding waste, resulting from activities, management;
- 13.5. limitations regarding activities in contaminated areas (including the necessary remediation of contaminated areas);
- 13.6. requirements regarding prevention or minimisation of consequences of accidents or extraordinary situations;
- 13.7. requirements regarding prevention or minimisation of the mutual effect of the activities and nearby objects and their joint negative environmental impact".

Paragraph 17 of the above Regulations determines that:

“17. The relevant state or municipal institution has no right to approve or issue documents that are necessary to carry out the activities..., if Technical Requirements for carrying out the activities are not issued or if the Technical Requirements are not complied with. ... ”

That means that, in compliance with the above Regulations, Technical Requirements for the planned mining activities must be issued before the issuance of an Exploitation Licence.

## **LITHUANIA**

Exploitation.

## **POLAND**

There is no separate environmental license. It is a part of concession decision. To obtain exploration or exploitation concession an environmental impact assessment is needed.

## **ROMANIA**

In the final stage of licensing process (before issuing the exploitation license) is compulsory for the applying company to present a separate environmental license based on an Environmental Impact Assessment or an Environment Audit (Mining Law Art. 10, c) and Art. 29, b)).

## **SLOVAKIA**

In advance to permission of a mining activity, a final opinion of the Ministry of Environment of the Slovak Republic from the viewpoint of planned mining activities impact upon environment in terms of the Act of NC SR No. 127/1994 Coll. on Environmental Impact Assessment as amended by later regulations is demanded, namely in cases, if its extent exceeds the limits permissible by the above Act.

## **SLOVENIA**

Environmental impact assessment is required almost for all mining sites. It is one of obligatory terms to get location permission.

**19. Does local government or local public have the right of blocking the mining licensing process? If yes, in which licensing phase and how?**

## **BULGARIA**

Yes, on all phases with administrative act.

## **ESTONIA**

Only State Government can grant a permit, when local municipality have rejected it, important on such a case is certainly as well an EIA report.

## **HUNGARY**

According to the annex of Government Decree No. 203/1998. (XII. 19.) on the implementation of the mining act, the chief administrator of the local government participates in the mining licensing processes as a co-authority with jurisdiction on construction affairs. It means it has the competence to block the process with reference to settlement development interests or other concerns of construction. The local government, the local public and NGOs can endorse their interests during the environmental licensing preferably.

## **LATVIA**

In compliance with the law “On the subsoil”, the local authorities are empowered to issue permits for the production of com-



mon minerals in compliance with the procedures envisaged by the Cabinet of Ministers and volumes determined by the Ministry of Environmental Protection and Regional Development (see answer to Question 13), i.e. they may regulate the process of licensing by themselves as regards such minerals.

The local authorities may block the process of licensing of mining operations as regards other minerals if such minerals are located on land belonging to the local authorities since, in compliance with the above law, in order to obtain a permit, it is necessary to conclude a contract with the landowner.

Local authorities' institution, the Construction Board controls construction in relevant administrative areas. It may block the process of establishment of a new mining enterprise, refusing to issue a planning and architectural order for the development of a quarry project (such an order contains requirements for the land planning and construction there) or refusing to endorse an already prepared project. The requirements for planning, preparation of a building project and carrying out construction operations for building all types of structures (including quarries) and the procedures of the above processes are set forward in Regulations of the Cabinet of Ministers No. 112 (1997) "General construction regulations".

Article 17 of the law "On environmental protection" states that:

"Physical and legal persons, as well as their associations, organizations or groups have a right to receive ... from all levels public authorities ... information regarding applications for licenses or receipt of permits for activities, which may impact environment quality, in order to express their point of view and to participate in the taking of decisions associated with environmental protection."

The local authorities and the society may influence the licensing process regarding the mining operations by participation in the environmental impact assessment procedures. E.g., Article 3 of the law "On the environmental impact assessment" determines that:

" The impact assessment is carried out based on the following principles:

...2) the impact assessment of the objects, mentioned in Appendix to this law, is carried out based on the information submitted by the Proponent and that obtained from interested state and local authorities' institutions, and taking into consideration proposals set forward during public hearings;

...4) the general public have the right to access information on the Proposed Development and to participate in Impact Assessment procedures; ...".

The procedures of the environmental impact assessment are discussed in answer to Question 35.

## **LITHUANIA**

Yes, during the procedures of environmental impact assessment.

## **POLAND**

Agreement of local government is needed to obtain exploitation concession, so local government can block mining license. It is no detailed time, when local government is asked for agreement.

## **ROMANIA**

The applying company has to appeal to the local authorities, local public (including NGO's) and environmental authority (county Inspectorate) for their agreement/approval during the licensing process.

## **SLOVAKIA**

In general, within a phase of public negotiations, in terms of the Act of NC SR No. 127/1994 Coll. on Environmental Impact Assessment as amended by further regulations, a municipality and its inhabitants have an opportunity to obstruct a mining permission. A municipality (as a negotiating partner in terms of the Act) can obstruct the very phase of giving a permission for mining activity, namely by negative opinions and objections, which must be reviewed and decided by the provider of the permission for mining activity.

## **SLOVENIA**

Local communities and local public can block mining activities in the very first proposed phase of adopting the spatial plan. After that, it is possible to block mining activities in the case of exceeding environmental impacts and standards.

**20. Are there specific provisions of mining waste management in the mining legislation? If yes, please describe its definition and the provisions in details.**

## **BULGARIA**

The prospecting, exploration, production and primary processing of underground resources, the liquidation and conservation of exploration and mining sites shall mandatory commence and carried out based on overall and yearly work projects. The projects are subjects to mandatory environment impact assessment as per requirements of the Environment Protection Act.

The projects must provide:

- Application of techniques and technologies that restrict the negative impact on the subsurface and the environment;
- Optimum extraction of the reserves of underground resources and useful component in primary processing;
- Fulfillment of the requirements pertain to the depositing and storage of the soil materials and technological waste;
- Protection of the environment and reclamation of the damaged terrains.

The storage and utilization of the waste from production and primary processing shall be accomplished according approved projects and provisions of the Act on Restriction of the Harmful Impact of the Waste on the Environment.

## **ESTONIA**

No.

## **HUNGARY**

There are lots of relevant provisions in the mining act for waste management, however, no definition, neither specific chapter can be found on the topic. The establishment, utilization and closure of waste rock heaps are defined in the scope of the mining act. The most relevant provisions are given under sections dealing with the establishment of the legal mining plot and the closure of mines. According to the §23 of the mining act for the extraction of minerals from waste rock heaps the same rules apply as for open-pit mining. When establishing a mining plot, a technical documentation shall be submitted in which the licensee shall describe the environmental impacts of the waste rock heaps and processing plants, and to estimate the physical and chemical characteristics of the operational byproducts and wastes (§11 of the implementing decree). Accordingly, for starting the exploitation of waste rock heaps the approval of a technical operation plan is required (§27 of the mining act) and for the closure and remediation the same regulations apply as for open-pits.

## **LATVIA**

Concrete provisions for the mining waste management are not envisaged in the existing legislation yet.

## **LITHUANIA**

No, there are no specific provisions.

## **POLAND**

No, there are no specific provisions. Mining waste is treated as other waste.

## **ROMANIA**

In the "Mining Law" (Art. 29) are stipulated specific provisions of mining waste management. These are essentially referred to the mining waste disposals. Special provisions for mining waste management are stipulated in the Law of Environment Protection (Law No. 137/1995 – Republished), the Law regarding waste management (Law No. 426/2001), the Government Decision No. 155/1999 for Waste management and the introduction of European Waste Catalogue, and in the Government Decision No. 162/2002 regarding waste disposal. There are Departmental Instructions for designing, realization and conservation of waste dumps, issued by the Ministry of Industry and Resources.

## **SLOVAKIA**

The activity, associated with exploitation waste disposal within waste dumps, tailings, underground spaces and nature rock masses structures, is assumed as mining activity, and for its performance a mining license and a permission by the district mining office, is demanded.

## **SLOVENIA**

There are not specific provisions of mining waste management in the mining legislation. Handling with mining waste should be defined in mining technical documentation in accordance with environmental standards.

**21. Is mining water regulated in your mining legislation? If yes, please describe in details.**

## **BULGARIA**

No.

## **ESTONIA**

No.

## **HUNGARY**

Both groundwater and surface waters are mentioned many times in mining legislation in aspects of the mining safety, environmental protection, water management, and common areas of these e.g. mineral exploitation by dredging lakes and rivers or geothermal energy extraction through water production.

These provisions are too voluminous to cite all. In general it can be stated that in the mining legislation the concept of sustainable water management and the protection of water quality and quantity are adopted and work in the practice through the incorporation of the consent of professional authorities interested in water business during the licensing procedures.

The most definite provision is given in the §40 of the mining act.

The mining entrepreneur may use the mining water, produced for the interest of safety of mining activities, for its own operational needs. The utilization and marketing of mining water are governed by the general environmental and water management regulations.

The quantity of water used by the mining company shall be determined by the water management authority, the company is not responsible for the extracted water volume changes below this quantity limit.

Since there are hundreds of sand and gravel pits in Hungary operating at, below or just a few meters above the groundwater table, this means a serious environmental and water management concern.

The Government Decree 239/2000 (XII. 23.) on the utilization of mine lakes regulates this field. In accordance, the water authority has special right to supervise the utilization of these lakes by judging the plan of utilization, which shall be submitted within a year of the issuance of the mining authority's resolution on the remediation works. In addition to describing the necessary measures on transfer and registration of ownership rights, a separate section is devoted to the protection of water quality by prescribing to keep the water quality within the "B" limit value (explanation under answer 38.), and a detailed annex listing the obligatory content of the documentation supporting the application.

## **LATVIA**

Mining water is not specifically regulated in the Latvian subsoil legislation

## **LITHUANIA**

No.

## **POLAND**

Only partially. If mining operation drain mining water, special hydrogeological documentation would be made. This documentation would be accepted by concession authority.

In addition, on the basis of Water Law, to drain mine water permission is needed.

## **ROMANIA**

Yes. Obtaining the appropriate license, the licensed company is entitled to use ground and subterranean waters as supplying sources.

## **SLOVAKIA**

Waters from mining are regulated by § 40 of the Mining Act. The mining organization is warranted to utilize mining waters free of charge for its own consumption, as well as to use them, based on the permission of water management authority, as a compensatory source for those, who have been harmed by water loss due to mining organizations activity.

## **SLOVENIA**

Mining companies deal with mine waters up to their outlet to the surface waters. At that point, mine waters should correspond to all standards for outlets of industrial waters.

### **Mining safety**

**22. Does your country have detailed regulations on mining safety? If yes, of what level in the legislation? In countries of continental law the hierarchy of legislation is generally: constitution, act (or law, or code), government decree (or order), ministerial decree (or order), Supreme Court resolutions. Decisions, guidelines, recommendations, standards etc. have restricted legal binding force if any.**

## **BULGARIA**

Yes. Acts and Regulations.

## **ESTONIA**

Yes. Act and orders.

## **HUNGARY**

Mining safety is regulated by the §32-35 of the mining act; by the 4/2001 (II. 23.) decree of the Minister of Economy on the minimal level of safety and health protection requirements to be accomplished in mines; and by the 44/1997 (VIII. 14.) decree of the Minister of Industry, Trade and Tourism on mining safety regulations of the reporting and examination of serious mining malfunctions and accidents. Mining safety has a pronounced priority during the approval of the technical operation plans (§27 of the mining act and §13 of the implementing government decree). Furthermore, dozens of detailed orders of the Mining Office of Hungary concerning mining safety do exist, which do not reach the level of legislation.

## **LATVIA**

Safety requirements in the mining industry are defined in the Regulations of the Cabinet of Ministers No. 253 "Work safety requirements during exploration for and production of minerals" (approved in June 2002).

## **LITHUANIA**

National safety regulations are being prepared.

## **POLAND**

Yes, we have detailed regulation on mining safety on all levels of legislation. The main is Geological and Mining Law and government and ministerial orders to this law.

## **ROMANIA**

Yes. The hierarchy is: Law, Government Emergency Ordinance, Government Ordinance, Government Decision, Ministerial Orders, Departmental Norms, Regulations, Recommendations, Standards, Technical Instructions. Detailed provisions regarding mining safety are stipulated in the Labour protection law (Law No. 90/1996 –Republished, modified and completed by the Law No. 177/2000); Ministerial Orders issued by the Ministry of Labour and Welfare: No. 141/1995 (safety in drilling

operations), No. 209/1997 (for underground coal, bituminous sands and shales mines), No. 638/1997 (geological prospecting and exploration works), No. 416/1998 (underground ferrous, non-ferrous, rare and radioactive ores and industrial minerals), No. 214/1999 (for quarrying works), No. 714/2000 (open-pit operations), and No. 240/2001 (salt mines). There are also Specific Norms issued by the Ministry of Industry and Resources, Ministry of Health and Family and the Ministry of Labour and Welfare (as per Annex 2, point 4 of the Law No. 90/1996).

## **SLOVAKIA**

In general, mining safety is regulated by enactment of the Act of NC of SR No. 330/1996 Coll. on Safety and Health Protection of Labor as amended by later regulations, as amendments of the Mining Act, Act of SNC No. 51/1988 Coll. on Mining Activity, Explosives and on the Mining State Administration as amended by subsequent regulations, Decrees of central bodies of the state mining administration, as well as adjustments. These more precisely enact conditions for securing mining safety on surface and in underground, processing and separating minerals, at drilling and geophysical works, at exploitation of gaseous and liquid minerals, as well as at their underground storage and other activities.

## **SLOVENIA**

Due to regulations of Mining Law, there are detailed regulations on mining safety on a level of ministerial decrees.

**23. Does it cover tailings ponds safety or do you have a separate regulation or guideline on it? Please describe.**

## **BULGARIA**

Yes, they cover tailings ponds safety.

## **ESTONIA**

Not exactly.

## **HUNGARY**

The cited regulations under answer 22 have provisions, which cover tailings ponds safety. According to the §32 of the mining act, in the interest of the protection of mining facilities and the environment thereof, a security zone shall be designated. Residential areas, other surface or underground facilities, water reserves, rivers and lakes, monuments, nature conservation areas shall be protected against the impact of mining by designating a protective pillar. This pillar must be licensed by the authorities and must not be endangered by the mining activity.

According to the §34 of the mining act, mining activities shall be performed in accordance with the safety standards. The mining company shall prepare and adopt special facility rules on safety, these rules must be known by workers and be sent to the mining authority for acceptance. In plants designated by the mining authority, the mining company shall have a rescue and outburst protection team and shall prepare an action plan for such events. The plan has to be sent to the mining authority. All mining sites have to be classified from the mining safety viewpoint during the approval of the technical operation plan at latest.

However, §21 of the implementing Government Decree No. 203/1998. (XII. 19.) mentions the risk of dust emission and silicosis exclusively for surface facilities as mining risks to be classified. This is in minor contradiction with the provisions listed below. The term "tailings pond" appears in the decree under the scope of supervision of the mining authority.

The appendix of the 4/2001 (II. 23.) decree of the Minister of Economy on the minimal level of safety and health protection requirements to be accomplished in mines is called the "General Mining Safety Regulation". In its chapter I/25 "Waste Heaps and Other Disposal Sites" it prescribes that waste rock heaps, disposals and tailings ponds shall be designed in a way which supports their stability. In chapter III/1. among the special provisions it is stated that mining works shall be planned in a way which helps to prevent or to decrease the risk of dam slope collapse or sliding. The height and slope angle of dams shall be designed whilst considering the material quality, the stability and the mining technology.

The 44/1997 (VIII. 14.) decree of the Minister of Industry, Trade and Tourism on mining safety regulations of the reporting and examination of serious mining malfunctions and accidents lists slope, dam and waste rock heaps failure (if it threatens or causes damage in other facilities) among the serious mining operation malfunctions (§1 ba) ) as well as accidents causing significant risk to the public, or environmental pollution or damage (§1 e) ).

There is an Order No. 4/1974 of the President of the Hungarian Mining Office on the design and operation of mining waste dumps but no such for tailing ponds. In accordance with the waste management act (see answer 46) a new ministerial decree is being drafted on mining waste dumps and tailing ponds.



## **LATVIA**

The above Regulations of the Cabinet of Ministers (see Answer 22) do not contain requirements regarding tailings ponds safety. Since there is no particular need, no legislation or regulations have been developed regarding this problem.

## **LITHUANIA**

—

## **POLAND**

Tailing pond safety is regulated mainly by the Building Law. Some other acts are connected (as a Water Law, Environmental Protection Law, etc.).

## **ROMANIA**

Tailings ponds safety is covered by regulations and there are also the Law No. 466/2001 on safety of dams and special Ministerial Orders and Norms on that subject, issued by the Ministry of Water and Environment Protection (e.g.: Order No. 116/289 (11.02.2002) on safety in exploitation of dams and tailings ponds, Order No. 119 (11.02.2002) on tailings dams conservation, Order No. 121 (11.02.2002) on record card for dams, Order No. 147 (11.02.2002) on public statement of characteristics, importance and the hazard degree associated with the dams) and by the Ministry of Industry and Resources (Departmental Norms for tailings ponds safety).

## **SLOVAKIA**

Safety of mining slurry is solved in § 38 of the Mining Act and also in §§ 28 and 33 of Decree of the Slovak Mining Office No. 50/1989 Coll. on Safety and Health Protection of Labor and Safety of Operation at Processing and Separating Minerals.

## **SLOVENIA**

Not applicable in Slovenia.

### **24. What are the prescribed company and authority measures and responds in case of mining accidents?**

## **BULGARIA**

Preventative and investment measures.

## **ESTONIA**

—

## **HUNGARY**

According to the §35 of the mining act, any serious accidents and malfunctions in operations shall, without delay, be reported to the mining authority.

The accidents shall be investigated by the mining authority. In the course thereof the authority shall conclude the cause of the event and shall take the necessary measures preventing similar cases.

This is regulated more detailed in the 44/1997 (VIII. 14.) decree of the Minister of Industry, Trade and Tourism on mining safety regulations of the reporting and examination of serious mining malfunctions and accidents. According to its §2, the accident shall be reported to the mining authority, the police and in case of environmental pollution to the environmental inspectorate and the water management district.

The company is obliged to register and archive all relevant data that can help authorities to clarify the event. The decree gives detailed provisions on the tasks of the authorities as well (§4-8). On the basis of its findings the mining authority can initiate a legal process under the scope of the criminal code as well.

## **LATVIA**

The reaction of the authorities and employer to accidents in the mining industry is determined by the requirements of the law "On labour protection" and relevant Regulations of the Cabinet of Ministers. Article 23 of the above law states that social protection of the employees in conjunction with occupational accidents is one of the cornerstones of the state policy in the sphere of labour protection.

Obligatory insurance against occupational accidents and professional illnesses, formation of insurance funds and procedures of their use, as well as rights and obligations of the insured and insurance institutions are set forward in the law (1995) "On the obligatory social insurance against occupational accidents and professional illnesses". The procedures of awarding compensations and their calculation in conjunction with obligatory social insurance against occupational accidents and professional illnesses are determined by the Regulations of the Cabinet of Ministers No. 50 (1999).

The requirements for the employers are set forward in Articles 12 and 13 of the law "On labour protection".

"Article 12. First aid and other urgent measures

(1) The employer arranges measures at the enterprise, that are necessary for rendering first aid, limitation of consequences of dangerous accidents or their liquidation, firefighting, evacuation of the employees and other persons.

(2) The employer shall:

1) provide contacts with the external services, especially with that providing first medical aid and carries out firefighting and salvage operations;

2) appoint employees, who have been trained in providing first aid, firefighting and evacuation operations, and arranges that there is a sufficient number of such employees, duly instructed and provided with the necessary equipment.

"Article 13. Investigation of occupational accidents

...The employer shall make provisions for investigation of occupational accidents and record it. ..."

The procedures of investigation of occupational accidents and recording it are set forward in the Regulations of the Cabinet of Ministers No. 470 (1998). In compliance with Paragraph 5 of the Regulations, "The targets of investigation of occupational accidents and recording it are as follows:

5.1. to determine the causes of an accident, in order to prevent such accidents in the future;

5.2. to prepare the necessary documents in order to provide the social guarantees, envisaged by the legal and administrative acts, to the employee or his dependants (after his death);

5.3. to determine the persons responsible for violations of the relevant legal and administrative acts in the sphere of labour protection that led to the accident."

In compliance with Paragraph 7 of the Regulations: "Costs in connection with the accident investigation are carried by the employer." The Regulations envisage participation of the State Labour Inspectorate in the investigation of various accidents.

## **LITHUANIA**

The State Labour Inspection investigates mining accidents.

## **POLAND**

It is State Mining Authority and it's local divisions – District Mining Offices.

## **ROMANIA**

The appropriate measures and responsibilities regarding mining accidents are stipulated in the Civil Code, Law No. 90/1996-Republished, Government Decision No. 168/1997, Orders and Norms issued by the Ministry of Labour and Welfare and the Ministry of Industry and Resources, cited under answer 22.

## **SLOVAKIA**

Organizations performing mining activity are obliged, according to mining safety directives, to elaborate plans for overcoming serious operational accidents and failures. In such cases, district mining offices carry out inquiries of causes of their origination in terms of § 41 of the above Act of SNC No. 51/1988 Coll. and Decree of the Slovak Mining Office No. 387/1990 Coll. In relation to serious operational accidents and failures, police officers investigate a possible perpetration.

## **SLOVENIA**

All the underground mines are obliged to have a permanent rescue team for the case of mine accident. In the case of every accident connected with mining operation, Mining Inspection has to be informed immediately.

**25. Is it obligatory or voluntary to attach safety assessments at a certain licensing phase or emergency plans for accidents if required at all?**

## **BULGARIA**

It is obligatory.

## **ESTONIA**

It is obligatory in project acceptance.

## **HUNGARY**

According to the §34 of the mining act, the mining company shall prepare and adopt special facility rules on safety, these rules must be known by workers and be sent to the mining authority for acceptance. In plants designated by the mining authority, the mining company shall have a rescue and outburst protection team and shall prepare an action plan (or emergency plan) for such events. The plan has to be sent to the mining authority. All mining sites have to be classified from the mining safety viewpoint, during the approval of the technical operation plan at latest.

In accordance with the prescription of Act XCIII of Workers Protection (§54-59) all mining operation location shall have a certificate of safety and health protection the content of which shall be known by the workers and shall be revised if the nature of activity or the location changes.

## **LATVIA**

The existing legal and administrative acts do not envisage the necessity of safety assessment and action plan during accidents during the licensing stage.

## **LITHUANIA**

Not at licensing stage, but safety measures must be described in an exploitation project.

## **POLAND**

Safety assessments and emergency plans are attached obligatory to Mining Operation Plan.

## **ROMANIA**

According to the Art. 40, k) of the Mining Law, National Agency for Mineral Resources elaborated technical instructions concerning the application of the Law. In this respect, NAMR issued the Order No. 93/23.07.1998 on approval of the Technical Instructions for unitary application of the Mining Law. The Technical Instruction No. 85-06/1998 details the content of the "Development Plan of the Exploitation", compulsory for granting the licence. In that Development Plan the mining company will present and adopt safety rules on prevention mine fires, gas eruptions, land slides/tailings dam slides, floods etc.. The mining company shall organize a rescue team for such events and first-aid service at mine site. Each mining company has a special division for mining safety. There are also, County Inspectorates for Labour Safety which, together with NAMR local Inspectorates, control observance of the Orders and Norms regarding mining safety, cited under answer 22.

## **SLOVAKIA**

Organizations performing mining activity are obliged to submit annually to a district mining office an evaluation of mining safety in form of annual report. In accordance with mining safety Decrees, organizations performing mining activity are obliged to elaborate plans for overcoming serious operational accidents and failures, consisting of a emergency and a operative part.

## **SLOVENIA**

For each mining site, it is obligatory to have a safety assessment. Underground mines are also obliged to have emergency plans. These documents are regulated with Law on Mining and Law of Health and Safety at Work and derived legislation.

### **Mine closure**

**26. What is the licensing procedure of mine closure (*authorities, environmental regulations, etc.*)?**

## **BULGARIA**

Environmental regulations.

## **ESTONIA**

The holder of the extraction permit informs the Minister of the Economics of the completion and stoppage of the mining operations in the deposit of state importance six months ahead. The order of the completion and stoppage of the mining operations is established by the Minister of the Economics.

## **HUNGARY**

The closure of the mine is regulated in the §42 of the mining act. The mining entrepreneur shall submit a technical operation plan for the closure. The mining authority and the involved co-authorities shall judge the possibility of the further use of mined spaces and facilities. The underground workings shall be abandoned in such a condition that it should not be a hazard to the environment, or the surface.

According to the §26 of the implementing Government Decree No. 203/1998. (XII. 19.) the technical operation plan of the closure shall contain:

- an environmental impact assessment,
  - the technical measures for the protection of the surface, groundwater and natural values,
  - the remediation measures and their timing,
  - the presentation of facilities for further use or demolition,
- plans for the utilization or clean-up of waste rock heaps, etc.

A series of documents shall be attached to TOP as mining operation maps, mineral reserve accounting, environmental license, etc. The further utilization of underground mining spaces is acceptable in case when remediation is completed, the environmental damages are restored or compensated and the new financial proof for environmental liability was paid.

## **LATVIA**

The licensing procedures for the closure of mining enterprises are not envisaged by the existing legislation yet. In practice, the license requirements for the use of subsoil always incorporate the requirements for Licensees:

- to submit geological and topographic information on the mining enterprises to be closed down to the State Geological Survey;
- to liquidate or cover the costs in conjunction with liquidation after the operations aimed at the use of subsoil are over (to cover costs in conjunction with the liquidation of all the structures, equipment and facilities after the operations, aimed at the use of subsoil, are over);
- to carry out or fund the remediation operations.

Besides, the license requirements may incorporate specific ones, depending on the concrete features of mines/quarries.

## **LITHUANIA**

It depends on the type of resources and exploitation contract.

## **POLAND**

Authorities and regulations for procedure of mine closure are the same, as for opening new mines.

## ROMANIA

Mine closure is governed by the Mining Law (chapter V, Art.37 to 39), Law No. 40/1998 regarding some measures related to mine care and maintenance and mine closure, Order No. 116/166725 /1998 (Technical instructions on mine and open-pits closure) issued by MIR and NAMR and specific government decisions. Special provisions are stipulated in the Law No. 43/1998 and the Law No. 349/2001 on establishing of the National Agency for Development and Implementation of Mining Areas Reconstruction Programs, Government Emergency Ordinance No. 51/1997 on some measures for conservation and mine closure. There are a number of Government Decisions approving different stages of the Mines and Open-pits closure (Nos. 816/1998 – Stage I, 17/1999 – Stage II, 720/1999 – Stage III, 1001/2000 – Stage IV, 602/2001 – Stage V). The “CONVERSMIN” Company, established by the Government Decision No. 313/04.04.2002, deals with the conservation, closure of underground mines and post-closure monitoring. The procedure of mine closure, care and maintenance is detailed in the “MINE CLOSURE MANUAL”, approved by the Order No. 273 (4.09.2001), issued by the Ministry of Industry and Resources.

## SLOVAKIA

A closing of a mine is preceded by liquidation of its main workings, based on a permission of a district mining office. This permission is given based on an administrative decision-making, in which concerned participants as well as state administration authorities give their opinions.

## SLOVENIA

When the decision of closing down the mine is adopted by the company and mining authorities, there is an obligation to prepare technical documentation for closure, to get a location permission again and to get a permission of abandoning mining site and works.

**27. Does it include remediation and post-closure monitoring?**

## BULGARIA

Yes.

## ESTONIA

In the completion and stopping of the mining operations the access to the unmined reserves and safety to the surroundings must be guaranteed. Yes.

## HUNGARY

The mine closure regulatory process includes the granting of the remediation, as prescribed by the §42 of the mining act and the §26 of the implementing Government Decree No. 203/1998. (XII. 19.). The §36 of the act and the §22 of the decree give detailed provisions on remediation.

The mining company shall continuously remediate the surface(!) area, which can be no longer used, to achieve a state harmonizing with the natural environment or condition for further utilization in accordance with the technical operation plan. A separate remediation plan shall be submitted to the interested authorities after three years of establishment the mining plot at the latest.

The accomplishment of the remediation shall be reported to the authorities for final acceptance.

However, these sections do not give provisions on the post-closure monitoring but the obligatory participation of the environmental, water and geological authorities in the licensing process make it sure that this is considered and required if needed.

## LATVIA

As regards remediation, see answer to Question 26.

In cases of possible impact of mining enterprises to be closed down on some components of the environment in the future (e.g., groundwater), the requirements of a production license incorporate the necessity of monitoring such components after mining enterprises are closed down.



## **LITHUANIA**

Yes, if necessary.

## **POLAND**

Remediation and post-closure monitoring (if it is needed) are part of Mine Closure Operation Plan, made individually for every closing mine and accepted by District Mine Office.

## **ROMANIA**

Yes, according to the Mining Law (Art. 38, b and d), Law No. 40/1998 regarding mine closure, specific Government Decisions and Ministerial Orders, as shown at point 26, there are detailed provisions on remediation and post-closure monitoring. Special provisions are included in the MINE CLOSURE MANUAL issued by the Ministry of Industry and Resources (MIR - Order No. 273/4.09.2001).

## **SLOVAKIA**

Allotments reclamation after finishing or terminating of a mining activity belongs to responsibilities of a organization, to which a mining claim is registered. The reclamation itself is not permitted by a district mining office, but by a county office, division of allotments, agriculture and forest management.

## **SLOVENIA**

All permissions are issued on the basis of technical documentation, which have to include remediation of land degraded with mining works and post closure monitoring for underground mines.

### **28. What is the legal status of abandoned and not remediated (orphan) mines?**

## **BULGARIA**

State owned.

## **ESTONIA**

Not regulated.

## **HUNGARY**

The problem of abandoned (closed but not remediated) mines is touched by the sections of the mining law and its implementing decree dealing with remediation (§36) and the financial fines and guarantees (§41). The mining rights (including all liabilities) of the bankrupted mining company without legal successor shall be announced by the Hungarian Mining Office for tender in the Official Journal of the Ministry of Economy. If the transfer of these rights and obligations is unsuccessful for a year, the mining authority deletes the license from the register and initiates the necessary measures in order to cover the costs of closure, remediation, etc. from the reserved financial guarantees of the company as described in §41. If this sum does not cover the total cost, the obligation of remediation and environmental clean-up sooner or later settles back to the state who is the original owner of minerals.

For details on provisions concerning environmental protection requirements in case of bankruptcy procedure see answer 41, on the government remediation care see answer 31.

## **LATVIA**

The legal status of abandoned and not remediated (orphan) mines is not envisaged by the existing legislation yet.

## **LITHUANIA**

It is regulated, including remediation of abandoned and not remediated quarries (Government of the Republic of Lithuania Resolution No. 1116 (08/14/1995) entered into force 08/19/1995).

## **POLAND**

For open pit mining responsible for an orphan mine is landowner. For underground mining responsible is the company which was exploiting the resource, and if it doesn't exist and there is no law successor of it – the State Treasury is responsible.

## **ROMANIA**

The legal status of abandoned mines is stipulated by the Mining Law. Special provisions are included in the MINE CLOSURE MANUAL issued by the Ministry of Industry and Resources (MIR - Order No. 273 (4.09.2001)).

## **SLOVAKIA**

A working in underground, which is abandoned and which former entrepreneur or its legal representative does not exist or is not known, is termed as an abandoned working (in accordance with § 35 of the Mining Act).

## **SLOVENIA**

Abandoned and not remediated mining sites on surface have a status of heritage of the past. Local communities define these areas as natural remediated sites or sites for remediation, in that case they try to find funds for remediation, now a possibility will be the Mining Fund.

**29. Are there specific regulations or guidelines for remediation methodology and technology (e.g. backfilling of shafts, galleries, quarries; thickness of soil cover; etc.)? If yes, please describe in details.**

## **BULGARIA**

Yes. These are described in specific instructions.

## **ESTONIA**

The areas disturbed by the extraction of the earth material must be put in order by the holder of the earth material extraction permit according to the requirements fixed in the permit at his/her expense.

To guarantee the recultivation (reclamation), the holder of the extraction permit either pays the deposit of caution money before starting operations or gives property warrant in some other way. The caution sum is paid in parts, which are calculated on the basis of the size of area disturbed by mining in one year. The amount of the caution sum is fixed and the local government establishes the order of payment.

## **HUNGARY**

There are no specific regulations for remediation methodology. It is generally an iterative process between the authorities and the mining company during the licensing phases (when approving TOPs, remediation plans) to set an acceptable and viable methodology for remediation. However, the detailed guidelines issued by the Hungarian Mining Office concentrate more on safety and less on environmental restoration.

## **LATVIA**

There are no separate regulations or recommendations for the methods and technology of remediation of open pits (regulations of the former USSR, that were in force before the restoration of Latvian independence, have lost legal force). There are no underground mines in Latvia. In practice, remediation is selected taking into account the character of remediated area, landowners' wishes, area development plan. The details of methods and technology of remediation are defined in the Remediation Project for each remediated area.

## **LITHUANIA**

Remediation technology and area restoration character depends on the circumstances and must be approved for every case.

## **POLAND**

No, there aren't, every mine is treated individually, due to local conditions and environment damage as a result of mine closure.

## **ROMANIA**

Yes, Law No. 40/1998 regarding measures for mine care and maintenance and mine closure, specific technical norms (Order/ Instructions 116/166.725/1998 issued by NAMR and MIR). Special regulations for remediation methodology and technology are stipulated in the MINE CLOSURE MANUAL.

## **SLOVAKIA**

Neither provisions, nor directives designed for methods and technology of shafts, galleries and quarries do exist. A way of their liquidation and reclamation shall be suggested by a mining organization. This method shall be confirmed or modified by a decision on permission of liquidation of main mining workings and quarries and by a decision on permission of reclamation.

## **SLOVENIA**

There are no specific regulations on that. All solutions are a part of technical documentation, adopted by all involved authorities and expert organizations.

## **Economics**

**30. Does mining companies have to pay a mining royalty after all minerals exploited? If yes, what is the basis of the calculation? Are there any deferred terms of paying according to enhanced recovery methodologies or environmental investments?**

## **BULGARIA**

Yes. The calculations are based on Regulation for principals and methodology for estimation of concession royalty for extraction of underground resources. (in Bulgarian).

## **ESTONIA**

Yes, annual royalty based in actual mining. The rates are fixed by government for each minerals.

## **HUNGARY**

Mining companies have to pay mining royalty as defined by the §20 of the mining act after exploited minerals and geothermal energy even if the activity is illegal or was licensed as water works (e.g. dredging), or the mineral is mined during the exploration, or extracted during the secondary use of waste rock heaps. The rate of the mining royalty is defined individually and can be a subject of negotiation in the case of concession contracts. In the case of exploitation licensed by the authorities the rate of the royalty shall be the following, with regard to the value of the quantity of mineral raw material exploited:

12 % for oil and gas,

5 % for non-metalliferous minerals mined in open-pits, with the exception of energy minerals;

2 % for other solid minerals and geothermal energy;

100 % for the quantities mined illegally.

The basis of the calculation of the mining royalty is the market value of the unprocessed minerals leaving the mining works. The payment shall be done monthly in the case of hydrocarbons and quarterly for other minerals.

The Minister of Economy may, in agreement with the Minister of Finance, reduce the rate of mining royalty, with regard to the interests of the management of mineral resources or to other public interests. No royalty payment is required after the oil and gas exploited by enhanced recovery methods. The company does not have to pay royalty after the quantity of geothermal energy, which is above the 50 % effectiveness of utilization. There are no other provisions for deferred payment which concern environmental investments or other measures related to mining waste management (e.g. recycling).

## **LATVIA**

In compliance with the existing legislation, the natural resource tax has to be paid for the mineral production (law «On the Natural Resource Tax» of 1995). The payments are made with the stated periodicity parallel to the mineral production (and not after all of them have been extracted).

The amount of the payments, according to Part 1 of Article 8 of the above law, are calculated «... based on the tax rates for each ... unit of a natural resource. The tax is paid for actual ... volume of extraction of a natural resource, based on the ... accounting data of the payer regarding the production of a natural resource ... ». The tax rates for each type of mineral are quoted in Appendices 1 and 2 to the above law.

Part I of Article 16 of the same law states that: «Taxpayer that funds projects aimed at the minimisation of environmental contamination or consumption of a mineral resource, or introduces technological innovations or environmental protection measures, may obtain a tax reduction for the sum that is necessary for the implementation of such a project».

Besides, the law states that «Carrying out sand, sand-gravel and gravel for construction purposes below the unconfined groundwater level determined by geological exploration, the tax reduction of 0.6 is applied» (Paragraph 1 of Appendix). The purpose of the above provision is to stimulate more complete extraction of minerals within the produced deposits.

The above provisions of the law «On the Natural Resource Tax» do not refer to the production of oil, that is non-existent in Latvia at moment, but is possible in the future and is regulated by special legal acts. The payments for oil production are envisaged by Regulations of the Cabinet of Ministers of 2000 «Regulations on the state fee for oil production».

## **LITHUANIA**

Mining companies have to pay taxes. The basis of calculation is the volume of extracted resources.

## **POLAND**

Yes, mining companies are paying royalty. Basis for the calculation is the price and quantity of exploited commodity. To the end of 2001 reduction of royalty is possible for the reason of good environmental protection and good utilization of resource. Due to last amendments to the geological and mining law calculation of royalties will change. Reduction of payments for this reason will be impossible.

## **ROMANIA**

Yes, mining companies have to pay a mining royalty after all minerals are exploited. The level of royalty was updated by the Government Emergency Ordinance No. 47 (11.04.2002) for modification and completion of the Mining Law No. 61/1998 and the Petroleum Law No. 134/1995. The annual basis of calculation is a certain percent (it lasts between 2% to 10%) applied to the value of mining production. No deferred term of payment.

## **SLOVAKIA**

After staking of a claim mining companies pay to the state a payment of 5 000 Sk annually for a each claim, also the inchoate one km<sup>2</sup> of areal extent of a claim. At exploration of minerals within staked-out claim, mining companies pay to the state payment for exploited minerals, for which the claim was designed. The charge is maximum 10% of the market price of goods made from mined minerals. Mining organizations pay a payment to the state for storing of gases or liquids within natural rock masses structures and underground spaces. The charge is 0,02 Sk for storage (insufflating) of 1 m<sup>3</sup> of gas or 1 t of a liquid.

## **SLOVENIA**

All companies have to pay royalty for all exploited mineral resources, they also have to pay fee for land used for mining operations. They are also paying a pay back fee for remediation of mine sites or they have to get a bank guarantee for the sum of remediation works. There is a facilitation in paying royalties and fees in the last two years of mining operation.

**31. Does the mining royalty become a part of the central or local government income or at least part of it is used for environmental decontamination/remediation of mining sites?**

## **BULGARIA**

Part of central government income.

## **ESTONIA**

In local importance deposits 100% goes to local government, in state importance deposits 70% goes to local government and 30% central government (Environmental Investment Centre- EIC) EIC uses this money for environmental programs, incl. for reclamation of abandoned sites.

## **HUNGARY**

10 % of the annual mining royalty shall be turned to the coverage of the remediation works of orphan mines. In this case remediation is limited to the surface, but includes waste rock heaps. This sum shall appear in the State Environmental Fund. The rest of the royalty belongs to the central, unaddressed part of the state budget. See answer 45 for more details.

## **LATVIA**

Part I of Article 11 of the law «On the Natural Resource Tax» states that «Tax payments for the production of natural resources ... within the stated volume incorporate:

40% - to the special state budget for environmental protection;

60% - to the special budgets of parishes or towns where the relevant activities take place”.

In compliance with Article 3 of the above law, «all the funds obtained as a result of tax payments (tax income) shall be used exclusively for the funding of projects directly connected with environmental protection, remediation, utilisation or processing of toxic waste, studies or restoration of natural resources». Paragraph 17 of the above-mentioned «Regulations on the state fee for oil production” envisages that «Revenues from the royalty payments shall be transferred into the principal state budget».

## **LITHUANIA**

The mining royalty becomes a part of the State income.

## **POLAND**

60 % of royalty is an income of local government. 40% is income of a State Fund of Environmental Protection and Water Management and could be used for remediation of closed mines.

## **ROMANIA**

The mining royalty becomes a part of the state central income. The mining companies must constitute a banking guaranty for decontamination/rehabilitation of the environment affected by mining activities. The bank guarantee is operated as per provisions of the Order No. 151/22740 (28.09.2001) issued by the National Agency for Mineral Resources and the Ministry of Water and Environment Protection. Mining tax is part of the Environmental Fund which can finance or offer loans for waste management, rehabilitation of affected environment, new clean technologies etc (Law No. 73/2000 on Environmental Fund, Art. 9 and 10).

## **SLOVAKIA**

50% of payments for a claim are intake of the state budget and 50% of payments are intake of the municipality, within which cadastre the claim is situated. Other payments are intakes of the state budget. Using of this intake, or its part, for decontamination/reclamation of mining areas has not been legislatively regulated.

## **SLOVENIA**

Incomes from royalties and fees are shared 50 % : 50 % among local community and state. Local community should spend that money only for determined purposes. State share is an income of Mining Fund, which can finance or offer loans for:



exploration of mineral resources, dispatching of consequences of exploration and exploitation of mineral resources, new mining technologies etc..

### III ENVIRONMENTAL LEGISLATION

#### Licensing and environmental impact assessment

**32. What is the precise title, number, type, date of legislation, date of entry into force, last amendment and scope of your environmental protection law? (*Air, landscape, soil, subsoil (geological formations), water (both surface and groundwater), biosphere (flora, fauna, human), constructed environment.*)**

#### BULGARIA

Environmental Protection Act - Promulgated State Gazette No. 86/18.10.1991. Amended SG Nos. 100/1992; 31 & 63/1995; 13, 85 & 86/1997; 62/1998; 12/1999.

#### ESTONIA

*Environmental Impact Assessment and Environmental Auditing Act*; passed 14<sup>th</sup> June 2000 (RT I 2000, 54, 348), entered into force 1<sup>st</sup> January 2001;

*Integrated pollution prevention and control act*; passed 10<sup>th</sup> October 2001 (RT I 2001, 85, 512);

*Water Act*; passed 11<sup>th</sup> May 1994 (RT I 1994, 40, 655; consolidated text RT I 1996, 13, 241), entered into force 16<sup>th</sup> June 1994, amended by several acts later;

*Ambient air protection act*; passed 22<sup>nd</sup> April 1998 (RT I 1998, 41/42, 624);

*Act on protected Nature objects*; passed 1<sup>st</sup> June 1994; came into force 9<sup>th</sup> July 1994 (RT I 1994, 46, 773; 1998, 36/37, 555; 1999, 54, 583; 95, 843; 2001, 50, 286; 56, 337; 97, 602).

#### HUNGARY

The Act LIII of 1995 on the general rules of environmental protection was accepted by the National Assembly on 30<sup>th</sup> May, it was issued on 22<sup>nd</sup> June 1995 and came into force on the 20<sup>th</sup> January 1996. The last amendment was by the Act LV of 2001 on the amendment of certain acts in order to achieve harmonisation in the environmental field.

The scope of the act covers the living organisms, and the inanimate components of the environment, as well as the natural and man-made environment thereof; the activities that utilize, load, pose hazard to or pollute the environment; those natural and legal persons or organizations who have rights or responsibilities in relation to the environment or use it.

#### LATVIA

The law "On Environmental Protection" was passed and came into force in 1991. The latest amendments were made on December 20<sup>th</sup>, 2001, but most of those amendments will come into force on 23<sup>rd</sup> January 2002, while two new Articles (5.1 – on the ecolabelling of merchandise and 5.2 – on the environmental management of enterprises and environmental audit) will come into force on January 1<sup>st</sup>, 2004. Previous amendments to the law were made on 20<sup>th</sup> June 2000.

The law covers water, air, ozone layer, soil, subsoil, flora, fauna, protected areas, industrial and residential waste, packing, contaminants and hazardous chemicals, equipment, merchandise and food products containing such substances, ecolabelling of merchandise.

#### LITHUANIA

Law on Environmental Protection of the Republic of Lithuania approved in 1992. The latest amendments and changes were made on December 20<sup>th</sup>, 2001.

#### POLAND

Environment Protection Law, Dz.U.2001.62.627, legislated 27<sup>th</sup> April 2001, entry into force 1<sup>st</sup> October 2001. The scope is: earth surface, mineral resources, surface and groundwater, air, flora, fauna, landscape, climate and constructed environment.

## ROMANIA

There are several laws, Government Emergency Ordinances, Government Decisions and Ministerial Orders referring to the environmental protection in connection with the mining activity:

Law of Environment Protection (Law No. 137/1995 with amendments of the Law No. 159/1999),  
Water Law (Law No. 107/1996),

Law No. 111/1996-Republished – on the safe deployment of nuclear activities,

Law No. 158/1999 on constitution and function of the National Council for Environment and Sustainable Development,

Law No. 5/2000 for approval of the national land arrangement –Section III-Protected Areas (Annex 1 – protected natural areas of national interest and natural monuments including geological formations),

Law No. 462/2001 on protected areas, natural habitats, wild flora and fauna conservation,

Law No. 426/2001 on waste management,

Law No. 466/2001 on safety of dams (detailed by Ministerial Orders),

Law No. 655/2001 on atmosphere protection,

Government Emergency Ordinance No. 91 (20.06.2002) for modification and completion of the Law of Environment Protection.

## SLOVAKIA

See Annex III.

## SLOVENIA

The Environmental Protection Act (Ur. list RS, St. 32/93, 44/95, 1/96, 9/99, 56/99, 22/00), date of adoption in Parliament: 02.07.1993; published in OJ of RS: 17.06.1993; entry into force: 02.07.1993; Scope of the EPA: Act regulates the protection of living environment and the natural environment inseparably linked with it, and the general conditions of the use of natural resources, which are basic conditions for a healthy and sustainable development.

**33. What types of environmental license does the law prescribe relevant to mining waste management? (For new facilities and activities, for existing facilities and activities, for temporarily suspended activities, for closure, etc.)**

## BULGARIA

EIA.

## ESTONIA

For mining activities mining permit is required, a grant under the Earth Crust Act. Water and waste permits might be required too, depending on activities.

## HUNGARY

The environmental protection act does not contain direct provisions on mining waste management. For the establishment, suspension, modification and closure of different facilities and activities environmental licensing are defined by the environmental protection act (see answer 35) and by Government Decree No. 20/2001 (II. 14.) on the environmental impact assessment, which is in complete harmony with the EU legislation in force (the amended 85/337/EEC directive).

The Government Decree No. 33/2000 (III. 17.) on the activities that affect the quality of groundwater is a rather sophisticated and the most relevant environmental regulation to mining waste management. According to §5 among others it shall be forbidden to discharge directly into groundwater a risk substance, except returning groundwater abstracted for the purposes of using geothermal energy; mining solid minerals, but in a system separated from the extraction of the solid minerals; and dewatering civil engineering works, into the same aquifer, or one developed for the same purpose, provided that the re-injected water causes no additional pollution. It is forbidden to deposit any risk substance in a deep mining operation, except for material needed for mining the particular raw material and permitted for temporary storage in technical operation plan. A permit may be granted for introducing directly into groundwater and/or the geological medium water containing substances, which originate from operations related to hydrocarbon extraction; injection of water of natural composition to enhance hydrocarbon recovery into geologic formation which may be considered closed as regards the spreading of risk substances and from which hydrocarbon is being, or has been exploited.

## **LATVIA**

The Latvian environmental protection legislation does not envisage licenses for the management of mining waste.

## **LITHUANIA**

—

## **POLAND**

For all kinds of activities.

## **ROMANIA**

The environmental license is necessary before the approval of the mining license by the Government. That environmental license is based on EIA and the Environmental Rehabilitation Plan, as per Art. 10, (3), c) and d) of the Mining Law and on the Environment Audit Report for the site, as per provision of the Environmental Law and the Order No. 184/1997 issued by the Ministry of Water and Environment Protection (Annex A - Procedure). The environmental license is also necessary for mine closure as it is stipulated in the Environmental Law (Art. 8).

## **SLOVAKIA**

Act No. 44/1988 Coll. (in full wording point No. 1)

Act of SNC No. 51/1988 Coll. (in full wording point No.1)

## **SLOVENIA**

No licenses required. Relevant licenses for waste management (recycling, recovery, disposal of waste) are prescribed with the Rules on the Management of the Waste (Ur. list RS, St. 84/98). See also "Mining Licensing".

**34. On what kind of environmental impact assessments are these licenses based? (Or environmental impact statement, or ... study, or ... audit, or ... performance assessment; basic or detailed, prescribed by the authority or voluntary, once in the lifetime of facility or periodical, etc.)**

## **BULGARIA**

EIA audit.

## **ESTONIA**

Before granting a permit, environmental impact assessment could be carried out (by decision of Environmental authorities, based on Environmental Memorandum, which should be added to permit application) and afterwards in every 3 years environmental audit, if needed.

## **HUNGARY**

There are no specific provisions on the environmental impact assessment type and methodology concerning mining waste management in the environmental legislation. It means that the general rules presented in answer 35 apply for mining waste management and mining activities in general.

## **LATVIA**

See answer to Question 33.

## **LITHUANIA**

EIA study (if it was done) or on periodical performance assessment.

## **POLAND**

It is a study of preliminary environmental impact assessment, prescribed by the authority. If conditions of the exploitation are not changing, it is for a lifetime.

## **ROMANIA**

The environmental licenses are based on Environmental Impact Assessment /Study/, Environmental Rehabilitation Plan, detailed Report on environment audit and these documents are prescribed by the authority (see point 33). They constitute the base for obtaining Environmental Agreement and/or Authorization and have to be updated when the initial condition changes.

## **SLOVAKIA**

Act of NC of SR No. 127/1994 on Environmental Impact Assessment, as amended by the Act No. 391/2000 Coll..

## **SLOVENIA**

The Slovenian legislation on environmental impact assessment conforms with the EU EIA Directive (85/337/EEC, amended by 97/11/EC).

**35. Are there detailed provisions within the environmental act or is there a separate regulation or guideline on environmental impact assessment procedure and methodology? If yes, please describe and attach even in national language.**

## **BULGARIA**

Decree No. 4 (07.07.1998) on EIA.

## **ESTONIA**

Environmental Impact Assessment and Environmental Auditing Act; passed 14<sup>th</sup> June 2000 (RT I 2000, 54, 348), entered into force 1<sup>st</sup> January 2001.

## **HUNGARY**

In the environmental protection act §67-81 give provisions on the different types of environmental impact assessments as follows. Prior to commencing activities with significant impacts on the environment, an environmental impact assessment shall be carried out. From this aspect the siting or implementation of a facility or operation, the abandonment and significant enlargement or expansion of an existing facility or operation, as well as a change in technologies and products and the significant modification of the above shall qualify as activities with significant impacts on the environment. These facilities and activities are defined in the Government Decree No. 20/2001 (II. 14.) on the environmental impact assessment, which is harmony with the EU legislation in force.

The applicant shall present the findings of the phases of impact assessment in a preliminary environmental statement and in a detailed environmental impact statement. In the course of the assessment, environmental impacts expected as a result of other operations linked directly to the activity and of a failure or accident shall also be revealed.

The preliminary environmental statement shall contain:

- a) the goal of the planned activity, a description of the siting and technological alternatives thereof, the justification of the need for the facility, and a description of the environmental consequences to result should the planned activity not come about;
- b) quantitative and qualitative descriptions of the expected environmental loads and levels of utilization of the environment;
- c) a preliminary assessment of the expected environment impacts, furthermore, in the case of a new siting, a detailed description of the changes expected in the landscape and the ecological conditions at the location of the siting;
- d) those questions that may be answered only on the basis of further detailed impact assessment;
- e) an indication of the information that constitutes state, service or business secrets pursuant to the law.

On the basis of the application and the preliminary environmental statement, the inspectorate:

- a) shall prescribe the submission of a detailed environmental impact statement and shall determine the issues to be studied during the preparation of the detailed environmental impact statement and/or the requirements that may be determined on the basis of the data available;

- b) shall issue the environmental licence required for the activity, by simultaneously notifying the local governments competent at the planned location(s) of the siting, or
- c) shall reject the application.

The detailed environmental impact statement, to be drawn up on the basis of the preliminary environmental statement and substantiated with local tests shall contain, at the depth and to the level of details specified by the inspectorate:

- a) a more detailed description and a comparison of the selected technology with the most efficient alternative;
- b) the delimitation of the impact areas, including the visual presentation thereof using maps, and a description of the state of the environment in these areas in the situation without the implementation of the activity;
- c) the prediction and evaluation of impacts of the changes generated in the state of the environment as a result of the activity on the environmental components and human health;
- d) the assessment of the health, economic and social consequences expected due to changes in the state of the environment;
- e) the specification of measures preventing, abating or cleaning up possible levels of utilization, pollution and damage;
- f) the methods of measurement and analysis of the impacts, as well as the methods of post-project analysis of the impacts following the abandonment of the activity;
- g) the sources of information used for the compilation of the detailed environmental impact statement, the methods used in the assessment, their limitations and the conditions of their use, the limits to the validity of predictions, and the uncertainties found during the evaluation of the impacts and the findings of the assessment;
- h) a list of the studies used and the way of gaining access to the studies;
- i) an indication of the information in the study that constitutes state, service or business secrets pursuant;
- j) a non-technical summary for the public.

The inspectorate shall involve the expert authorities as defined in the implementing Government Decree.

According to §73 environmental audits shall be carried out for the study of the environmental impacts of certain activities as well as for checking whether the environmental protection requirements are met. From the aspect of the audit the performance, renewal, restoration and abandonment of some operation or technology entailing the utilization of, posing hazard to or the pollution of the environment shall qualify as activities.

In order to explore the environmental impacts of the activity, the inspectorate shall obligate the concerned party to carry out a full or partial audit when it detects that the latter poses hazard to or damages the environment; if the concerned party began or performs an activity subject to a licence without such a licence; performs an activity that poses hazard to the environment in protected areas.

The full audit shall cover

- a) the description of the technologies used and the presentation of the technical state and the up-to-date nature of the equipment;
- b) the description of the loading and the utilization of the environment caused during the performance of the activity, substantiated by data;
- c) the operations linked directly to the activity, especially the material stream, shipments into and outside the facility and the treatment of wastes and sewage;
- d) the specification of pollutants and energy to be presumably released because of a failure or environmental disaster that might occur;
- e) the description of measures taken and planned in order to prevent environmental hazards and to clean up environmental damage;
- f) the measures to be taken after the abandonment of the activity.

More specific regulation of the audit is given in the Decree No. 12/1996 (VII. 4.) of the Minister of Environmental Protection.

The concerned party may carry out a survey to evaluate its own environmental performance, and - at its request - the inspectorate shall approve it. The implementing Government Decree gives more precise provisions on the methodology of assessment, this is available in Hungarian.

## **LATVIA**

Main items of environmental impact assessment for future activities are envisaged by the law "On environmental impact assessment" of 1998. The procedures of environmental impact assessment are set forward in greater detail in the Regulations of the Cabinet of Ministers of 1999 «Procedures for environmental impact assessment». (See the diagram reflecting the sequence of procedures of environmental impact assessment.) The procedures are dealt with in detail in the above Regulations. Separate regulations or guidelines on environmental impact assessment methodology have not been developed yet.

## **LITHUANIA**

Law on Environmental Impact Assessment of the Proposed Economic Activity of the Republic of Lithuania.

## **POLAND**

There are new, separate regulations for environmental impact assessments (see [www.mos.gov.pl](http://www.mos.gov.pl)).

## **ROMANIA**

Yes, there are detailed provisions both in the Environmental Law (Law No. 137/1995 with amendments of the Law No. 159/1999 and in the Government Emergency Ordinance No. 91 (20.06.2002) for modification and completion of Environmental Law) and in Ministerial Orders Nos. 184/1997 (regarding the Procedure of carrying out the environmental balance), 756/1997 (the Assessment of environmental pollution), 214/1999 (Procedure of promoting reference material and issuing of environmental licence) issued by the Ministry of Water and Environment Protection, Order No. 151/22740/2001 issued by the NAMR and MWE.

## **SLOVAKIA**

In the scope of the above-mentioned acts.

## **SLOVENIA**

See answer 34 and separate regulations: Decree on Categories of Activities for which Environmental Impact Assessment is Mandatory, and Methodology for preparing reports on Environmental Impact Assessment.

### **36. Is mining listed in environmental legislation as an activity with obligatory environmental impact assessment?**

## **BULGARIA**

Yes.

## **ESTONIA**

Yes.

## **HUNGARY**

Yes, several mining activities are listed in Government Decree No. 20/2001 (II. 14.) on the environmental impact assessment, which is in complete harmony with the EU legislation in force (the amended 85/337/EEC directive).

## **LATVIA**

Part 1 of Article 4 of the law «On environmental impact assessment» determines that:

“(1) Impact Assessment is required for Proposed Developments which:

are listed in the Annex to this Law;

require Impact Assessment in accordance with the international agreements ratified by the Republic of Latvia;

Competent Authority referred to in Article 6 of this Law have so requested on the basis of the results of an initial assessment.”

Among the objects listed in Annex to the above law, for which environmental impact assessment is necessary, are the following ones:

« ... 14. Sites for the storage and disposal of hazardous wastes...

17. Groundwater extraction or artificial groundwater recharge schemes where the annual volume of water abstracted or recharged is equivalent to or exceeds 2,5 million cubic meters...

20. Projects to extract petroleum and natural gas for commercial purposes...

25. Quarries and open-cast mining where the surface of the site exceeds 10 hectares, or peat extraction where the surface of the site exceeds 100 hectares...».

In compliance with Articles 8 and 10 of the above law, for the planned activities not included in the above Annex and environmental impact assessment for which is not envisaged by the international agreements concluded by the Republic of Latvia, but which may considerably impact the environment, the regional environmental boards may, based on the appli-



cation of a physical person or legal entity who/which intends to carry out the planned activities, carry out a preliminary environmental impact assessment. The results of such a preliminary environmental impact assessment may serve as a basis for carrying out the procedures of a comprehensive environmental impact assessment.

#### **LITHUANIA**

Yes, it is.

#### **POLAND**

It depends on the type of mining. EIA isn't obligatory for small-scale mining of common minerals, as sand and gravel, clays etc., if exploitation is less than 20000 ton per year on area smaller than 2 hectares. For the rest of mining EIA is obligatory.

#### **ROMANIA**

Law of Environmental protection (Law No. 137/1995 with amendments of the Law No. 159/1999) and Government Emergency Ordinance No. 91/2002 for modification and completion of the Environmental Law are specifying that mining activities need compulsory to have an Environmental Impact Study (EIA) and an Environmental Audit.

#### **SLOVAKIA**

Yes

#### **SLOVENIA**

Yes, as it is stated in 34.

**37. Is there a public hearing or other legal action for public acceptance in the environmental licensing process? What is its legal effect?**

#### **BULGARIA**

Yes. Public hearing effects on the decision taken by the competent authority.

#### **ESTONIA**

All mining licences should be made public. If EIA is carried out, then Public hearing is compulsory twice, first before acceptance of EIA program by Environmental Authority, second before acceptance of report.

#### **HUNGARY**

According to the §93 of the environmental protection act, after a detailed environmental impact statement has been submitted, the inspectorate shall hold a public hearing, unless the activity falls under military secrecy. The location of the public hearing shall be a room provided by the local government competent in the location of the siting of the activity, to where the inspectorate may invite the expert authorities, the affected local governments, the applicant, the associations formed to represent environmental interests and other public organizations, if they announced their intent to participate and verified their capacity as party to the case.

The local governments shall notify the population of the affected locality - in a public advertisement - of the date and place of the public hearing and of where the detailed environmental impact statement can be inspected. The advertisement shall be made public at least thirty days prior to the date of the public hearing. Comments may be submitted by the date of the public hearing to the inspectorate or the local government. The inspectorate shall draw up minutes on the public hearing and shall send copies thereof to the applicant and the expert authorities within fifteen days of the public hearing. The minutes shall contain a summary on the merits of the comments.

However, public acceptance is more effective, and have more legal force by the participation of the local government representatives in the environmental licensing procedure among the co-authorities. The consent of the co-authorities is a prerequisite for the final granting.

## **LATVIA**

A public discussion of the planned activities, whose implementation or end result may considerably impact the environment, is envisaged by the legislation dealing with environmental impact assessment (see answer to Question 35). Among the principles of environmental impact assessment (see Article 3 of the law "On environmental impact assessment"), the following are important:

"... 2) the assessment of the impact of objects, mentioned in Appendix to this law, is carried out based on the information provided by the initiator and that obtained from the interested state and local authorities' institutions, and taking into consideration proposals expressed during public discussions;

4) the society has the right to obtain information about the planned activities and participate in the evaluation of impact;...".

The law envisages the procedures of public discussions of activities subject to environmental impact assessment. The proposals, produced as a result of public discussion, are taken into account when preparing the programme of impact assessment, during preparation of opinions of the competent institutions and making decisions regarding the approval of planned activities.

## **LITHUANIA**

Yes, it is.

## **POLAND**

Yes, there is. Persons and non-government organisations, which show that their interest could be violated by mine operations are participating in process of acceptance of environmental impact assessment.

## **ROMANIA**

Law of Environment Protection provides as compulsory for the approval of an Environmental Impact Assessment (EIA) a public consultation /hearing/. Final decision regarding environmental agreement and/or authorization is made after that public hearing of the Report (according to the Law of Environment protection, No. 137/1995 – Art. 11, h), Government Emergency Ordinance No. 91/2002 for modification and completion of Environmental Law, Art. 11 and 12). Details on public hearing are stipulated in the Annex No. 3 of the Ministerial Order No. 125/1996 for approval the Procedure of regulation of economic and social activities with environmental impact, issued by the MWEF.

## **SLOVAKIA**

Public participation in the EIA process.

## **SLOVENIA**

Yes, in the process of EIA in EPA there is existing a public hearing for public acceptance in the environmental licensing process.

**38. Are there regulations in environmental legislation prescribing limit and threshold values for pollutants in soil, subsoil, surface waters (*fish life, bathing, rivers, lakes*), groundwater (*drinking water*), air? If yes, please describe in details what kind of values are defined (*emission, natural background, intervention, decommissioning, clearance level etc. values*) and please attach values even in national language.**

## **BULGARIA**

Yes, there are numerous regulations.

## **ESTONIA**

Added as file.

## HUNGARY

The environmental protection act defines three types of standard levels:

“utilization standard”: level of utilization of the environment or any of its components - as provided for in a legal rule or a decision by an authority - which precludes the damaging of the environment;

“emission standard”: level of loading of the environment or any of its components - as provided for in a legal rule or a decision by an authority - which precludes the damaging of the environment;

“pollution standard”: level of pollution of any component of the environment - as provided for in a legal rule - which, if exceeded, may result in environmental damage or health impairment, based on prevailing scientific knowledge.

According to §87-89, depending on the nature of the environmental component to be protected, or the character of pollution, the following types of ecological, health, planning and emergency standards may be specified: general, regional, local, individual, pertaining to protective zones. The extent to which the environmental components may be utilized, the quantity, quality and concentration of substances and energy that may be released into the environment shall be established with consideration to the target state defined for the preservation or restoration of the state of the environment or of the affected environmental component.

An emission standard may be established for: products; the quantity of an emission characteristic to some technology or pollutant; the quantity of a pollutant or energy emitted in the given area by the pollutant source; in a total quantity for a specified area or branch of production or pollutant group. A utilization standard may be established for the admissible level of utilization with respect to some use of the environment; the admissible extent of the abstraction or use of an environmental component; in a total quantity for a specified group of exploiters or users.

The Government Decree No. 33/2000 (III. 17.) on the activities that affect the quality of groundwater is the most relevant regulation to mining waste management. It sets the following limit terms.

*Pollution limit value (B)*: Risk substance concentration set forth in an act of legislation, or in the absence of one, in an official ruling, with due regard in the case of groundwater to the requirements of drinking quality and the aquatic ecosystem, in the case of the geological medium of the full range of soil functions and the sensitivity of groundwater to pollution;

*Special pollution limit value (E)*: The pollution limit value determined in lieu of the pollution limit value (B), in an official ruling supported by a quantitative risk assessment for the particular situation, taking into consideration the actual land use, for a site, where the activity had started before this regulation has entered into force, or for areas, where the demonstrated level of background concentration ( $A_B$ ) is higher than the pollution limit value (B). The special pollution limit value (E) must not be more stringent than the pollution limit value (B) and must not be more lenient than the actual pollutant concentration determined analytically, or than the remediation limit value of pollution (D);

*Intervention pollution limit value (C<sub>i</sub>)*: Risk substance concentration set forth in an act of legislation, or in the absence of one, in an official ruling. In cases, where this limit is exceeded and no special pollution limit value (E), or remediation limit value (D) applies, the competent environmental authority (inspectorate) is obliged to intervene.

*Remediation limit value of pollution (D)*: Concentration prescribed in an official ruling under a remediation procedure, on the basis of a complex assessment involving the distribution of the risk substance among the elements of the environment, a measurement, or model investigation on its behaviour and spreading, a quantitative risk analysis and the land uses. In the interest of preventing harm to human health and the ecosystem this is the target concentration of remediation;

*Background concentration (A)*: Representative value, typical concentration of a particular substance reflecting natural, or close to natural conditions in the groundwater or in the soil;

*Demonstrated background concentration ( $A_B$ )*: Concentration representative of a particular area as the resultant of natural conditions and a load via an element of the environment other than groundwater and the geological medium. This is to be applied in lieu of the background concentration (A).

The decree gives a list of dangerous substances in harmony with the 80/68/EEC directive, and provides a classification of sites according to their vulnerability to pollution (Annex 2/1). The limit concentrations are given by the Joint Decree No. 10/2000 (VI. 2.) of the Minister of Environmental Protection, M. of Healthcare, M. of Agriculture and Regional Development, M. of Transportation, Telecommunications and Water Management on the limit values necessary to protect the quality of groundwater and the geologic medium.

The Government Decree No. 21/2001 (II. 14.) on certain rules of air protection and its implementing Joint Decree No. 14/2001 (V. 9.) of the Minister of Environmental Protection, M. of Healthcare, M. of Agriculture and Regional Development on air pollution and emission limits are based on the 96/62/EC, 91/692/EEC, 97/101/EC, 1999/30/EC, 2000/69/EC, 97/72/EEC EU directives. The Government Decree mentions mining waste dumps as local, diffuse air-pollution source. In its Annex 2 mines are listed as facilities with a prescribed protection zone of minimum 300 m.

Concerning water quality limit values, especially for surface waters, most European directives are already adopted by the national legislation (e.g. the Nitrate Directive, the Sewage Sludge Directive). The Decree No. 15/2001 (VI. 6.) of the Minister of Environmental Protection regulates the radioactive emissions into air and water on the basis of international guidelines. Besides the detailed methodology prescriptions of emission levels calculations, two annexes list the most characteristic radionuclides and their emission limits in GBq/year for aerosols and liquid emissions, respectively.

## LATVIA

**A.** The content of contaminants in the air is regulated by the Regulations of the Cabinet of Ministers No. 219 (1999) "Regulations on the air quality". The following parameters are set forward:

air quality norms: for sulphur dioxide, nitric oxide, nitric dioxide, dust (hard particles for which there are no other norms based on their chemical composition), lead and ozone (Appendices 1-4 to the above Regulations\*);  
for the substances, for which the above norms are non-existent – their maximum permissible concentrations (Appendix 8 to the above Regulations).

The air quality norms incorporate limit values of contaminants, threshold limit and hazard limit values during concrete periods of time. Besides, for sulphur dioxide, nitric dioxide, dust and lead, the top and bottom contamination evaluation thresholds have been approved. The values of maximum permissible concentrations are determined as single ones (during a 30-minute interval) and average during 24 hours.

**B.** Regulations of the Cabinet of Ministers No. 316 (1997) "Regulations on the use of wastewater mud for the topsoil fertilisation and area improvement" state the values of background and maximum permissible concentrations of heavy metals in the topsoil (Appendices 1 and 2 to the above Regulations).

**C.** The quality criteria for surface water and groundwater are determined in the Regulations of Cabinet of Ministers No. 118 of March 2002 "Regulations on the quality of surface water and groundwater". These Regulations determine:

- threshold values of particularly hazardous substances (Appendix 1 to the Regulations) and hazardous substances (Appendix 2), i.e. maximum permissible average yearly concentrations) for surface water. The threshold values of particularly hazardous and hazardous substances for surface water have been determined for freshwater and salty water separately;
- water quality norms (target and limit values of parameters) for the water where the priority fish live (salmon and carp families) (Appendix 3);
- target and limit values of microbiological and physical-chemical parameters for bathing water (Appendix 4);
- water quality norms (target and limit values of parameters) for surface water used as drinking water – in compliance with the subdivision into Categories A1, A2 and A3 (Appendix 6). The categories correspond to the following water purification methods: Category A1 – simple physical purification and disinfection, Category A2 – physical and chemical purification and disinfection, Category A3 – extensive physical and chemical purification, extra purification and disinfection;
- quality norms (parameter threshold values) for groundwater used as drinking water (Appendix 9).

Besides the above requirements for the quality of bathing water, Regulations of the Cabinet of Ministers No. 300 (1998) "Regulations for the establishment and hygiene of bathing places" set forward the water quality parameters of bathing places (Appendix 2 to the above Regulations), that, during the swimming season, must be complied with at all the water bodies and river, that are classified as bathing water in the above Regulations of the Cabinet of Ministers, as well as regarding bathing places in the coastal recreation zone of the Baltic Sea and Gulf of Riga determined by the Cabinet of Ministers. These Regulations determine the desirable and obligatory values of microbiological and physical-chemical parameters for bathing places.

The parameters and norms of safety of drinking water (both surface and groundwater) are set forward in the Regulations of the Cabinet of Ministers No. 63 (1999) "Obligatory requirements for non-harmful character of drinking water". This document transposes EC Directive 98/83 on the Quality of Water Intended for Human Consumption. Thus, all maximum permissible values for drinking water were taken from this EC Directive.

The threshold levels of particularly hazardous substances are regulated by the Regulations of the Cabinet of Ministers No. 34 of January 2002 "Regulations on the emissions of contaminants in water". The threshold values of emissions are determined for different types of manufacturers as average monthly and daily concentrations (in mg/l) and quantities (in weight units per ton of manufacturing capacity) of particularly hazardous substances in wastewater.

In the Regulations of the Cabinet of Ministers No. 269 (1999) "Regulations on the environmental quality norms for petrol filling stations, oil bases and movable tanks", amended in January 2002 (set forward in Tables 1 and 2 of Appendix 1 to the Regulations), quantitative criteria (A-B-C threshold values) for defining the soil and groundwater contamination degree. These values are based both on background soil and groundwater chemistry and on correlation between contaminants present within major types of contaminant plumes. The A, B and C threshold values correspond to:

A – comparative concentration – regional background for soils and unconfined groundwater;

B – maximum natural concentration/value or accuracy of analyses of respective substances;

C – limit of heavy contamination.

Depending on the actual content of components, soil and water are classified as follows regarding the quality categories:

if the content of components is below the threshold A values – soil and water are classified as uncontaminated soil and water are of good natural quality;  
if the content of components is within A - B values – soil and water are classified as medium contaminated or of low natural quality;  
if the content of components is within B - C values - soil and water are classified as contaminated;  
if the content of components is above the threshold C values – soil and water are classified as heavily contaminated.

D. The concentrations of contaminants in the subsoil are not at present envisaged by the existing legislation.

## **LITHUANIA**

There are regulations in environmental legislation prescribing limits and threshold values for pollutants in soil, water, air.

## **POLAND**

Yes, but the regulations are large and very sophisticated. Limits of pollutants in water (surface waters and groundwaters) are in Water Law – company or person must obtain water permission, these limits shall be included in the permission. All regulations (in Polish) are on the homepage of Ministry of Environment, but they will change according to the new Environmental Protection law.

## **ROMANIA**

Yes. The legislation prescribes the limits and threshold values for different kind of pollutants (see Annex – Ministerial Order No. 756/1997, issued by MWEP; Government Decision No. 472/2000 on some measures for protection of water sources; Government Decision No. 118 (7.02.2002) on Program for reduction of pollution of underground water due to evacuation of dangerous substances; Law No. 655/2001 on atmosphere protection).

## **SLOVAKIA**

Air (Atmosphere)

Act No. 309/1991 Coll. on 9<sup>th</sup> June 1991 (1.10.1991) on Air Protection against Pollutants (the Air Act) as amended by Acts No. 218/1992 on 27<sup>th</sup> April (1.10.1992), 148/1994 on 22<sup>nd</sup> June 1994 (1.7.1994), 256/1995 on 8<sup>th</sup> November 1995 (1.12.1995), 393/1998 on 16<sup>th</sup> December 1998 (1.1.1999) and 459/2000 on 5<sup>th</sup> December 2000 (1.1.2001). Definitions (§2), pollutants (§3), pollution sources (§5) and limits of pollution and emission quotes are listed.

Decree of the Government of the Slovak Republic No. 92/1996 on 19<sup>th</sup> March 1996 (1.4.1996) Coll., whereby Act No. 309/1991 on Air Protection against Pollutants is administered, as amended by later regulations as amended by Decree of the Government of the Slovak Republic No. 473/2000 Coll. on 20<sup>th</sup> December 2000 (1.1.2001).

Annex No. 1 – List of pollutants, for which limit values are quantified

Annex No. 3 – Generally valid emission limits for pollutants and general conditions for pollution sources operation

Annex No. 4 – Emission limits for selected pollutants at chosen technologies and equipments and general conditions for pollution sources operation

Annex No.5 – Quantities, units and conversion interrelations

Act No. 76/1998 Coll. on 6<sup>th</sup> February 1998 (1.4.1998) on Protection of the Ozone Layer of the Earth and on the Amendment of the Act No. 455/1991 Coll. on Trades (the Trade Licensing Act), as amended by later regulations as amended by the Act No. 408/2000 Coll. on 25<sup>th</sup> October 2000.

## **SLOVENIA**

There are several regulations in environmental legislation prescribing limits and threshold values for pollutants in soil, subsoil, surface waters, groundwater, air.

**39. Does the environmental legislation adopt the concept of integrated pollution prevention control (IPPC) by regulating emissions at source? If yes, please describe its relevance to mining waste management.**

## **BULGARIA**

No, to be adopted in new environment act.

## **ESTONIA**

Integrated pollution prevention and control act, (RT I 2001, 85, 512), passed 10.10.2001, coming into force 1.05.2002. The mining activities are not directly in scope of this act (§ 7 – mining activities not listed).

## **HUNGARY**

Recently, the Hungarian environmental legislation has adopted the concept of the integrated pollution prevention control by amending the environmental protection act (Act LV of 2001). For the implementation of this amendment and for the complete harmonization with the relevant EU directive a separate regulation is being drafted to list those activities for which the best available technology shall be presented. The regulations issued after the amendment of the act already adopt the IPPC concept (e.g. Government Decree No. 98/2001 (VI. 15.) on the conditions of performing hazardous waste management activities). However, either in legislation or in practice, the application of the IPPC concept for the mining industry is in similar delay as the European Union.

## **LATVIA**

The law "On contamination" (2001) and Regulations of the Cabinet of Ministers approved in compliance with that law – No. 324 "The procedures of submission, issuance and review of Category A and Category B working permits for the waste burning equipment and use of the best available technical solutions" contain details of the concept of integrated control of contamination prevention. The above documents do not deal with the management of mining waste.

## **LITHUANIA**

Rules on Integrated Pollution Prevention and Control adopted on 27 02 2002, coming into force 01 01 2004. The mining activities are not directly in scope of these Rules.

## **POLAND**

Yes, it is financial responsibility of the companies producing waste. Mining waste is treated as other waste (see table of payments).

## **ROMANIA**

Yes, according to the Law of Environmental Protection (Law No. 137/1995 and revision as Law No. 159/1999, Government Emergency Ordinance No. 91/2002 for modification and completion of Environmental Law; Government Emergency Ordinance No. 34 (21.03.2002) on prevention, reduction and integrated control of pollution).

## **SLOVAKIA**

Act concerning IPPC Directive is in preparation. It shall be approved up to the end of year 2002.

## **SLOVENIA**

The concept of integrated pollution prevention control (IPPC) by regulating emissions at source will be adopted and implemented by changes of EPA, probably in 2002.

**40. Does your country have a National Environment Policy and/or Programme? If yes, does it mention mining waste management among priorities? In what context?**

## **BULGARIA**

Yes - National strategy for the environment and action plan 2000-2006. The strategy does not mention directly the mining waste management among the priorities.



## **ESTONIA**

Estonian Environmental Strategy 1997, passed by Parliament;

Estonian National Action Program, 1998, 2001, passed by Government;

Considering the mining waste, it is referred as a major problem, as the whole energy sector, which includes oil-shale mining, and as well as past-pollution, what covers abandoned mines too.

## **HUNGARY**

Hungary has a National Environmental Protection Programme (National Assembly Decision No. 83/1997 (IX. 26.)) which was accepted by the National Assembly on 16<sup>th</sup> September 1997 by a resolution and it was published on 26<sup>th</sup> September in the Official Journal. For the implementation of the Programme annual action plans shall be elaborated. Mining in general and mining waste management are mentioned in the document several times as follows.

Because of riverbed dredging for gravel some riverbank water discharge wells are being contaminated or plugged by mud (chapter 1.1.2.1.). The quality of groundwater is unfavourably affected by the unconditioned treatment of mining waste and by the uncontrolled, abandoned mining waste dumps (chapter 1.1.2.2.). Natural landscape is often disturbed by the open-pit mines, which leads to the decrease of the aesthetic values of the region (chapter 1.3.2.).

In the waste chapter (1.4.1.) a special emphasis was placed on the red mud generated by bauxite processing. The annual production volume of red mud (1.5 million t/year) is almost the one-third of the total annual hazardous waste generation (4.2 million t/year). Among the radioactive wastes the mining waste dumps of the Mecsek Ore Company are highlighted as potential risks to soil and groundwater.

Among the main environmental protection targets of the Programme (chapter 2.1.2.) it is stated that the mining activity and the change of land use in the consequence of mining (e.g. mine lakes) shall not diminish the recharge capacity and quality of groundwater reserves. The remediation of abandoned mining waste dumps and open-pits shall be completed and the areas closed for surface mining because of environmental protection and nature conservation interests shall be outlined (chapter 2.1.3.).

Among the nature conservation goals it is declared that a programme shall be worked out for establishing an inventory, assessment, protection and utilization of artificial underground spaces (i.e. mines) and the financial and administrative conditions shall be set (2.3.1.). An action plan shall be implemented for the remediation of abandoned open-pits (2.3.2).

The problem of red mud disposal sites and metalliferous mining waste dumps shall be solved by means of long-term projects with the assessment of the financial needs and the options for funding (2.4.1.).

Among the key areas of achieving the main goals set it is stated that the most characteristic environmental impacts caused by mining are the groundwater level depressions due to mine water discharge and the numerous abandoned mining site without remediation (chapter 3.2.2). In association with these, the proposed measures are to initiate a programme for the remediation of abandoned mines, and to outline those areas, which shall be closed for surface mining for the interests of environmental protection.

## **LATVIA**

The Latvian national policy in the sphere of environmental protection was formulated in the law of 1991 "On Environmental Protection" and in the National Environment Protection Policy Plan approved by the Cabinet of Ministers in 1995.

The solution of problems related to the impact of waste on the environment is among the priorities. Mining waste management is not separately mentioned among the priorities in the above-mentioned documents.

## **LITHUANIA**

National Environmental Protection Strategy was approved in 1996. Waste management is one of the priorities.

## **POLAND**

Yes, we have.

## **ROMANIA**

Yes, there is a National Environmental Programme and it mentions mining waste management among priorities. The NEP is issued by the Government, approved by the Parliament and implemented by MWEP. An Interministerial Committee was created to coordinate the integration of the environmental protection domain in the politics and sectorial strategies at national level (Government Decision No. 1097/2001).

## **SLOVAKIA**

Yes.

## **SLOVENIA**

National Environment Action Programme was adopted by the Parliament in 1999 and published in OJ of RS, No. 83/99. Mining waste management is not among the priorities.

### **Liability and sanctions**

#### **41. How is environmental liability of companies regulated? What are the sanctions?**

## **BULGARIA**

The companies should follow certain requirements and prescriptions according to the Bulgarian environmental legislation. The sanctions are administrative and financial.

## **ESTONIA**

Each act gives different sanctions; this issue is changing, for example there was introduced the penalty fees for companies recently.

## **HUNGARY**

In the §101-109 of the environmental protection act the general basis of legal liability is defined as follows. Those posing hazard to or polluting or damaging the environment with their activities or emissions or who perform their activities by violating the regulations regarding environmental protection shall be liable.

Those pursuing unlawful activities shall

- a) stop posing hazard to or polluting the environment and shall finish damaging the environment;
- b) accept responsibility for the damage they caused;
- c) restore the state of the environment existing before the activity.

In case the measure is not taken or is unsuccessful, the authority or court may restrict the performance of the activity or may suspend or ban it until the conditions it established are ensured. Users of the environment may be obligated to give an environmental bond, form environmental provisions or take out environmental liability insurance for the commencement of their activity.

The liability for the unlawful activity, with the exception of criminal and misdemeanour liability, shall burden under joint liability the owner and the possessor (user) of the real property, on which the activity is or was carried out. The owner shall be exempted from the liability, if it names the actual user and proves that the responsibility does not lie with him.

### **Liability for Damages**

Damage caused to other parties with activities or emissions entailing the utilization or loading of the environment shall qualify as damage caused with an activity posing hazard to the environment, and the provisions of the Civil Code on activities entailing increased hazard shall be applied (§345-346). If the injured party does not wish to enforce its claim against the party causing the damage, the Minister may enforce the claim to the Central Environmental Protection Fund. In case the user of the environment is terminated without a legal successor the costs of the clean-up of and compensation for environmental shall be shown in the statement of assets.

### **Environmental Fine**

Who violate the regulations or who exceed the standards shall pay an environmental fine in conformity with the level, weight and recurrence of the environmental pollution and environmental damage they caused. The fine shall not exempt one from liability under criminal law, misdemeanour liability and from liability for damages, furthermore, from the fulfilment of obligations to restrict, suspend or ban the activities, to develop adequate protection and to restore the natural environment or the environment that existed before. According to the §147-148 of the Act LXIX of 1999 on minor offences persons and companies violating the nature conservation and environmental protection regulations can be fined to 100 000-150 000 HUF, respectively.

Prosecutors shall act in accordance with the contents of the Code of Criminal Procedure in case the environmental components are damaged in ways prohibited in the Criminal Code. In case a hazard is posed to the environment, the prosecutor is also entitled to file a lawsuit to impose a ban on the activity or to elicit compensation for the damage. Acting in his jurisdiction of supervision of legality, the prosecutor shall participate in ensuring the legality of the procedures and decisions of the environmental protection authorities.

#### **Elimination of Companies**

The Government Decree No. 106/1995 (IX. 8.) defines the environmental protection and nature conservation requirements, which shall be taken into account during elimination procedures and winding-up proceedings of business companies in general. Accordingly, the company shall submit an environmental audit to the competent authorities for approval and shall take care of the clean-up from its own available sources. As described in the annex, the environmental audit should contain the presentation of mining activities, mining waste dumps and their impacts.

The Act XLIII of 2000 on waste management has provisions on liability §46-49 but since mining waste is out of its scope, these regulations do not apply for mining companies.

The Government Decree No. 21/2001 (II. 14.) on certain rules of air protection defines air-pollution fines and its §20 gives special provisions on waste rock dumps, red mud ponds, orphan out-pits. The fine is significantly lower (1/10) than for other local diffuse sources.

#### **LATVIA**

Problems of responsibility and sanctions for the violations of requirements of environmental protection are dealt with in Part 9 of the law "On Environmental Protection" – "Responsibility for the violations of the law in the sphere of environmental protection".

#### **LITHUANIA**

Environmental liability is regulated by Civil Code and Administrative Code.

#### **POLAND**

It is mainly financial responsibility. In case of considerable violating of law, there is sanction of fine or arrest for persons, who are responsible of violation.

#### **ROMANIA**

Sanctions are regulated by the Law of Environmental Protection (Law No. 137/1995 with amendments of the Law No. 159/1999, Government Emergency Ordinance No. 91/2002 for modification and completion of Environmental Law) as well as by the Mining Law (Art. 29). Sanctions are from fine to 20 years of prison (Government Emergency Ordinance No. 91/2002 - Art. 85).

#### **SLOVAKIA**

---

#### **SLOVENIA**

---

**42. Is environmental damaging regulated in your criminal code and/or civil code? If yes, how?**

#### **BULGARIA**

No.

#### **ESTONIA**

There are articles in criminal code, allowing punishment of persons, liable for crimes based a waste management, on water management, nature protection etc. requirements.

## HUNGARY

The Criminal Code of Hungary (Act IV of 1978) contains three sections with provisions relevant to environmental liability. §280 "Damaging of the Environment"

The person who damages or considerably pollutes the environment shall be punishable with imprisonment of up to three years. The punishment shall be imprisonment of up to five years, if the crime causes considerable damage, or is capable of considerably damaging the environment. The punishment shall be imprisonment from two years to eight years, if the crime damages the environment to such an extent that the natural or earlier state of the environment cannot be restored. The person who commits the damaging of the environment through negligence shall be punishable for misdemeanour with imprisonment of up to three years.

### §281 "Damaging of Nature"

The person who unlawfully obtains, dispatches abroad, sells or destroys any plant or animal subject to enhanced protection or to an international convention; considerably changes a natural area under conservation commits a felony and shall be punishable with imprisonment of up to three years. The punishment shall be imprisonment of up to five years, if the damaging of nature results in the mass destruction of these plants or animals, or causes the irreversible destruction of that area. The person who commits the damaging of nature through negligence shall be punishable for a misdemeanour with imprisonment of up to two years.

### §281/A "Unlawful Deposition of Waste Hazardous to the Environment"

The person without a licence or infringing the obligation stipulated in a legal rule or executable official decision collects, stores, handles, deposits or transports any waste containing a substance capable of

- a) endangering human life, physical safety, health,
- b) polluting water, air, soil or causing permanent changes therein,
- c) endangering animals or plants,

commits a felony and shall be punishable with imprisonment of up to five years.

The person who deposits without a licence any waste containing materials that are explosive, inflammable or radioactive, or dangerous for health and the environment, shall be punishable with imprisonment of up to five years. The person who commits these crimes through negligence, shall be punishable for misdemeanour with imprisonment of up to two years.

The Civil Code of Hungary (Act IV of 1959) does not mention environmental liability but as it is cited in the environmental protection act in case of damaging the environment, the provisions of the Civil Code on activities entailing increased hazard shall be applied (§345-346) as follows.

A person who carries on an activity involving considerable hazards shall be liable for any damage caused thereby. Being able to prove that the damage occurred due to an unavoidable cause that falls beyond the realm of activities involving considerable hazards shall relieve such person from liability. Damage shall not be compensated for to the extent that it originates from an activity attributable to the aggrieved person. The period of limitation for compensation claims shall be three years.

If damage is caused by two or more persons through activity that involves considerable hazard, the general rules and regulations governing liability shall apply to their relationship with one another. If the cause of damage is not attributable to either party, but it derives from a malfunction that occurred within the realm of activity involving considerable hazard performed by one of the parties, that party shall be liable for paying damages. If the cause of damage is a malfunction that occurred in the sphere of both parties' activity involving considerable danger and, furthermore, if such malfunction cannot be attributed to one of the parties, each party shall, since individual responsibility cannot be established, bear liability for his own loss.

The Government Decree No. 218/1999 (XII. 28.) on minor offences devotes a separate chapter to mining misdemeanours (§135) and set fines of 50 000 - 60 000 HUF. Environmental damaging are included in an indirect manner, e.g. breaking the rules of mining plot establishment. The decree has provisions on environmental protection (§148) and water management (§125-127) offences as well, indicating higher fines (100 000 - 150 000 HUF)

## LATVIA

Section XI of the Criminal Code of the Republic of Latvia envisages the following criminal liability for the following crimes against the environment:

- violations of the regulations of economic activities and use of land, subsoil, water and forests (Article 96);
- violations of the regulations regarding the marine nature resources (Article 97);
- violations of the regulations regarding the circulation of radioactive and chemical substances (Article 98);

violations of the regulations regarding the liquidations of hazardous waste (Article 99);  
illegal storage of hazardous substances in water and subsoil (Article 100);  
marine pollution (Article 101);  
contamination and littering of the soil, forests and water (Article 102);  
air contamination (Article 103);  
exploitation of objects without purification equipment (Article 104);  
failure to carry out measures aimed at the liquidation of contamination (Article 105);  
concealment of data regarding the contamination of nature environment (Article 106);  
burning of forests (Article 107);  
forest destruction and damage due to carelessness (Article 108);  
unauthorised felling of and damage to trees (Article 109);  
unauthorised fishing and catching of water animals (Article 110);  
unauthorised manufacture, acquisition, storage, sale, transportation and sending of electrical fisheries devices (Article 111);  
unauthorised hunting (Article 112);  
blasting and other operations violating the regulations on the protection of animals (Article 113);  
destruction of and damage to the nature objects specially protected by the state (Article 114);  
destruction of and damage to animals and plants specially protected by the state (Article 115).

The punishment for different above actions can be as follows:

arrest;  
forced labour;  
fines of 20 to 120 minimum monthly salaries;  
confiscation of property;  
imprisonment for 1 to 20 years.

The Civil Code does not specifically deal with damage to the environment.

## **LITHUANIA**

It is regulated in both codes.

## **POLAND**

Yes, it is regulated in both codes. In the civil code, as in other civil code regulations, a person or company responsible for environmental damage is obliged to repair the damage. In the criminal code there is a responsibility as for other crimes – fine, arrest or prison.

## **ROMANIA**

Damaging is generally regulated by Civil Code (Chapter 5, Art. 999 - 1000). Environmental damaging is regulated according to the Law of Environment Protection (Law No. 137/1995 with amendments of the Law No. 159/1999, Government Emergency Ordinance No. 91/2002) and the Mining law – Art. 42, j). The “Environment Guard”, established by the Government Decision No. 1167 (21.11.2001), controls and supervises all activities with major impact on the environment and, in case of ecological catastrophes with transboundary effects, co-operates with the Environmental Authorities of other countries.

## **SLOVAKIA**

Damage, obliteration or disturbing of parts of nature and landscape shall be solved by the Act NC SR No. 287/1994 Coll. on Nature and Landscape Protection.

## **SLOVENIA**

—

**43. Is mining waste a subject to environmental fees, taxes or other financial regulatory tools? If yes, what types of mining waste (*disposed inert or hazardous, processing residue, backfill, hips for later secondary use*) and what is the term and basis of calculation?**

## BULGARIA

No.

## ESTONIA

There is pollution tax, concerning waste landfills, i.e. in practice, when part of mining waste is used on mining area it is not taxed, when it is landfilled outside of quarries (after enrichment), then it is taxed.

## HUNGARY

According to §59-63 of the Environmental Protection Act the charges providing cover for the measures abating the loading and the utilization of the environment are: environmental load charges, utilization contributions, product charges and deposits. The magnitude of the charges shall be established in such a way that they should encourage the users of the environment to reduce the utilization and loading of the environment. The charges shall be paid to funds specified by law.

The users of the environment shall pay utilization contribution for certain ways of utilizing a particular component of the environment. No utilization contribution shall be paid for the utilization of an environmental component for which the users of the environment pay mining royalties (Mining Act, Section 20). The mining operators are not obliged to pay any other environmental charges either. However, in accordance with the waste management act, the new ministerial decree on mining waste management shall contain provisions on this issue.

## LATVIA

Dumping or escape of contaminants into the environment as a result of any kind of economic activities (including mining activities) are taxable in compliance with the law «On the Natural Resources Tax» (see answers to questions 30, 31). Based on the features of mineral production in Latvia, the above tax is levied on the air and water contamination as a result of production and processing of minerals. The calculations and payments are made each quarter.

Similar to the payment of the tax for produced natural resources, (see answer to Question 30), the tax for contamination «... is calculated based on tax rates for each ... unit of contamination. The tax is paid for the actual ... environmental contamination volume, based on the payer's ... data regarding environmental contamination and limits stated in the permit» (Part 1 of Article 8 of the law «On the Natural Resources Tax»). The tax rates for each type of contamination are quoted in Appendices 3-6 to the above law.

Parts 2 and 3 of Article 8 of the above law state as follows:

«(2) For the use of natural resources within the limit volume, the tax is calculated based on basic rates.

(3) For ... contamination above the limit ... the tax is calculated by summing the basic and additional rates».

Article 6 of the law states that the additional rates are three times greater than the basic rates.

## LITHUANIA

No, it is not.

## POLAND

Yes, it is a subject of fees. It contains all types of waste, except overburden of brown coal mining. Calculation depends on type of waste, eg. sand (from processing of natural aggregate) is cheaper than processing waste of metal ore, its quantity and period of storing. It is regulated by law (<http://www.mos.gov.pl/mos/akty-p/odpady.html>). The fees (in polish zloty per ton) are calculated for storing a waste on dump (in table 1 this www page) and 3% quota for every year of storing.



Fees for storing of mining waste (from 1<sup>st</sup> January 2002):

Code	Groups, subgroups and types of waste	Cost zł/ 1 Mg
<b>1</b>	<b>2</b>	<b>3</b>
<b>01</b>	<b>Waste from prospecting, exploitation , physical and chemical processing of metal ore and other raw materials 01 01 Waste from exploitation of raw materials</b>	
01 01 01	Waste of exploitation of metal ore (except of 01 01 80)	13,80
01 01 02	Waste of exploitation of raw materials different than metal ore	8,90
01 01 80	Stone waste of copper, zinc and lead mining	8,90
<b>01 03</b>	<b>Waste from physical and chemical processing of metal ore</b>	
01 03 04	Waste from processing of sulphuric metal ores storing of which causes self-acidification of environment	44,30
01 03 05	Other processing waste containing dangerous substances (except of 01 01 80)	44,30
01 03 06	Other processing waste than 01 03 04, 01 03 05, 01 03 80 and 01 03 81	13,80
01 03 07	Other processing waste containing dangerous substances from physical and chemical processing of metal ores	44,30
01 03 08	Dust and powder waste different than 01 03 07	13,80
01 03 09	Red mud from production of aluminium oxide different than 01 03 07	13,80
01 03 80	Waste from floatation enrichment of metal ore containing dangerous substances	40,70
01 03 81	Waste from floatation enrichment of non-ferrous metal ore different than 01 03 80	8,20
01 03 99	Other waste	8,90
<b>01 04</b>	<b>Waste from physical and chemical processing of raw materials different than metal ore</b>	
01 04 07	Waste from physical and chemical processing of raw materials different than metal ore containing dangerous substances	44,30
01 04 08	Gravel waste or crushed stone different than 01 04 07	8,90
01 04 09	Waste sands and loams	8,90
01 04 10	Dust and powder waste different than 01 04 07	44,30
01 04 11	Stone salt and potassium salt enrichment waste different than 01 04 07	8,90
01 04 12	Raw materials rinsing and cleaning waste different than 01 04 07 and 01 04 11	8,20
01 04 13	Stone cutting waste different than 01 04 07	8,90
01 04 80	Waste from floatation enrichment of coal containing dangerous substances	40,70
01 04 81	Waste from floatation enrichment of coal different than 01 04 80	8,20
01 04 82	Waste from floatation enrichment of sulphur ore containing dangerous substances	40,70
01 04 83	Waste from floatation enrichment of sulphur ore different than 01 04 82	8,20
01 04 84	Waste from floatation enrichment of phosphorites containing dangerous substances	40,70
01 04 85	Waste from floatation enrichment of phosphorites different than 01 04 84	8,20
01 04 99	Other waste	8,90
<b>01 05</b>	<b>Drilling mud and other drilling waste</b>	
01 05 04	Drilling mud and drilling waste from drinking water drills	8,90
01 05 05	Drilling mud and drilling waste containing oil	44,30
01 05 06	Drilling mud and drilling waste containing dangerous substances	44,30
01 05 07	Drilling mud containing barite and waste other than 01 05 05 and 01 05 06	8,90
01 05 08	Drilling mud containing chlorides and waste other than 01 05 05 and 01 05 06	13,80
01 05 99	Other waste	8,90

## ROMANIA

The amounts received for the Environmental Fund as taxes on natural resources exploitation, as per the provisions of the Law No. 73/2000, could be used for environmental remediation of the damaged areas.

In accordance with the Art.2 of the Government Emergency Ordinance No. 78/2000 on Waste Management (approved by the Law No. 462/2001), mining waste management shall be the subject of a special legislative regulation.

## SLOVAKIA

It is comprised in general payments eventuating from legal regulations and instructions.

## SLOVENIA

Currently mining waste is not a subject to any environmental fees, taxes or other financial regulatory tools.

**44. What legal and financial instruments your legislation defines for decontamination and remediation of mining sites and for environmental restoration works in general in case of change in person of the licensee; in case of closure of the facility; in case of disappearance of the licensee without succession (*abandoned or orphan sites*)?**

## BULGARIA

The responsibilities are:

in general – State or licensee,

in case of change in person of the license – licensee,

in case of closure of the facilities – State or licensee,

in case of disappearance of the licensee without succession - State or licensee (who is paying bank guarantee).

## ESTONIA

There are no special rules for mining sites on that sense – generally, polluter should clean up, if known. Next person in charge is landowner. When owner is changed, then it is an owners responsibility to make clear before, what the site could contain. If state sells a property, then it is states responsibility, to carry out environmental audit, then new owner is responsible only for “new” contamination”.

## HUNGARY

There are no specific regulations for legal or financial tools in the environmental legislation concerning the remediation of mining sites but the general tools of environmental liability apply for mining companies as well, as presented under answers 41 and 42. The relevant provisions of the mining legislation were described in answers 17. and 28.

However, the Government Decree No. 33/2000 (III. 17.) on the activities that affect the quality of groundwater, which is the most relevant regulation to mining waste management, sets sanctions in its §30-33.

A groundwater pollution fine shall be levied on an operator for violation of the prohibitions or non-compliance with a legal ruling on the execution of remediation measure. The fine is defined by a calculation using a violation factor (in Annex) and the magnitude of the fine is determined by the inspectorate. In the official ruling on levying a fine, the deadline of payment must no be longer than 90 days. No fine lower than 50 000 HUF need be levied. In the same area the fine can be levied on the same operator repeatedly for earlier and recent pollution. The fine shall be paid to the account of the Environmental Fund.

## LATVIA

Article 14 of the law “On the Subsoil” determines the obligations of a subsoil user. Among them, there are the following ones:

“... 8) at his own expense, to liquidate the damage to the land as a result of the use of the subsoil during the term stated in the licence;

9) to compensate all the damages occurring as a result of their use of the subsoil to the ..., environment, ...;”

The requirements regarding the necessity and terms of remediation are contained also in the 1995 Regulations of the Cabinet of Ministers No. 292 “Regulations on the state land lease”.

Parts 2 and 3 of Article 16 of the law "On the Subsoil" state a possibility of interruption or termination of the use of subsoil due to non-fulfilment of requirements for such use (remediation of production sites and the environment are among those requirements):

"... (2) The use of the subsoil may be interrupted if:

1) during the use of the subsoil, there are violations of the requirements contained in the permit (licence) or legal acts regulating the use of the subsoil;

2) as a result of the use of the subsoil, there is danger to ... the environment ...;

...(3) The use of the subsoil is terminated if:

...6) there are systematic violations of regulations for the use and protection of the subsoil."

Article 19 of the law "On the subsoil" states that: "The persons who, while using the subsoil, have violated the requirements contained in this Law and other administrative acts ... are liable to responsibility in accordance with the legislation."

Responsibility for violations in connection with the use of subsoil is determined by the relevant articles of the Code of Administrative Violations and the Criminal Code. For example, in compliance with Article 96 of the Criminal Code:

"For the violations of the regulations concerning the ... economic or other use of land and subsoil, if there is considerable harm to the environment, human health, property or economic interests, -

is punishable by imprisonment for up to three years or by forced labour, or by a fine of up to 60 minimum monthly salaries."

Besides, Parts 1 and 3 of Article 20 of the law "On the Subsoil" state that:

"(1) Irrespective of being or not being liable to administrative or criminal responsibility, the guilty party shall compensate the damage suffered by the subsoil.

...(3) Irrespective of being (or not being) liable to a kind of liability, the guilty party shall take measures to minimise or liquidate the damage suffered by the subsoil."

## **LITHUANIA**

According to requirements of the Underground Law, land remediation have to be done in expences of the company which activities damaged it. Sanctions are prescribed in the Administrative Codex of the Republic of Lithuania.

## **POLAND**

See Answers 26-28.

## **ROMANIA**

According to the Mining Law (Art. 14), the Norms for applying the Mining Law (Government Decision No. 639/1998 – Art. 31), Order No. 151/22740 (28.09.2001) issued by NAMR and MWEP, all provisions of the licence, including environmental aspects, will be binding for the new Titleholder (change in person of the licensee). Special provisions, on "abandoned sites", are included in the MINE CLOSURE MANUAL (Art.3), Order No. 274/2001, issued by the Ministry of Industry and Resources.

Also, the Law of Environmental Protection, at Art. 8, defines what are the measures that have to be taken in case of change person of the licensee, closure of facility and in case of disappearance of the licensee without succession.

## **SLOVAKIA**

—

## **SLOVENIA**

—

**45. Do you have a State Environmental Fund? If yes, is it addressed for remediation of mines or clean-up of toxic mining waste sites as well?**

## **BULGARIA**

Yes. Yes.

## **ESTONIA**

There is an Environmental Fund since the end of 80-ies, in year 2000 it was re-organized to the Centre of Environmental Investments (CEI), a Fund under the Ministry of Finances. CEI supports, among others, as well clean-up of past pollution and reclamation of abandoned mining sites.

## **HUNGARY**

According to §57 of the environmental protection act the Central Environmental Protection Fund is a separated state fund promoting the encouragement of the development of an environmentally sound economic structure, the prevention of environmental damage, the clean-up of environmental damage, landscape restoration, the conservation of natural values and areas, the encouragement and promotion of the most efficient alternatives, the development of the environmental attitude in society as well as environmental research. However, the Act XC of 1998 amended this article and ever since the Fund appears under the chapter of the Ministry of Environment in the annual budget of Hungary.

The Decree No. 7/2001 (III. 9.) of the Minister of Environmental Protection regulates the use of the Fund.

Among the activities to be supported by the Fund §8 lists remediation tasks of orphan mining sites. The Order No. 16/2000 (K. Ért. 9.) of the Minister of Environmental Protection gives detailed rules on clean-up programmes sponsored from the Fund and it does not exclude mining sites.

## **LATVIA**

The Environmental Protection Fund of the Republic of Latvia was established in 1991 (It was transformed into the Latvian Environmental Protection Fund in 1996). The funds of that Fund are used to finance environmental protection measures and projects.

The Fund does not deal with remediation of land damaged as a result of production of minerals or clean-up of the toxic mining waste dumps, since other spheres were given a higher priority for the use of its funds (e.g., water supply management, municipal waste management, collection and utilisation of remains of goods and food products that are harmful to the environment etc..

Theoretically, the funds of the Environmental Protection Fund can be used for the remediation of quarries and cleaning of toxic mining waste dumps.

It is confirmed by the fact that, among the project categories where the funds of the Environmental Protection Fund may be used, there is, for example, such a category as environmental remediation and rehabilitation. Actually, the funds of the Environmental Protection Fund are not used for the liquidation of negative consequences of mining activities since, in Latvia, these consequences are as grave as those resulting from some other types of activities. Besides, the amount of toxic mining waste in Latvia is insignificant.

## **LITHUANIA**

Yes, we do. It is not addressed to land remediation after mining activities.

## **POLAND**

Yes, Poland has a State and Provincial Environmental Funds. It could be addressed for this works.

## **ROMANIA**

Yes, there is a State Environmental Fund established as per the Law No. 73 (4.05.2000) on Environmental Fund, amended by the Law No. 655 (15.05.2002) (approving the Government Emergency Ordinance No. 93/2000 for modification and completion of the Law No. 73/2000) and the Government Decision No. 1174 (21.11.2001) (approving Regulations of organizing and functioning of Environmental Fund Management). That Fund is addressed for remediation of mines and clean-up of mining sites as well (as per provisions of Chapter 4, Art. 10, (1) b) of the Law).

## **SLOVAKIA**

Since 1<sup>st</sup> January 2002, the State Environmental Fund was incorporated within the Slovak Ministry of Environment.

## SLOVENIA

Slovenia has a State Environmental Fund. It is not addressed for remediation of mines or clean-up of toxic mining waste sites.

### III/a Waste management legislation

**46. Does the country have separate regulation(s) on waste management? Please give regulation(s) number, title, etc. What is included in the scope of waste legislation? (E.g. radioactive waste, mining waste also included?)**

## BULGARIA

Yes - REDUCTION OF THE HARMFUL IMPACT OF WASTE UPON THE ENVIRONMENT ACT - 18.09.1997. Radioactive waste and mining waste are not included.

## ESTONIA

Estonia has comprehensive legal regulation on waste management, i.e. waste act and sub law regulations given by Government and Minister of Environment.

Waste Act - Passed 10 June 1998 (RT I 1998, 57, 861), entered into force 1<sup>st</sup> December 1998, amended by the following Acts:

12.06.2001 entered into force 07.07.2001 - RT I 2001, 56, 340;  
11.04.2001 entered into force 17.05.2001 - RT I 2001, 43, 239;  
17.01.2001 entered into force 16.02.2001 - RT I 2001, 16, 72;  
08.12.1999 entered into force 01.01.2000 - RT I 1999, 95, 843;  
20.01.1999 entered into force 01.01.2000 - RT I 1999, 10, 155;  
17.02.99 entered into force 19.03.99 - RT I 1999, 23, 353.

Waste act transposes Council Directive 75/442/EEC of 15 July 1975 on waste and Council Directive 91/689/EEC of 12 December 1991 on hazardous waste, incl. the scope of the directives and the definitions.

Waste Act § 1. Scope of application of Act

(2) The following does not fall within the scope of application of this Act:

- 1) gaseous effluents emitted into the atmosphere;
  - 2) waste water and waste treated together with waste water or introduced into the environment together with waste water;
  - 3) radioactive waste;
  - 4) waste consisting of residuals of explosive materials and waste containing explosive materials;
  - 5) treatment of animal carcasses in so far as it is regulated by other legislation;
  - 6) manure and other natural non-hazardous waste generated in agriculture or forestry recovered for soil improvement or for other agricultural purposes.
- (3) The provisions of clause (2) 2) of this section do not cover the waste generated in the process of waste water treatment.

(Waste Directive 75/442/EEC: Article 2 (1). The following shall be excluded from the scope of this Directive: (a) radioactive waste;

(b) waste resulting from prospecting, extraction, treatment and storage of mineral resources and the working of quarries )

It means, mining waste is in the scope of the Waste Act, as § 1 (2) doesn't exclude "waste resulting from prospecting, extraction, treatment and storage of mineral resources and the working of quarries" from the scope of application.

## HUNGARY

The Act XLIII of 2000 on waste management was published on 2<sup>nd</sup> June 2000, and came into force on 1<sup>st</sup> January 2001. This act shall apply to any waste and waste management activities and installations. The act shall apply on the following, restrictively to the extension, which is not covered by other regulations:

- a) materials resulting from the prospecting and extraction of mineral resources and separated from the resources by physical methods;
- b) animal waste (including animal carcasses and dung) as well as other non-hazardous substances used in farming;

- c) waste waters, with the exception of waste in liquid form;
- d) decommissioned explosives.

The act shall not apply to

- a) materials emitted into the atmosphere, to which the legal rule on the protection of air purity shall apply,
- b) radioactive wastes.

It means that mining waste in general is under the scope of the act but to an extent, which does not contradict other existing regulations (e.g. mining act). The radioactive mining waste is completely out of its scope.

## **LATVIA**

Waste management is dealt with in the law "On Waste Management" passed in 2000 and the following Regulations of the Cabinet of Ministers approved in compliance with the above law in 2001 and 2002:

- No. 191 "Regulations on the types of waste storage and processing" (2001);
- No. 258 "Regulations on the waste classifier and properties that make waste hazardous" (2001);
- No. 323 "Requirements for waste burning and operation of waste burning equipment" (2001; separate Paragraphs come into force at different times);
- No. 432 "Procedures of issuance, prolongation and annulment of waste management permits" (2001);
- No. 529 "Procedures of management of some types of hazardous waste" (2001);
- No. 15 "Regulations regarding requirements for the establishment of landfills, as well as management, closure and remediation of landfills and dumps" (2002)

The above law covers all types of hazardous and residential waste (their definitions are included in answer to Question 48), excluding those mentioned in Article 3 of the law:

- " 1) gaseous effluents emitted into the atmosphere;
- 2) radioactive waste;
- 3) animal carcasses, as well as manure and other substances of natural origin which are generated or are utilised in agriculture;
- 4) waste waters, except for waste in liquid form;
- 5) explosives; and
- 6) waste resulting from prospecting, extraction, recovery and storage processes regarding mineral deposits."

Management of radioactive waste is regulated by the law "On radiation safety and nuclear safety" (2000) and several Regulations of the Cabinet of Ministers issued in compliance with that law.

## **LITHUANIA**

Yes, it does.

Law on Waste Management 16.06.1998, No. VIII-793; Rules on Waste Management 14.07.1999, No. 217; Outline National Waste Management Strategy and Action Programme 17.05.1999, No. 593;

Law on Packaging and Packaging Waste 25.09.2001, No. IX-517 and other legislation.

The Law on Waste Management shall not apply to emissions into air, waste water discharges to water bodies, management of radioactive waste, or to animal bodies or agricultural waste.

## **POLAND**

Yes, it is "Ustawa o odpadach" (The Act on the Waste), Dz.U.2001.62.628, legislated on 27<sup>th</sup> July 2001, entered into force 1<sup>st</sup> October 2001. Excluded from this law are: radioactive waste, gas and dust waste broken into atmosphere, sewage. Mining waste (solid) is included.

## **ROMANIA**

There is a separate regulation by the Law No. 426/2001 approving Government Emergency Ordinance No. 78/2000 regarding waste management.

This law includes all kinds of waste (Annex 1B – point 12 – mining waste, Annex 1C - hazardous waste). Others important regulations are the Government Emergency Ordinance No. 91 (20.06.2002) on modification and completion of Environmental Protection Law No. 137/1995; Government Decision No. 155/1999 for Waste Management and Introduction of the European Waste Catalogue.



## SLOVAKIA

Recent legal adjustment of waste management:

- Act No. 223/2001 Coll. on Wastes and Amendments of Certain Acts,
- Decree of the Slovak Ministry of Environment No. 283/2001 on Implementing Certain Provisions of the Act on Wastes,
- Decree of the Slovak Ministry of Environment No. 284/2001, by which Catalogue of Waste is established,
- Decree of the Slovak Ministry of Environment No. 234/2001 on Waste Classification to the Green Waste List, the Amber Waste List and the Red Waste List and on Document Specimens required for the Shipment of Wastes,
- Decree of the Slovak Ministry of Environment No. 273/2001 on Authorization, on Issue of Expert Opinions in Matters of Waste, on Designation of Persons authorized to issue Expert Opinions and on Examination of Professional Qualification of Such Persons,
- Act of NC SR No. 327/1996 Coll. on Landfilling Charges,
- Directive of the Slovak Ministry of Environment No. 8/1996-2.3., by which a list of tailings is issued, in respect to the charge payment for waste disposal in terms of the Act of NC SR No. 327/1996 Coll. on Landfilling Charges,
- Decree of the Ministry of Foreign Affairs of the Slovak Republic No. 60/1995 Coll. on Accession of the Slovak Republic to the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal.

## SLOVENIA

The Rules on the management of waste (Ur. list RS, St. 84/98, with amendments). These Rules govern the classification list for waste and hazardous waste, the obligatory management of waste, and other conditions for the collection, carriage, recovery and disposal of waste.

### 47. What are the main principles of waste management?

## BULGARIA

Main principles - Preventing, reducing or limiting the harmful impact of waste on human health and on the environment.

## ESTONIA

Waste Act provides general requirements for prevention of waste generation, for prevention of health and environmental hazards arising from waste generation and for organization of waste management with the objective to reduce the harmfulness and quantity of waste and liability in the case of violation of the established requirements.

Waste act § 5. General requirements for prevention and reduction of waste generation

(1) In any activity, all appropriate measures and care shall be taken to prevent waste generation, to reduce the quantity of generated waste and to prevent any excessive hazard to health and the environment caused by waste.

(2) In order to achieve the objectives specified in subsection (1) of this section, measures shall be taken upon every activity, as far as possible, to:

- 1) implement technologies which enable the economical use of natural resources and raw materials, including technologies where waste is recovered to the highest possible extent;
- 2) manufacture and import, above all, of durable and reusable products which after their discarding result in waste which is recoverable to the highest possible extent.

## HUNGARY

The main principles of the waste management act are (§4):

- a) on the basis of the principle of *prevention* including *integrated pollution prevention*, the volume and hazardous nature of waste shall be reduced to the lowest possible extent in order to decrease environmental impact;
- b) on the basis of the principle of *precaution*, in cases where the real extent of risk or danger is not known, procedures corresponding to the highest possible risk and danger shall be followed;
- c) on the basis of the principle of *manufacturer's responsibility*, it shall be the responsibility of the manufacturer of the product to select product and technology properties favorable from the point of view of waste management, including the selection of resources, the resistance of the product to external effects, the life cycle and possible recovery of the product, and the planning of recovery or disposal of waste originating from the production and use of the product and from the product itself, as well as contributing to the costs of the treatment;
- d) on the basis of the principle of *shared responsibility*, parties concerned in the total life cycle of the product and its waste shall cooperate in the fulfillment of duties arising from manufacturer's responsibility;

- e) on the basis of the *duty of care* principle, the eventual holder of the waste shall do his best to keep the impact of the waste on the environment as low as possible;
- f) on the basis of the *best available process* principle, efforts shall be taken to achieve the most effective solution feasible under the given technical and economical conditions, to apply energy and resource efficient technologies resulting in the least stress on the environment and process management reducing the impact on the environment, to replace materials constituting a high risk as wastes, and to introduce environmentally sound waste treatment technologies;
- g) on the basis of the *polluter pays* principle, the producer or holder of waste or the manufacturer of the product that became waste shall pay the waste treatment costs or dispose of the waste; the polluter shall be responsible for the abatement of environmental pollution caused by the waste, for the restoration of the state of the environment and the reimbursement of damages including costs of restoration;
- h) on the basis of the principle of *proximity*, the recovery or disposal of waste shall take place in the closest appropriate installation, to be selected bearing environmental and economical efficiency in mind;
- i) on the basis of the principle of *regionalism*, where waste treatment installations are built, the establishment of a network of such installations shall be encouraged, that will correspond to the waste treatment demands of the region from where the waste is collected, and conform to development, economic and environmental safety aspects;
- j) on the basis of the principle of *self-sufficiency*, efforts shall be made to dispose of all the generated waste at the national level, bearing in mind the principle of regionality and the principle of proximity, and to operate a disposal installation network suitable for the purpose;
- k) on the basis of the principle of *gradual progress*, the objectives of waste management shall be achieved by scheduled gradual steps, taking into account the possibilities and capacities of parties concerned;
- l) on the basis of the principle of *good example*, the governmental and local governmental organs shall implement in their work the objectives and principles of this Act;
- m) on the basis of the principle of *cost effectiveness*, it shall be ensured that in the course of setting up rules for waste treatment and organising waste management, the costs to be borne by economic organisations and consumers shall result in the greatest possible environmental benefits.

## LATVIA

Main principles of waste management are determined by Articles 5 and 6 of the law "On Waste Management" passed in 2000:

"Article 5.

- (1) Waste management shall be performed in such a way as not to threaten human life and health, or the property of persons.
- (2) Waste management must not negatively affect the environment, including:
  - 1) cause threats to the water or air environment, soil, flora or fauna;
  - 2) generate noise or odours;
  - 3) negatively affect the countryside and specially protected nature territories;
  - 4) pollute or litter the environment.

Article 6.

In the organisation, planning and performing of waste management the following requirements shall be observed (in the following priority order):

- 1) causes of waste production must be prevented, and therewith clean technologies must be developed;
- 2) the amount (volume) and hazardousness of waste must be reduced;
- 3) waste must be treated and re-usable material and energy must be recovered;
- 4) waste must be buried so that human life and health, the environment, and the property of persons are not threatened;
- 5) dumps must be closed in accordance with waste management plans, and re-cultivation of closed dumps and landfills must be ensured."

## LITHUANIA

- Waste avoidance
- Waste recovery
- Safe waste disposal

## POLAND

During manufacturing the products, their using and after using, the principle is to preserve from producing a waste, minimise its capacity and negative influence on the environment

If a waste must be produced, it will be recycled with rules of environment protection.

If recycling is impossible, the waste must be neutralised with rules of environment protection.

## ROMANIA

Principles are stipulated within the Law No. 426/2001 and they are in agreement with EC regulations.

The main principles are the following (as per Art.3 of the Law):

- a) waste management must be performed in such a way as not to threaten life and environment;
- b) polluter pays;
- c) responsibility of the producer;
- d) the best available techniques;
- e) proximity – waste recovery and clear up will take place in the closest place to site;
- f) consent and permit to transport waste in countries with appropriate clean up technology only (with the prior approval of that country).

## SLOVAKIA

According to § 3 of Act No. 223/2001 Coll. on Wastes, a purpose of waste management is as follows:

- a) to prevent a origination of wastes and to reduce their creation
- b) to utilize wastes using recycling, re-use or other processes enabling acquisition of secondary raw materials, if therein before procedure is not possible or effective according letter a)
- c) to utilize waste as the source of energy, if it is not possible or effective the procedure according letter a) or b)
- d) to dispose waste by the technique not jeopardizing health of man and not disturbing environment above the limit, enacted by Act, if it is not possible or effective the procedure according letter a) or b) or c)

## SLOVENIA

The main principles of waste management are the following: to reduce waste generation and its hazardous potential at source, to increase material and energy utilisation of waste and reduce greenhouse gas emissions, to set up an effective waste management system, and to gradually eliminate old pollution sources.

**48. What waste classification does the waste legislation define (e.g. household, hazardous, inert, etc.)? Please give definitions as well.**

## BULGARIA

WASTE CLASSIFICATION:

Household waste;

Industrial waste;

Construction waste;

Hazardous waste.

Definitions:

“Household waste” shall be the waste resulting from the activities of people in homes, in administrative and social and public buildings. Included here shall be also wastes from commercial outlets, crafts, resort and entertainment facilities, which are not hazardous and at the same time, their quantity or composition shall not obstruct their treatment together with household waste;

“Industrial waste” shall be the waste formed as a result of industrial activities, crafts and services by natural and legal persons;

“Hazardous waste” shall be the waste whose composition, quantity and properties create risks to human health and the environment and is defined as such under the Convention for Control of Trans-boundary Movement of Hazardous Waste and its Disposal; “Construction waste” shall be the waste resulting from construction activities on construction sites and waste from demolition or reconstruction of buildings and facilities;

## ESTONIA

Waste act defines following terms:

### § 2. Waste

- (1) "Waste" means any movable which the holder has discarded or intends or is required to discard.
- (2) "Hazardous waste" means waste, which has at least one hazardous property set out in subsection 25 (1) of this Act due to which such waste may cause a hazard to health or the environment.
- (3) "Non-hazardous waste" means any waste which is not hazardous waste.
- (4) "Municipal waste" means any waste generated in households and waste similar in its composition and characteristics generated in trade, provision of services or elsewhere. Municipal waste may contain non-hazardous waste and hazardous waste.

## HUNGARY

The waste management act in its §3 defines the following waste types in harmony with the EU legislation.

- a) *waste* shall mean any substance or object in the categories set out in Annex 1 which the holder discards or intends or is required to discard;
- b) *hazardous waste* shall mean waste displaying one or more of the properties listed in Annex 2 and/or containing such substances or components, hazardous to health and/or the environment because of its origin, composition or concentration;
- c) *municipal waste* shall mean waste from households or other waste which, because of its nature or composition, is similar to waste from households and can be managed together with the latter;
- d) *liquid waste* shall mean liquids that became waste and are not drained and discharged into sewage systems or sewage treatment plants;

The Decree No. 16/2001 (VII. 18.) of the Minister of Environmental Protection lists all types of wastes in accordance with the European Waste Catalogue.

## LATVIA

The classification of all types of waste is given in Appendix 2 to the Regulations of the Cabinet of Ministers (June 2001) «Regulations on the waste classifier and properties that make the waste hazardous». A note to the above Appendix states that «... the classification of waste in the Appendix is a direct translation of the European Waste Catalogue».

The definitions of hazardous and residential waste are given in Article of the Waste Management Law passed in 2000.

«Waste shall be divided into:

- 1) hazardous waste – waste which has one or more characteristics which make it hazardous to human life and health, the environment, or the property of persons, and which conforms to a hazardous waste category specified in the waste classification;
- 2) municipal waste – all other waste, which is not classified as hazardous waste.»

The following should be taken into account (see Article 3 of the same law:

« This Law does not apply to:

- 1) gaseous effluents emitted into the atmosphere;
- 2) radioactive waste;
- 3) animal carcasses, as well as manure and other substances of natural origin which are generated or are utilised in agriculture;
- 4) waste waters, except for waste in liquid form;
- 5) explosives; and
- 6) waste resulting from prospecting, extraction, recovery and storage processes regarding mineral deposits.»

## LITHUANIA

The list of wastes is prepared in accordance with the European Waste Catalogue (Decision No. 94/3/EEC of the Commission) and List of Hazardous Waste (Decision No. 94/904/EC of the Commission). Definitions of household, hazardous, inert waste are in line with the EU legislation.

## **POLAND**

There are 19 types of waste in our legislation (see point 43), with more than 100 subtypes. Some of them are mining and processing waste.

## **ROMANIA**

There is a very detailed classification, including 17 categories and 60 subcategories of waste materials in the Law No. 426/2001 (see Annex 1B and 1C). See also Government Decision No. 155/1999 for Waste management and introduction of the European Waste Catalogue (Annex 2 – Section Waste from mining and oil exploitation).

## **SLOVAKIA**

Classification of waste in waste management:

according to the Decree of the Slovak Ministry of Environment No. 284/2001, by which Catalogue of wastes has been established, § 2 section 4, wastes are divided into categories:

hazardous wastes: the wastes, which have one or several dangerous properties mentioned in the Annex No. 4 of the Act No. 223/2001 Coll. on Wastes  
other wastes (non-hazardous)

according to the Act No. 223/2001 Coll. on wastes, § 2 section 14 and the Decree of the Slovak Ministry of Environment No. 283/2001 on Implementing Certain Provisions of Act on Wastes § 2 section 2, communal wastes and inert wastes are hereafter defined:

communal wastes: household wastes originating within the area of municipality at activities of persons and wastes of similar type originating at municipality activities like cleanup of communications and spaces, administered by municipalities, and at maintenance of public green including parks and cemeteries

inert waste: waste, in which no significant physical, chemical or biological alterations occur. An inert material is neither insoluble and incombustible, or does not chemically or physically react, it neither does not underlie biological decomposition, or harmfully influence other substances, with which it comes to a contact, so no air pollution or damage to man health can occur. Total leachability and contamination present in waste and ecotoxicity of leachate has to be negligible it must not jeopardize a quality of surface or underground waters. Limit contents of substances in leachates must not exceed values given by the Annex No. 13 of this Decree.

## **SLOVENIA**

Definition of waste conforms with EU Waste Framework Directive (75/442/EEC). Waste classification conforms with EWC (Commission Decision 2001/119/EC of the 22 January, Commission Decision 2001/118/EC of the 16 January, Commission Decision 2000/532/EC of the 3 May (published in the Official Journal on 6 September 2000).

### **49. How is mining waste defined and classified in waste system or in other part of legislation?**

## **BULGARIA**

Mining waste is defined in SUBSURFACE RESOURCES ACT:

“Technological waste” shall be rock and earth mass obtained in result of exploration, extraction and processing of subsurface resources, which is stored at depots of approved design, inclusive of metallurgical slag, cinder and ash from thermal power stations and thermal stations, phosphogypsum, pyrite dross, ablations, slurries, etc.;

## **ESTONIA**

Regulation No. 263 of 24 November of 1998 of the Government of the Republic of Estonia Approval of the List of the Waste- and Hazardous waste categories (RT I 1998, 103, 1705), transposing Decision of EC on waste list 94/3/EC

Waste Code	NAME
<b>* 01 00 00</b>	<b>WASTE RESULTING FROM EXPLORATION, MINING, DRESSING AND FURTHER TREATMENT OF MINERALS AND QUARRYING</b>
<b>01 01 00</b>	<b>Waste from mineral excavation</b>
01 01 01	Waste from mineral metaliferous excavation
01 01 02	Waste from mineral non-metaliferous excavation
<b>01 02 00</b>	<b>Waste from mineral dressing</b>
01 02 01	Waste from the dressing of metaliferous minerals
01 02 02	Waste from the dressing of non-metaliferous minerals
<b>01 03 00</b>	<b>Waste from further physical and chemical processing of metaliferous minerals</b>
01 03 01	Tailings
01 03 02	Dusty and powdery waste
01 03 03	Red mud from the alumina production
01 03 99	Wastes not otherwise specified on the list
<b>01 04 00</b>	<b>Waste from further physical and chemical processing of non metaliferous minerals</b>
01 04 01	Waste gravel and crushed rocks
01 04 02	Waste sand and clays
01 04 03	Dusty and powdery waste
01 04 04	Waste from potash and rock salt processing
01 04 05	Waste from washing and cleaning of minerals
01 04 06	Waste from stone cutting and sawing
01 04 98	Waste from the processing of limestone (e.g. flagstone, dolomite)
01 04 99	Wastes not otherwise specified on the list
<b>01 05 00</b>	<b>Drilling muds and other drilling wastes</b>
* 01 05 01	Oil-containing drilling muds and wastes
01 05 02	Barite-containing drilling muds and wastes
01 05 03	Chloride-containing drilling muds and wastes
01 05 04	Fresh-water drilling muds and wastes
01 05 99	Wastes not otherwise specified on the list

## HUNGARY

Mining waste is defined neither in waste nor in mining legislation. The Decree No. 16/2001 (VII. 18.) of the Minister of Environmental Protection lists all types of wastes in accordance with the European Waste Catalogue. In it the annex of the EWC is repeated item by item, as such including the different types of waste resulting from minerals exploration and exploitation.

## LATVIA

The notion "mining waste" is not formulated in the Latvian legislation. The classification of mining waste is an integral part of the classification mentioned in answer to Question 48 of Appendix 2 to the Regulations of the Cabinet of Ministers «Regulations on the waste classifier and properties that make the waste hazardous». The classification of mining waste in the Appendix to the above regulations is identical to the classification in the file sent together with Regulatory Questionnaire - «EWC Mining List».



## **LITHUANIA**

The annex II of the Rules on Waste Management (Decree No 217/1999 of the Minister of Environment) transposes European Waste Catalogue – index 01 00 00 Waste resulting from exploration, mining, dressing and further treatment of minerals and quarrying).

## **POLAND**

It is only classified in order on fees.

## **ROMANIA**

In the Romanian legislation the mining wastes are defined as “residuals of mining exploitation” (Law No. 426/2001 (Annex 1B). In the Mining Law there is defined “Mining Metallurgic Residues” which means “the material resulted from the mining extraction, preparation and metallurgic processing of the mineral resources, which is evacuated in barren dumps, decantation ponds and other technological facilities” (Art.3 – 26).

## **SLOVAKIA**

The Annex No. 1 of the Act No. 223/2001 Coll. on Waste and Amendment of Certain Acts categorize wastes under the point 11. Waste from exploitation and processing of raw materials (mining waste, sludge from crude oil exploitation). According § 1 of this Act, this Act does not touch a treatment of wastes from mining activities. In the legislation of waste management a mining waste has not been defined. In the Decree of the Slovak Ministry of Environment No. 284/2001, by which the Catalogue of Wastes has been established, and which is in compliance with EU legislation, a group of wastes – Wastes from geological exploration, mining, processing and re-processing of minerals and stones – are categorized.

## **SLOVENIA**

No regular definition, see classification list. The provisions of these Rules not apply to waste resulting from the prospecting, extraction, treatment and processing of mineral resources (Art. 5).

**50. Is there a separate regulation on mining waste management? If yes, please describe and attach even in national language.**

## **BULGARIA**

No.

## **ESTONIA**

There is no special regulation on mining waste.

## **HUNGARY**

There is no specific regulation on mining waste management in Hungary. However, besides the cited waste regulations (under 46-54.), there are a few relevant, direct provisions in the environmental protection act. According to §16-17 in the course of and prior to the implementation of projects (construction, mining), the adequate separation of topsoil, and its use as agricultural soil, shall be provided for. Utilization standards shall be defined for the mining and exploitation of rock formations and minerals, if an Act provides so. The extent of exploitation, the extent of the impact on the environment arising when the tailings produced in connection with mining, and the preparation and processing of mining products are disposed of; as well as the impact arising as a result of other activities linked to mining activities, may not exceed the standards established in a regulation, or by an authority decision. The user of an area shall provide for the scheduled restoration or development of the area or for the conditions of the redevelopment thereof after the activities involving the utilization of land have been completed - and even as early as during the use of the environment.

The Act XLIII of 2000 on waste management in its §59 gives an authorization to prepare a ministerial decree on the treatment of mining waste.

However, this legislative effort is at an immature state.

## **LATVIA**

Latvia has no special regulations on mining waste management.

## **LITHUANIA**

No, there is not.

## **POLAND**

No.

## **ROMANIA**

Yes, for all waste types, including mining waste.

## **SLOVAKIA**

A storage in deep mine, abandoned waste or mine dump or tailing, which originated by mining activity and contain minerals are, according the Mining Act, mineral deposits. Therefore, they are protected in the form of protected deposit area and they are evidenced in the Balance of Reserved Deposits of the Slovak Republic of the Slovak Ministry of Environment.

## **SLOVENIA**

No.

**51. Are there any special provisions for hazardous waste classification and management (*collection, treatment, disposal, transportation, etc.*)? Please describe in details if relevant to mining waste (*if mining waste is classified as hazardous*).**

## **BULGARIA**

Yes, not relevant to mining waste.

## **ESTONIA**

There are special provisions for hazardous waste classifications:

Regulation No. 263 of 24<sup>th</sup> November of 1998 of the Government of the Republic of Estonia Approval of the List of the Waste- and Hazardous Waste Categories (RT I 1998, 103, 1705), - wastes marked with asterisk are listed as hazardous. Other was types might be hazardous as well, if it is shown by relevant investigations.

Waste disposal activities are regulated by landfill legislation (Regulation of Minister of Environment nr. 34 from 26<sup>th</sup> June: RTL 2001, 87, 1219 – Requirements for establishing, operating and closure of landfills). According to §1(2) the following shall be excluded from the scope of this regulation: the deposit of unpolluted soil or of non-hazardous inert waste resulting from prospecting and extraction, treatment, and storage of mineral resources as well as from the operation of quarries. (I.e. hazardous mining waste is in scope of landfill regulation).

## **HUNGARY**

In the Waste Management Act chapter V (§32) deals with hazardous waste management. Waste not indicated in legal waste lists and waste of unknown composition shall be presumed to be hazardous until its hazardous or non-hazardous nature is confirmed. Hazardous waste must not be mixed with other waste or material without a permit from the environmental protection authority. The producer shall prepare a material balance on his activity in the course of which hazardous waste is generated. The holder of the hazardous waste shall record on the generation, collection, transportation, management, transfer and acceptance of the waste and shall forward data to the environmental protection authorities.

The producer of hazardous waste, if not otherwise regulated, shall draw up a waste management plan for a period of a minimum three years referring to the prevention of waste generation, the reduction of volume and hazardous nature, and its recovery or disposal.

Hazardous waste generated in households or originating from the consumption, use or services of institutions shall be col-

lected by the producer separately, in a manner excluding environmental risk or pollution. The producer shall forward hazardous waste to an operator having a permit for the gathering, transportation and disposal of such waste, and shall pay the fee due for the service.

Import, export and transit movement of hazardous waste may take place only with the permit of the environmental protection authority, under conditions provided for in a separate legal rule, in accordance with the provisions of the Basel Convention.

The Government Decree No. 98/2001 (VI. 15.) on the conditions of performing hazardous waste management activities gives detailed regulations on the classification, collection, transportation, treatment, disposal and licensing procedures defined in harmony with the 91/689/EEC directive. Since the Hungarian waste list is essentially the same as the EWC, the provisions of this Government Decree shall apply to certain mining wastes appearing as hazardous in the legislation or classified as hazardous by the procedure described in the Decree.

## **LATVIA**

The existing legislation determines special provisions for the management of hazardous waste, without special reference to mining waste.

## **LITHUANIA**

The existing waste management legislation determines special provisions for the hazardous waste classification and management. There are no special references to mining waste.

## **POLAND**

Yes, there are special provisions. Detailed provisions would be described in "Hazardous waste management program", containing collection, treatment, transportation, storage etc. which would be accepted by state administration (voivode – chief of province or starosta – county chief). The same rules are for types of mining waste classified as hazardous.

## **ROMANIA**

Special provisions for hazardous waste classification and management are stipulated in the Law No. 426/2001. Government Decision No. 162 (20.02.2002) regards waste disposal and, at Art. 3, 5 etc, it deals with hazardous waste deposits classification and conditions of disposal and treatment.

## **SLOVAKIA**

Special measures at treatment of hazardous wastes are described in the Act No. 223/2001 Coll. on Waste, § 40, but this is irrelevant to mining waste.

## **SLOVENIA**

No special provisions for hazardous waste classification and management (collection, treatment, disposal, transportation, etc.). Neither for mining waste.

### **52. Is there a register of hazardous waste? By whom?**

## **BULGARIA**

Yes. Environmental Executive Agency.

## **ESTONIA**

There is general waste register, kept by Estonian Environmental Information Center (EEIC) (subordinated to Ministry of Environment). Yearly report for 2000 is available in internet <http://envir.envir.ee/itk/jaatmed00.pdf>, what includes as well hazardous waste and section 10 00 00 waste resulting from exploration, mining, dressing and further treatment of minerals and quarrying.

## HUNGARY

§51-52 of the waste management act regulate waste data supply and data management in general. The producer, holder and operator of waste shall record the amount and composition of waste generated or received from or transferred to other holders, and shall keep records on the treatments, the treated wastes, wastes obtained from treatments, and shall keep installation diaries. All the above shall be reported to the authorities. This shall not apply for real estate owners submitting their municipal waste to a public service.

As an independent part of the National Environmental Protection Information System, a uniform, internationally compatible national information system on waste management is established and operated by the minister in charge of environmental protection.

## LATVIA

There is no Register of hazardous waste. At the same time, the Latvian Environmental Agency has a database of hazardous waste that contains information from statistical reports submitted by enterprises regarding hazardous waste: data on the quantity of hazardous waste, its origin, consistency, recycling and repeated use by companies and institutions.

## LITHUANIA

There is waste register, kept by Joint Research Center (Ministry of Environment). Yearly reports are available in Internet <http://www.am.lt>.

## POLAND

Detailed register of waste shall be provided by its producer or entrepreneur who is storing the waste. Different registers are provided by entrepreneurs, who are transporting waste. Data from those registers are sending to the provincial (voivodeship) database.

## ROMANIA

Hazardous mining waste are registered with the Ministry of Industry and Resources (General Directorate for Mining and Geology), as per provisions of the Law No. 426/2001 (Art. 6, 16 and 41).

## SLOVAKIA

The evidence of hazardous waste is regulated by the Decree of the Slovak Ministry of Environment No. 283/2001 on Implementing Certain Provisions of the Act on Waste. Its annexes bring examples to the Passport of wastes, Appendant passport of hazardous wastes and Protocol of analytical control of wastes. Information on hazardous waste evidence is delivered to county offices. They are collected and summarized by the Slovak Environmental Agency via Regional Information System on Wastes (RISO).

## SLOVENIA

A register of hazardous waste is developed by the Environmental Agency of the Republic of Slovenia.

**53. Is there a mining waste inventory (or cadaster, or catalogue, or database) in your country? If yes, where and what is its data content?**

## BULGARIA

No.

## ESTONIA

There is not yet full and covering mining waste, incl. hazardous mining waste, inventory. Thus, there are several investigations performed on different times, but not compiled into general inventory.

## HUNGARY

At present there are three databases in Hungary, which can be the basis of an up-to-date national mining waste inventory. The National Mineral Resource Inventory (and Balance) of Hungary is managed by the Mineral Management Department of the Hungarian Geological Survey and its predecessors since the 1950's, as defined in the §25, §48 of the mining act and §6 of the Government Decree No. 132/1993 (IX. 29.) on the Hungarian Geological Survey. It is updated each year. The Inventory includes more than 2700 deposits and mines. The Inventory contains quantitative data (resource, reserve, production, status of mine, etc.) and some qualitative data (type of mineral, main constituents, etc.)

The Central Geological Office (the predecessor of Hungarian Geological Survey) registered the mining and industrial (smelter, blast-furnace, alumina plant, ore dressing, electric power plant, etc.) wastes annually between 1987-1991. This inventory and balance is the so-called "Mining Wastes-and Secondary Raw Materials of Hungary" register. This inventory is important from the point of view the secondary utilization of waste dumps and the decontamination of their hazardous, e.g. toxic content. The Inventory contains site name, administration unit, coordinates, material(s) of the waste dump, area, volume, mode of the utilization (actual, proposed) and references to the available chemical, geological and technological reports. New survey of waste dumps hasn't been done since 1990.

The third database, managed by the Ministry of Environmental Protection, is specially designed for the remediation programme or orphan mining sites to be sponsored from the Environmental Fund. It contains both qualitative and quantitative data for all known surface localities but not focused on mining waste.

## LATVIA

There is no mining waste inventory in Latvia.

## LITHUANIA

There is no mining waste inventory in Lithuania.

## POLAND

Some information on mining waste produced and stored on dumps is in MIDAS database. It contains information on quantity and type of mining waste.

## ROMANIA

Mining waste inventory exists with MIR, for the active mining exploitations.

## SLOVAKIA

Data on mining waste (waste or mine dumps, tailings, repositories of wastes in nature rock masses structures) are a compound of annual reports, issued by Main Mining Office in Banská Štiavnica. In the Decree of the Slovak Ministry of Environment No. 284/2001, by which the Catalogue of Wastes has been established and which is in compliance with EU legislation, a group of wastes O1 – Wastes from geological exploration, mining, processing and re-processing of minerals and stones – are categorized. The information contains data on: group number, subgroup and type of waste, their name and category of waste – hazardous (N), or other (O).

## SLOVENIA

According to the Rules on the Management of Waste and its measures in respect of reporting, mining waste inventory is in establishment.

**54. What are the technical prescriptions (*engineering and natural barriers*) of a landfill for different waste types? Please present it in details if there are such.**

## BULGARIA

Ordinance No. 13 on the Conditions and Requirements Towards the Construction and Operation of Waste Landfills.

## ESTONIA

The Landfill regulation (Regulation of Minister of Environment No. 34 from 26<sup>th</sup> June: RTL 2001, 87, 1219 – Requirements for establishing, operating and closure of landfills), transposing EU landfill Directive (Council Directive 1999/31/EC of 26 April 1999 on the landfill of waste), requires for landfills following bottom construction:

The landfill base and sides shall consist of a mineral layer which satisfies permeability and thickness requirements with a combined effect in terms of protection of soil, groundwater and surface water at least equivalent to the one resulting from the following requirements:

- landfills for hazardous waste:  $K \leq 1.0 \times 10^{-9}$  m/s; thickness  $\geq 5$  m;
- landfills for non-hazardous waste :  $K \leq 1.0 \times 10^{-9}$  m/s; thickness  $\geq 1$  m;
- landfills for inert waste :  $K \leq 1.0 \times 10^{-7}$  m/s; thickness  $\geq 1$  m.

Where the geological barrier does not naturally meet the above conditions it can be completed artificially and reinforced by other means giving equivalent protection. An artificially established geological barrier should be no less than 0,5 metres thick.

## HUNGARY

At present, technical prescriptions for the engineered barriers are given for hazardous waste landfills by the Government Decree No. 98/2001 (VI. 15.) on the conditions of performing hazardous waste management activities. There are no provisions concerning natural (geological) barriers but the Hungarian Geological Survey is listed among the co-authorities to be involved in the licensing procedure. The engineered isolation system of open-air landfills consist of the following elements from top to bottom: concrete or asphalt cover capable to stand the load of heavy trucks, drainage system.

The authorization to prepare a ministerial decree for regulating landfills of municipal waste is given in the §59 of the waste management act. This regulation is the Decree No. 22/2001 (X. 10.) of the Minister of Environmental Protection on the rules and conditions of the disposal in and the closure and after-care of landfills. The not-contaminated and non-hazardous mining waste is excluded from the scope of the decree! It means that hazardous mining waste landfills are regulated by the decree. The technical provisions of the decree are in harmony with the EU Landfill Directive, but naturally more prescriptive, especially concerning the licensing and waste acceptance procedure, the siting criteria, and the barrier system design.

## LATVIA

Regulations of the Cabinet of Ministers No. 15 (approved in January 2002) "Regulations regarding the establishment of landfills, as well as management, closure and remediation of landfills and dumps" contain the following provisions:

"2. These Regulations pertain to dumps and landfills, including sites where the owner of waste stores the waste at the site of its origin, as well as to specially equipped facilities for the temporary storage of waste, where the waste is stored longer than one year...

...3. These regulations do not pertain to:

...3.6. burial of uncontaminated soil or inert waste resulting from geological exploration, exploitation, processing, storage and that resulting from the quarry activities.

...6. Landfills are established taking the following into consideration:

6.1. their distance from settlements, from sites used for recreation, as well as water bodies, waterways and agricultural lands;

6.2. limitations imposed by protection zones of all kinds at the landfill construction sites;

6.3. geological and hydrogeological conditions at the prospective landfill construction sites;

6.4. possibility of flooding, subsidence, landslides or avalanches at the prospective landfill construction sites;

6.5. existence of specially protected nature territories or cultural monuments at the prospective landfill construction sites;

6.6. prevailing wind directions in relation to settlements.

...7. It is prohibited to establish landfills:

7.1. in areas where the maximum level of unconfined groundwater cannot be kept lower than 1 m from the surface during the whole period of exploitation of the landfill;

7.2. in the active karst zones...

...15. The foundations and internal walls of the waste storage sections consist of an insulating layer made of natural material, complying with the following requirements:

15.1. for hazardous waste, the thickness of the insulating layer is at least 5 metres, providing the rock filtering coefficient that is less than  $10^{-9}$  m/s;

15.2. for residential waste, the thickness of the insulating layer is at least 1 metre, providing the rock filtering coefficient that is less than  $10^{-9}$  m/s;

15.3. for inert waste, the thickness of the insulating layer is at least 1 metre, providing the rock filtering coefficient that is less than  $10^{-7}$  m/s.



...16. If, at the potential landfill construction site, the natural insulation layer, mentioned in Paragraph 15, cannot be provided, the foundations and internal walls of the waste storage sections must be provided with an artificial insulating layer, complying with the following requirements:

the thickness of the layer is at least 0.5 metres;

the layer provides the rock filtering coefficient that does not exceed  $10^{-9}$  m/s;

the layer has insulating properties that are no worse than those mentioned in Paragraph 15 of these Regulations.

...17. At the landfills containing hazardous or residential waste, an artificial water-proof layer is established, and an at least 0.5 m thick layer consisting of well-permeable soil (coarse sand, gravel) with draining pipes or draining system for the collection and transportation of infiltrating liquid, providing a possibility of flushing the draining pipes or draining system.

...51. In order to provide the incorporation of a closed landfill or dump into the landscape and further use of the area, if the volume of the residential waste exceeds 25,000 tons, a special project for covering and remediation of the site is prepared by the operator of the landfill or dump. The Project envisages:

51.1. to cover the upper part of the landfill with at least 50-cm thick soil level with low hydraulic permeability or corresponding anti-filtering layer, its guaranteed period of use being at least 50 years;

51.2. to cover the waste storage section with at least 20-cm thick layer of fertile soil".

## LITHUANIA

Rules for Setting up, Operation, Closure and After care of Landfills of Waste (Decree No 444/2000 of the Minister of Environment) transposes Council Directive 1999/31/EC on the Landfill of Waste. The base and sides of landfills for non-hazardous and hazardous waste shall consist of an impermeable mineral layer with a combined effect in terms of adequate protection of soil and groundwater from pollution. The filtration coefficient and thickness requirements for an impermeable natural mineral layer, depending on the class of a landfill, shall be as follows:

- landfills for hazardous waste:  $K \leq 1.0 \times 10^{-9}$  m/s; thickness  $\geq 5$  m;
- landfills for non-hazardous waste :  $K \leq 1.0 \times 10^{-9}$  m/s; thickness  $\geq 1$  m;
- landfills for inert waste :  $K \leq 1.0 \times 10^{-7}$  m/s; thickness  $\geq 1$  m.

Where an impermeable natural mineral layer does not meet the requirements mentioned above, it has to be reinforced, or an artificial mineral layer has to be established instead of it giving equivalent protection of soil and groundwater; an artificially established mineral layer has to be no less than 0,5 meters thick. If a landfill contains an artificially established mineral layer, the geological substratum has to be sufficiently stable to avoid any risk of its settlement that may cause damage to the artificial mineral layer. The landfill base must be one or more metres above the maximum groundwater level.

## POLAND

There is a number of norms and regulations connected with Building Law and Water Law to prevent contamination of groundwater (natural and artificial barriers), contamination of air (surface moisturising, surface covering), preventing landslides etc.

## ROMANIA

The Government Decision No. 162 (20.02.2002) on waste disposal – Annex 2 - Art. 1.3.2./1.3.3. requires a combination of the geological/natural/ and engineering barriers for preventing soil pollution: "geological barrier of the landfill base and slopes shall consist of a mineral layer which satisfy permeability and thickness requirements, with an effect at least equivalent to that one resulting from the following conditions:

- landfills for hazardous waste:  $K \leq 1.0 \times 10^{-9}$  m/s; thickness  $\geq 5$  m;
- landfills for non-hazardous waste :  $K \leq 1.0 \times 10^{-9}$  m/s; thickness  $\geq 1$  m;
- landfills for inert waste :  $K \leq 1.0 \times 10^{-7}$  m/s; thickness  $\geq 1$  m.

The method for measuring the permeability coefficient (K) of the deposit must be a standard, internationally recognized one. Where the geological barrier does not naturally meet above conditions, it can be completed with clay (or other natural material with equivalent impermeability characteristics), giving an equivalent protection. A geological barrier of natural impermeability should be no less than 0.5 m in thickness".

## SLOVAKIA

The Decree of the Slovak Ministry of Environment No. 283/2001 on Implementing Certain Provisions of the Act on Waste in §26 lays down the conditions for a sealing of waste disposal site, which are fully in terms of Directive 31/99 on Waste Disposal Sites.

## SLOVENIA

According to the Rules on the Landfill of waste (Ur. list RS, št. 5/00) some specific technical prescriptions (engineering and natural barriers) for three types of landfills are regulated.

### III/b Water management legislation

**55. Please present the authority framework of water management (both quantitative and qualitative management if separated) in your country.**

## BULGARIA

The qualitative and quantitative water management on national level– by Council of Ministers and Ministry of Environment and Water and on regional level – by Basin Directorates.

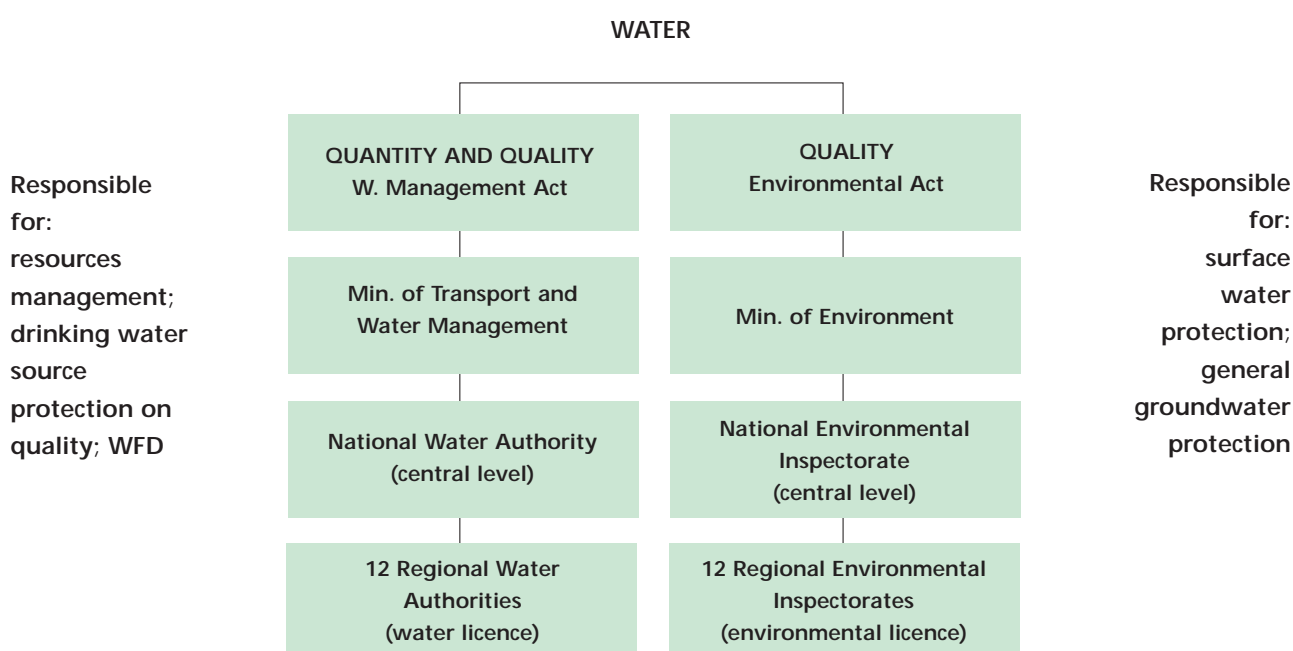
## ESTONIA

The use and protection of water at state level shall be organized by the Government of the Republic (incl. Ministry of the Environment and regional environmental authorities on MoE). Based on Water Act (§ 3 etc) as well local government (town or municipality) have certain responsibilities on water management.

## HUNGARY

There are five Ministries responsible for water in Hungary (Min. of Transport and Water Management, Min. of Environmental Protection, Min. of Agriculture, Min. of Interior, Min. of Health), but in connection of mining there are only two responsible Ministries: Ministry of Transport and Water Management and Ministry of Environmental Protection. As a general rule the Ministry of Transport and Water Management and water authorities are responsible for water management both quality and quantity aspects (e.g. water uses, water extractions/productions, water level and quality monitoring of groundwater). The Ministry of Environmental Protection and its environmental inspectorates are responsible for water protection from the quality side (e.g. pollution sources; contamination of waters; water quality monitoring, with reference to pollution sources, of surface waters and groundwater). The regional water authorities give the licence to all monitoring and water production wells including the water shafts. An exception is the household wells, which are shallow and have little capacity, in this case the local municipality issues the licence. The environmental authority always takes part in the water licensing procedure. Environmental impact assessment (EIA) is also needed for the large water extractions. The environmental inspectorate is responsible for evaluation of EIA.

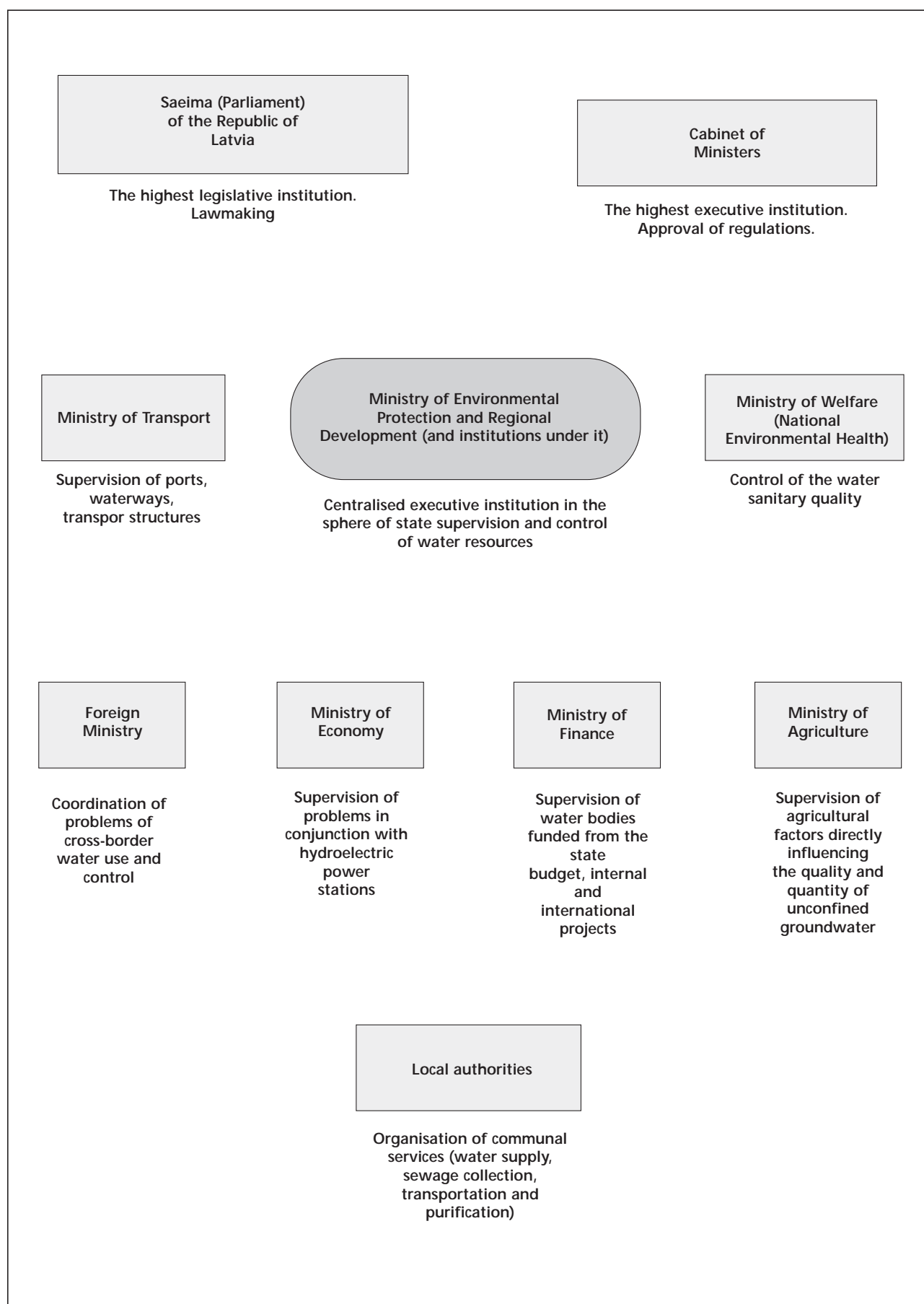
After the summer of 2002 all water affairs belong to the Ministry of Environmental Protection and Water Management.



**INSTITUTIONS UNDER THE MINISTRY OF ENVIRONMENTAL PROTECTION AND REGIONAL DEVELOPMENT PARTICIPATING IN WATER MANAGEMENT IN LATVIA**

<b>Name of the organisation</b>	<b>Functions</b>
<b>State Geological Survey</b>	It is responsible for the state geological supervision of the groundwater and its rational use (including collection, storage and generalisation of data on groundwater and their reserves, licensing of hydrogeological exploration and drilling and use of water supply wells.
<b>Environmental Impact Assessment State Bureau</b>	It organises the procedures of the environmental impact assessment of planned economic activities (including the activities associated with water use and their contamination).
<b>Latvian Hydrometeorological Agency</b>	It carries out practical hydrometeorological and oceanographic investigations and organises observations of the quality of surface water, provides general hydrological information and information on the quality of the environment, makes forecasts and warning regarding natural disasters
<b>Marine Environmental Board</b>	It collects, generalises and disseminates information on the conditions of the marine environment and use of natural resources in the Latvian Exclusive Economic Zone and harbours; it also co-ordinates monitoring of the marine environment.
<b>Latvian Environment Agency</b>	It manages the state system of environmental monitoring, establishes and maintains the state environmental information system, establishes databases on the water use, contamination and water purification equipment, analyses information and prepares yearly reports on the status of the environment (including water). It also functions as a reference laboratory in Latvia, supervises environmental quality testing laboratory investigations Latvia.
<b>Environmental State Inspectorate</b>	It implements state control over the implementation of legal and administrative acts in the sphere of water and its protection, supervises the use of water purification equipment for well fields and waste water purification.
<b>Regional Environmental Boards</b>	They control, on the regional level, the implementation of the regulations aimed at protection and use of water resources, issues water use permits, control potential water contamination sources and implementation of the regulations of emissions of contaminants into the water.

## MAIN INSTITUTIONS RESPONSIBLE FOR THE MANAGEMENT OF WATER RESOURCES IN LATVIA



## **LATVIA**

The structure of water resource management (main institutions responsible for their management and their functions) are shown on the enclosed diagram. In the Table (at answer 1), main functions of the institutions under the Ministry of Environmental Protection and Regional Development, participating in the water management, are shown.

## **LITHUANIA**

Ministry of Environment (Water Division)

Water Management Department under the Ministry of Environment

Regional Environmental Protection Departments under the Ministry of Environment (supervision and control, issue of permits)

Hydro-meteorological Service (quantitative observation of water flow)

Ministry of Health Care (drinking water quality control and water quality control in bathing areas)

## **POLAND**

There are seven regional authorities (Regionalny Zarzad Gospodarki Wodnej) of water management.

## **ROMANIA**

The authority for water management is the Ministry of Water and Environment Protection, as per Water Law (Law No. 107/1996) provisions. The competent authority is the National Company "Apele Romane" ("Romanian Waters") which is subordinated to the Ministry of Water and Environment Protection.

## **SLOVAKIA**

Application of the Water Act is guaranteed centrally by two government departments, either by the Slovak Ministry of Environment, operating within protection of amount, quality and rational utilization of waters, or the Slovak Ministry of Agriculture, which guarantees water management.

## **SLOVENIA**

Ministry of the Environment and Spatial Planning and Environmental Agency of the Republic of Slovenia and eight River Basins Authorities present the main framework authority system of water management in Slovenia.

**56. Have you got a separate law on water management? If yes, please give title, etc. and its scope (management of both surface and groundwater in both qualitative and quantitative manner)?**

## **BULGARIA**

Water Act – 13.07.1999.

"Art. 1. This law shall provide the ownership and management of waters on the territory of the Republic of Bulgaria as a national indivisible natural resource and the ownership of the water economic systems and facilities.

Art. 3. Waters on the territory of the country shall be:

1. the surface waters and the waters of river mouths;
2. the ground waters, including the mineral waters;
3. the internal sea waters and the territorial sea."

## **ESTONIA**

Water Act - Passed 11 May 1994 (RT I 1994, 40, 655; consolidated text RT I 1996, 13, 241), entered into force 16 June 1994, amended by the following Acts:

10.04.2001 entered into force 08.05.2001 - RT I 2001, 42, 234;

20.12.2000 entered into force 01.04.2001 - RT I 2001, 7, 19;

08.12.1999 entered into force 01.01.2000 - RT I 1999, 95, 843;

20.01.1999 entered into force 01.01.2000 - RT I 1999, 10, 155;

16.06.1999 entered into force 23.06.1999 - RT I 1999, 54, 583;  
16.06.1998 entered into force 16.07.1998 - RT I 1998, 61, 987;  
17.12.1997 entered into force 01.01.1998 - RT I 1998, 2, 47;  
24.01.1996 entered into force 29.02.1996 - RT I 1996, 13, 240.

#### Water Act - § 1. Purpose of Act

“(1) The purpose of the Water Act is to guarantee the purity of inland and transboundary water bodies and groundwater, and ecological balance in water bodies.

(2) The Water Act regulates the use and protection of water, and relations between landowners and water users.

(3) Insofar as the protection of water is concerned, the provisions of this Act also apply to the exclusive economic zone.”

### HUNGARY

Hungary has a separate Act LVII of 1995 on the water management, which was accepted on 6<sup>th</sup> June, was issued on 23<sup>rd</sup> June 1995 and came into force on 1<sup>st</sup> January 1996. The scope of the Act (§1) in connection of mining shall extend to: the subsurface and surface waters, the natural aquifers of subsurface waters, and channels and beds, banks and shores of surface water;

the facilities and activities, which influence or change the runoff and flow regimes, the quality and quantity, the channels and beds, banks and shores of waters, or the aquifers or subsurface waters;

water utilization, the preservation of alternatives for water utilization, and water resources management;

the monitoring required for obtaining knowledge about waters and exploring their conditions, the collection, processing, supply, and use of data (hydrographic activities), as well as the evaluation and research of water conditions;

The scope of the Act shall also extend to the control of and emergency defense operations against floodwater damage, and the public utility activities performed with waterworks, the state and municipality responsibilities related to waters.

The scope of the Environmental Protection Act shall provide for the requirements and tasks related to water conservation.

### LATVIA

There is no separate law on the water management at the moment, although, as already mentioned in answer to Question 1, it is under preparation.

### LITHUANIA

Law on Water (21/10/1997 No. VIII-474, 05/07/2000 No. VIII-1807)

Law on Protection of Marine Environment

Law on Drinking Water

### POLAND

Yes, it is „Prawo wodne” (Water Law) - Dz.U.2001.115.1229, legislated 18<sup>th</sup> July 2001, entered into force 1<sup>st</sup> January 2002. The scope is management of both – surface and groundwater in qualitative and quantitative manner, except groundwater exploration – which is a domain of Geological and Mining Law.

### ROMANIA

Yes, there is Water Law (Law No.107/1996), dealing with the management of both surface and groundwater (except mineral and geothermal waters which are regulated by Mining Law, as per Art.1 (3) of the Water Law) in both qualitative and quantitative manner. Government Decision No.760/2001 deals with the exploitation and marketing of natural mineral waters and NAMR is the Competent Authority in this domain.

### SLOVAKIA

Slovakia has got the Water Act and the Act on the State Administration in Water Management. Both Acts solve issues of waters in their complexity, also the prevention of floods and repayments in water management.



## **SLOVENIA**

New Water Act, which incorporates EU Water Framework Directive, is expected to be adopted by the Parliament in the first half of 2002.

**57. Is there a priority among water uses in the water legislation (e.g. *potable water, mineral water, thermal water, irrigation water, mining water etc.*)?**

## **BULGARIA**

At permitting the water use shall be observed the following order for satisfaction of the requirements:

drinking and domestic water supply;

healing and prophylactics – only for mineral waters;

agricultural water use;

other objectives, including industrial water use, recreation and hydro-power generation.

## **ESTONIA**

There is no priority given in Water Act for different water use activities.

## **HUNGARY**

The water management act gives priority to satisfying water demand. According to §15, the order of satisfying the water demand shall be the following:

water uses aimed at subsistence drinking, public health, and emergency response to disasters;

therapeutics, as well as production and service activities serving directly the supply of the population;

livestock watering, fish farming;

nature conservation;

economic activities;

other activities (like ones aimed at sports, recreation, bathing , and tourism).

It means that mining activities as being economic activity are placed at a low level of the hierarchy.

## **LATVIA**

The water legislation does not set forward any priorities in the use of different types of water. It should be mentioned, though, most attention among different types of water use is paid to drinking water. In the National Environmental Policy Plan, mentioned in answer to Question 40, only one such priority task is mentioned: the improvement of drinking water quality.

## **LITHUANIA**

Not exactly described in legislation. Groundwater use is priority for potable water.

## **POLAND**

The priorities are:

1. Securing good quality and quantity potable water for citizens,
2. Preservation of water from contamination and overexploitation;
3. Preservation and improving of water and water-dependent ecosystems;
4. Protection from floods and droughts;
5. Securing water for agricultural and industrial needing;
6. Satisfying tourism, sports and recreational needs.

## **ROMANIA**

Yes, there is a priority for potable water, as per Art. 10 (1) of the Water Law No. 107/1996. Exploitation and marketing of natural mineral waters are regulated by the Government Decision No. 760/2001 (Technical Norms related to the exploitation and marketing of natural mineral waters) and it implemented the concepts of the Council Directive 80/777/CEE of July 15, 1980, amended by the Directive 96/70/CEE of October 28, 1996 on that subject.

## SLOVAKIA

Yes – priority of preferential utilization of waters for drinking purposes is embedded in groundwaters using. The priority according mining waters utilization – using of mining waters free of charge for own consumption of mining organization as well as to use it free of charge based on the permission of water management authority, as a compensatory source for those, who have been harmed by water loss due to mining organization activity, is regulated by § 40 of the Mining Act.

## SLOVENIA

Yes, potable water is the priority among the water uses.

**58. Is the license of the water authority required for the use of water associated with mining (incl. exploration)? If yes, obligatory in every case, or is it restricted to certain circumstances (e.g. karstwater, within protected watershed, above a given volume)?**

## BULGARIA

For every single water usage link to mining activities a permit is required.

There are prohibitions and restrictions for activities in water sanitary protective zones. The prohibitions and restrictions are different depending on the class of the water sanitary protective zones (I, II and III).

## ESTONIA

Water Act - § 8. Special use of water(1) For the special use of water, a user shall hold a permit with a specified term and, in the case of using the land of another, also the permission of the landowner. (24.01.96 entered into force 29.02.96 - RT I 1996, 13, 240)

(2) A permit for the special use of water is necessary if:

1) water is abstracted from a surface water body, including if ice is abstracted in a volume of more than 30 m<sup>3</sup> per day;  
2) groundwater is abstracted from the Cambrian-Vend or Ordovician-Cambrian aquifer, or if more than 5 m<sup>3</sup> per day from other aquifers; (20.12.2000 entered into force 01.04.2001 - RT I 2001, 7, 19)

3) mineral water is abstracted;

4) effluent or other water pollutants are discharged to a recipient;

5) a water body is barred or dammed or the water level thereof is lowered;

6) a water body is dredged or soil is disposed of on the bottom of the water body;

(20.12.2000 entered into force 01.04.2001 - RT I 2001, 7, 19)

7) solid substances are sunk into a water body;

(16.06.98 entered into force 16.07.98 - RT I 1998, 61, 987)

8) groundwater is amended, lowered or redirected;

9) the physical or chemical characteristics of water or the biological characteristics of a water body change upon water use.

(3) A person need not hold a permit for the special use of water to discharge effluent from a personal household into the soil within the boundaries of the land in the possession of the person, but this activity shall comply with the requirements for the discharge of effluent into soil established on the basis of § 24 of this Act.

(20.12.2000 entered into force 01.04.2001 - RT I 2001, 7, 19)

(4) Measures taken for the maintenance of surface water bodies are not deemed to be special use of water if chemicals are not used.

On underlined reasons, a permit for special use of water is required practically for all larger mining activities.

## HUNGARY

The approval of the water authority is obligatory in every case associated with use of water during mining as defined by Decree No. 72/1996 (V. 22.) of the Minister of Transport and Water Management on water management authority rights. Detailed regulations are given by the Decree No. 18/1996 (VI. 13.) of the Minister of Transport and Water Management on the application required for the licensing of water-use. The participation of the water authority in the mining licensing processes is prescribed in the mining act (§40) as well.

## LATVIA

The necessity of obtaining special permits (licences) by water users for the use of water (as one of natural resources) is determined by several legal documents: the law "On Natural Resources Tax", the law "On the Subsoil", Regulations of the

Cabinet of Ministers No. 155 of 1997 "On water use permits". This requirement refers to all water users; there is no separate similar requirement for the mining industry.

The conditions for obtaining water use permits are listed in the definition of Paragraph 1 of the Regulations of the Cabinet of Ministers No. 155 of 1997 "On water use permits": «Water use is the activity that influences water quantitative or qualitative parameters in surface water and groundwater ..., if the following conditions exist:

- 1) the volume of sewage at the site of outflow exceeds 5 m<sup>3</sup> per day;
- 2) if groundwater is extracted or used at the depth exceeding 20 m, or the volume of used water exceeds 10 m<sup>3</sup> per day;
- 3) the hydrological regime of surface water bodies is influenced, or surface freshwater consumption exceeds 20 m<sup>3</sup> per day;
- 4) the above quantities are not exceeded, but a competent institution, established by the Ministry of Environmental Protection and Regional Development, considers that a considerable environmental impact is possible».

Based on that definition, in case if the water use parameters of a mining enterprise comply with at least one of the above conditions, such an enterprise is considered a water user and must receive a water use permit.

In compliance with the same paragraph of the Regulations of the Cabinet of Ministers, sewage is defined as follows: «... water that, as a result of human activities, have changed their initial physical, chemical or biological properties».

#### **LITHUANIA**

Yes, if use exceeds 10 m<sup>3</sup> /day.

#### **POLAND**

Yes, obligatory in every case.

#### **ROMANIA**

Yes. In order to obtain an exploration and/or an exploitation licence, the Titleholder needs to get the water authorization issued by "Apele Romane" National Company.

#### **SLOVAKIA**

No permission of water management authority is required for utilization of water in relation to mining activity (mining waters). The permission of the water management authority is required only in the case of free of charge utilization of mining water as a compensatory source for those, who have been harmed by water loss due to mining organization activity.

#### **SLOVENIA**

For any activity and for any type of water use the licence issued by the relevant authority is required.

#### **59. Does the mining operator have to pay for the water use? In what cases and how is the sum calculated?**

#### **BULGARIA**

The mining operator should pay water usage taxes. The taxes are defined with the tariff, established by Council of Ministers. The sum is calculated on the base of the qualitative category of the water used and its quantity.

#### **ESTONIA**

Water act - § 11. Fee for use of water and water body (2) A fee shall be charged for the special use of water, except for:

- 1) abstraction of water for agricultural irrigation;
- 2) abstraction of water for pond fish breeding;
- 3) the barring of a watercourse with an impediment construction;
- 4) abstraction of water for a personal household from groundwater or from a water body belonging to the owner of the water body. Water abstracted for a personal household shall not be resold without paying the fee for the special use of water.

(24.01.96 entered into force 29.02.96 - RT I 1996, 13, 240)

Regulation No. 83 of 11 November 1997 of the Minister of Environment Establishment of the Procedure for Calculation and Payment of Charges for Special Use of Water (RTL 1997, 196/197, 1037, amendments RTL 1999, 124, 1732). Regulation of the Government of the Republic No. 160 (08.05.2001) on the rates of the fee for the special use of water to abstract water from a water body or aquifer (RT I 2001, 45, 250).

Abstract water from a water body or aquifer	The rates of the fee (cents /m <sup>3</sup> ), since				
	01.07.2001	01.01.2002	01.01.2003	01.01.2004	01.01.2005
14. Abstract of water from aquifers for lowering of level, for mining activities in mines and quarries	5,0	5,5	6,0	6,5	7,0

Remark: 1 Estonian kroon= 0,064102564 EUR

1 EUR = 15,6 Ekr.

## HUNGARY

According to the provisions of the water act and of its implementing regulation (Decree No. 43/1999 (XII. 26.) of the Minister of Transport and Water Management on the calculation of water resource charge) the mining operator shall pay after the water volume used. All water users shall pay water resource charge on the quantity of water defined in their water licence or used without it. The amount of the charge is

$$\text{Charge} = "V"(m^3) \times "B"(HUF/m^3) \times "m" \times "g"$$

where

"V" is the volume of the used water

"B" is the basic charge

"m" depends on whether the volume of used water measured or estimated

"g" depends on

the quality of the extracted water,

the type of the water resources (surface- or groundwater, karstic water, water from porous media, thermal water, shallow groundwater, bank filtered water )

the aim of the water-use (therapeutics, supply of the population, economic)

## LATVIA

In compliance with Article 5 of the law "On Natural Resources Tax", that tax is imposed on all natural resources, produced as a result of economic activities, listed in Appendices to the above law, e.g., surface water and groundwater and, as regards groundwater, drinking, technical and mineral water.

The same Article states also that environmental contamination is taxable as well: waste, dumps and contaminants. Water contamination is also taxable. Appendix 5 to the above law contains the following classification of contaminants: non-hazardous substances, suspensions (non-hazardous), medium hazardous substances, hazardous substances, highly hazardous substances.

In view of the above requirements of the law, the mining operator must pay, depending on the type of production, for the extracted water and for water contamination during production of minerals.

Article 6 of the law states that «the tax is calculated based on basic and additional rates. The basic rates for taxable types of use of natural resources are listed in the appendices to the above law. For the use of natural resources above the stated limits, both basic and additional rates are used simultaneously, the additional rates being three times greater than the basic rates». The principle of the calculation of the tax is envisaged by Part 1 of Article 8 of the law: «the tax is calculated based on tax rates for each natural resource or contamination unit. The tax is payable for the actual volume of production of a natural resource and environmental contamination volume, based on the producer's accounting data regarding the production of a natural resource and environmental contamination and production limits stated in the permit."

In compliance with the definition of Article 1 of the law «the limits of natural resources use are quantitative limitations of production of natural resources, dumping the contaminants etc., determined, for a certain period of time, by the empowered institutions of the Ministry of Environmental Protection and Regional Development». In turn, Part 1 of Article 7 of the law states that «the limits for the use of natural resources are determined when issuing a permit for relevant activities».

## LITHUANIA

Water users consuming over 10 cubic meters/day pay taxes for use of water (as natural resource).

## POLAND

Until 31<sup>st</sup> December 2001 they don't pay. From 1<sup>st</sup> January 2001 the new Water Law came into force. Secondary legislation is still under work.

## ROMANIA

Yes. The rates are established by the National Company "Apele Romane".

## SLOVAKIA

The subject, who is performing a mining activity, has a competence to utilize mining waters for its own consumption free of charge.

## SLOVENIA

All the water users have to pay for water use. The price depends on activity and is formulated on economic basis separately for each user (e.g. potable water, industry water, etc.)

**60. Is there a system of physical zones of protection of potable water reserves? If yes, please give quantitative details (*thickness of barrier zones and pillars, travel time of groundwater, etc.*).**

## BULGARIA

Yes there are. The qualitative details are:

Zone	Underground water	Surface water
Zone 1	Protected - 5-15m Unprotected >50m	500m above the source 50m below the source
Zone 2	400 days travel time	3000m above Zone 1
Zone 3	25 years travel time	Up to 25000m upstream

## ESTONIA

Water Act

§ 28. Sanitary protection zones of water intakes

(1) The sanitary protection zone of a water intake is an area of land and water surrounding a place where drinking water is abstracted in which activities and movement are restricted to prevent the deterioration of water quality and protect the water intake constructions. (20.12.2000 entered into force 01.04.2001 - RT I 2001, 7, 19)

(2) The extent of a sanitary protection zone of a water intake, except the cases provided for in subsections (3), (4) and (5) of this section, is:

1) 50m from a bore well if water is abstracted from an aquifer using one bore well;

2) 50m to either side of the axis of a row of bore wells, 50m from the outermost bore wells of the row, and the area between bore wells in a row of bore wells, if water is abstracted from an aquifer using two or more bore wells;

3) 200m upstream from the water abstraction point, 50m downstream, and 50m to either side of the water abstraction point along a line drawn across the banks of the water body and passing through the water abstraction point, if water is abstracted from a watercourse;

4) The water area of a water body with a 90m wide riparian zone, if water is abstracted from a body of standing water. (24.01.96 entered into force 29.02.96 - RT I 1996, 13, 240)

(3) A sanitary protection zone shall not be formed if less than 10 m<sup>3</sup> of water is abstracted from an aquifer per day for the needs of one immovable. The maintenance requirements for such a water abstraction point shall be established by the Minister of the Environment. (24.01.96 entered into force 29.02.96 - RT I 1996, 13, 240)

- (4) The Minister of the Environment may decrease the sanitary protection zone of a water intake:
- 1) to 10m if less than 10 m<sup>3</sup> of water is abstracted per day and the water is used for the needs of public water supply;
  - 2) to 30m if more than 10 m<sup>3</sup> of water is abstracted per day and if the aquifer is well protected.
- (24.01.96 entered into force 29.02.96 - RT I 1996, 13, 240)
- (5) A sanitary protection zone may extend up to 200m from the water abstraction point if more than 500 m<sup>3</sup> of water is abstracted from the aquifer per day. The boundaries for such a sanitary protection zone shall be established by the Minister of the Environment on the basis of a water intake project. (24.01.96 entered into force 29.02.96 - RT I 1996, 13, 240)
- (6) The procedure for the formation and design of sanitary protection zones of water intakes shall be established by the Minister of the Environment. The procedure shall also provide for local governments to be informed of the formation of a sanitary protection zone of a water intake.
- (24.01.96 entered into force 29.02.96 - RT I 1996, 13, 240)
- § 28<sup>1</sup>. Restrictions in sanitary protection zones of water intakes
- (1) Economic activity is prohibited in the sanitary protection zone of a groundwater intake with a width of either 30m or 50m, except:
- 1) servicing of water intake constructions;
  - 2) forest maintenance;
  - 3) mowing of grasses;
  - 4) water monitoring.
- (2) In the sanitary protection zone of a groundwater intake with a width of either more than 30m or more than 50m, the restrictions on shore and bank use provided by the Shores and Banks Protection Act (RT I 1995, 31, 382) apply.
- (3) In the sanitary protection zone of a water intake on a watercourse and body of standing water, the following apply:
- 1) the restrictions provided for in subsection (1) of this section to water intakes in North-eastern Estonia and the city of Narva on the River Narva, and, to the extent of the water intake of the city of Tallinn, to lake Ülemiste with a 90m wide riparian zone;
  - 2) the restrictions provided by the Shores and Banks Protection Act on shore and bank use to other water bodies and to water bodies of the water intake of the city of Tallinn not specified in clause 1) of this subsection.
- (4) The owner or possessor of a water intake may prohibit the presence of persons not connected with the servicing of the water intake construction on equipment of the water intake construction and in that part of the water area of a water body which is in the sanitary protection zone of the water intake.
- (5) There shall not be a shore path in the sanitary protection zone of a water intake which has the restrictions provided for in subsection (1) of this section. Only people who perform duties related to environmental supervision, health protection, the servicing of water intake constructions, forest maintenance, mowing of grasses and water monitoring may be present in a sanitary protection zone. (16.06.98 entered into force 16.07.98 - RT I 1998, 61, 987)
- (6) If it is necessary to carry out work not specified in subsection (1) of this section in the sanitary protection zone of a water body to maintain water intake constructions, the water body or the sanitary protection area itself, permission therefor shall be granted by the relevant local government in agreement with the Minister of the Environment.
- (16.06.98 entered into force 16.07.98 - RT I 1998, 61, 987)

## HUNGARY

There is a Government Decree No. 123/1997 (VII. 18.) on the protection of water resources and potential water resources, and the facilities used for drinking water supply. The determination of the protective blocks, areas and zones is based on the travel time. The following protective zones are defined:

Inner zone where the travel time is 20 days

Outer zone where the travel time is 6 month

Hydrogeological zone "A" where the travel time is 5 years

Hydrogeological zone "B" where the travel time is 50 years

Hydrogeological zone "C" is the full catchment area

Protective zones mean the space and/or area enclosed by the boundary surface determined with the travel time.

## LATVIA

Article 4 of the law "On protection zones" (1997) determines different types of protection zones, among those, there are natural and environmental resources' protection zones. Protection zones around water extraction sites belong to that type (Article 5 of the law). In compliance with Article 9, part 1 of the above law, "Protection zones around water extraction sites are established in order to safeguard preservation and restoration of water resources, and to minimise the negative impact of contamination upon the environment".



Article 2 of the Regulations of the Cabinet of Ministers No. 8 (1999) "Methods of determination of protection zones around water extraction sites" under the above law, states that:

"2. Protection zones are established around water extraction sites in running surface water (e.g., rivers, canals) and other water bodies (e.g., lakes, reservoirs) and around groundwater extraction sites – separate water extraction wells and well fields..."

Article 7 of the above Regulations states as follows:

"7. The following protection zones are established around surface water extraction sites:

7.1. strict regime protection zones around running water bodies:

7.1.1. on both sides of water extraction sites (along the bank) – at least 200 m up the current and at least 100 m down the current;

7.1.2. for the bank, at which a water extraction site is established, - at least 100 m wide land area, starting from the minimum water level boundary;

7.1.3. in the direction of the opposite bank from the water extraction site: if the width of a running water body is less than 100 m – the whole water area and at least 50 m wide land area on the opposite bank, starting from the minimum water level boundary; if the width of a running water body exceeds 100 m – at least a 100 m wide zone in the water area;

7.2. bacteriological protection zones around running water bodies:

7.2.1. on both sides from the water extraction sites (along the bank) – up the current, in such a way that, from the boundary of a bacteriological protection zone to the water extraction site, the water flow time is at least 5 days, and at least 250 m in the water area;

7.2.2. from the water extraction site in the direction of both banks – at least 500 m wide land zone, starting from the minimum water level boundary;

7.3. chemical protection zones around running water bodies – in compliance with the procedures envisaged by Subparagraphs 7.2.1, 7.2.2 of the above Regulations, with the maximum width of 5 km;

7.4. strict regime protection zones around other water bodies:

7.4.1. in all directions from water extraction sites – at least a 100 m wide water area, or, if the water body is narrower than 100 m, - according to the water body width;

7.4.2. for the banks, near which water extraction sites are established, and on both sides from a water extraction site – at least a 100 m wide land zone, starting from the minimum water level boundary of a lake or reservoir;

7.5. bacteriological protection zones around other water bodies:

7.5.1. in all directions from a water extraction site (taking tributaries into account): if the prevailing wind direction towards the water extraction site does not exceed 10% of the total wind, - a 3 km wide zone in the water area; if the prevailing wind direction towards the water extraction site exceeds 10% of the total wind, - a 5 km wide zone in the water area;

7.5.2. from the water extraction site towards the bank/shore in the shore direction - at least a 500 m wide land zone, starting from the minimum water level boundary of a lake or reservoir;

...7.6. chemical protection zones around other water bodies - in compliance with the procedures envisaged by Subparagraphs 7.5.1, 7.5.2 of the above Regulations, with the maximum width of 5 km".

Paragraph 8 of the above Regulations determines the parameters of various protection zones for groundwater extraction sites:

" 8. The following zones are established around groundwater extraction sites:

8.1. strict regime protection zones according to the degree of natural vulnerability of an aquifer:

8.1.1. for a non-protected aquifer, where tight deposits are absent, - a 50 m wide zone around a water extraction site;

8.1.2. for a relatively well protected area, where the thickness of tight deposits comprises 1 -10 m, a 30-50 m wide zone around a water extraction site;

8.1.3. for a well-protected area, where the thickness of tight deposits comprises 10 - 20 m, a 10-30 m wide zone around a water extraction site;

8.1.4. for a very well protected area, where the thickness of tight deposits exceeds 20, a 10 m wide zone around a water extraction site;

8.2. bacteriological protection zones, calculated so that during the water natural flow time to the water extraction site, the microorganism survival time is:

8.2.1. for an unconfined groundwater aquifer or that without head - 400 days;

8.2.2. for an artesian aquifer - 200 days;

8.3. chemical protection zones, calculated so that chemical contamination at the water extraction site is impossible during the period of its exploitation."

Paragraphs 5 and 6 of the above Regulations mention separate cases when protection zones around water extraction sites are not established:

" 5. For wells and sources, whose depth does not exceed 20 m and which are used, for economic purposes or extraction of drinking water by users (physical persons), protection zones are not established if improvement was carried out, and sewage infiltration and water contaminations were eliminated.

6. For water extraction wells, which are used, for economic purposes or extraction of drinking water by users (physical persons), the volume of extraction not exceeding 10 m<sup>3</sup>/day, bacteriological and chemical protection zones are not established”.

## **LITHUANIA**

No surface water is used for drinking in Lithuania. The water bodies protection zones are established around each water body with regards physical-geographical factors (1-500m).

Water works have the strict regime protection zones (30-50), bacteriological pollution zones (up to 300 m), chemical pollution protection zones (up to 5 km).

## **POLAND**

For groundwater intakes:

1. Direct protection zone – 8-10 m in diameter.
2. Indirect protection zones:
  - 2.1. Internal (sanitary) protection zone – 30 days of groundwater migration
  - 2.2. External protection zone – 25 years of groundwater migration from the region of groundwater supply.

## **ROMANIA**

Each water source must have a protection perimeter. The size/parameters of protection zone of potable water reserves are stipulated in the Water Law No. 107/1996, Art.5 (1) and Annex No. 2 to the Law.

## **SLOVAKIA**

Yes – we have got the institute of protection zones of water sources, designed for supplying of people by drinking waters. The extent of protection zones is regulated by the Instruction of the Slovak Ministry of Public Health, which provides details of their delimitation.

## **SLOVENIA**

Yes, the protection zones of potable water reserves have to be insured. Refer the actual Ordinance the protective zones are currently divided in three differently managed areas. Depends on the characteristics of ground water flow the weight of different zones is defined for each groundwater resource.

**61. What is the provision by law or what is the licensing practice in general considering the number and location of monitoring wells for mining activities?**

## **BULGARIA**

The number and locations of monitoring wells are given with the plans of the mines for monitoring that are consulted with Regional Environment Inspectorates.

## **ESTONIA**

There are provisions for monitoring in water permits, covering direct monitoring for groundwater level and quality and as well quality and amount of wastewater.

## **HUNGARY**

If no use of water associated with mining, the water management and the environmental protection authorities prescribe the monitoring system in the mining licence judging the location and number of wells proposed by the mining company. The water authority with the consent of the environmental inspectorate issues licence for the monitoring wells and measurements (construction permit, followed by operation permit). These licensing methods are regulated in the mining act, the environmental protection act, and the water management act.

## **LATVIA**

Our legislation does not deal with the details of groundwater monitoring in the mining industry. In practice, if there is a possible impact of the mining industry on groundwater, the licence requirements envisage the necessity of a groundwater monitoring programme that must be endorsed by the State Geological Survey. Depending on the parameters of production and concrete geological and hydrogeological conditions within the deposit and in the adjacent area, such a programme defines the possible impact zone on the aquifers as a result of mineral production and the necessary amount and locations of monitoring wells.

## **LITHUANIA**

The need for the groundwater monitoring and the number and location of wells are considered in each individual case. Monitoring activity should be carried out according approved program. In the program number of observation wells depends on geological conditions of the mining area.

## **POLAND**

There are no special provisions. It would preserve good recognising underground water levels. Project of wells would be approved by state or local administration.

## **ROMANIA**

This is established according to specific requirements of each exploitation site.

## **SLOVAKIA**

—

## **SLOVENIA**

The number and locations of monitoring wells for mining activities are regulated by special Ordinance and depends on geological and physical characteristics of treated area.

### **62. Is there a water management action plan required from the mining operator in case of accidents?**

## **BULGARIA**

There is general action plan in case of accidents that includes water management action plan.

## **ESTONIA**

Generally not. Mining activity, if related to water management issues, requires water use permit. With such a permit is possible to set such a plan as condition, but it is not a practice until now.

## **HUNGARY**

The Government Decree No. 132/1997 (VII. 24.) on tasks of water quality control prescribes that operators (including mining operators) which use water more than 5m<sup>3</sup>/h, shall prepare a facility action plan for preventing and eliminating the unfavorable effects of certain unpredictable events on water quality. The Joint Decree No. 21/1999 (VII. 22.) of the M. of Transport and Water Management and M. of Environmental Protection gives detailed provisions on the required content of the facility action plans. This is a proof itself that the operator is in the capacity of the knowledge of local conditions relevant to water management and environmental protection, as well as potential hazard sources and required actions in order to eliminate the risks and consequences of malfunction or catastrophe associated with water management.

The Joint Decree No. 2/1999 of the M. of Transport and Water Management and M. of Environmental Protection on water quality control regional action plan prescribes that the water management authorities have to prepare a water quality control action plan against damages caused by pollution. In its annex the detailed content of the action plans is given.

## **LATVIA**

If a mining operator is a water user (see answer to Question 58), he shall attach a list of measures to be taken in force major situations to his application for water use submitted to the regional environmental board (Paragraph 5 of Regulations of the Cabinet of Ministers No. 155 "Regulations on the water use permits"; see answer to Question 58).

## **LITHUANIA**

No, there is not.

## **POLAND**

No, there isn't. Like preventing of other mining accidents, it would be a part of Mining Operation Plan.

## **ROMANIA**

Water management action plan is included in the Plan regarding defense against disasters as per provisions of Ministerial Order No. 184/1997 on approval the Procedure of carrying out environmental balance, issue by the Ministry of Water and Environment Protection. The Government Decision No. 181/8.02.2002 on approval the Programme of actions for diminishing aquatic environment and subterranean waters pollution due to evacuation of some dangerous substances – established legal frame for preventing surface and groundwater pollution with injurious consequences on aquatic environment and public health. The Programme of monitoring and the inventory of affected waters is coordinated by MWEP.

## **SLOVAKIA**

There exists a plan of measures for solving of critical worsening of water quality.

## **SLOVENIA**

Yes, a water management action plan is required from the mining operator in case of accidents.

**63. Which agency(s) holds national water resources data? Does it contain water use volumes of mining?**

## **BULGARIA**

Water resources cadastre is managed by Basin Directorates and generalized by Ministry of Environment and Water.

## **ESTONIA**

Estonian Environment Information Center (EEIC) collects, processes and issues environmental data and administrates the property of Ministry of Environment. EEIC compiles an activity report in the end of each year and its main duties are: Developing, keeping and improving state registers of pollution sources (air emission, water management and waste management), natural resources and other environmental databases; Coordination of state environmental monitoring program, data management and processing; (see: [http://envir.envir.ee/itk/eng/water\\_ext.htm](http://envir.envir.ee/itk/eng/water_ext.htm))

## **HUNGARY**

The national water resources data are hold by the Water Authorities on national and regional level according to the Government Decree No. 178/1998 (XI. 6.) on the basic data relevant to water management tasks. However, there are other authorities, agencies and institutions which collect and hold data relevant to water management. There is a Communication No. 8007/1998 of the Ministry of Transport and Water Management on the supply of basic data relevant to water management tasks. This communication lists all agencies and clients and the type of water management data to be supplied on the basis of regulation or bilateral agreements. Mining operators are listed as suppliers of both quantitative and qualitative data of groundwater discharge and recharge including the quantity of water used for drinking supply or other commercial purpose. Data supply is annual.

The central and regional water management databases contain the water use of mining. However, these data based on the water resource charge, so mining water data are not separated, they are within the category "aim of economic other water uses". Regional water authorities can separate them on the basis of water operational permits.

## **LATVIA**

The following institutions under the Ministry of Environmental Protection and Regional Development are principal holders of data on water resources:

State Hydrometeorological Department – holds data on surface water;

State Geological Survey - holds data on groundwater;

Latvian Environmental Agency - establishes and maintains state databases on the use and quality of water resources.

The databases of the Latvian Environmental Agency contain data on the volume of water use of enterprises that produce minerals.

## **LITHUANIA**

Ministry of Environment and Regional Environmental Protection Departments. Yes.

## **POLAND**

Polish Geological Institute – Bank Danych HYDRO (HYDRO database) and Regionalne Zarzady Gospodarki Wodnej. Water use volumes of mining is in MIDAS database.

## **ROMANIA**

The data regarding the subterranean waters – natural mineral and geothermal waters – are hold by the NAMR. Drinking water and groundwater data are hold by the National Company "Apele Romane", subordinated to the Ministry of Water and Environment Protection.

## **SLOVAKIA**

The evidence and balance of waters guarantees the Slovak Hydrometeorological Institute. The state water management balance does not contain data on utilization of water at mining activity.

## **SLOVENIA**

Environmental Agency of the Republic of Slovenia holds national water resources data. It does not contain water use volumes of mining.

## **IV Other legislation**

**64. Does spatial planning and land management legislation refers to mineral resources and/or mining and/or mining waste management?**

## **BULGARIA**

Yes.

## **ESTONIA**

It does not, the management of mineral resources is covered with other relevant planning.

## **HUNGARY**

The acts and implementing decrees on urban development, spatial (or land use) planning, construction requirements do not give special provisions on mineral resources or mining or mining waste management but with regard to buildings' safety

these regulations often cite mining sites as unfavorable areas for further use.

The only exception is the Decree 3/1998 (II. 11.) of the Minister of Environmental Protection on the restrictions of establishment of registered land. According to this regulation, a prohibition of the establishment of a new registered land may be declared if the land is within a mining plot and the mining company requests it, or if there is a mineral reserve underground without a mining plot and the Hungarian Geological Survey proposes or another regulation prescribes the declaration of prohibition. At present there is no such regulation.

## **LATVIA**

Minerals and their deposits are (in compliance with the legislation on territorial planning) one of the components taken into account during territorial planning (see answer to Question 65). The legislation in the spheres of territorial planning and land use does not specifically deal with the management of mining waste.

## **LITHUANIA**

Yes. Territorial planning must be carried out, taking into consideration the structure and resources of the underground, foreseeing the influence of the economic activities on the state of the underground, its resources and valuable features. General plans of the State and counties, before their approval, must be co-ordinated with the Ministry of Environment and the Lithuanian Geological Survey.

## **POLAND**

Spatial plans must take documented mineral resources and protection zones of groundwater intakes into consideration.

## **ROMANIA**

Yes. Urban development plans, spatial planning, are updated after a mining licence is issued.

## **SLOVAKIA**

To safeguard the protection of mineral wealth in advance, the urbanism authorities and providers of urbanism documentation are obliged, within their urban planning activity, to go by the groundwork on known and assumed reserved deposits, provided by the Slovak Ministry of Environment, at the same time they proceed in accordance with special instructions and are obliged to suggest solution, which is the most favorable from the viewpoint of protection and utilization of mineral wealth and other public interests.

At assigning of claim an expertise of competent nature protection authority is required and an agreement of competent planning office. In the Slovak Republic a term territorial planning is equal to a term urbanism, which is legally amended by the Act No. 50/1976 Coll. on Territorial Planning and Building Order as amended by subsequent legal instructions. Groundwork for territorial planning, territorial planning documentation are elaborated for stages state, region, municipality and zone (a part of a municipality). Within territorial planning documentation, issues of exploration areas, protected deposit areas and claims, eventually also protection zones are solved on a respective stage level.

## **SLOVENIA**

Mining is one of the sectors involved in spatial planning on both levels, state and local. Strategic and rare mineral resources are obligatory content of state spatial plan, other mineral resources are obligatory content of local spatial plans.

**65. Do development plans (*municipal, regional, country-scale*) consider and display mineral resources, proven mineral reserves, active mines, abandoned mines, mining waste sites, other mining facilities (*as pipelines, shafts, tailing ponds, conveyor lines, etc.*) by regulation or by practice?**

## **BULGARIA**

Yes.



## ESTONIA

Planning and Building Act -Passed 14<sup>th</sup> June 1995 (RT I 1995, 59, 1006), entered into force 22<sup>nd</sup> July 1995, amended by the following Acts:

13.06.2001 entered into force 01.01.2002 - RT I 2001, 65, 377;  
09.05.2001 entered into force 01.01.2002 - RT I 2001, 50, 283;  
10.04.2001 entered into force 08.05.2001 - RT I 2001, 42, 234;  
14.06.2000 entered into force 01.01.2001 - RT I 2000, 54, 348;  
08.12.1999 entered into force 01.01.2000 - RT I 1999, 95, 843;  
23.02.1999 entered into force 28.03.99 - RT I 1999, 29, 399;  
22.02.1999 entered into force 01.04.99 - RT I 1999, 29, 398;  
17.02.1999 entered into force 01.04.99 - RT I 1999, 27, 380;  
26.06.1996 entered into force 26.07.96 - RT I 1996, 49, 953;  
30.04.1996 entered into force 07.06.96 - RT I 1996, 36, 738.

### § 6. National planning policy statement

(1) The national planning policy statement is an outline for the physical development of the territory of the state which is prepared for the entire territory of the state.

(2) The objectives of the national planning policy statement are to:

- 1) form the strategy and concepts for the physical development of the territory of the state;
- 2) interrelate the principles of long-term sustainable development and physical and economic development;
- 3) influence human settlement patterns;
- 4) create physical and economic bases for the regional policies of the state;
- 5) determine conditions for land use imposed by the state;
- 6) determine the location of roads, railway and utility network routes, ports, airports and other engineering constructions which are of national significance;
- 7) take protected areas and the conditions for their use into account in planning and make proposals for the establishment of new protected areas;
- 8) make proposals to ensure the conservation of various types of ecosystems and landscapes and create a system of natural and semi-natural biotic communities to balance and compensate for the effect of human settlement and economic activities;
- 9) designate recreation areas of national significance and determine the conditions for their use;
- 10) determine other main objectives and conditions for physical development;
- 11) assess environmental impact.

(14.06.2001 entered into force 01.01.2001 - RT I 2000, 54, 348)

(3) National planning policy statements are prepared according to need.

(4) An approved national planning policy statement is the basis for county plans.

### § 7. County plan

(1) A county plan is a plan which is prepared either for the whole territory of a county or a part thereof.

(2) A county plan may be prepared for several counties or parts thereof on the agreement of the county governments concerned.

(3) County plans may be prepared as thematic plans with the attributes specified in subsection (4) of this section.

(4) The objectives of a county plan are to:

- 1) form the strategy and concepts for the general physical and economic development of the county;
  - 2) balance state and local interests;
  - 3) form the bases for long-term sustainable development and interrelate this with physical and economic development;
  - 4) interrelate economic and physical planning;
  - 5) influence human settlement patterns;
  - 6) designate high density and low density areas;
  - 7) ensure the conservation of valuable arable land, landscapes and natural biotic communities;
  - 8) determine general conditions for the use of land and water areas and fundamental zoning principles;
  - 9) determine conditions for the use of natural resources;
  - 10) determine the location of principal roads, railway and utility network routes, ports, airports and other engineering structures;
  - 11) take protected areas and the conditions for their use into account in planning. To make proposals for the specification of conditions for the use or establishment of new protected areas;
  - 12) designate recreation areas and determine the conditions for their use;
  - 13) make proposals for the amendment of the approved national planning policy statement, if necessary;
  - 14) assess environmental impact. (14.06.2001 entered into force 01.01.2001 - RT I 2000, 54, 348)
- (5) Adopted county plans are the basis for comprehensive plans of rural municipalities and cities.

Existing planning system considers and displays mineral resources, proven mineral reserves and active mines. Abandoned mines, mining waste sites are considered on different level, i.e. not always. Other existing mining facilities (as pipelines, shafts, tailing ponds, conveyor lines, etc.) are covered well by practice.

## **HUNGARY**

Recent development plans consider and indicate major mineral reserves, active and abandoned mines and major mining installations but do not show mining waste locations separately. Naturally, the different scale plans (country, regional, local) have different resolution on these objects. As it was presented in answer 64 most of it is not regulated in the legislation this good practice is the result of the co-authority role of the Hungarian Geological Survey and the Hungarian Mining Office in the licensing process.

## **LATVIA**

Regulations of the Cabinet of Ministers (2000) No. 423 «Regulations on the territorial planning» determine that, at different planning levels (national, regional, district or local), the plans for territorial development shall include sections on minerals and deposits of pertinent importance. In practice, the plans for territorial development incorporate data on mineral deposits, their reserves, functioning mines and quarries.

## **LITHUANIA**

Yes.

## **POLAND**

Obligatory are: active mines, abandoned mines, mining waste sites, mining facilities. Indication of mineral resources is not obligatory in development plans.

## **ROMANIA**

The development plans (usually performed at regional scale) consider and display both by regulation and by practice the mineral resources, active mines, abandoned mines etc., under MIR coordination.

## **SLOVAKIA**

Individual stages of urban planning documentation provide depiction and solutions of all phenomena, which have an impact upon landscape. It is depending on an area extent and detail of solution for each stage.

## **SLOVENIA**

The contents of spatial plans are regulated by law.

**66. Are there any declared primacy or hierarchy among competing land-uses (*mining, agriculture, forestry, regional and infrastructure development, nature conservation etc.*) in spatial planning legislation, or elsewhere in your legislation or in Supreme Court decisions?**

## **BULGARIA**

No.

## **ESTONIA**

No land use has primacy among others.

## **HUNGARY**

The hierarchy or primacy among competing land-uses is not regulated in the Constitution therefore it cannot be ruled direct-

ly in subordinate legislation. However, relevant provisions can be found in the mining act. According to §2 mining activities shall take into account the requirements of protection of human life, health, the environment, soil, property, mineral and geothermal resources management.

In an "exempted location" prospecting shall be licensed with the approval of the interested professional authorities or parties (§22). It means that these locations have higher priority than mining. §49 gives a definition for "exempted location": downtown districts, part of outskirts to be built up, the area serving the purpose of traffic, plant area, cemetery, the bed of water course or stagnant water, area under or over suspended railways or lines and the safety zone thereof, water works, potable water, mineral water, medicinal water, any spring and the designated protective area thereof, protective forest, protective zone around health-resorts and holiday resorts, protected natural area, real estate under the protection of monument of art or archeological protection, the area of objects of defense, and soil in relation to open-pits. In this definition soil means the top 1-4 classes on the national soil classification scheme of 8 categories.

Hungary is typically a country with continental law but case law as jurisdictions of the Supreme Court and the Constitutional Court has its characteristic role of filling the legislative gaps. In 1996 the Court made a resolution in a case in which open-pit exploitation on an already established mining plot was blocked by the declaration of nature protection of the surrounding area by the local government. The Court interpreted the Constitution the way that the human right for healthy environment is above business interests.

## **LATVIA**

The priority or hierarchy among the majority of competing land uses has not been declared at present. One may speak about the priority of specially protected areas (natural, cultural-historical) and protection zones around natural or artificial objects, since the legislation envisages limitations regarding different types of activities (including land use), also incorporating mineral production within such areas, depending on their importance (or relevant importance of their parts).

## **LITHUANIA**

Yes. When the landowner or company intend to start mining activity they have to change land-use primacy and pay quite big fees for it.

## **POLAND**

No.

## **ROMANIA**

The Mining Law statutes the necessity of negotiations among different land-users with no prevalence (Art. 6).

## **SLOVAKIA**

No preferential treatment is among competing ways of landscape utilization in recent legislation (acts have equal legal force and should be in mutual agreement). Generally, there is a tendency (mainly from the side of state authorities and organizations active in the environmental protection) to prefer protection of nature and landscape. Neither in the Act No. 50/1976 Coll. on Territorial Planning and Building Order as amended by its amendments, nor in other related legal norms, no preference is given to any of competing ways of landscape utilization. No preference has been established in landscape utilization. Any individual utilization of the area, eventually its protection, concludes from existing legal instruction. An actual outcome of urban planning documentation is a result of agreement of responsible state administration authorities, with competence within the area. It is not possible to approve territorial planning documentation without such an agreement.

## **SLOVENIA**

There is no declared hierarchy among different land uses in spatial planning legislation, it is the matter of multisectorial harmonisation and depends on state priorities on separate areas. However, in many cases, mining operations enable parallel land use as forestry, agriculture etc..

**67. Is there an act of nature conservation (or included in the environmental law)? If yes, are mineral reserves listed in its scope as to be protected?**

## **BULGARIA**

Yes. No.

## **ESTONIA**

Law on Protected Natural Objects (RT I 1994, 46, 773; amended 1998, 36/37, 555; 1999, 54, 583; 95, 843; 2001, 50, 286; 56, 337; 97, 602). Minerals could be amended to the list of protected objects.

## **HUNGARY**

The scope of the Act LIII of 1996 on nature conservation covers all natural resources, natural environment, natural values and other elements of the environment which are essential for nature. In this sense mineral resources are within the scope. This is the legal basis for the provision in the statute of the Minister of Environmental Protection that the minister is in charge of the protection of mineral resources. However, the way of implementation of this regulation is somewhat unclear.

The act has many provisions under several sections (§19, 20, 22, 38, 39, 52) defining the authority procedure of declaration of protection of certain occurrences of minerals, fossils, caves, outcrops, geological sections, special geomorphology; the collection and trade of protected specimens; and the role of the nature conservation authority in licensing mining activities.

## **LATVIA**

Latvia does not have a special law on the protection of nature. Nature protection is regulated by the law "On Environmental Protection" (see answer to Question 32), and other laws and Regulations of the Cabinet of Ministers dealing with separate components of nature and their protection: animals, fish, forests, species and biotopes, specially protected nature areas, nature resource protection zones etc.

Subsoil (of which minerals are a part) are dealt with in the law "On Environmental Protection" as a nature resource to be protected. For example, the definition in the initial part of the law states as follows: "Natural resources – parts of nature, including, soil, subsoil, air, water, flora and fauna, which have a real or potential economic, social or cultural value". It also contains a definition of environmental protection: "Environmental protection – the aggregate of measures for the conservation of the environment, and ensuring the sustainable utilisation of natural resources".

## **LITHUANIA**

Law on Environmental Protection, Law on Protected Areas and Governmental Resolution on Special Requirements on Land and Forest Usage. We haven't got any mineral reserves only geological reserves – sites of glacial boulders, outcrops of rocks on rivers banks etc. According to Special Requirements on Land and Forest Usage mineral deposits are protected from civil engineering activities.

## **POLAND**

Yes, it is "Ustawa o ochronie przyrody" (Nature Conservation Act) - ( Dz.U,2001.99.1079), legislated 16<sup>th</sup> October 1991 with many amendments, last amendments entered into force 1 Oct. 2001. Due to this law protected will be non-living elements of nature and it will preserve geological environment.

Mineral reserves are listed to be protected in separate Environment Protection Law.

## **ROMANIA**

There are the Law of Protected Areas and National Parks (Law No. 5/2000 for approval of national land arrangements – Section III – Protected Areas) and the Law No. 462/18.07.2001 for approval of the Government Emergency Ordinance No. 236/2000 regarding protected natural areas, conservation of natural habitats, wild fauna and flora. In the Annex No. 1 to the Law No. 5/2000 are listed "reservations and monuments of the nature" as special minerals, rocks, fossils, caves etc, especially protected.

## **SLOVAKIA**

In the Act No. 287/1994 Coll. on Nature and Landscape Protection there are sources of mineral raw materials, which are

enacted as protected types (separate § 27 – protected minerals and protected fossils). This paragraph states the following:

- it is forbidden to damage or destroy protected minerals and fossils,
- a permission of nature protection authority is required at collecting and processing of protected minerals and fossils, as well as trade with them, (details on protection and taking off protected minerals and fossils and their societal valorization – Decree No. 213/2000). The act has no force in sources of raw minerals as the protected ones.

## SLOVENIA

There is a special law of nature conservation. It protects special minerals and fossils not only in scope of mining works but in general. Otherwise only two special kinds of natural stone with limited reserves in Slovenia are especially protected.

**68. At what levels of nature conservation (e.g. national park, state park, state forest, local nature conservation area, natural monument, etc.) are exploration and exploitation of mineral resources still allowed?**

## BULGARIA

The protected area categories shall be:

Strict Nature Reserve;

National park;

Natural monument;

Managed reserve;

Natural park;

Protected site.

Exploration and exploitation of mineral resources are still allowed in Natural parks and protected sites.

## ESTONIA

Law on Protected Natural Objects (RT I 1994, 46, 773; amended 1998, 36/37, 555; 1999, 54, 583; 95, 843; 2001, 50, 286; 56, 337; 97, 602)

§ 10 – National Parks and Nature Conservation areas shall have protection plan, mining on such areas is prohibited, unless protection plan doesn't enable it.

## HUNGARY

There is no direct regulation on limitation of mineral exploration in protected and conserved areas in the nature conservation act. Four types of protected natural areas are defined in the act: national parks, landscape conservation district, nature conservation area and natural monument (§22-52). The legal document establishing these areas shall contain regulations whether mining activities are allowed or not. In practice these documents generally forbid mining activities, however in most cases geological and geophysical survey is still authorized.

## LATVIA

The requirements for the protection and use of specially protected nature territories are stated in the 1993 law "On the Specially Protected Nature Territories", Regulations of the Cabinet of Ministers No. 354 (1997) "On the General protection and Use of Specially Protected Nature Territories", as well as in the individual requirements for the protection of concrete specially protected nature areas approved from time to time.

In compliance with Article 2 of the above law, "the protected areas are subdivided into the following categories: nature reserves, national parks, biosphere reserves, nature parks, natural monuments, restricted nature territories and protected landscape territories". Within the above areas, functional zones with different requirements for their protection and use can be established. For example, within nature reserves or restricted nature territories, zones of strict regime, zones of regulated regime and buffer zones can be established; within national parks, biosphere reserves and nature parks, the following zones may be established: nature reserve, restricted regime area, protected landscape territory, cultural-historical and neutral ones.

Paragraph 12 of the Regulations of the Cabinet of Ministers states that:

"12. In the protected territories, the activities, leading to environmental contamination, lead to negative changes in the ecosystem or natural processes:

12.3. development of new subsoil deposits..., if that is not endorsed by the administration of the protected area or, if such does not exist, with the regional environmental board;...”

The above Paragraph means that, within the protected areas, the development of new mineral deposits is possible upon its endorsement by competent institutions. At the same time, exploration and production of mineral resources in the territories of nature monuments is prohibited, while, for other protected areas, it is prohibited within the zones of strict regime (if such are established).

In compliance with the individual requirements for the protection and use of specially protected areas, in some cases, exploration and production of mineral resources can be prohibited within restricted nature territories, nature parks and historical-cultural zones.

## **LITHUANIA**

It is regulated by the Law of Protected Areas (it is not allowed to open new quarries and other mining objects in state parks, the extraction of mineral resources is prohibited in natural reserves).

## **POLAND**

On lowest level (Landscape Park – Park Krajobrazowy) exploitation of mineral resources could be allowed in some cases.

## **ROMANIA**

No exploration and/or exploitation works allowed within natural parks, reservations and natural monuments. This is referred in the Law No. 5/2000 which lists all protected natural areas and in the Law No. 462/2001 which mentions natural habitats to be declared as special areas of conservation.

## **SLOVAKIA**

Utilization of raw minerals is protected by the Mining Act on the level protected area. According to the Act No. 287/1994 Coll. on Nature and Landscape Protection, the landscape protection is divided into five levels:

1<sup>st</sup> level of protection is in force on the entire territory of the Slovak Republic

- an approval of the nature protection authority is required for picking a reed, exploiting of peat, mud and loam and spreading these activities off beds of streams
- an opinion of the nature protection authority is required for permission of mining activity and activity carried out using mining methods
- an opinion of the nature and landscape protection authority is required for approval and change of the project of geological works,

Protected Landscape Area – PLA (if it is not enacted other way, 2<sup>nd</sup> level of protection)

- an approval of the nature protection authority is required for:

terrain modifications changing forms of relief and changes in utilization of allotments,  
performance of geological works, mining activity and activity carried out using mining methods,  
collecting of minerals and fossils and their parts at sites assigned by the nature protection authority

National Parks – NP (if it is not enacted other way, 3<sup>rd</sup> level of protection)

- an approval of the nature protection authority is required for:  
activities mentioned for PLA

Protected Area – PA (if it is not enacted other way, 4<sup>th</sup> level of protection)

- within the territory of protected area, it is forbidden:

picking a reed, exploiting of peat, mud, loess, loam, soil, sand and gravel, performing of geological works, mining activity and activity carried out using mining methods and to use heavy mechanisms off the sites delineated by the nature protection authority,

Nature Reserve (if it is not enacted other way, 5<sup>th</sup> level of protection)

- within the territory of nature reserve, there are forbidden:

activities mentioned at PA

relief forms modifications, to plough and remove soil and loam and to perform geological works, mining activity and activity carried out using mining methods,



## **SLOVENIA**

If there is a state interest, exploration and/or exploitation of mineral resources is allowed in some cases. Otherwise there should be a consensus among sectors in the phase of spatial plan preparation.

**69. Do you have a separate act on industrial and/or natural catastrophes? If yes, does it define or list mining accidents or catastrophes?**

## **BULGARIA**

Yes. No.

## **ESTONIA**

The list of the enterprises with the danger for serious accidents is given in the Regulation of the Minister of Interior Affairs No. 60; 26<sup>th</sup> May 1999 (RTL 1999, 94, 1161). It doesn't include any mining enterprises. The regulation is given on the basis of the Chemical Act (RT I 1998, 47, 697; 1999, 45, 512).

## **HUNGARY**

In Hungary actions following both industrial and natural catastrophes are prescribed by the Act LXXIV of 1999. Both underground mines and open-pits, and waste disposal sites (landfills) are out of the scope of the act (most likely because of the harmonization with the Seveso II directive).

## **LATVIA**

There is no separate Latvian law on the industrial and/or natural disasters. The existing more or less relevant legal and administrative documents of a lower level (e.g., Regulations of the Cabinet of Ministers of 1998 "The Statutes of the State Operative Commission for Extraordinary Situations" and those of "Procedures of the evaluation of accident risk in the industry and measures aimed at minimisation of risk"), do not separately mention accidents in the mining industry.

## **LITHUANIA**

No.

## **POLAND**

No.

## **ROMANIA**

There are the Government Ordinance No. 47/1994 on Defense against disasters, approved by the Law No. 124 (15.12.1995); Law No. 575 (22.10.2001) regarding approval of the Plan for national territory arrangement – Section V – Natural hazard areas; Government Ordinance No. 88 (30.08.2001) for establishing, organizing and functioning of public community offices for emergency situations, approved by the Law No. 363 (7.06.2002); Government Decision No. 209/1997 on regulations for organization and functioning of the Government Commission for defense against disasters. Mining accidents are listed among events with heavy effects on the environment. There are programmes for mitigation of industrial and/or natural catastrophic events, including mining activities.

## **SLOVAKIA**

A separate act on industrial or nature catastrophes is not available. An announcement of operational accidents (failures) and malfunctions of technical arrangements, identification and investigation of their causes, is solved by the Decree of the Slovak Office of Labor Safety and the Slovak Mining Office No. 111/1975 Coll., on Evidence and Registration of Work Injuries and on Announcement of Operational Accidents (Failures) and Malfunctions of Technical Arrangements as amended by later instructions.

## **SLOVENIA**

There is a separate law on prevention of natural catastrophes. Mining law regulate mining accidents.

**70. Are there any other specific provisions relevant to mining waste management in your legislation that wasn't touched in the questionnaire? If yes, please describe.**

## **BULGARIA**

No.

## **ESTONIA**

There is no specific regulation.

## **HUNGARY**

No such.

## **LATVIA**

There are no other specific provisions relevant to the mining waste in the Latvian legislation not touched in the Questionnaire.

## **LITHUANIA**

No.

## **POLAND**

No.

## **ROMANIA**

No.

## **SLOVAKIA**

Other specific measures in legislation, which are related to the treatment of mining waste, are not available.

## **SLOVENIA**

No.

**71. If uranium mining and/or uranium mining waste is not dealt with in the mining and waste legislation does the nuclear energy act has relevant provisions to it? Please describe the situation.**

## **BULGARIA**

Nuclear energy act has no provisions related to uranium mining waste. There is separate Instruction No. 1 (12.12.1994) - FOR TREATMENT OF RADIOACTIVELY CONTAMINATED MATERIALS, FACILITIES AND WASTE FROM URANIUM MINING LIQUIDATION.

## **ESTONIA**

The management of radioactive materials, incl. uranium and all kinds of radioactive waste is in the scope of Radiation Act (RT I 1997, 37/38, 569; 1998, 97, 1520; 1999, 88, 804; 2000, 102, 670; 2001, 56, 337). Chapter 5 of this act covers as well radioactive waste.

## HUNGARY

As it was presented in answers 3 and 46 mining legislation covers most part and waste legislation covers a part of mining waste management. Uranium mining does not appear explicitly in the scope of the Act CXVI of 1996 on atomic energy. §1 of the Government Decree No. 124/1997 (VII. 18.) on radioactive materials and ionizing radiation installations being out of scope of the atomic energy act defines the category to be excluded as materials and installations not exceeding the clearance levels of individual isotopes (in Bq/g) given by the Decree 23/1997 (VII. 18.) of the Minister of Healthcare. It means if the activity concentration of standard volumes of certain uranium mining waste dumps and percolation tailing ponds exceed the given limit values they shall be qualified radioactive waste for which the provisions of the atomic energy act shall apply. It means more complex licensing procedure and registration system but the same time the availability of the Nuclear Fund.

## LATVIA

There is no uranium mining in Latvia and, correspondingly, the problems in conjunction with its mining and waste are not dealt with in our legislation.

## LITHUANIA

There is no uranium mining in Lithuania. The management of radioactive waste is in the scope of Law on Radioactive Waste Management (adopted in 1999).

## POLAND

We have no problem or little problem with uranium mining waste. It's covered by Nuclear Energy Act.

## ROMANIA

Law No. 111/10.10.1996 – Republished – on the safe deployment of nuclear activities has special provisions applying to mining and processing of uranium and thorium ores. As per Art. 26 of the Law: " for the deployment of a nuclear activity generating or having generated radioactive waste, the authorization holder shall compulsory:

be responsible for the management of radioactive waste generated by his own activity;

bear the expenses related to the collection, handling, transport, treatment, conditioning and temporary or permanent storage of this waste;

pay the legal contribution to the Fund for management of radioactive waste and decommissioning. "

In the Appendix No. 2 to the Law – Definitions – "radioactive waste mean these materials resulted from nuclear activities for which no use was provided and which contain radionuclides or are contaminated therewith in concentrations superior to the exceptionation limits".

There are also, a number of Republican Norms for nuclear safe, issued by the Ministry of Water and Environment Protection (approved by Ministerial Orders Nos. 242/1993, 353/2001, 382/2001).

## SLOVAKIA

Exploitation of uranium as a radioactive mineral is regulated by mining instructions. Further treatment with uranium beyond mining is regulated by other legal instructions.

## SLOVENIA

Uranium mining is regulated by mining law. Uranium mining waste will be regulated by the Law on prevention of ionising radiation and nuclear safety, expected to be adopted this year.

## V INTERNATIONAL CONVENTIONS

**72. The participation of the country in international environmental agreements and conventions. (See Chapter 4.2.6.)**

**73. Please list those bilateral environmental agreements your country has with neighbour countries, which are relevant to transboundary environmental impacts.**

## BULGARIA

- Convention between Bulgarian and Romanian Governments on cooperation in environment protection.
- Agreement between Bulgarian and Greece governments for river Mesta water use.

## ESTONIA

There are many bi-lateral agreements, in light of impacts of mining activities is most relevant agreement between Governments of Estonian Republic and Russian Federation on protection and sustainable use of border waterbodies, signed in Moscow 20<sup>th</sup> August 1997. (Oil-shale mining region is in Peisi lake and Narva River catchment area).

## HUNGARY

### Slovakia:

- Agreement between the Government of the Republic of Hungary and the Government of Republic of Slovakia on the co-operation in the field of environmental protection and nature conservation (signed 12/02/1999)
- Agreement between the Government of the Republic of Hungary and the Government of Republic of Slovakia on the co-operation and mutual aid in the event of catastrophes (signed 22/07/1997)
- Agreement between the Government of People's Republic of Hungary and the Government of Socialist Republic of Czechoslovakia on the regulation of cross-border water management issues (signed 31/05/1976)

### Ukraine:

- Agreement between the Government of Republic of Hungary and the Government of Ukraine on the co-operation and mutual aid in the field of prevention and follow-up measures of catastrophes and serious accidents (signed 27/10/1998)
- Agreement between the Government of Republic of Hungary and the Government of Ukraine on the regulation of cross-border water management issues (signed 11/11/1997)
- Agreement between the Government of Republic of Hungary and the Government of Ukraine on the immediate reporting of nuclear accidents and on the co-operation and mutual information exchange in nuclear safety and radiation protection (signed 12/11/1997)
- Agreement between the Government of Republic of Hungary and the Government of Ukraine on the co-operation in the field of environmental protection and land development (signed 13/08/1992)

### Romania:

- Agreement between the Government of Republic of Hungary and the Government of Romania on the field of environmental protection (signed 26/05/1997)
- Agreement between the Government of People's Republic of Hungary and the Government of Socialist Republic of Romania on the regulation of water management affairs of along- and cross-border waters (signed 25/06/1986)

### Yugoslavia:

—

### Croatia:

- Agreement between the Government of Republic of Hungary and the Government of Republic of Croatia on the immediate reporting of nuclear accidents (signed 11/06/1999)
- Agreement between the Government of Republic of Hungary and the Government of Republic of Croatia on the protection against natural and industrial catastrophes (signed 09/07/1997)
- Agreement between the Government of Republic of Hungary and the Government of Republic of Croatia on the co-operation in water management (signed 10/07/1994)

### Slovenia:

- Agreement between the Government of Republic of Hungary and the Government of Republic of Slovenia on water management (signed 27/04/1995)
- Agreement between the Government of Republic of Hungary and the Government of Republic of Slovenia on immediate reporting of nuclear accidents (signed 11/07/1995)
- Agreement between the Government of Republic of Hungary and the Government of Republic of Slovenia on the protection against natural and industrial catastrophes (signed 02/08/1995)

### Austria:

- Agreement between the Republic of Hungary and the Republic of Austria on the mutual aid in the event of catastrophes

and serious accidents (signed 17/04/1998)

- Agreement between the Republic of Hungary and the Republic of Austria on the field of environmental protection (signed 08/11/1985)

## **LATVIA**

The Republic of Latvia has common boundaries with the Republic of Belarus, the Republic of Estonia, the Republic of Lithuania, and the Russian Federation.

As regards direct transboundary environmental impact, the Agreement between the governments of the Republic of Latvia and the Republic of Estonia on the environmental impact assessment in the transboundary context is relevant (it was signed and came into force in 1997).

Besides, some bilateral agreements are partly relevant to the problems of transboundary environmental impact:

### Republic of Belarus:

- Agreement between the governments of the Republic of Latvia and the Republic of Belarus on co-operation in the sphere of environmental protection (signed and came into force in 1994);
- Agreement between the governments of the Republic of Latvia and the Republic of Belarus on basic principles of co-operation in the sphere of transboundary co-operation (signed and came into force in 1998);

### Republic of Estonia:

- Agreement between the governments of the Republic of Latvia and the Republic of Estonia on mutual assistance during catastrophes (signed in 2001, came into force in 2002).

### Republic of Lithuania:

- Agreement between the governments of the Republic of Latvia and the Republic of Lithuania on co-operation in the sphere of environmental protection (signed and came into force in 1999);
- Agreement between the governments of the Republic of Latvia and the Republic of Lithuania on transboundary co-operation (signed and came into force in 1999);
- Agreement between the governments of the Republic of Latvia and the Republic of Lithuania on mutual co-operation in case of natural disasters and other large-scale catastrophes (signed and came into force in 2001).

## **LITHUANIA**

### Latvia:

- Agreement between the Government of the Republic of Lithuania and the Government of the Republic of Latvia on co-operation in the sphere of environmental protection (1999);
- Agreement between the governments of the Republic of Lithuania and the Republic of Latvia on transboundary co-operation (1999);
- Agreement between the governments of the Republic of Lithuania and the Republic of Latvia on mutual co-operation in case of natural disasters and other large-scale catastrophes (2001);
- Draft agreement between the governments of the Republic of Lithuania and the Republic of Latvia on the implementation of the Convention on Environmental Impact Assessment in Transboundary Context.

### Poland:

- Agreement on the co-operation in the field of environmental protection between the Department of Environmental Protection of the Republic of Lithuania and Ministry of Environmental Protection, Natural Resources and Silviculture of the Republic of Poland;
- Draft agreement between the governments of the Republic of Lithuania and the Republic of Poland on the implementation of the Convention on Environmental Impact Assessment in Transboundary Context.

### Belorus:

- Agreement on the co-operation in the field of environmental protection between the Ministry of Environmental Protection of the Republic of Lithuania and the Ministry of Natural Resources and Environmental Protection of the Republic of Belarus.
- Federation of Russia
- Agreement between the Government of the Republic of Lithuania and the Government of the Federation of Russia on the co-operation in the field of environmental protection.

## **POLAND**

—

## **ROMANIA**

### Bulgaria:

- Convention between Bulgarian and Romanian Governments on cooperation in environment protection. (Ratified by the Parliament of Romania with the Law No. 97 (16.09.1992))

### Hungary:

- Agreement between the Government of People's Republic of Hungary and the Government of Socialist Republic of Romania on the regulation of water management affairs of along – and cross-border waters (signed on 25/06/1986)
- Agreement between the Government of Republic of Hungary and the Government of Romania on the field of environmental protection (signed on 26/05/1997)

## **SLOVAKIA**

### Czech Republic:

An Agreement between the Government of the Slovak Republic and the Government of the Czech Republic about co-operation in the environmental sphere (Prague 29.10.1992) – governmental agreement

### Poland:

An Agreement between the Government of the Slovak Republic and the Government of the Polish Republic about co-operation in the environmental sphere (Warsaw 18.8.1994) – governmental agreement

An Agreement about co-operation in the field of geology between the Slovak Ministry of Environment and the Ministry of Protection of the Environment, Natural Resources and Forestry of the Polish Republic (Szczecin, 26.5.1997) - departmental agreement

### Austria:

An Agreement between the Slovak Ministry of Environment and the Federal Ministry of Public Health, Sport and Consumer Protection of Austria on mutual exchange of data from systems of early warning before radiation (Bratislava 23.5.1994) - departmental agreement

A Memorandum of understanding between the Slovak Ministry of Environment and the Federal Ministry of Environment, Youth and Family of the Austrian Republic (Bratislava 15.11.1993)

### Ukraine:

An Agreement between the Slovak Ministry of Environment and the Ministry of the Protection of the Environment and Natural Resources of Ukraine about co-operation in the field of environmental protection (Bratislava 30.9.1994)

In addition, we have ratified the Convention on Environmental Impact Assessment in Transboundary Context (EIA), which was signed in 1991 in Espoo – Finland.

### Hungary:

Agreement between the Government of the Republic of Hungary and the Government of Republic of Slovakia on the co-operation in the field of environmental protection and nature conservation (signed 12/02/1999)

Agreement between the Government of the Republic of Hungary and the Government of Republic of Slovakia on the co-operation and mutual aid in the event of catastrophes (signed 22/07/1997)

Agreement between the Government of People's Republic of Hungary and the Government of Socialist Republic of Czechoslovakia on the regulation of cross-border water management issues (signed 31/05/1976)

## **SLOVENIA**

—



## ANNEX III

The legislation of Central and Eastern European Candidate Countries relevant to mining waste management, available in English

Please note that most of the titles and related texts are not official translations into English.

### BULGARIA

#### Acts

**Subsurface resources** act (12/03/1999)

**Environmental protection** act (18/10/1991, last amended in 1997)

**Reduction of the harmful impact of waste upon the environment** act (18/09/1997)

Law for the **waters** (13/07/1999)

#### Others

Decree No. 240 (13/12/1995) on **adoption of rules governing the application of the Concessions Act** /Council of Ministers/

Decree No. 53 (19/03/1999) on **the treatment and transportation of industrial and hazardous waste** /Council of Ministers/

Decree No. 4 (07/07/1998) about **the environmental impact assessment** /M. of Environment and Water, M. of Regional Development and Urbanization, M. of Health, M. of Agriculture, Forests and Agrarian Reform/

Regulation No. 11 (06/11/1998) on **the conditions and requirements for the construction and operation of municipal waste disposal facilities and installations** /M. of Territorial Development and Public Works, M. of Environment and Water, M. of Health/

Regulation No. 12 (06/11/1998) on **the requirements which must be met by the waste treatment facility sites** /M. of Territorial Development and Public Works, M. of Environment and Water, M. of Health/

Regulation No. 10 (06/11/1998) on **the filling out of the report and the waste management information documents** /M. of Environment and Water/

Ordinance No. 13 (06/11/1998) on **the conditions and requirements towards the construction and operation of waste landfills** /M. of Environment and Water/

### CZECH REPUBLIC

#### Acts

Act No. 44/1998 Coll., on **the protection and utilization of mineral resources**

Act No. 18/1997 on **peaceful utilization of nuclear energy and ionizing radiation** (24/01/1997)

### ESTONIA

#### Acts

Act on **sustainable development** (22/02/1995)

**Environmental supervision** act (12/11/1997)

**Environmental impact assessment and environmental auditing** act (14/06/2000)

**Environmental monitoring** act (20/01/1999)

**Pollution charge** act (10/02/1999)

**Waste** act (10/06/1998 last amended ..02/1999)

**Water** act (11/05/1994)

**Chemicals** act (06/05/1998 last amended 28/04/1999)

Law on **protected natural objects** (01/06/1994, last amended 19/02/1998)

**Radiation** act (23/04/1997, last amended 15/10/1998)

**Forest** act (09/12/1998, last amended 16/06/1999)

#### Others

Regulation No. 275 (25/07/1995 last amended 25/03/1997) on **establishment of the rates of and procedure for compensating damage caused to natural flora and fauna** /Government/

Regulation No. 263 (24/11/1998) on **approval of the lists of waste categories, waste types and hazardous waste** /Government/

Regulation No. 99 (16/03/1999) on **approval of the lists of products which cause damage to the environment as waste**

and whose production, import, export, sale and use is prohibited /Government/

Regulation No. 236 (22/10/1998) on **approval of the list specifying the fields of activity requiring a waste permit for generation of waste and the related limit values for production volumes and waste volumes** /Government/

Regulation No. 59 (11/09/1998) on **approval of the procedure for drawing up management plans** /M. of the Environment/

Regulation No. 34 (17/03/1999) on **application of Section 36 of the Waste act in issuing a waste permit** /M. of the Environment/

Regulation No. 58 (16/06/1999) on **limit values of dangerous substances in groundwater and soil** /M. of the Environment/

## HUNGARY

*Please note that in case of Hungary most of the texts are under the copyright of the Kerszöv Ltd., they reflect the state of legislation of 31<sup>st</sup> March 1999, their use is restricted to internal project applications. Exceptions indicated by “\*”.*

### Acts

Act No. XX on the **Constitution** (20/08/1949 last amended 30/08/1997)

Act No. CXVI on **atomic energy** (18/12/1996)

Act No. IL on **bankruptcy proceedings, liquidation proceedings and voluntary dissolution** (22/10/1991)

Act No. IV on the **civil code** (11/08/1959 last amended 18/12/1997)

Act No. IV on the **criminal code** (31/12/1978 last amended 01/03/1999)

Act No. LIII on the **general rules of environmental protection** (22/06/1995)\*

Act No. XLIII on **waste management** (02/06/2000) \*

Act No. LVI on **environmental protection product charges and the environmental protection product charges of certain products** (23/06/1995)

Act No. LVII on **water management** (23/06/1995)

Act No. LXXVIII on the **formation and protection of the built environment** (24/07/1997)

Act No. XLVIII on **mining** (13/05/1993 last amended 24/06/1997)

Act No. XVI on **concessions** (30/05/1991)

Act No. XXI on **regional development and regional planning** (05/04/1996)

### Others

Decree No. 152 (12/12/1995) on **activities requiring the completion of an environmental impact assessment and on the detailed rules of the connected administrative procedure** /Government/\*

Decree No. 33 (17/03/2000) on **activities that affect the quality of groundwater** /Government/\*

Decree No. 132 (29/09/1993) on the **Hungarian Geological Survey** /Government/\*

Decree No. 10 (02/06/2000) on the **limit values necessary to protect the quality of groundwater and the geologic medium** /M. of Environmental Protection, M. of Public Health, M. of Agriculture and Regional Development, M. of Traffic, Communication and Water Management/\*

## LATVIA

### Acts

Law on **environmental protection** (06/08/1991 last amended 20/06/2000)

Law on **environmental impact assessment** (14/10/1998)

**Waste management law** (29/12/2000)

Law on **pollution** (15/03/2001)

Law on the **subsoil** (21/05/1996 last amended 07/09/200)

### Others

Regulation No. 356 (10/10/2000) on **application of provisions of the law on natural resource tax** /Cabinet of Ministers/

Regulation No. 213 (15/06/1999) on **procedures for environmental assessment** /Cabinet of Ministers/

Regulation No. 445 (24/11/1998) on **statutes of the Environmental Impact Assessment State Bureau** /Cabinet of Ministers/

Regulation No. 307 (05/09/2000) on **the provisions of use of minerals, deposits, and subsoil areas of state importance** /Cabinet of Ministers/

Regulation No. 239 (08/07/1997 last amended 02/01/2001) on **the use of the subsoil** /Cabinet of Ministers/

Regulation No. 142 (30/05/1995) on **statutes of State Geological Survey** /Cabinet of Ministers/

Regulation No. 53 (08/02/2000) on **the State fee for the oil production** /Cabinet of Ministers/  
Regulation No. 51 (08/02/2000) for **pre-investigation, exploration and production of hydrocarbons** /Cabinet of Ministers/  
Regulation No. 52 (08/02/2000) on **contest procedure for the award of permits (licenses) for the offshore activities of hydrocarbon pre-investigation, exploration and production** /Cabinet of Ministers/

## LITHUANIA

### Acts

The **underground** law (05/07/1995)

Law No. VIII-1636 on **the environmental impact assessment of the proposed economic activity** (18/04/2000)

### Others

Decree No. 217 (14/07/1999) on **the approval of waste management regulations** /M. of Environment/

Decree No. 444 (18/10/2000) on **the approval of the rules for setting up, operation, closure and after-care of landfills waste** /M. of Environment/

Decree No. 263 (30/06/2000) on **methodological guidelines on the screening of proposed economic activity** /M. of Environment/

Decree No. 262 (30/06/2000) on **regulations on preparations of the environmental impact assessment program and report** /M. of Environment/

Decree No. 277 (10/07/2000) on **the order of informing the public and public participation in the process of environmental impact assessment** /M. of Environment/

Decree No. 305 (17/07/2000) on **guidelines on the quality control of the environmental impact assessment of the proposed economic activity** /M. of Environment/

Decree No. 333 (07/08/20) on **the order of investigating the environmental impact assessment documents at the Ministry of the Environment and subordinate institutions** /M. of Environment/

**Manual for environmental impact assessment in Lithuania** (2001) /M. of Environment, Finnish Environment Institute/

## POLAND

### Acts

**Geological and mining** law (04/02/1994)

Act on **access to information on the environment and its protection and on environmental impact assessments** (09/11/2000)

### Others

Regulation No. 589 (14/07/1998) on **the determination of the type of investments harmful for the environment and human health and the investments likely to worsen the environmental conditions, and the requirements which the environmental impact statement should fulfil for these investments** /M. of Environmental Protection, Natural Resources and Forestry/

Regulation No. 590 (14/07/1998) on **the requirements which environmental impact statements should fulfil for these investments, which different from investments harmful for the environment and human health or investments likely to worsen the environmental conditions, and projects changing the water conditions** /M. of Environmental Protection, Natural Resources and Forestry/

## ROMANIA

### Acts

**The Constitution of Romania** (21/11/1991)

Law No. 137 on **the environmental protection** (.../.../1995)

Law No. 107 on **water** (25/09/1996)

Law No. 18 on **land resources** (19/02/1991)

Law No. 7 on **the cadastre and on real estate publicity** (13/03/1996)

Law No. 61 on **mining** (04/03/1998)

Law No. 111 on **the safe deployment of nuclear activities** (10/10/1996)

Law No. 219. on **the system of concessions** (25/11/1998)

#### Others

Decision No. 760 (26/07/2001) on **technical norms related to the exploitation and marketing of natural mineral waters** /Government/

Decision No. 639 (25/09/1998) on norms of **applying the mining law** /Government/

### **SLOVAKIA**

#### Acts

Act No. 17 on **environment** (05/12/1991 last amended 01/09/1994)

Act No. 494 on **the state administration of the waste management** (05/11/1991 last amended in 1996)

Law No. 309 on **charges levied for waste deposition** (06/05/1992)

Act No. 238 on **waste** (22/05/1991)

Act No. 494 on **state administration authorities in the field of waste management and their jurisdiction** (05/11/1991)

Act No. 127 on **environmental impact assessment** (29/04/1994 last amended 22/11/2000)

Act No. 595 on **state administration for environment** (17/12/1990)

Act No. 44 on **protection and utilization of mineral resources** (19/04/1988 last amended 01/01/1992)

Act No. 199 on **amendment of the Building Act** (No. 50/1976) **and the Water Act** (138/1973) (12/09/1995)

Act No. 52 on **geological works and on the Slovak Geological Institute** (20/04/1988 last amended 01/01/1992)

Act No. 51 on **mining activities, explosives and on state mining administration** (20/04/1988 last amended ../../1995)

Act No. 128 on the **State Fund of the Environment** (07/03/1991)

#### Others

Order No. 242 (12/10/1993) on **the indicators of the permissible degree of contamination of waters** /Government/

Order No. 31 (26/03/1975) on **penalties for infringing of obligations provided in the section of water management** /Government/

Order No. 520 (19/11/1991) on **conditions of utilization of deposits of unlisted minerals** /Government/

Order No. 155 (14/06/1994) on **payment for mining reservation and on payment for mined minerals** /Government/

Order No. 606 (29/09/1992) on **handling of waste** /Government/

Order No. 605 (22/09/1992) on **keeping records of wastes** /Government/

Regulation No. 6 (16/01/1978) on the **obligation of administrators of water flows** /Ministry of Forest and Water Management/

Regulation No. 128 (../../1991) on **endangering the environment** /...../

Regulation No. 23 (01/03/1977) on **protection of the quality of surface and ground water** /Ministry of Forest and Water Management/

Regulation No. 10 (20/06/1977) on **determination supplying water flows and their watersheds** /Ministry of Forest and Water Management/

Regulation No. 24 (01/03/1977) on **water management registration** /Ministry of Forest and Water Management/

Regulation No. 52 (06/03/1995) on **list of professionally qualified persons for environmental impact assessment** /Ministry of Forest and Water Management/

Order No. 364 (16/12/1996) which **amends the order on the conditions for providing and using the funds from the State Environmental Fund** /Ministry of Environment/

Regulation No. 111 (26/04/1993 last amended 01/04/1995) on **issuing expertises in matters of air protection or waste, on appointing persons authorized to issue expertises and on verifying expert qualifications of these persons** /Ministry of Environment/

Regulation No. 19 (04/12/1995) that **sets the categories of waste and the Waste Catalogue** /Ministry of Environment/

Regulation No. 217 (01/09/1993) on **designing, carrying on and evaluating of geological works** /Ministry of Environment/

Regulation No. 83 (23/03/1993 last amended 01/01/1995) on **state nature reservations** /Ministry of Environment/

Regulation No. 192 (27/07/1993) on the **social evaluation of selected parts of nature** /Ministry of Environment/

Principles No. 1 (01/04/1993) of **judgement on application for import, export and transit of waste** /Ministry of Environment/

Regulation No. 176 (20/03/1992) on **conditions for the provision and use of finances of the State Fund of the Environment** /Slovak Commission for the Environment/

Regulation No. 76 (05/02/1992) on **waste management program** /Slovak Commission for the Environment/

Regulation No. 333 (13/07/1996) on the **provision of the operational districts of mining institutes** /Ministry of Economy/

Regulation No. 305 (17/12/1993) on the **form and extent of financing from the state budget of geological works and the execution or liquidation of old mining works and their effects** /Ministry of Finance/

Regulation No. 84 (14/07/1976 last amended 17/07/1992) on **spatial planning supporting materials and spatial planning documentation** /Ministry for Technological and Investment Development/

Regulation No. 9 (15/12/1988 last amended 16/01/1992) on the **registration of geological works, handing-over and accessing of old mining works and administering their register** /Slovak Geological Institute/

Regulation No. 6 (13/12/1991) on the **classification and calculation of exclusive deposits** /Slovak Geological Institute/  
 Regulation No. 97 (01/07/1988 last amended 16/01/1992) on **management of exclusive deposits and on record keeping and writing-off their reserves** /Slovak Geological Institute/  
 Regulation No. 415 (07/07/1992) on **granting the license on the execution of the geological works and verification of the expert competence of the workers** /Slovak Geological Institute/  
 Regulation No. 86 (16/05/1988 last amended 16/01/1992) on **procedure in the search and survey of exclusive deposits from the aspect of protection and rational exploitation of mineral resources and on reporting the presence of an exclusive mineral deposit, its allowances and the payment of expenses** /Slovak Geological Institute/  
 Regulation No. 79 (29/04/1988 last amended 01/01/1992) on **deposit reservations and mining areas** /Slovak Geological Institute/  
 Regulation No. 89 (20/05/1988 last amended 16/01/1992) on **rational use of the exclusive deposits and on permission and reporting of mining activity and on reporting of the activity carried out by the mining manner** /Slovak Mining Institute/  
 Regulation No. 79 (29/04/1988 last amended 01/01/1992) on **deposit reservations and mining areas** /Slovak Mining Agency/

## SLOVENIA

### Acts

The **environmental protection** act (02/07/1993)

**Mining** act (30/06/1999)

### Other

Rules No. 354-11-14 (03/12/1998) on **waste management** /Ministry of the Environment and Physical Planning/

Rules No. 012-13/00 (16/05/2000) on **amendments and supplements to the rules on waste management** /Ministry of the Environment and Spatial Planning/

Rules No. 354-11-41/99 (13/12/1999) on **the landfill of waste** /Ministry of the Environment and Spatial Planning/

Decree on the emission of substances in the discharge of landfill (OG RS No. 7/00); enforced: 12.02.2000

Until new regulations in accordance with the provisions of this Mining Act are issued, the following regulations (concerning mining activities) are valid and/or used as far as they are not in contradiction to Act:

The Rules on the exploration and exploitation areas of minerals (OG SRS, No. 9/77),

The Rules on the contents of mining projects in the exploitation of oil and natural gases (OG SFRY, No. 21/68),

The Rules on the technical standards for underground coal mining (OG SFRY, No 4/89, 45/89, 3/90 and 54/90),

The Rules on the technical standards for underground exploitation of metallic and non-metallic mineral resources (OG SFRY, No 24/91),

The Rules on the technical standards for the surface exploitation of the deposits of mineral resources (OG SFRY, No 4/86 and 62/87),

The Rules on the technical standards for surface mining of architectural construction stone (ornamental stone), technical stone, gravel and sand and for the processing of architectural construction stone (OG SFRY, No 11/86),

The Rules on the technical standards in the exploration and exploitation of oil, natural gases, and inseam waters (OG SFRY, Nos 43/79, 41/81 and 15/82),

The Rules on the technical standards for mining operations in the exploration and exploitation of rock-salt deposits (OG SFRY, No 8/79).

## ANNEX IV

### Working Definition of “mining waste” for the PECOMINES Project

Among the conclusions of the first meeting of the Steering Committee a definite demand was expressed to formulate a working definition of “mining waste”. The definition proposed was derived from the most relevant European Directives as follows. The Waste Framework Directive 75/442/EEC (as amended by 91/156/EEC and 96/350/EC) defines waste in general (“any substance or object in the categories set out in Annex I which the holder discards or intends or is required to discard”). The European Waste Catalogue (Commission Decision 2001/118/EC) classifies 23 types of mining waste under Chapter 01 “Wastes resulting from exploration, mining, quarrying, and physical and chemical treatment of minerals” covering a wide spectrum of mining wastes. The definition is a simple compilation of the terms cited above.

**“mining waste”: any substance or object resulting from exploration, mining, quarrying, and physical and chemical treatment of minerals, as set out in 2001/118/EEC, which the holder discards or intends or is required to discard**

However, the Inventory and the Impact Assessment work parts consider all metallic minerals, energy minerals as coal, oil shale, uranium and industrial minerals. Construction minerals (e.g. sand, gravel, decoration rocks etc.) and hydrocarbons (oil and gas) are excluded, but countries may include in the inventory voluminous drilling mud ponds, because certain types of them are classified as hazardous in the European Waste Catalogue. Topsoil and backfilled inert overburdens are excluded.

The Regulations work part will consider all wastes and environmental impacts generated by the mining process from exploration to aftercare, including also abandoned mines.



## ANNEX V

### A collection of definitions from the EU *acquis communautaire* relevant to mining waste management and environmental affairs in general

This collection was compiled to help establishing the common understanding of basic terms in use in the PECOMINES project. The application and interpretation of legal definitions are the best (if not exclusively acceptable) within their legal environment, this is why a short reference of the source EU directive (or decision, regulation, proposal) is given in brackets. This explains as well why more definitions are given for the same term. Some minor changes have been done on the definitions (e.g. “:” was used instead of “means”, “shall mean”, “is”) in order to have standard format.

A careful procedure is required with citing the individual definitions because EUR-Lex, on which the glossary is based, contains spelling mistakes frequently. It is strongly recommended to check the original Official Journal for reference.

However, as one might note immediately, there are very few direct references to mining waste and mining in general. It does not mean that there are no relevant provisions in the *acquis* at all. It simply means that this collection does not replace the need for the detailed screening of EU legislation.

**“accidental exposure”**: an exposure of individuals as a result of an accident. It does not include emergency exposure. (96/29)

**“accreditation system”**: a system for the accreditation and supervision of environmental verifiers operated by an impartial institution or organisation designated or created by the Member State (accreditation body), with sufficient resources and competency and having appropriate procedures for performing the functions defined by this Regulation for such a system (761/2001)

**“activation”**: process through which a stable nuclide is transformed into a radionuclide by irradiating with particles or high-energy gamma rays the material in which it is contained (96/29)

**“active substance”**: a substance or micro-organism including a virus or a fungus having general or specific action on or against harmful organisms (98/8)

**“active substances”**: substances or micro-organisms including viruses, having general or specific action: 4.1. against harmful organisms; or 4.2. on plants, parts of plants or plant products (91/414)

**“affiliated undertaking”**: any undertaking the annual accounts of which are consolidated with those of the contracting entity in accordance with the requirements of the seventh Council Directive 83/349/EEC of 13 June 1983, based on Article 54 (3) (g) of the EEC Treaty on consolidated accounts(10) or, in the case of entities not subject to that Directive, any undertaking over which the contracting entity may exercise, directly or indirectly, a dominant influence within the meaning of paragraph 2, or which may exercise a dominant influence over the contracting entity or which, in common with the contracting entity, is subject to the dominant influence of another undertaking by virtue of ownership, financial participation, or the rules which govern it (93/38)

**“air pollution”**: the introduction by man, directly or indirectly, of substances or energy into the air resulting in deleterious effects of such a nature as to endanger human health, harm living resources and ecosystems and material property and impair or interfere with amenities and other legitimate uses of the environment (84/360)

**“air quality limit values”**: the concentration of polluting substances in the air during a specified period which is not to be exceeded (84/360)

**“animals”**: animals belonging to species normally fed and kept or consumed by man (91/414)

**“applicant”**: any person who applies for a landfill permit under this Directive (99/31)

**“apprentice”**: a person receiving training or instruction within an undertaking with a view to exercising a specific skill (96/29)

**“approved dosimetric service”**: a body responsible for the calibration, reading or interpretation of individual monitoring devices, or for the measurement of radioactivity in the human body or in biological samples, or for assessment of doses, whose capacity to act in this respect is recognized by the competent authorities (96/29)

**“approved medical practitioner”**: a medical practitioner responsible for the medical surveillance of category A workers, as defined in Article 21, whose capacity to act in that respect is recognized by the competent authorities (96/29)

**“approved occupational health services”**: a body or bodies to which may be assigned responsibility for the radiation protection of exposed workers and/or medical surveillance of category A workers. Its capacity to act in that respect is recognized by the competent authorities. (96/29)

**“aquifer”**: a subsurface layer or layers of rock or other geological strata of sufficient porosity and permeability to allow either a significant flow of groundwater or the abstraction of significant quantities of groundwater (2000/60)

**“artificial sources”**: radiation sources other than natural radiation sources (96/29)

**“artificial water body”**: a body of surface water created by human activity (2000/60)

**“audit cycle”**: the period of time in which all the activities in an organisation are audited, (Annex II) (761/2001)

**“auditor”**: an individual or a team, belonging to the organisation personnel or external to the organisation, acting on behalf of the organisation’s top management, possessing, individually or collectively, the competences referred to in Annex II, point 2.4 and being sufficiently independent of the activities they audit to make an objective judgment (761/2001)

**“authorization”**: a permission granted in a document by the competent authority, on application, or granted by national legislation, to carry out a practice or any other action within the scope of this Directive (96/29)

**“authorization”**: any law, regulation, administrative or contractual provision or instrument issued thereunder by which the competent authorities of a Member State entitle an entity to exercise, on its own behalf and at its own risk, the exclusive right to prospect or explore for or produce hydrocarbons in a geographical area. An authorization may be granted for each activity separately or for several activities at a time. (94/22)

**“authorisation”**: an administrative act by which the competent authority of a Member State authorises, following an application submitted by an applicant, the placing on the market of a biocidal product in its territory or in a part thereof (98/8)

**“authorization of a plant protection product”**: administrative act by which the competent authority of a Member State authorizes, following an application submitted by an applicant, the placing on the market of a plant protection product in its territory or in a part thereof (91/414)

**“available groundwater resource”**: the long-term annual average rate of overall recharge of the body of groundwater less the long-term annual rate of flow required to achieve the ecological quality objectives for associated surface waters specified under Article 4, to avoid any significant diminution in the ecological status of such waters and to avoid any significant damage to associated terrestrial ecosystems (2000/60)

**“available”** techniques shall mean those developed on a scale which allows implementation in the relevant industrial sector, under economically and technically viable conditions, taking into consideration the costs and advantages, whether or not the techniques are used or produced inside the Member State in question, as long as they are reasonably accessible to the operator (96/61)

**“banned chemical”**: a chemical which has, for health or environmental reasons, been prohibited for all uses by final governmental regulatory action (2455/92)

**“basic substance”**: a substance which is listed in Annex I B, whose major use is non-pesticidal but which has some minor use as a biocide either directly or in a product consisting of the substance and a simple diluent which itself is not a substance of concern and which is not directly marketed for this biocidal use. The substances, which could potentially enter Annex IB in accordance with the procedure laid down in Articles 10 and 11, are inter alia the following: carbon dioxide, nitrogen, ethanol, 2-propanol, acetic acid, kieselguhr (98/8)

**“best available techniques”**: the most effective and advanced stage in the development of activities and their methods of operation which indicate the practical suitability of particular techniques for providing in principle the basis for emission limit values designed to prevent and, where that is not practicable, generally to reduce emissions and the impact on the environment as a whole (96/61)

**“best”**: most effective in achieving a high general level of protection of the environment as a whole. In determining the best available techniques, special consideration should be given to the items listed in Annex IV (96/61)

**“biocidal products”**: active substances and preparations containing one or more active substances, put up in the form in which they are supplied to the user, intended to destroy, deter, render harmless, prevent the action of, or otherwise exert a controlling effect on any harmful organism by chemical or biological means. An exhaustive list of 23 product types with an indicative set of descriptions within each type is given in Annex V (98/8)

**“biodegradable waste”**: any waste that is capable of undergoing anaerobic or aerobic decomposition, such as food and garden waste, and paper and paperboard (99/31)

**“body of groundwater”**: a distinct volume of groundwater within an aquifer or aquifers (2000/60)

**“body of surface water”**: a discrete and significant element of surface water such as a lake, a reservoir, a stream, river or canal, part of a stream, river or canal, a transitional water or a stretch of coastal water (2000/60)

**“candidate”**: a person who has sought an invitation to take part in a restricted or negotiated procedure; service providers may be either natural or legal persons, including contracting entities within the meaning of Article 2 (93/38)

**“carcinogenic substances and preparations”**: substances or preparations which, if they are inhaled or ingested or if they penetrate the skin, may induce cancer or increase its incidence (92/32)

**“carcinogenic substances and preparations”**: substances or preparations which, if they are inhaled or ingested or if they penetrate the skin, may induce cancer or increase its incidence (1999/45)

**“change in operation”**: a change in the nature or functioning, or an extension, of the installation which may have consequences for the environment **(96/61)** **“chemical subject to notification”**: any of the chemical substances listed in Annex I and preparations containing any of these chemicals if the preparation has a labelling obligation under Community legislation as a result of the presence of the Annex I chemical **(2455/92)**

**“chemical subject to the PIC procedure”**: each chemical listed in Annex II, whether by itself or in preparations, whether manufactured or obtained from nature, unless its concentration in a preparation is insufficient for a labelling requirement under Community legislation **(2455/92)**

**“clearance levels”**: values, established by national competent authorities, and expressed in terms of activity concentrations and/or total activity, at or below which radioactive substances or materials containing radioactive substances arising from any practice subject to the requirement of reporting or authorization may be released from the requirements of this Directive **(96/29)**

**“coastal water”**: surface water on the landward side of a line, every point of which is at a distance of one nautical mile on the seaward side from the nearest point of the baseline from which the breadth of territorial waters is measured, extending where appropriate up to the outer limit of transitional waters **(2000/60)**

**“collection”**: the gathering, sorting and/or mixing of waste for the purpose of transport. **(91/156)**

**“collective system”**: (a) A system for the supply of drinking water to a number of households or undertakings; and/or (b) A system for the provision of sanitation which serves a number of households or undertakings and, where appropriate, also provides for the collection, transport, treatment and disposal or reuse of industrial waste water, whether provided by a body in the public sector, an undertaking in the private sector or by a partnership between the two sectors. **(501PC0483)**

**“combined approach”**: the control of discharges and emissions into surface waters according to the approach set out in Article 10 **(2000/60)**

**“common technical specification”**: a technical specification drawn up in accordance with a procedure recognized by the Member States with a view to uniform application in all Member States and published in the Official Journal of the European Communities **(93/38)**

**“Community standard”**: mandatory Community standard setting the levels to be attained in environmental terms and the obligation under Community law to use the best available techniques (BAT) which do not entail excessive costs **(2001/C 37/03)**

**“competent authorities”**: any authority designated by a Member State **(96/29)**

**“competent authorities”**: the competent authorities designated by either the Member States in accordance with Article 36 or non-Member States **(259/93)**

**“competent authorities”**: the public authorities, as defined in Article 1 (1) of Directive 90/531/EEC, which are responsible for granting authorization and/or monitoring use thereof **(94/22)**

**“competent authority of destination”**: the competent authority, designated by the Member States in accordance with Article 36, for the area in which the shipment is received, or in which waste is loaded on board before disposal at sea without prejudice to existing conventions on disposal at sea or designated by non-Member States **(259/93)**

**“competent authority of dispatch”**: the competent authority, designated by the Member States in accordance with Article 36, for the area from which the shipment is dispatched or designated by non-Member States **(259/93)**

**“competent authority of transit”**: the single authority designated by Member States in accordance with Article 36 for the State through which the shipment is in transit **(259/93)**

**“competent authority”**: that authority which the Member States designate as responsible for performing the duties arising from this Directive **(99/31)**

**“competent authority”**: the authority or authorities or bodies responsible under the legal provisions of the Member States for carrying out the obligations arising from this Directive **(96/61)**

**“competent bodies”**: the bodies designated by Member States, whether national, regional or local, in accordance with Article 5, to perform the tasks specified in this Regulation **(761/2001)**

**“conservation status of a natural habitat”**: the sum of the influences acting on a natural habitat and its typical species that may affect its long-term natural distribution, structure and functions as well as the long-term survival of its typical species within the territory referred to in Article 2. The conservative status of a natural habitat will be taken as “favourable” when its natural range and areas it covers within that range are stable or increasing, and the specific structure and functions which are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future, and the conservation status of its typical species is favourable as defined in (i). **(92/43)**

**“conservation status of a species”**: the sum of the influences acting on the species concerned that may affect the long-term distribution and abundance of its populations within the territory referred to in Article 2. The conservation status will be

taken as 'favourable' when population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats, and the natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future, and there is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis. (92/43)

**"conservation"**: a series of measures required to maintain or restore the natural habitats and the populations of species of wild fauna and flora at a favourable status (92/43)

**"consignee"**: the person or undertaking to whom or to which the waste is shipped for recovery or disposal (259/93)

**"consignment note"**: the standard consignment note to be drawn up in accordance with Article 42 (259/93)

**"construction product"**: any product which is produced for incorporation in a permanent manner in construction works, including both buildings and civil engineering works (89/106)

**"continual improvement of environmental performance"**: the process of enhancing, year by year, the measurable results of the environmental management system related to an organisation's management of its significant environmental aspects, based on its environmental policy, objectives and targets; the enhancing of the results need not take place in all spheres of activity simultaneously (761/2001)

**"controlled area"**: an area subject to special rules for the purpose of protection against ionizing radiation or of preventing the spread of radioactive contamination and to which access is controlled (96/29)

**"correspondent"**: the central body designated by each Member State and the Commission, in accordance with Article 37 (259/93)

**"corrosive substances and preparations"**: substances and preparations which may, on contact with living tissues, destroy them (92/32, 1999/45)

**"dangerous substance"**: a substance, mixture or preparation listed in Annex 1, Part 1, or fulfilling the criteria laid down in Annex 1, Part 2, and present as a raw material, product, by-product, residue or intermediate, including those substances which it is reasonable to suppose may be generated in the event of accident (96/82)

**"dangerous"**: **explosive** substances and preparations: solid, liquid, pasty or gelatinous substances and preparations which may also react exothermically without atmospheric oxygen thereby quickly evolving gases, and which, under defined test conditions, detonate, quickly deflagrate or upon heating explode when partially confined; **oxidising** substances and preparations: substances and preparations which give rise to a highly exothermic reaction in contact with other substances, particularly flammable substances; **extremely flammable** substances and preparations: liquid substances and preparations having an extremely low flash-point and a low boiling-point and gaseous substances and preparations which are flammable in contact with air at ambient temperature and pressure; **highly flammable** substances and preparations: substances and preparations which may become hot and finally catch fire in contact with air at ambient temperature without any application of energy, or solid substances and preparations which may readily catch fire after brief contact with a source of ignition and which continue to burn or to be consumed after removal of the source of ignition, or liquid substances and preparations having a very low flash-point, or substances and preparations which, in contact with water or damp air, evolve extremely flammable gases in dangerous quantities; **flammable** substances and preparations: liquid substances and preparations having a low flash-point; **very toxic** substances and preparations: substances and preparations which in very low quantities cause death or acute or chronic damage to health when inhaled, swallowed or absorbed via the skin; **toxic** substances and preparations: substances and preparations which in low quantities cause death or acute or chronic damage to health when inhaled, swallowed or absorbed via the skin; **harmful** substances and preparations: substances and preparations which may cause death or acute or chronic damage to health when inhaled, swallowed or absorbed via the skin; **corrosive** substances and preparations: substances and preparations which may, on contact with living tissues, destroy them; **irritant** substances and preparations: non-corrosive substances and preparations which, through immediate, prolonged or repeated contact with the skin or mucous membrane, may cause inflammation; **sensitising** substances and preparations: substances and preparations which, if they are inhaled or if they penetrate the skin, are capable of eliciting a reaction of hypersensitisation such that on further exposure to the substance or preparation, characteristic adverse effects are produced; **carcinogenic** substances and preparations: substances or preparations which, if they are inhaled or ingested or if they penetrate the skin, may induce cancer or increase its incidence; **mutagenic** substances and preparations: substances and preparations which, if they are inhaled or ingested or if they penetrate the skin, may induce heritable genetic defects or increase their incidence; substances and preparations which are **toxic for reproduction**: substances and preparations which, if they are inhaled or ingested or if they penetrate the skin, may produce, or increase the incidence of, non-heritable adverse effects in the progeny and/or an impairment of male or female reproductive functions or capacity; substances and preparations which are **dangerous for the environment**: substances and preparations which, were they to enter the environment, would or could present an immediate or delayed danger for one or more components of the environment (99/45)

**"dangerous"**: **explosive**: substances and preparations which may explode under the effect of flame or which are more sensitive to shocks or friction than dinitrobenzene; **oxidising**: substances and preparations which give rise to highly exothermic reaction when in contact with other substances, particularly flammable substances; **easily flammable**: substances and prepa-

rations which may become hot and finally catch fire in contact with air at ambient temperature without any application of energy, or solid substances and preparations which may readily catch fire after brief contact with a source of ignition and which continue to burn or to be consumed after removal of the source of ignition, or liquid substances and preparations having a flash point below 21° C, or gaseous substances and preparations which are flammable in air at normal pressure, or substances and preparations which, in contact with water or damp air, evolve highly flammable gases in dangerous quantities; **flammable**: liquid substances and preparations having a flash point between 21° C and 55° C; **toxic**: substances and preparations which, if they are inhaled or taken internally or if they penetrate the skin, may involve serious, acute or chronic health risks and even death; **harmful**: substances and preparations which, if they are inhaled or taken internally or if they penetrate the skin, may involve limited health risks; **corrosive**: substances and preparations which may, on contact with living tissues, destroy them; **irritant**: non-corrosive substances and preparations which, through immediate, prolonged or repeated contact with the skin or mucous membrane, can cause inflammation (67/548)

**“dangerous substances and preparations”**: (a) **explosive**: substances and preparations which may explode under the effect of flame or which are more sensitive to shocks or friction than dinitrobenzene; (b) **oxidising**: substances and preparations which give rise to highly exothermic reaction when in contact with other substances, particularly flammable substances; (c) **easily flammable**: - substances and preparations which may become hot and finally catch fire in contact with air at ambient temperature without any application of energy, or - solid substances and preparations which may readily catch fire after brief contact with a source of ignition and which continue to burn or to be consumed after removal of the source of ignition, or - liquid substances and preparations having a flash point below 21° C, or - gaseous substances and preparations which are flammable in air at normal pressure, or - substances and preparations which, in contact with water or damp air, evolve highly flammable gases in dangerous quantities; (d) **flammable**: liquid substances and preparations having a flash point between 21° C and 55° C; (e) **toxic**: substances and preparations which, if they are inhaled or taken internally or if they penetrate the skin, may involve serious, acute or chronic health risks and even death; (f) **harmful**: substances and preparations which, if they are inhaled or taken internally or if they penetrate the skin, may involve limited health risks; (g) **corrosive**: substances and preparations which may, on contact with living tissues, destroy them; (h) **irritant**: non-corrosive substances and preparations which, through immediate, prolonged or repeated contact with the skin or mucous membrane, can cause inflammation (67/548)

**“design contests”**: the national procedures which enable the contracting entity to acquire, mainly in the fields of architecture, engineering or data processing, a plan or design selected by a jury after having been put out to competition with or without the award of prizes. (93/38)

**“developer”**: the applicant for authorization for a private project or the public authority which initiates a project (85/337)

**“development consent”**: the decision of the competent authority or authorities which entitles the developer to proceed with the project (85/337)

**“direct discharge to groundwater”**: discharge of pollutants into groundwater without percolation throughout the soil or subsoil (2000/60)

**“direct discharge”**: the introduction into groundwater of substances in lists I or II without percolation through the ground or subsoil (80/68)

**“disposal”**: any of the operations provided for in Annex II, A (91/156)

**“disposal”**: the collection, sorting, transport and treatment of waste as well as its storage and tipping above or under ground, the transformation operations necessary for its re-use, recovery or recycling (75/442)

**“disposal”**: the emplacement of waste in a repository, or a given location, without the intention of retrieval. Disposal also covers the approved direct discharge of wastes into the environment, with subsequent dispersion. (96/29)

**“dose (concentration) - response (effect) assessment”**: the estimation of the relationship between dose, or level of exposure to a substance, and the incidence and severity of an effect (93/67, 1488/94)

**“dose constraint”**: a restriction on the prospective doses to individuals which may result from a defined source, for use at the planning stage in radiation protection whenever optimization is involved (96/29)

**“dose limits”**: maximum references laid down in Title IV for the doses resulting from the exposure of workers, apprentices and students and members of the public to ionizing radiation covered by this Directive that apply to the sum of the relevant doses from external exposures in the specified period and the 50-year committed doses (up to age 70 for children) from intakes in the same period (96/29)

**“drinking water”**: all surface water intended for human consumption and supplied by distribution networks for public use (75/440)

**“drinking water”**: water which is used, or intended to be available for use, by humans for drinking, cooking, food preparation, personal hygiene or similar purposes (501PC0483)

**“ecological status”**: an expression of the quality of the structure and functioning of aquatic ecosystems associated with surface waters, classified in accordance with Annex V (2000/60)



**“EINECS”**: the European Inventory of Existing Commercial Substances. This inventory contains the definitive list of all substances deemed to be on the Community market on 18 September 1981. (92/32, 1999/45)

**“electric power generated from renewable energy sources”**: electric power generated by plant using only renewable energy sources, and that share of electric power generated from renewable energy sources in hybrid plant using traditional energy sources, in particular for contingency purposes (2001/C 37/03)

**“eluate”**: the solution obtained by a laboratory leaching test (99/31)

**“emergency exposure”**: an exposure of individuals implementing the necessary rapid action to bring help to endangered individuals, prevent exposure of a large number of people or save a valuable installation or goods, whereby one of the individual dose limits equal to that laid down for exposed workers could be exceeded. Emergency exposure shall apply only to volunteers. (96/29)

**“emission controls”**: controls requiring a specific emission limitation, for instance an emission limit value, or otherwise specifying limits or conditions on the effects, nature or other characteristics of an emission or operating conditions which affect emissions (2000/60)

**“emission limit values”**: the concentration and/or mass of polluting substances in emissions from plants during a specified period which is not to be exceeded (84/360)

**“emission limit values”**: the mass, expressed in terms of certain specific parameters, concentration and/or level of an emission, which may not be exceeded during one or more periods of time. Emission limit values may also be laid down for certain groups, families or categories of substances, in particular for those listed in Annex III. The emission limit values for substances shall normally apply at the point where the emissions leave the installation, any dilution being disregarded when determining them. With regard to indirect releases into water, the effect of a water treatment plant may be taken into account when determining the emission limit values of the installation involved, provided that an equivalent level is guaranteed for the protection of the environment as a whole and provided this does not lead to higher levels of pollution in the environment, without prejudice to Directive 76/464/EEC or the Directives implementing it. (96/61)

**“emission limit values”**: the mass, expressed in terms of certain specific parameters, concentration and/or level of an emission, which may not be exceeded during any one or more periods of time. Emission limit values may also be laid down for certain groups, families or categories of substances, in particular for those identified under Article 16. The emission limit values for substances shall normally apply at the point where the emissions leave the installation, dilution being disregarded when determining them. With regard to indirect releases into water, the effect of a waste-water treatment plant may be taken into account when determining the emission limit values of the installations involved, provided that an equivalent level is guaranteed for protection of the environment as a whole and provided that this does not lead to higher levels of pollution in the environment. (2000/60)

**“emission”**: the direct or indirect release of substances, vibrations, heat or noise from individual or diffuse sources in the installation into the air, water or land (96/61)

**“employer”**: any natural or legal person who has an employment relationship with the worker and has responsibility for the undertaking and/or establishment (89/391)

**“enclosed waters”**: artificially created water bodies separated from surface freshwater or coastal water, whether within or outside a building (501PC0483)

**“energy-saving measures”**: among other things action which enables companies to reduce the amount of energy used in their production cycle. The design and manufacture of machines or means of transport which can be operated with fewer natural resources are not covered by these guidelines. Action taken within plants or other production units with a view to improving safety or hygiene is important and may be eligible for certain types of aid, but it is not covered by these guidelines. (2001/C 37/03)

**“entity”**: any natural or legal person or any group of such persons which applies for, is likely to apply for or holds an authorization (94/22)

**“environment”**: water, air, land, wild species of fauna and flora, and any interrelationship between them, as well as any relationship with living organisms (91/414)

**“environmental aspect”**: an element of an organisation's activities, products or services that can interact with the environment, (Annex VI); a significant environmental aspect is an environmental aspect that has or can have a significant environmental impact (761/2001)

**“environmental assessment”**: the preparation of an environmental report, the carrying out of consultations, the taking into account of the environmental report and the results of the consultations in decision-making and the provision of information on the decision in accordance with Articles 4 to 9 (2001/42)

**“environmental audit”**: a management tool comprising a systematic, documented, periodic and objective evaluation of the performance of the organisation, management system and processes designed to protect the environment with the aim of:



(i) facilitating management control of practices which may have an impact on the environment; (ii) assessing compliance with the environmental policy, including environmental objectives and targets of the organisation (Annex II) (761/2001)

**“environmental impact”**: any change to the environment, whether adverse or beneficial, wholly or partially resulting from an organisation's activities, products or services (761/2001)

**“environmental liability”**: aims at making the causer of environmental damage (the polluter) pay for remedying the damage that he has caused. (2000/66)

**“environmental management system”**: the part of the overall management system that includes the organisational structure, planning activities, responsibilities, practices, procedures, processes and resources for developing, implementing, achieving, reviewing and maintaining the environmental policy (761/2001)

**“environmental objective”**: an overall environmental goal, arising from the environmental policy, that an organisation sets itself to achieve, and which is quantified where practicable (761/2001)

**“environmental performance”**: the results of an organisation's management of its environmental aspects (761/2001)

**“environmental policy”**: an organisation's overall aims and principles of action with respect to the environment including compliance with all relevant regulatory requirements regarding the environment and also a commitment to continual improvement of environmental performance; the environmental policy provides the framework for setting and reviewing environmental objectives and targets (761/2001)

**“environmental programme”**: a description of the measures (responsibilities and means) taken or envisaged to achieve environmental objectives and targets and the deadlines for achieving the environmental objectives and targets (761/2001)

**“environmental protection”**: any action designed to remedy or prevent damage to our physical surroundings or natural resources, or to encourage the efficient use of these resources. The Commission regards energy-saving measures and the use of renewable sources of energy as action to protect the environment. (2001/C 37/03)

**“environmental quality standard”**: the concentration of a particular pollutant or group of pollutants in water, sediment or biota which should not be exceeded in order to protect human health and the environment (2000/60)

**“environmental quality standard”**: the set of requirements which must be fulfilled at a given time by a given environment or particular part thereof, as set out in Community legislation (96/61)

**“environmental report”**: the part of the plan or programme documentation containing the information required in Article 5 and Annex I (2001/42)

**“environmental review”**: an initial comprehensive analysis of the environmental issues, impact and performance related to activities of an organisation, (Annex VII) (761/2001)

**“environmental statement”**: the information detailed in Annex III point 3.2 ((a) to (g)) (761/2001)

**“environmental target”**: a detailed performance requirement, quantified where practicable, applicable to the organisation or parts thereof, that arises from the environmental objectives and that needs to be set and met in order to achieve those objectives (761/2001)

**“environmental tax”**: one likely feature for a levy to be considered as environmental would be that the taxable base of the levy has a clear negative effect on the environment. However, a levy could also be regarded as environmental if it has a less clear, but nevertheless discernible positive environmental effect. In general, it is up to the Member State to show the estimated environmental effect of the levy. (2001/C 37/03)

**“environmental verifier”**: any person or organisation independent of the organisation being verified, who has obtained accreditation, in accordance with the conditions and procedures referred to in Article 4 (761/2001)

**“establishment”**: the whole area under the control of an operator where dangerous substances are present in one or more installations, including common or related infrastructures or activities (96/82)

**“European specification”**: a common technical specification, a European technical approval or a national standard implementing a European standard (93/38)

**“European standard”**: a standard approved by the European Committee for Standardization (CEN) or by the European Committee for Electrotechnical Standardization (Cenelec) as a ‘European Standard (EN)’ or ‘Harmonization Document (HD)’, according to the common rules of those organizations, or by the European Telecommunications Standards Institute (ETSI) according to its own rules as a ‘European Telecommunications Standard (ETS)’ (93/38)

**“European technical approval”**: a favourable technical assessment of the fitness for use of a product for a particular purpose, based on fulfillment of the essential requirements for building works, by means of the inherent characteristics of the product and the defined conditions of application and use, as provided for in Council Directive 89/106/EEC of 21 December 1988 on the approximation of laws, regulations and administrative provisions of the Member States relating to construction products. European technical approval shall be issued by an approval body designated for this purpose by the Member State. (93/38)

**“existing active substance”**: an active substance on the market before 14 May 2000 as an active substance of a biocidal product for purposes other than those referred to in Article 2(2)(c) and (d) of the Directive (1896/2000)

**“existing installation”**: an installation in operation or, in accordance with legislation existing before the date on which this Directive is brought into effect, an installation authorized or in the view of the competent authority the subject of a full request for authorization, provided that that installation is put into operation no later than one year after the date on which this Directive is brought into effect (96/61)

**“existing plant”**: a plant in operation before 1 July 1987 or built or authorized before that date (84/360)

**“existing substances”**: substances listed in EINECS (793/93)

**“explosive substances and preparations”**: solid, liquid, pasty or gelatinous substances and preparations which may also react exothermically without atmospheric oxygen thereby quickly evolving gases, and which, under defined test conditions, detonate, quickly deflagrate or upon heating explode when partially confined (92/32, 1999/45)

**“export”**: (a) the permanent or temporary export of products meeting the conditions of Article 9 (2) of the Treaty, (b) the re-export of products not meeting the conditions referred to in (a) which are placed under a customs procedure other than transit procedure (2455/92)

**“exposed workers”**: persons, either self-employed or working for an employer, subject to an exposure incurred at work from practices covered by this Directive and liable to result in doses exceeding one or other of the dose levels equal to the dose limits for members of the public (96/29)

**“exposure”**: the process of being exposed to ionizing radiation (96/29)

**“exposure assessment”**: the determination of the emissions, pathways and rates of movement of a substance and its transformation or degradation in order to estimate the concentrations/doses to which human populations or environmental compartments are or may be exposed (93/67)

**“exposure assessment”**: the determination of the emissions, pathways and rates of movement of a substance and its transformation or degradation, in order to estimate the concentrations/doses to which human populations or environmental spheres (water, soil and air) are or may be exposed (1488/94)

**“extremely flammable substances and preparations”**: liquid substances and preparations having an extremely low flash-point and a low boiling-point and gaseous substances and preparations which are flammable in contact with air at ambient temperature and pressure (92/32, 1999/45)

**“flammable substances and preparations”**: liquid substances and preparations having a low flash-point (92/32, 1999/45)

**“formulator”**: in the case of a biocidal product manufactured within the Community, the manufacturer of that biocidal product, or a person established within the Community designated by the manufacturer as his sole representative for the purposes of this Regulation (1896/2000)

**“frame-formulation”**: specifications for a group of biocidal products having the same use and user type. This group of products must contain the same active substances of the same specifications, and their compositions must present only variations from a previously authorised biocidal product which do not affect the level of risk associated with them and their efficacy. In this context, a variation is the allowance of a reduction in the percentage of the active substance and/or an alteration in percentage composition of one or more non-active substances and/or the replacement of one or more pigments, dyes, perfumes by others presenting the same or a lower risk, and which do not decrease its efficacy (98/8)

**“framework agreement”**: an agreement between one of the contracting entities defined in Article 2 and one or more suppliers, contractors or service providers the purpose of which is to establish the terms, in particular with regard to the prices and, where appropriate, the quantity envisaged, governing the contracts to be awarded during a given period (93/38)

**“good ecological potential”**: the status of a heavily modified or an artificial body of water, so classified in accordance with the relevant provisions of Annex V (2000/60)

**“good ecological status”**: the status of a body of surface water, so classified in accordance with Annex V (2000/60)

**“good groundwater chemical status”**: the chemical status of a body of groundwater, which meets all the conditions set out in table 2.3.2 of Annex V (2000/60)

**“good groundwater status”**: the status achieved by a groundwater body when both its quantitative status and its chemical status are at least “good” (2000/60)

**“good quantitative status”**: the status defined in table 2.1.2 of Annex V (2000/60)

**“good surface water chemical status”**: the chemical status required to meet the environmental objectives for surface waters established in Article 4(1)(a), that is the chemical status achieved by a body of surface water in which concentrations of pollutants do not exceed the environmental quality standards established in Annex IX and under Article 16(7), and under other relevant Community legislation setting environmental quality standards at Community level (2000/60)

**“good surface water status”**: the status achieved by a surface water body when both its ecological status and its chemical status are at least “good” (2000/60)

**“groundwater status”**: the general expression of the status of a body of groundwater, determined by the poorer of its quantitative status and its chemical status (2000/60)

**“groundwater”**: all water which is below the surface of the ground in the saturation zone and in direct contact with the ground or subsoil (80/68, 2000/60, 501PC0483)

**“habitat of a species”**: an environment defined by specific abiotic and biotic factors, in which the species lives at any stage of its biological cycle (92/43)

**“harmful organism”**: any organism which has an unwanted presence or a detrimental effect for humans, their activities or the products they use or produce, or for animals or for the environment (98/8)

**“harmful organisms”**: pests of plants or plant products belonging to the animal or plant kingdom, and also viruses, bacteria and mycoplasmas and other pathogens (91/414)

**“harmful substances and preparations”**: substances and preparations which may cause death or acute or chronic damage to health when inhaled, swallowed or absorbed via the skin (92/32, 1999/45)

**“hazard”**: the intrinsic property of a dangerous substance or physical situation, with a potential for creating damage to human health and/or the environment (96/82)

**“hazard identification”**: the identification of the adverse effects which a substance has an inherent capacity to cause (93/67, 1488/94)

**“hazardous substances”**: substances or groups of substances that are toxic, persistent and liable to bio-accumulate, and other substances or groups of substances which give rise to an equivalent level of concern (2000/60)

**“hazardous waste”**: any waste which is covered by Article 1(4) of Council Directive 91/689/EEC of 12 December 1991 on hazardous waste (99/31)

**“hazardous waste”**: wastes featuring on a list to be drawn up in accordance with the procedure laid down in Article 18 of Directive 75/442/EEC on the basis of Annexes I and II to this Directive (91/689)

**“hazardous wastes”**: considered to display one or more of the properties listed in Annex III to Directive 91/689/EEC and, as regards H3 to H8, H10(6) and H11 of the said Annex, one or more of the following characteristics: flash point  $\leq 55$  °C; one or more substances classified(7) as very toxic at a total concentration  $\geq 0,1$  %; one or more substances classified as toxic at a total concentration  $\geq 3$  %; one or more substances classified as harmful at a total concentration  $\geq 25$  %; one or more corrosive substances classified as R35 at a total concentration  $\geq 1$  %; one or more corrosive substances classified as R34 at a total concentration  $\geq 5$  %; one or more irritant substances classified as R41 at a total concentration  $\geq 10$  %; one or more irritant substances classified as R36, R37, R38 at a total concentration  $\geq 20$  %; one substance known to be carcinogenic of category 1 or 2 at a concentration  $\geq 0,1$  %; one substance known to be carcinogenic of category 3 at a concentration  $\geq 1$  %; one substance toxic for reproduction of category 1 or 2 classified as R60, R61 at a concentration  $\geq 0,5$  %; one substance toxic for reproduction of category 3 classified as R62, R63 at a concentration  $\geq 5$  %; one mutagenic substance of category 1 or 2 classified as R46 at a concentration  $\geq 0,1$  %; one mutagenic substance of category 3 classified as R40 at a concentration  $\geq 1$  %.” (2000/532)

**“health detriment”**: an estimate of the risk of reduction in length and quality of life occurring in a population following exposure to ionizing radiations. This includes loss arising from somatic effects, cancer and severe genetic disorder. (96/29)

**“heavily modified water body”**: a body of surface water which as a result of physical alterations by human activity is substantially changed in character, as designated by the Member State in accordance with the provisions of Annex II (2000/60)

**“heavy metal”**: any compound of antimony, arsenic, cadmium, chromium(VI), copper, lead, mercury, nickel, selenium, tellurium, thallium and tin, as well as these materials in metallic form, as far as these are classified as dangerous substances (2000/532)

**“highly flammable substances and preparations”**: substances and preparations which may become hot and finally catch fire in contact with air at ambient temperature without any application of energy; or solid substances and preparations which may readily catch fire after brief contact with a source of ignition and which continue to burn or to be consumed after removal of the source of ignition; or liquid substances and preparations having a very low flash-point; or substances and preparations which, in contact with water or damp air, evolve highly flammable gases in dangerous quantities (92/32)

**“highly flammable substances and preparations”**: substances and preparations which may become hot and finally catch fire in contact with air at ambient temperature without any application of energy, or solid substances and preparations which may readily catch fire after brief contact with a source of ignition and which continue to burn or to be consumed after removal of the source of ignition, or liquid substances and preparations having a very low flash-point, or substances and preparations which, in contact with water or damp air, evolve extremely flammable gases in dangerous quantities (1999/45)

**“holder”**: the producer of the waste or the natural or legal person who is in possession of it (99/31, 91/156)

**“identification of an active substance”**: the submission to the Commission of the information referred to in Annex I. The person or the association of producers/formulators submitting the identification is an “identifier” (1896/2000)

**“import”**: the physical introduction into the customs territory of the Community of products which are placed under a customs procedure other than transit procedure (2455/92)

**“importing”**: bringing into the customs territory of the Community (793/93)

**“indirect discharge”**: the introduction into groundwater of substances in lists I or II after percolation through the ground or subsoil (80/68)

**“inert waste”**: waste that does not undergo any significant physical, chemical or biological transformations. Inert waste will not dissolve, burn or otherwise physically or chemically react, biodegrade or adversely affect other matter with which it comes into contact in a way likely to give rise to environmental pollution or harm human health. The total leachability and pollutant content of the waste and the ecotoxicity of the leachate must be insignificant, and in particular not endanger the quality of surface water and/or groundwater. (99/31)

**“information relating to the environment”**: any available information in written, visual, aural or data-base form on the state of water, air, soil, fauna, flora, land and natural sites, and on activities (including those which give rise to nuisances such as noise) or measures adversely affecting, or likely so to affect these, and on activities or measures designed to protect these, including administrative measures and environmental management programmes (90/313)

**“inland water”**: all standing or flowing water on the surface of the land, and all groundwater on the landward side of the baseline from which the breadth of territorial waters is measured (2000/60)

**“installation”**: a stationary technical unit where one or more activities listed in Annex I are carried out, and any other directly associated activities which have a technical connection with the activities carried out on that site and which could have an effect on emissions and pollution (96/61)

**“installation”**: a technical unit within an establishment in which dangerous substances are produced, used, handled or stored. It shall include all the equipment, structures, pipework, machinery, tools, private railway sidings, docks, unloading quays serving the installation, jetties, warehouses or similar structures, floating or otherwise, necessary for the operation of the installation (96/82)

**“intake”**: the activities of radionuclides entering the body from the external environment (96/29)

**“integrated control”**: the rational application of a combination of biological, biotechnological, chemical, cultural or plant-breeding measures whereby the use of chemical plant protection products is limited to the strict minimum necessary to maintain the pest population at levels below those causing economically unacceptable damage or loss (91/414)

**“interested party”**: an individual or group, including authorities, concerned with or affected by the environmental performance of an organisation (761/2001)

**“internalisation of costs”**: the principle that all costs associated with the protection of the environment should be included in firms' production costs (2001/C 37/03)

**“intervention level”**: a value of avertable equivalent dose, avertable effective dose or a derived value, at which intervention measures should be considered. The avertable dose or derived value is solely that associated with the exposure pathway to which the intervention measure is to be applied. (96/29)

**“intervention”**: a human activity that prevents or decreases the exposure of individuals to radiation from sources which are not part of a practice or which are out of control, by acting on sources, transmission pathways and individuals themselves (96/29)

**“ionizing radiation”**: the transfer of energy in the form of particles or electromagnetic waves of a wavelength of 100 nanometer or less or a frequency of  $3 \times 10^{15}$  Hertz or more capable of producing ions directly or indirectly (96/29)

**“irritant substances and preparations”**: non-corrosive substances and preparations which, through immediate, prolonged or repeated contact with the skin or mucous membrane, may cause inflammation (92/32, 1999/45)

**“isolated settlement”**: a settlement with no more than 500 inhabitants per municipality or settlement and no more than five inhabitants per square kilometre and where the distance to the nearest urban agglomeration with at least 250 inhabitants per square kilometre is not less than 50 km, or with difficult access by road to those nearest agglomerations, due to harsh meteorological conditions during a significant part of the year (99/31)

**“labelling”**: the provision on a label of information related to the potential hazard to health, safety or the environment from use of the chemical. It does not refer to labelling requirements for the transport of dangerous goods (2455/92)

**“lake”**: a body of standing inland surface water (2000/60)

**“landfill gas”**: all the gases generated from the landfilled waste (99/31)

**“landfill”**: a waste disposal site for the deposit of the waste onto or into land (i.e. underground), including internal waste disposal sites (i.e. landfill where a producer of waste is carrying out its own waste disposal at the place of production), and a permanent site (i.e. more than one year) which is used for temporary storage of waste, but excluding facilities where waste is unloaded in order to permit its preparation for further transport for recovery, treatment or disposal elsewhere, and storage of waste prior to recovery or treatment for a period less than three years as a general rule, or storage of waste prior to disposal for a period less than one year **(99/31)**

**“leachate”**: any liquid percolating through the deposited waste and emitted from or contained within a landfill **(99/31)**

**“letter of access”**: a document, signed by the owner or owners of relevant data protected under the provisions of this Directive, which states that these data may be used by the competent authority for the purpose of granting an authorisation or a registration of a biocidal product under this Directive **(98/8)**

**“liquid waste”**: any waste in liquid form including waste waters but excluding sludge **(99/31)**

**“local”**: all relevant levels of territorial unit below the level of the State **(501PC0483)**

**“low-risk biocidal product”**: a biocidal product which contains as active substance(s) only one or more of those listed in Annex I A and which does not contain any substance(s) of concern. Under the conditions of use, the biocidal product shall pose only a low risk to humans, animals and the environment **(98/8)**

**“major accident”**: an occurrence such as a major emission, fire, or explosion resulting from uncontrolled developments in the course of the operation of any establishment covered by this Directive, and leading to serious danger to human health and/or the environment, immediate or delayed, inside or outside the establishment, and involving one or more dangerous substances **(96/82)**

**“management”**: the collection, transport, recovery and disposal of waste, including the supervision of such operations and after-care of disposal sites **(91/156)**

**“members of the public”**: individuals in the population, excluding exposed workers, apprentices and students during their working hours and individuals during the exposures referred to in Article 6(4)(a), (b) and (c) **(96/29)**

**“mineral-extracting industries”**: the activities of prospecting and of extraction in the strict sense of the word as well as of preparation of extracted materials for sale (crushing, screening, washing), but not the processing of such extracted materials **(74/326)**

**“mineral-extracting industries through drilling”**: all the industries practising: - extraction, in the strict sense of the word, of minerals through drilling by boreholes, and/or - prospection with a view to such extraction, and/or - preparation of extracted materials for sale, excluding the activities of processing the materials extracted **(92/91)**

**“municipal waste”**: waste from households, as well as other waste which, because of its nature or composition, is similar to waste from household **(99/31)**

**“mutagenic substances and preparations”**: substances and preparations which, if they are inhaled or ingested or if they penetrate the skin, may induce heritable genetic defects or increase their incidence **(92/32, 1999/45)**

**“natural habitat types of Community interest”**: those which, within the territory referred to in Article 2: (i) are in danger of disappearance in their natural range; or (ii) have a small natural range following their regression or by reason of their intrinsically restricted area; or (iii) present outstanding examples of typical characteristics of one or more of the five following biogeographical regions: Alpine, Atlantic, Continental, Macaronesian and Mediterranean. Such habitat types are listed or may be listed in Annex I **(92/43)**

**“natural habitats”**: terrestrial or aquatic areas distinguished by geographic, abiotic and biotic features, whether entirely natural or semi-natural **(92/43)**

**“natural radiation sources”**: sources of ionizing radiation from natural terrestrial or cosmic origin **(96/29)**

**“network termination point”**: all physical connections and their technical access specification which form part of the public telecommunications network and are necessary for access to, and efficient communication through, that public network **(93/38)**

**“notification”**: the documents, with the requisite information, presented to the competent authority of a Member State; for substances manufactured within the Community, by the manufacturer who places a substance either on its own or in a preparation on the market; for substances manufactured outside the Community, by any person established in the Community who is responsible for placing the substance either on its own or in a preparation on the Community market, or alternatively by the person established within the Community who is, for the purposes of submitting a notification for a given substance placed on the Community market, either on its own or in a preparation, designated by the manufacturer as his sole representative. The person submitting the notification, as described above, shall be referred to as “the notifier”. **(92/32)**

**“notification of an active substance”**: the submission to the Commission of the information referred to in Annex II. The submitter of the notification is a “notifier”. The notifier may be: - the producer or the formulator who has made a notification in



accordance with Article 4 or Article 8, - the association of producer(s) and/or formulator(s) established within the Community and designated by the producers and/or formulators for the purpose of complying with this Regulation, which has made a joint notification in accordance with Article 4 or Article 8 **(1896/2000)**

**"notifier"**: any natural person or corporate body to whom or to which the duty to notify is assigned, that is to say the person referred to hereinafter who proposes to ship waste or have waste shipped: the person whose activities produced the waste (original producer); or where this is not possible, a collector licensed to this effect by a Member State or a registered or licensed dealer or broker who arranges for the disposal or the recovery of waste; or where these persons are unknown or are not licensed, the person having possession or legal control of the waste (holder); or in the case of import into or transit through the Community of waste, the person designated by the laws of the State of dispatch or, when this designation has not taken place, the person having possession or legal control of the waste (holder) **(259/93)**

**"open, restricted and negotiated procedures"**: the award procedures applied by contracting entities whereby: (a) in the case of open procedures, all interested suppliers, contractors or service providers may submit tenders; (b) in the case of the restricted procedures, only candidates invited by the contracting entity may submit tenders; (c) in the case of negotiated procedures, the contracting entity consults suppliers, contractors or service providers of its choice and negotiates the terms of the contract with one or more of them **(93/38)**

**"operator"**: any individual or corporate body who operates or holds an establishment or installation or, if provided for by national legislation, has been given decisive economic power in the technical operation thereof **(96/82)**

**"operator"**: any natural or legal person who operates or controls the installation or, where this is provided for in national legislation, to whom decisive economic power over the technical functioning of the installation has been delegated **(96/61)**

**"operator"**: the natural or legal person responsible for a landfill in accordance with the internal legislation of the Member State where the landfill is located; this person may change from the preparation to the after-care phase **(99/31)**

**"organisation"**: a company, corporation, firm, enterprise, authority or institution, or part or combination thereof, whether incorporated or not, public or private, that has its own functions and administrations. The entity to be registered as an organisation under EMAS shall be agreed with the environmental verifier and, where appropriate, the competent bodies, taking account of Commission guidance, established in accordance with the procedure laid down in Article 14(2), but shall not exceed the boundaries of one Member State. The smallest entity to be considered shall be a site. Under exceptional circumstances identified by the Commission in accordance with the procedure laid down in Article 14(2), the entity to be considered for registration under EMAS may be smaller than a site, such as a sub-division with its own functions. **(761/2001)**

**"oxidizing substances and preparations"**: substances and preparations which give rise to a highly exothermic reaction in contact with other substances, particularly flammable substances **(92/32, 1999/45)**

**"party"**: unless the text otherwise indicates, a State or a regional economic integration organization referred to in article 21 which has consented to be bound by this Protocol and for which this Protocol is in force **(501PC0483)**

**"permit"**: that part or the whole of a written decision (or several such decisions); granting authorization to operate all or part of an installation, subject to certain conditions which guarantee that the installation complies with the requirements of this Directive. A permit may cover one or more installations or parts of installations on the same site operated by the same operator. **(96/61)**

**"placing on the market"**: the making available to third parties. Importation into the Community customs territory shall be deemed to be placing on the market for the purposes of this Directive **(92/32, 1999/45)**

**"placing on the market"**: any supply, whether in return for payment or free of charge, or subsequent storage other than storage followed by consignment from the customs territory of the Community or disposal. Importation of a biocidal product into the customs territory of the Community shall be deemed to constitute placing on the market for the purposes of this Directive **(98/8)**

**"placing on the market"**: any supply, whether in return for payment or free of charge, other than for storage followed by consignment from the territory of the Community or disposal. Importation of a plant protection product into the territory of the Community shall be deemed to constitute placing on the market for the purposes of this Directive **(91/414)**

**"plans and programmes"**: plans and programmes, including those co-financed by the European Community, as well as any modifications to them: which are subject to preparation and/or adoption by an authority at national, regional or local level or which are prepared by an authority for adoption, through a legislative procedure by Parliament or Government; and which are required by legislative, regulatory or administrative provisions **(2001/42)**

**"plant"**: any establishment or other stationary plant used for industrial or public utility purposes which is likely to cause air pollution **(84/360)**

**"plant products"**: products in the unprocessed state or having undergone only simple preparation such as milling, drying or pressing, derived from plants, but excluding plants themselves as defined in point 6 **(91/414)**



**“plant protection products”**: active substances and preparations containing one or more active substances, put up in the form in which they are supplied to the user, intended to: 1.1. protect plants or plant products against all harmful organisms or prevent the action of such organisms, in so far as such substances or preparations are not otherwise defined below; 1.2. influence the life processes of plants, other than as a nutrient, (e.g. growth regulators); 1.3. preserve plant products, in so far as such substances or products are not subject to special Council of Commission provisions on preservatives; 1.4. destroy undesired plants; or 1.5. destroy parts of plants, check or prevent undesired growth of plants (91/414)

**“plants”**: live plants and live parts of plants, including fresh fruit and seeds (91/414)

**“pollutant”**: any substance liable to cause pollution, in particular those listed in Annex VIII (2000/60)

**“polluter pays principle”**: this is the principle that the costs of measures to deal with pollution should be borne by the polluter who causes the pollution (2001/C 37/03)

**“polluter”**: a polluter is someone who directly or indirectly damages the environment or who creates conditions leading to such damage (2001/C 37/03)

**“pollution”**: the direct or indirect introduction as a result of human activity, of substances, vibrations, heat or noise into the air, water or land which may be harmful to human health or the quality of the environment, result in damage to material property, or impair or interfere with amenities and other legitimate uses of the environment (96/61)

**“pollution”**: the direct or indirect introduction, as a result of human activity, of substances or heat into the air, water or land which may be harmful to human health or the quality of aquatic ecosystems or terrestrial ecosystems directly depending on aquatic ecosystems, which result in damage to material property, or which impair or interfere with amenities and other legitimate uses of the environment (2000/60)

**“pollution”**: the discharge by man, directly or indirectly, of substances or energy into groundwater, the results of which are such as to endanger human health or water supplies, harm living resources and the aquatic ecosystem or interfere with other legitimate uses of water (80/68)

**“polymer”**: a substance consisting of molecules characterized by the sequence of one or more types of monomer units and comprising a simple weight majority of molecules containing at least three monomer units which are covalently bound to at least one other monomer unit or other reactant and consists of less than a simple weight majority of molecules of the same molecular weight. Such molecules must be distributed over a range of molecular weights wherein differences in the molecular weight are primarily attributable to differences in the number of monomer units. In the context of this definition a “monomer unit” means the reacted form of a monomer in a polymer (92/32, 99/45, 1999/45)

**“potential exposure”**: exposure, that is not expected to be delivered with certainty, with a probability of occurrence that can be estimated in advance (96/29)

**“practice”**: a human activity that can increase the exposure of individuals to radiation from an artificial source, or from a natural radiation source where natural radionuclides are processed for their radioactive, fissile or fertile properties, except in the case of an emergency exposure (96/29)

**“preparations”**: mixtures or solutions composed of two or more substances (67/548, 92/32, 1999/45, 793/93)

**“preparations”**: mixtures or solutions composed of two or more substances of which at least one is an active substance, intended for use as plant protection products (91/414)

**“prevention of pollution”**: use of processes, practices, materials or products that avoid, reduce or control pollution, which may include recycling, treatment, process changes, control mechanisms, efficient use of resources and material substitution (761/2001)

**“prevention”**: all the steps or measures taken or planned at all stages of work in the undertaking to prevent or reduce occupational risks (89/391)

**“prices to reflect costs”**: this principle states that the prices of goods or services should incorporate the external costs associated with the negative impact on the environment of their production and marketing (2001/C 37/03)

**“prior informed consent (PIC)”**: the principle that international shipment of a chemical which is banned or severely restricted in order to protect human health or the environment should not proceed without the agreement, where such agreement exists, or contrary to the decision of the designated national authority of the importing country (2455/92)

**“priority natural habitat types”**: natural habitat types in danger of disappearance, which are present on the territory referred to in Article 2 and for the conservation of which the Community has particular responsibility in view of the proportion of their natural range which falls within the territory referred to in Article 2; these priority natural habitat types are indicated by an asterisk (\*) in Annex I (92/43)

**“priority species”**: species referred to in (g) (i) for the conservation of which the Community has particular responsibility in view of the proportion of their natural range which falls within the territory referred to in Article 2; these priority species are indicated by an asterisk (\*) in Annex II (92/43)

**“priority substances”**: substances identified in accordance with Article 16(2) and listed in Annex X. Among these substances there are “priority hazardous substances” which means substances identified in accordance with Article 16(3) and (6) for which measures have to be taken in accordance with Article 16(1) and (8) (2000/60)

**“process-orientated research and development”**: the further development of a substance in the course of which pilot plant or production trials are used to test the fields of application of the substance (92/32, 1999/45)

**“producer”**: anyone whose activities produce waste (“original producer”) and/or anyone who carries out pre-processing, mixing or other operations resulting in a change in the nature or composition of this waste (91/156)

**“producer”**: in the case of an active substance produced within the Community and placed on the market, the manufacturer of that active substance or a person established within the Community designated by the manufacturer as his sole representative for the purposes of this Regulation; - in the case of an active substance produced outside the Community, the person established within the Community and designated by the manufacturer of that active substance as his sole representative for the purposes of this Regulation or, where no such person has been so designated, the importer into the Community of that active substance; - in the case of a biocidal product produced outside the Community, the person established within the Community and designated by the manufacturer of that biocidal product as his sole representative for the purposes of this Regulation or, where no such person has been so designated, the importer into the Community of that biocidal product (1896/2000)

**“producing”**: the production of substances which are isolated in a solid, liquid or gaseous form (793/93)

**“project”**: the execution of construction works or of other installations or schemes, other interventions in the natural surroundings and landscape including those involving the extraction of mineral resources (85/337)

**“public authorities”**: any public administration at national, regional or local level with responsibilities, and possessing information, relating to the environment with the exception of bodies acting in a judicial or legislative capacity (90/313)

**“public authorities”**: the State, regional or local authorities, bodies governed by public law, or associations formed by one or more of such authorities or bodies governed by public law. A body is considered to be governed by public law where it: is established for the specific purpose of meeting needs in the general interest; not being of an industrial or commercial nature; has legal personality; and is financed for the most part by the State, or regional or local authorities, or other bodies governed by public law, or is subject to management supervision by those bodies, or has an administrative, managerial or supervisory board more than half of whose members are appointed by the State, regional or local authorities, or other bodies governed by public law. (93/38)

**“public authority”**: (a) Government at national, regional and other levels; (b) natural or legal persons performing public administrative functions under national law, including specific duties, activities or services in relation to the environment, public health, sanitation, water management or water supply; (c) any other natural or legal persons having public responsibilities or functions, or providing public services, under the control of a body or person falling within subparagraphs (a) or (b) above; (d) the institutions of any regional economic integration organization referred to in article 21 which is a Party. This definition does not include bodies or institutions acting in a judicial or legislative capacity. (501PC0483)

**“public entity”**: a public undertaking as defined in Article 1 (2) of Directive 90/531/EEC (94/22)

**“public telecommunications network”**: the public telecommunications infrastructure which enables signals to be conveyed between defined network termination points by wire, by microwave, by optical means or by other electromagnetic means (93/38)

**“public telecommunications services”**: telecommunications services the provision of which the Member States have specifically assigned notably to one or more telecommunications entities (93/38)

**“public undertaking”**: any undertaking over which the public authorities may exercise directly or indirectly a dominant influence by virtue of their ownership of it, their financial participation therein, or the rules which govern it. A dominant influence on the part of the public authorities shall be presumed when these authorities, directly or indirectly, in relation to an undertaking: hold the majority of the undertaking's subscribed capital; or control the majority of the votes attaching to shares issued by the undertaking; or can appoint more than half of the members of the undertaking's administrative, managerial or supervisory body. (93/38)

**“qualified experts”**: persons having the knowledge and training needed to carry out physical, technical or radiochemical tests enabling doses to be assessed, and to give advice in order to ensure effective protection of individuals and the correct operation of protective equipment, whose capacity to act as a qualified expert is recognized by the competent authorities. A qualified expert may be assigned the technical responsibility for the tasks of radiation protection of workers and members of the public. (96/29)

**“quantitative status”**: an expression of the degree to which a body of groundwater is affected by direct and indirect abstractions (2000/60)

**“radioactive contamination”**: the contamination of any material, surface or environment or of an individual by radioactive substances. In the specific case of the human body, this radioactive contamination includes both external skin contamination and internal contamination, irrespective of route of intake. (96/29)

**“radioactive substance”**: any substance that contains one or more radionuclides the activity or concentration of which cannot be disregarded as far as radiation protection is concerned **(96/29)**

**“radiological emergency”**: a situation that requires urgent action in order to protect workers, members of the public or the population either partially or as a whole **(96/29)**

**“recommendations for risk reduction”**: the recommendation of measures which would enable the risks for man and/or the environment in connection with the marketing of the substance to be lessened. They may include: (i) modifications to the classification, packaging or labelling of the substance proposed by the notifier in the notification submitted in accordance with Article 7 (1), 8 (1) or 8 (2) of Directive 67/548/EEC; (ii) modifications to the safety data sheet proposed by the notifier in the notification submitted in accordance with Article 7 (1), 8 (1) or 8 (2) of Directive 67/548/EEC; (iii) modifications to the recommended methods and precautions or emergency measures, as set out in sections 2.3, 2.4 and 2.5 of Annex VIIA, VIIB or VIIC, proposed by the notifier in the technical dossier of the notification submitted in accordance with Article 7 (1), 8 (1) or 8 (2) of Directive 67/548/EEC; (iv) advice to the relevant control authorities that they should consider appropriate measures for the protection of man and/or the environment from the risks identified **(93/67)**

**“recovery”**: any of the operations provided for in Annex II, B **(91/156)**

**“reference group of the population”**: a group comprising individuals whose exposure to a source is reasonably uniform and representative of that of the individuals in the population who are the more highly exposed to that source **(96/29)**

**“reference number”**: the number assigned by the Commission to each chemical subject to notification when it is exported for the first time to a third country. This number remains unchanged for every subsequent export of the same chemical from the Community to the same third country **(2455/92)**

**“registration”**: an administrative act by which the competent authority of a Member State, following an application submitted by an applicant, after verification that the dossier meets the relevant requirements of this Directive, allows the placing on the market of a low-risk biocidal product in its territory or in a part thereof **(98/8)**

**“renewable energy sources”**: renewable non-fossil energy sources, viz. wind energy, solar energy, geothermal energy, wave energy, tidal energy, hydroelectric installations with a capacity below 10 MW and biomass, where biomass is defined as products from agriculture and forestry, vegetable waste from agriculture, forestry and the food production industry, and untreated wood waste and cork waste **(2001/C 37/03)**

**“reporting”**: requirement of submitting a document to the competent authority to notify the intention to carry out a practice or any other action within the scope of this Directive **(96/29)**

**“residues of plant protection products”**: one or more substances present in or on plants or products of plant origin, edible animal products or elsewhere in the environment and resulting from the use of a plant protection product, including their metabolites and products resulting from their degradation or reaction **(91/414)**

**“residues”**: one or more of the substances present in a biocidal product which remains as a result of its use including the metabolites of such substances and products resulting from their degradation or reaction **(98/8)**

**“risk”**: the likelihood of a specific effect occurring within a specified period or in specified circumstances **(96/82)**

**“risk characterization”**: the estimation of the incidence and severity of the adverse effects likely to occur in a human population or environmental compartment due to actual or predicted exposure to a substance, and may include ‘risk estimation’, i.e., the quantification of that likelihood **(93/67)**

**“risk characterization”**: the estimation of the incidence and severity of the adverse effects likely to occur in a human population or environmental sphere due to actual or predicted exposure to a substance, and may include ‘risk estimation’, i.e. the quantification of that likelihood **(1488/94)**

**“river basin district”**: the area of land and sea, made up of one or more neighbouring river basins together with their associated groundwaters and coastal waters, which is identified under Article 3(1) as the main unit for management of river basins **(2000/60)**

**“river basin”**: the area of land from which all surface run-off flows through a sequence of streams, rivers and, possibly, lakes into the sea at a single river mouth, estuary or delta **(2000/60)**

**“river”**: a body of inland water flowing for the most part on the surface of the land but which may flow underground for part of its course **(2000/60)**

**“sanitation”**: the collection, transport, treatment and disposal or reuse of human excreta or domestic waste water, whether through collective systems or by installations serving a single household or undertaking **(501PC0483)**

**“scientific research and development”**: scientific experimentation, analysis or chemical research carried out under controlled conditions; it includes the determination of intrinsic properties, performance and efficacy as well as scientific investigation related to product development **(92/32, 99/45, 1999/45, 2455/92)**

**“sealed source”**: a source whose structure is such as to prevent, under normal conditions of use, any dispersion of the radioactive substances into the environment **(96/29)**

**“severely restricted chemical”**: a chemical for which, for health or environmental reasons, virtually all uses have been prohibited by final governmental regulatory action but for which certain specific uses remain authorized (2455/92)

**“site of Community importance”**: a site which, in the biogeographical region or regions to which it belongs, contributes significantly to the maintenance or restoration at a favourable conservation status of a natural habitat type in Annex I or of a species in Annex II and may also contribute significantly to the coherence of Natura 2000 referred to in Article 3, and/or contributes significantly to the maintenance of biological diversity within the biogeographic region or regions concerned. For animal species ranging over wide areas, sites of Community importance shall correspond to the places within the natural range of such species which present the physical or biological factors essential to their life and reproduction. (92/43)

**“sensitising substances and preparations”**: substances and preparations which, if they are inhaled or if they penetrate the skin, are capable of eliciting a reaction of hypersensitisation such that on further exposure to the substance or preparation, characteristic adverse effects are produced (1999/45)

**“sensitizing substances and preparations”**: substances and preparations which, if they are inhaled or if they penetrate the skin, are capable of eliciting a reaction of hypersensitization such that on further exposure to the substance or preparation, characteristic adverse effects are produced (92/32)

**“simple excavation”**: work whose purpose is not the extraction of materials for use (74/326)

**“site”**: a geographically defined area whose extent is clearly delineated (92/43)

**“site”**: all land at a distinct geographic location under the management control of an organisation covering activities, products and services. This includes all infrastructure, equipment and materials. (761/2001)

**“source”**: an apparatus, a radioactive substance or an installation capable of emitting ionizing radiation or radioactive substances (96/29)

**“special area of conservation”**: a site of Community importance designated by the Member States through a statutory, administrative and/or contractual act where the necessary conservation measures are applied for the maintenance or restoration, at a favourable conservation status, of the natural habitats and/or the populations of the species for which the site is designated (92/43)

**“species of Community interest”**: species which, within the territory referred to in Article 2, are: (i) endangered, except those species whose natural range is marginal in that territory and which are not endangered or vulnerable in the western palearctic region; or (ii) vulnerable, i.e. believed likely to move into the endangered category in the near future if the causal factors continue operating; or (iii) rare, i.e. with small populations that are not at present endangered or vulnerable, but are at risk. The species are located within restricted geographical areas or are thinly scattered over a more extensive range; or (iv) endemic and requiring particular attention by reason of the specific nature of their habitat and/or the potential impact of their exploitation on their habitat and/or the potential impact of their exploitation on their conservation status. Such species are listed or may be listed in Annex II and/or Annex IV or V. (92/43)

**“specimen”**: any animal or plant, whether alive or dead, of the species listed in Annex IV and Annex V, any part or derivative thereof, as well as any other goods which appear, from an accompanying document, the packaging or a mark or label, or from any other circumstances, to be parts or derivatives of animals or plants of those species (92/43)

**“standard”**: a technical specification approved by a recognized standardizing body for repeated or continuous application, compliance with which is in principle not compulsory (93/38)

**“State of destination”**: any State to which a shipment of waste is planned or made for disposal or recovery, or for loading on board before disposal at sea without prejudice to existing conventions on disposal at sea (259/93)

**“State of dispatch”**: any State from which a shipment of waste is planned or made (259/93)

**“State of transit”**: any State, other than the State of dispatch or destination, through which a shipment of waste is planned or made (259/93)

**“storage”**: the presence of a quantity of dangerous substances for the purposes of warehousing, depositing in safe custody or keeping in stock (96/82)

**“sub-basin”**: the area of land from which all surface run-off flows through a series of streams, rivers and, possibly, lakes to a particular point in a water course (normally a lake or a river confluence) (2000/60)

**“substance”**: any chemical element and its compounds, with the exception of radioactive substances within the meaning of Directive 80/836/Euratom and genetically modified organisms within the meaning of Directive 90/219/EEC and Directive 90/220/EEC (96/61)

**“substance of concern”**: any substance, other than the active substance, which has an inherent capacity to cause an adverse effect on humans, animals or the environment and is present or is produced in a biocidal product in sufficient concentration to create such an effect. Such a substance, unless there are other grounds for concern, would be normally a substance classified as dangerous according to Council Directive 67/548/EEC of 27 June 1967 on the approximation of laws, regula-



tions and administrative provisions relating to the classification, packaging and labelling of dangerous substances (39), and present in the biocidal product at a concentration leading the product to be regarded as dangerous within the meaning of Article 3 of Council Directive 88/379/EEC of 7 June 1988 on the approximation of the laws, regulations and administrative provisions of the Member States relating to the classification, packaging and labelling of dangerous preparations (40) (98/8)

**“substances”**: chemical elements and their compounds, as they occur naturally or by manufacture, including any impurity inevitable resulting from the manufacturing process (91/414)

**“substances”**: chemical elements and their compounds as they occur in the natural state or as produced by industry (67/548)

**“substances”**: chemical elements and their compounds in the natural state or obtained by any production process, including any additive necessary to preserve the stability of the products and any impurity deriving from the process used, but excluding any solvent which may be separated without affecting the stability of the substance or changing its composition (92/32, 1999/45, 793/93)

**“substances and preparations which are dangerous for the environment”**: substances and preparations which, were they to enter the environment, would present or may present an immediate or delayed danger for one or more components of the environment (92/32, 1999/45)

**“substances and preparations which are toxic for reproduction”**: substances and preparations which, if they are inhaled or ingested or if they penetrate the skin, may produce, or increase the incidence of, non-heritable adverse effects in the progeny and/or an impairment of male or female reproductive functions or capacity (92/32, 1999/45)

**“substantial change”**: a change in operation which, in the opinion of the competent authority, may have significant negative effects on human beings or the environment (96/61)

**“supervised area”**: an area subject to appropriate supervision for the purpose of protection against ionizing radiation (96/29)

**“supply, works and service contracts”**: contracts for pecuniary interest concluded in writing between one of the contracting entities referred to in Article 2, and a supplier, a contractor or a service provider, having as their object: (a) in the case of supply contracts, the purchase, lease, rental or hire-purchase, with or without options to buy, of products; (b) in the case of works contracts either the execution, or both the execution and design or the realization, by whatever means, of building or civil engineering activities referred to in Annex XI. These contracts may, in addition, cover supplies and services necessary for their execution; (c) in the case of service contracts, any object other than those referred to in (a) and (b) and to the exclusion of: (i) contracts for the acquisition or rental, by whatever financial means, of land, existing buildings, or other immovable property or concerning rights thereon; nevertheless, financial service contracts concluded at the same time as, before or after the contract of acquisition or rental, in whatever form, shall be subject to this Directive; (ii) contracts for voice telephony, telex, radiotelephony, paging and satellite services; (iii) contracts for arbitration and conciliation services; (iv) contracts for the issue, sale, purchase or transfer of securities or other financial instruments; (v) employment contracts; (vi) research and development service contracts other than those where the benefits accrue exclusively to the contracting entity for its use in the conduct of its own affairs, on condition that the service provided is wholly remunerated by the contracting entity. Contracts which include the provision of services and supplies shall be regarded as supply contracts if the total value of supplies is greater than the value of the services covered by the contract. (93/38)

**“surface and underground mineral-extracting industries”**: all industries practising: - surface or underground extraction, in the strict sense of the word, of minerals, and/or - prospecting with a view to such extraction, and/or - preparation of extracted materials for sale, excluding the activities of processing the materials extracted, excluding the mineral-extracting industries through drilling defined in Article 2 (a) of Directive 92/91/EEC (92/104)

**“surface water”**: inland waters, except groundwater; transitional waters and coastal waters, except in respect of chemical status for which it shall also include territorial waters (2000/60)

**“surface water status”**: the general expression of the status of a body of surface water, determined by the poorer of its ecological status and its chemical status (2000/60)

**“sustainable development”** means the improvement of the standard of living and welfare of the relevant populations within the limits of the capacity of the ecosystems by maintaining natural assets and their biological diversity for the benefit of present and future generations. (2493/2000)

**“technical specifications”**: the technical requirements contained in particular in the tender documents, defining the characteristics of a set of works, material, product, supply or service, and enabling a piece of work, a material, a product, a supply or a service to be objectively described in a manner such that it fulfils the use for which it is intended by the contracting entity. These technical specifications may include quality, performance, safety or dimensions, as well as requirements applicable to the material, product, supply or service as regards quality assurance, terminology, symbols, testing and test methods, packaging, marking or labelling. In the case of works contracts, they may also include rules for the design and

costing, the test, inspection and acceptance conditions for works and techniques or methods of construction and all other technical conditions which the contracting entity is in a position to prescribe under general or specific regulations, in relation to the finished works and to the materials or parts which they involve. (93/38)

**“techniques”**: include both the technology used and the way in which the installation is designed, built, maintained, operated and decommissioned (96/61)

**“telecommunications services”**: services the provision of which consists wholly or partly in the transmission and routing of signals on the public telecommunications network by means of telecommunications processes, with the exception of radio-broadcasting and television (93/38)

**“tenderer”**: a supplier, contractor or service provider who submits a tender (93/38)

**“the public”**: one or more natural or legal persons and, in accordance with national legislation or practice, their associations, organisations or groups. (2001/42, 501PC0483)

**“toxic substances and preparations”**: substances and preparations which in low quantities cause death or acute or chronic damage to health when inhaled, swallowed or absorbed via the skin (92/32, 1999/45)

**“transboundary effects of water-related disease”**: any significant adverse effects on human health, such as death, disability, illness or disorders, in an area under the jurisdiction of one Party, caused directly or indirectly by the condition, or changes in the quantity or quality, of waters in an area under the jurisdiction of another Party, whether or not such effects constitute a transboundary impact (501PC0483)

**“transboundary impact”**: any significant adverse effect on the environment resulting from a change in the conditions of transboundary waters caused by a human activity, the physical origin of which is situated wholly or in part within an area under the jurisdiction of a Party to the Convention, within an area under the jurisdiction of another Party to the Convention. Such effects on the environment include effects on human health and safety, flora, fauna, soil, air, water, climate, landscape, and historical monuments or other physical structures or the interaction among these factors; they also include effects on the cultural heritage or socio-economic conditions resulting from alterations to those factors. (501PC0483)

**“transboundary waters”**: any surface or ground waters which mark, cross or are located on boundaries between two or more States; wherever transboundary waters flow directly into the sea, these transboundary waters end at a straight line across their respective mouths between points on the low-water line of their banks (501PC0483)

**“transitional waters”**: bodies of surface water in the vicinity of river mouths which are partly saline in character as a result of their proximity to coastal waters but which are substantially influenced by freshwater flows (2000/60)

**“treatment”**: the physical, thermal, chemical or biological processes, including sorting, that change the characteristics of the waste in order to reduce its volume or hazardous nature, facilitate its handling or enhance recovery (99/31)

**“underground storage”**: a permanent waste storage facility in a deep geological cavity such as a salt or potassium mine (99/31)

**“undertaking”**: any natural or legal person who carries out the practices or work activities referred to in Article 2 of this Directive and who has the legal responsibility under national law for such practices or work activities (96/29)

**“very toxic substances and preparations”**: substances and preparations which in very low quantities cause death or acute or chronic damage to health when inhaled, swallowed or absorbed via the skin (92/32, 1999/45)

**“waste”**: any substance or object in the categories set out in Annex I which the holder discards or intends or is required to discard. The Commission, acting in accordance with the procedure laid down in Article 18, will draw up, not later than 1 April 1993, a list of wastes belonging to the categories listed in Annex I. This list will be periodically reviewed and, if necessary, revised by the same procedure. (91/156)

**“waste”**: any substance or object which is covered by Directive 75/442/EEC (99/31)

**“waste”**: any substance or object which the holder disposes of or is required to dispose of pursuant to the provisions of national law in force (75/442)

**“water intended for human consumption”**: has the same meaning as under Directive 80/778/EEC, as amended by Directive 98/83/EC (2000/60)

**“water services”**: all services which provide, for households, public institutions or any economic activity: (a) abstraction, impoundment, storage, treatment and distribution of surface water or groundwater, (b) waste-water collection and treatment facilities which subsequently discharge into surface water (2000/60)

**“water use”**: water services together with any other activity identified under Article 5 and Annex II having a significant impact on the status of water. This concept applies for the purposes of Article 1 and of the economic analysis carried out according to Article 5 and Annex III, point (b) (2000/60)

**“water-management plan”**: a plan for the development, management, protection and/or use of the water within a territorial area or groundwater aquifer, including the protection of the associated ecosystems (501PC0483)



**“water-related disease”**: any significant adverse effects on human health, such as death, disability, illness or disorders, caused directly or indirectly by the condition, or changes in the quantity or quality, of any waters **(501PC0483)**

**“worker”**: any person employed by an employer, including trainees and apprentices but excluding domestic servants **(89/391)**

**“workers’ representative with specific responsibility for the safety and health of workers”**: any person elected, chosen or designated in accordance with national laws and/or practices to represent workers where problems arise relating to the safety and health protection of workers at work **(89/391)**

**“workplace”**: the whole area intended to house workstations, relating to the immediate and ancillary activities and installations of the surface or underground mineral-extracting industries, including overburden dumps and other tips and accommodation, where provided, to which workers have access in the context of their work **(92/104)**

**“workplace”**: the whole area intended to house workstations, relating to the immediate and ancillary activities and installations of the mineral-extracting industries through drilling, including accommodation, where provided, to which workers have access in the context of their work **(92/91)**

## MISSION OF THE JRC

The mission of the JRC is to provide customer-driven scientific and technical support for the conception, development, implementation and monitoring of EU policies. As a service of the European Commission, the JRC functions as a reference centre of science and technology for the Union. Close to the policy-making process, it serves the common interest of the Member States, while being independent of special interests, whether private or national.



EUROPEAN COMMISSION  
JOINT RESEARCH CENTRE