

## 6

### Regulation of the Slovak Geological Institute

From Dec. 13, 1991

on the classification and calculation of exclusive deposits

The Slovak Geological Institute, according to Article 14, sec. 4 of Act No. 44/1988 Coll. on the protection and exploitation of the mineral resources (Mining Act) in wording of the Slovak National Council Act No. 498/1991 establishes:

#### *Article 1*

(1) The resources of the exclusive deposit 1) (here after "resources), depending on the degree of surveillance of the exclusive deposit or its part and on the degree of knowledge of its storage condition, quality, technological properties and mining-technical conditions are classified into the following categories:

- a) Verified resources Z-1
- b) Calculated resources Z-2
- c) Supposed resources Z-3

(2) The category of the verified resources Z-1 involves the resources, of which:

- a) the shape, measurements, storage condition and the interior construction are known and verified by the survey works,
- b) the quality, technological properties and soundness of space displacement of the technological types are specified on the basis of laboratory, modelling or performance tests and the space distribution of useful and harmful components has been proved,
- c) the geological and mining-technical conditions specifying the workability are known and verified.

(3) The category of calculated resources Z-2 involves the resources, of which:

- a. the shape, measurements, storage condition and the interior construction are derived from geological, geo-chemical and geo-physical data and are confirmed by such an extent of survey works, permitting to assume the inter-connectivity among the single points of observation,
- b. the quality, technological properties and space displacement of the technological types are specified on the basis of laboratory or modelling tests and the space distribution of useful and harmful components is known,
- c. the geological and mining-technical conditions specifying the workability are traced from the performed survey works and are also derived from the basis of analogy from similar resources.

(4) The category of supposed resources Z-3 involves the resources, of which:

- a. the shape, measurements, storage condition and the interior construction are derived from geological, geo-chemical and geo-physical data, uncoverings or singular technical works (hereafter "survey works")
- b. the quality and technological properties are specified on the basis of laboratory tests or on the basis of analogy from similar resources, the distribution of useful and harmful components is only approximately known,

- c. the geological and mining-technical conditions specifying the workability are traced from singular data and on the basis of analogy from similar resources.

(5) The classification of resources into some category of resources, the range of the survey works applied and conditions of further exploitation of the individual survey works will be justified by the organisation in its calculation of supplies.

(6) If the exclusive deposit contains several beneficial components and if there are various technological types applicable for different purposes, its supplies must be classified individually into the particular category of resources.

### *Article 2*

1. According to the suitability of economic exploitation, the resources can be classified into

- a. auditing resources, and
- b. non-auditing resources.

(2) The auditing resources can be utilised at present and they comply with present technical, technological and economic conditions on the exploitation of the exclusive deposit or its part.

(3) The non-auditing resources are resources not usable at present, but with regard to expecting technical, technological and economical development, their utilisation is supposed in the future.

### *Article 3*

(1) According to possibilities of mining, subject to mining technology, safety operations and fixed barrier pillars, the resources can be classified as

- a. fixed resources
- b. open resources

(2) Fixed resources are the resources in the barrier pillars of surface and underground constructions, equipment and mining works and in pillars, intended for the arrangement of safe operations and the protection of interests. Other resources are considered to be open.

### *Article 4*

(1) The possibilities of utilisation of the resources 2) will be determined for the deposit as a whole or its part.

(2) For the classification of the exclusive deposit resource or its part into auditing or non-auditing resources, these three indicators of resource utilisation will be used according to the kind of the mineral and the character of the deposit:

- (a) geological, as is the thickness of the deposit, the quality of the beneficial component and its spatial changes, the harmful and not usable components and their spatial changes, the quantity of the supplies, the tectonics, the depth of the deposit bedding, the properties of the footwall and hanging wall, hydro-geological condition, the collector properties of the productive horizon, etc.

(b) mining-technical, as is the stability of the deposit and surrounding rocks, optimal mining method, presence of gasses, dressing ability and yield, backfilling, the waste waters of the deposit, the effect of mining on the environment and solution to the effects, water economy, dumping, the exploitation and liquidation of waste and the like,

(c) economic, as are the prices of the mineral stock, expenditures on mining and treatment, etc.

(3) In the stage of deposit searching survey 3), the geological works will be directed according to the conditions of the expected exclusive deposit efficiency. If the geological works are to be financed from the state budget of the Slovak Republic, the Slovak Geological Institute will specify these. In other instances the works will be specified by the organisation at whose expenses the geological works are being executed.

(4) For the stage of searching and exploiting of the deposit survey 3) and for mining of the exclusive deposit, the variant conditions on the exploitation of the resource will be specified by the organisation which is or will be mining the resource and on the basis of the variant conditions will perform or supply the calculation of the supplies.

(5) If changes come about on indicators of available reserve conditions having an influence on the quantity of auditing reserves, the organisation will specify new available reserve conditions.

#### *Article 5*

(1) The procedure on the calculation of supplies during the period of geological survey will be revised by special provision 4). Analogous procedure will be used on the calculation of the supplies during the period of a mine and quarry construction projection and during the mining of the exclusive deposit.

(2) In the calculation of supplies during the projection period and construction of mines and quarries, and in the course of mining the exclusive deposit, the organisation will state the exploitable supplies, i.e. auditing supplies, decreased by the value of losses from extraction sequenced from the followed technology of mining and the geological and mine-technical conditions.

2) Article 13 sec. 2 of the Mining Act.

3) Article 5 of the Slovak Geological Institution, Regulation No. 127/1989 Coll. On the projection, execution and evaluation of geological works, granting the licence and on the expert competence on their execution.

4) Article 32 to 36 of the Slovak Geological Institution, Regulation No. 127/1989 Coll.

(3) The Slovak Geological Institute will approve the calculation of the supplies within six months of its submission.

(4) The calculation of the supplies, worked out after the new conditions of resource efficiency (Article 4 sec.5) the organisation repeatedly submits to approval by the Slovak Geological Institute only in cases when the approved auditing supplies, decreased by mined supplies, will differ by more than 15 %.

#### *Article 6*

The supplies of the exclusive deposit that were approved and classified according to present provisions, will be reclassified by an organisation 5) according to this Regulation and the new calculation of supplies will be submitted to approval by the Slovak Geological Institute by July 31, 1994.

*Article 7*

This Regulation takes effect on the day of its declaration.

Chairman: **RNDr. Ing. Burian CSc.** Sign. Manual

5) Article 3 sec. 1 subparagraph a) of the Slovak National Council Act No. 52/1988 Coll. in wording of the Slovak National Council Act No. 497/1991 Coll.  
Article 7a and 10 of the Mining Act.