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Republic of Latvia

Cabinet

Regulation No. 470

Adopted 21 June 2011

Procedures for the Management of Waste from the Extraction of Mineral Resources

*Issued pursuant to
Section 14, Clause 11 of the law On Subterranean Depths*

I. General Provisions

1. The Regulation prescribes the procedures for the management of waste from the mineral extraction industry (hereinafter – the extractive waste).

2. The following terms are used in the Regulation:

2.1. operator – within the meaning of this Regulation the natural or legal person responsible for the management of extractive waste, including the temporary storage of extractive waste, management of the extractive waste facility during the operation period thereof and after closure of the abovementioned facility;

2.2. treatment – the mechanical, physical, biological, thermal, or chemical process or combination of processes carried out on mineral resources in order to extract the respective minerals, for example, size change, classification, separation, and leaching and also processing of extractive waste and burning of limestone (except for smelting, thermal manufacturing processes, and metallurgical processes);

2.3. heap – an engineered facility for the deposit of solid extractive waste on the surface;

2.4. substantial change – such change in the structure or management of a waste facility which, in the opinion of the competent authority, may have significant adverse effects on human health or the environment;

2.5. dam – a hydrotechnic engineered structure designed to retain or confine water or liquid extractive waste within a pond;

2.6. mineral extraction industry – within the meaning of this Regulation, all merchants engaged in the extraction of mineral resources or the treatment thereof;

2.7. extractive waste – waste resulting from the prospecting, extraction, treatment, and storage of mineral resources;

2.8. pond – within the meaning of this Regulation, a naturally formed or engineered terrestrial deepening for disposing of such fine-grained waste (normally tailings), along with

varying amounts of free water, which results from the treatment of mineral resources and from the clearing and recycling of process water;

2.9. storage site of extractive waste – all the area of land at a distinct geographic location which is managed and controlled by an operator;

2.10. leachate – within the meaning of this Regulation, any liquid which is formed by percolating through the extractive waste deposited at the extractive waste facility and is accumulated at the extractive waste facility or discharged therefrom, including polluted waste water which could have an adverse effect on the environment, unless they are treated properly;

2.11. structural integrity – within the meaning of this Regulation, the capacity for holding the extractive waste at the extractive waste facility in the manner for which it was designed. The loss of structural integrity shall cover all potential emergencies relevant to the structures of the respective extractive waste facility;

2.12. accident – an occurrence on a storage site of extractive waste in the course of an operation involving the management of extractive waste in any undertaking if the accident causes a serious danger to human health or the environment, whether immediately or over time, on-site or off-site;

2.13. unpolluted soil – soil that is removed during the extraction of mineral resources and is not polluted (conforms to the norms laid down in the laws and regulations regarding the quality of soil and the ground);

2.14. excavation void – a cavity created in subterranean depths during the extraction of mineral resources;

2.15. rehabilitation – within the meaning of this Regulation, the treatment and remediation of the land affected by the extractive waste facility at least to such extent that henceforth soil quality, wild plant and animal species, natural habitats, water bodies and the landscape would not be endangered and that it would be possible to use the respective territory for a specific economic activity;

2.16. tailings – the extractive waste solids or slurries that remain after treatment of mineral resources by separation processes (for example, crushing, grinding, size-sorting, flotation, and using other physical and chemical techniques) in order to remove the valuable mineral resources from the less valuable rock;

2.17. weak acid dissociable cyanide – cyanide and cyanide compounds that are dissociated with a weak acid at a defined environmental acidity reaction (pH).

[27 August 2013]

3. This Regulation shall not be applied in relation to:

3.1. waste resulting from the prospecting, extraction of mineral resources in accordance with the laws and regulations regarding subterranean depths and their treatment, but which does not directly result from these operations;

3.2. waste resulting from the offshore prospecting, extraction of mineral resources in accordance with the laws and regulations regarding subterranean depths and their treatment (sea and the bottom of the sea which runs far into the sea from the lowest water level of a usual or average low tide);

3.3. injection, drainage, or pumping of groundwater in accordance with the laws and regulations regarding permission for the use of water resources;

3.4. groundwater abstraction.

4. This Regulation (except for the requirements referred to in Paragraphs 12, 13, and 14 of this Regulation) shall not be applied to the storage of the following extractive waste:

4.1. non-hazardous waste resulting from the prospecting and extraction of mineral resources (except for hydrocarbons and evaporates, excluding gypsum and anhydrite);

4.2. unpolluted soil;

4.3. waste resulting from the extraction, treatment, or storage of peat.

5. This Regulation shall apply to the management of such extractive waste which results from prospecting, extraction of mineral resources in accordance with the laws and regulations regarding subterranean depths, treatment and storage of mineral resources if the extractive waste is stored at a Category A extractive waste facility (in accordance with Paragraph 16 of this Regulation).

6. An extractive waste facility is any area (including storage site of extractive waste) designated for the accumulation or deposit of extractive waste, whether in a solid or liquid state or in solution or suspension if such waste is stored on the respective site:

6.1. from the time of origination – in Category A extractive waste facilities and sites for the extractive waste that are characterised as hazardous waste in the extractive waste management plan;

6.2. for more than six months from the time of origination – in facilities for hazardous waste generated unexpectedly;

6.3. for more than a year from the time of origination – in facilities for non-hazardous and non-inert waste;

6.4. for more than three years from the time of origination:

6.4.1. in facilities for unpolluted soil;

6.4.2. in facilities for non-hazardous prospecting waste, and also waste resulting from the extraction, treatment, and storage of peat;

6.4.3. in facilities for inert waste.

7. The extractive waste shall be regarded as inert waste if such waste conforms to the following criteria:

7.1. such waste does not undergo any significant physical, chemical, or biological transformations;

7.2. such waste does not dissolve or otherwise physically or chemically react, biodegrade, or affect other substances with which it comes into contact and thus does not cause environmental pollution and does not harm human health;

7.3. such waste does not burn and there is no risk of self-combustion;

7.4. the sulphur content in sulphides in the extractive waste does not exceed 0.1 % or the sulphur content in sulphides in the extractive waste does not exceed 1 % and the neutralising potential ratio which is calculated as the ratio between the neutralising potential and the acid potential and determined on the basis of a static test prEN 15875 is greater than 3;

7.5. the content of substances potentially harmful to the environment or human health in the extractive waste, and in particular arsenic, cadmium, cobalt, chromium, copper, mercury, molybdenum, nickel, lead, vanadium, and zinc, including in any fine individual particles of the extractive waste, is sufficiently low to be of insignificant human and environmental risk, in both the short and the long term. The content of substances shall be regarded as sufficiently low (such as to be of insignificant human and environmental risk) if it does not exceed the national quality standards for soil and ground;

7.6. the extractive waste is free of products used in extraction or processing that could harm the environment or human health.

8. The criteria referred to in Paragraph 7 of this Regulation shall be taken into account upon assessing the geochemical behaviour of the extractive waste. If, based on the criteria referred to in Paragraph 7 of this Regulation, the extractive waste are recognised as inert waste, such waste shall be tested in accordance with Paragraph 5 of Annex 1 to this Regulation.

9. A dam or another structure the purpose of which is to retain, detain, confine, or support otherwise the facilities referred to in Paragraph 6 of this Regulation shall also be deemed as the

extractive waste facility referred to in Paragraph 6 of this Regulation. An excavation void into which extractive waste is replaced for rehabilitation or construction purposes shall not be deemed as the facility referred to in Paragraph 6 of this Regulation.

10. Upon managing inert waste resulting from the prospecting, extraction, treatment, and storage of mineral resources and unpolluted soil, the requirements referred to Chapters IV and V, Paragraphs 74, 75, and 81, and also Chapters VIII, IX, and X of this Regulation shall not be applied if such waste is not stored in a Category A extractive waste facility.

11. Upon managing non-inert and non-hazardous extractive waste, the requirements referred to in Paragraphs 74, 75, 81, 85, 86, and 88, and also in Chapters IX and X of this Regulation shall not be applied if such waste is not stored in a Category A extractive waste facility.

12. Extractive waste shall be managed:

- 12.1. without causing threats to human life and health;
- 12.2. without causing threats to the surface and ground waters, air, soil, and also flora and fauna;
- 12.3. without exceeding the limit values specified in the laws and regulations regarding the prevention and restriction of noises and odours;
- 12.4. without adversely affecting the landscape and special areas of conservation;
- 12.5. without polluting the environment.

13. It is prohibited to abandon, dump, and perform uncontrolled disposal of extractive waste.

14. In order to prevent or reduce adverse effects on the environment and human health, an operator shall ensure the following by using the best available methods:

- 14.1. the management of the extractive waste facility during operation thereof;
- 14.2. the management of the extractive waste facility after closure thereof;
- 14.3. the prevention of accidents and the limiting of consequences thereof, taking into account the technical parameters of the extractive waste facility, location and environmental conditions thereof.

15. Upon filling excavation voids with waste that is not extraction waste, the requirements laid down in the laws and regulations regarding the management of landfill sites shall be applied.

II. Criteria for Determining the Classification of Extractive Waste Facilities

16. The State Environmental Service shall recognise an extractive waste facility as a Category A facility if:

- 16.1. the foreseeable consequences of an accident caused by the loss of the structural integrity of an extractive waste facility or incorrect operation in the short-term and long-term could cause threats to human life and the environment;
- 16.2. there is extractive waste therein classified as hazardous waste in accordance with the laws and regulations regarding waste classification and characteristics making waste hazardous if the ratio referred to in Paragraph 18 of this Regulation is equal to 5 % or higher;
- 16.3. it contains chemical substances or mixtures which are classified as hazardous in accordance with the laws and regulations regarding the classification, labelling, and packaging of chemical substances and chemical products.

17. The criteria referred to in Paragraph 16 of this Regulation shall be taken into account in the hazard assessment of an extractive waste facility throughout the entire life cycle of the extractive waste facility, including the phase after closure thereof.

18. The limit value referred to in Sub-paragraph 16.2 of this Regulation shall be determined as the ratio of the weight (on the basis of the extractive waste dry weight) among all extractive waste classified as hazardous waste in accordance with the laws and regulations regarding waste classification and characteristics making waste hazardous and which will be located at the extractive waste facility at the end of the planned operation period and the extractive waste which will be located at the extractive waste facility at the end of the planned operation period.

19. The State Environmental Service shall assess whether the criterion referred to in Sub-paragraph 16.3 of this Regulation is conformed to in accordance with the considerations referred to in Paragraphs 30, 31, and 32 of this Regulation.

20. The assessment of the consequences caused by the loss of the structural integrity shall comprise the immediate impact of the material which has got out of an extractive waste facility as a result of the accident, and also the short-term and long-term impact caused by the accident.

21. Within the meaning of this Regulation incorrect operation of an extractive waste facility is any activity which could cause a major accident, including incorrect implementation of environmental protection measures and incorrect structure or structural deficiencies.

22. The assessment of the impact of the discharge of polluting substances caused by incorrect operation shall comprise information on the short-term and long-term impact caused by the discharge of polluting substances. The abovementioned assessment shall apply to the operational period of an extractive waste facility, and also the long-term period after closure thereof. It shall include the assessment of the potential hazard which is caused by extractive waste facilities containing reactive extractive waste, regardless of whether the extractive waste is classified as hazardous or non-hazardous waste in accordance with the laws and regulations regarding waste classification and characteristics.

23. In accordance with Paragraphs 24 and 25 of this Regulation the State Environmental Service shall assess the consequences of the accidents caused by the loss of the structural integrity of an extractive waste facility or incorrect operation thereof.

24. The potential threats to human life or health shall not be regarded as significant or serious if the persons who could be exposed to such threats, except for the employees of an extractive waste facility, do not have to stay permanently or continuously in the endangered territory. Injuries leading to disability or prolonged illness shall be regarded as a serious threat to human health.

25. The potential hazard to the environment shall not be regarded as significant if:

- 25.1. the intensity of the potential contaminant source strength is decreasing significantly in the short-term;
- 25.2. the accident does not lead to any permanent or long-lasting environmental damage;
- 25.3. the affected environment can be restored through minor clean-up and restoration efforts.

26. In case of loss of the structural integrity of a tailings dam, human lives shall be deemed to be threatened where water or slurry levels have risen at least 0.7 m above ground or where water or slurry velocities exceed 0.5 m/s.

27. The assessment of the threats to human life or health due to the loss of the structural integrity of a tailings dam shall comprise at least the following factors:

- 27.1. the size and properties of the extractive waste facility, including its design;
- 27.2. the quantity and quality of the extractive waste in the extractive waste facility, including physical and chemical properties;
- 27.3. the topography of the extractive waste facility site, and also damping features;
- 27.4. the travel time of a potential flood-wave to areas where people are present;
- 27.5. the propagation velocity of the flood-wave;
- 27.6. the predicted water or slurry level;
- 27.7. the rising rate of water or slurry levels;
- 27.8. any relevant, site-specific factors that may impact human life or health.

28. In the case of waste heap slides any waste-mass in movement shall be deemed likely to threaten human lives if people are staying within range of the moving waste-mass.

29. The assessment of the threats to human life or health due to waste heap slides shall comprise at least the following factors:

- 29.1. the size and properties of the extractive waste facility, including its design;
- 29.2. the quantity and quality of the waste in the extractive waste facility, including physical and chemical properties;
- 29.3. slope angle of heap;
- 29.4. potential to build up internal groundwater within the heap;
- 29.5. underground stability;
- 29.6. topography;
- 29.7. proximity to water courses, structures, and buildings;
- 29.8. operation of the extraction site;
- 29.9. any other site-specific factors that may significantly contribute to the risk posed by the structure.

30. The following methodology shall be used for planned tailing ponds:

30.1. an inventory shall be carried out of the substances and mixtures which are used in the technological processes and which are subsequently discharged with the tailings mixture to the tailings pond;

30.2. the amount of each substance and mixture used in the technological processes shall be calculated for each year of operation of the extractive waste facility;

30.3. for each substance and mixture, it shall be determined whether it is a dangerous substance or mixture in accordance with the laws and regulations regarding the classification, labelling, and packaging of chemical substances and chemical products;

30.4. for each year of planned operation, the yearly increase in stored water (ΔQ_i) within the tailings pond shall be calculated under steady state conditions according to the formula set out in Annex 2 to this Regulation;

30.5. for each dangerous substance or mixture (which has been identified in accordance with Sub-paragraph 30.3 of this Regulation), the maximum yearly concentration (C_{max}) in the aqueous phase shall be estimated according to the formula set out in Annex 2 to this Regulation. If, on the basis of the calculation of the maximum yearly concentrations (C_{max}), the aqueous phase is considered to be dangerous in accordance with the laws and regulations regarding the classification, labelling, and packaging of chemical substances and chemical products, the extractive waste facility shall be classified as a Category A facility.

31. For operating tailings ponds, the extractive waste facility shall be classified in accordance with Paragraph 30 of this Regulation or on the basis of the data obtained by conducting a chemical analysis of the water and solids contained in the extractive waste facility. The extractive waste facility shall be classified as a Category A facility of in accordance with the laws and regulations regarding the classification, labelling, and packaging of chemical

substances and chemical products the aqueous phase and its contents are to be regarded as a hazardous mixture.

32. For heap leaching facilities, where metals are extracted from ore heaps by percolating leach solutions during the closure of the extractive waste facility, the State Environmental Service shall determine the presence of dangerous substances on the basis of an inventory of leach chemicals used in leaching and the residual concentrations of leach chemicals used in leaching in the drainage after washing has been finalised. The extractive waste facility shall be classified as a Category A facility of in accordance with the laws and regulations regarding the classification, labelling, and packaging of chemical substances and chemical products if such leachates are to be regarded as a hazardous mixture.

33. The conditions referred to in Sub-paragraph 16.2 and Paragraphs 18, 19, 30, 31, and 32 if this Regulation shall not be applied to extractive waste facilities containing inert waste or unpolluted soil only.

34. The classification of extractive waste facilities shall be reviewed by the State Environmental Service if the permit is substantially modified or the operational conditions have changed significantly. The abovementioned classification shall be reviewed at the latest at the end of the operational period of an extractive waste facility.

III. Extractive Waste Management Plans

35. In order to treat, regenerate, and dispose of extractive waste, and also in order to reduce the quantity thereof, an operator shall develop an extractive waste management plan, taking into account the principles of sustainable development, and also the spatial plan of the respective local government.

[27 August 2013]

36. The objectives of the extractive waste management plan shall be as follows:

36.1. to prevent or reduce the quantity and harmfulness of extractive waste, taking into account:

36.1.1. the extractive waste management within the scope of the extraction of mineral resources project development and the methods used for the extraction and treatment of mineral resources;

36.1.2. the changes that the extractive waste may undergo in relation to an increase in the surface area of a heap and exposure of the extractive waste to factors of the external environment;

36.1.3. an opportunity to place extractive waste back into the excavation void after extraction of mineral resources in accordance with the requirements of the laws and regulations regarding environmental protection if it is technically and economically feasible;

36.1.4. an opportunity to put topsoil back in place after closure of the extractive waste facility or to reuse it elsewhere;

36.1.5. an opportunity to use less dangerous chemical substances for the treatment of mineral resources;

36.2. to encourage the recovery opportunities of extractive waste by reusing or recycling such waste if it conforms to the environmental quality standards and this Regulation insofar as it relates to the specific case;

36.3. to ensure short-term and long-term safe disposal of extractive waste, considering the planned management measures during the operation of the extractive waste facility and after closure thereof already during the design phase by choosing a design, which:

36.3.1. requires minimal monitoring, control and management of a closed extractive waste facility;

36.3.2. prevents or minimises adverse effects on the environment as much as possible (for example, migration of airborne or aquatic pollutants from extractive waste facility);

36.3.3. ensures the long-term geotechnical stability of any dams or heaps.

[27 August 2013]

37. The following shall be included in an extractive waste management plan:

37.1. information on the classification of the proposed extractive waste facility in accordance with Chapter II of this Regulation:

37.1.1. if a Category A object is necessary – information on the development and approval of a civil protection plan;

37.1.2. if an operator considers that a Category A extractive waste facility is not necessary – sufficient information justifying this, also indicating potential hazard caused by accidents;

37.2. characterisation of extractive waste in accordance with Paragraph 38 of this Regulation;

37.3. information on the intended total amount of extractive waste which will originate during the operation of the extractive waste facility;

37.4. description of the activity resulting in the extractive waste;

37.5. information on the treatment of the extractive waste after the origination thereof;

37.6. information on the potential adverse effects of the extractive waste to be stored on the environment (including on the landscape and special areas of conservation, and human health) and measures to be taken in order to reduce the impact of the extractive waste facility on the environment during operation and after closure thereof in accordance with Sub-paragraphs 72.1, 72.2, 72.4, 72.5 of this Regulation;

37.7. control and monitoring measures in accordance with Paragraph 71 and Sub-paragraph 72.3 of this Regulation;

37.8. measures for the closure of the extractive waste facility (including rehabilitation) and the monitoring of the extractive waste facility after closure thereof in accordance with Chapter VIII of this Regulation;

37.9. measures to be taken in order to prevent the deterioration of the status of surface or ground water and also to prevent or to reduce air and soil pollution in accordance with the provisions referred to in Paragraphs 76, 77, 78, 79, 80, and 81 of this Regulation;

37.10. assessment of the soil in accordance with the laws and regulations regarding quality norms of soil and ground which will be affected by the extractive waste facility;

37.11. an explanation of how the objectives referred to in Sub-paragraph 36.1 of this Regulation will be achieved with the methods referred to in Sub-paragraph 36.1.1 of this Regulation.

[27 August 2013]

38. An operator shall prepare the characterisation of the extractive waste to be stored at an extractive waste facility in accordance with Annex 1 to this Regulation, taking into account the long-term physical and chemical stability of the structure of the respective facility in order to prevent the probability of accidents. The abovementioned characterisation shall be an integral part of the extractive waste management plan.

39. An operator shall ensure the information and data necessary for the characterisation of the extractive waste in accordance with the following procedures:

39.1. use the existing data of exploration, research and permits or licences, prospecting results, information on similar extractive waste facilities, lists of inert waste, or applicable

standards on similar materials insofar as they conform to the characterisation of the extractive waste provided for in Annex 1 to this Regulation;

39.2. assess the quality and conformity of information and determine the possible missing information;

39.3. if there is no information necessary for the characterisation of the extractive waste, develop a sampling plan in accordance with the standard LVS EN 14899:2006, Characterisation of waste – Sampling of waste materials – Framework for the preparation and application of a Sampling Plan, and take samples in accordance with this plan. The sampling plan shall be developed on the basis of the identified information which is regarded as necessary, also including the following in the plan:

39.3.1. the purpose of data collection;

39.3.2. the testing programme and requirements in respect of sampling;

39.3.3. the sampling point, including sampling from drill-cores, excavation face, conveyor belt, heap, pond, or other relevant point;

39.3.4. the procedures and instructions for sample numbers, size, mass, description, and handling;

39.4. assess the results of the characterisation process of the extractive waste, and also the correctness and quality of sampling results. If necessary, additional information shall be collected. The final result shall be included in the extractive waste management plan.

40. An operator shall submit the developed draft extractive waste management plan to the State Environmental Service for approval. The draft extractive waste management plan may also be submitted electronically in accordance with the laws and regulations regarding the preparation, drawing up, storage, and circulation of electronic documents.

41. The State Environmental Service shall assess the conformity of the submitted extractive waste management plan with the requirements referred to in Paragraphs 36 and 37 of this Regulation and shall approve the extractive waste management plan within a month or shall request the necessary additional information if the information referred to in Paragraphs 36 and 37 of this Regulation is missing, indicating a reasonable time period for the provision of information. An operator shall provide the additional information within the time period stipulated by the State Environmental Service.

42. The State Environmental Service shall control the implementation of the extractive waste management plan according to the conditions of the permit for the storage of extractive waste (hereinafter – the permit).

43. An operator shall revise the extractive waste management plan once every five years and make amendments thereto if there have been significant changes in the operation of the extractive waste facility or in the waste stored therein. The operator shall, within 14 days after making of amendments to the plan, inform the State Environmental Service thereof in writing.

IV. Receipt of the Permit for the Storage of Extractive Waste

44. Prior to commencing the operation of an extractive waste facility or 60 days before expiry of the validity period of the permit, an operator shall, according to its legal address, submit to the State Environmental Service an application for the receipt of the permit for the storage of extractive waste (Annex 3) (hereinafter – the application).

45. If the information indicated in the application is incomplete, the State Environmental Service shall inform the applicant in writing within five working days after receipt of the application and indicated the additional information to be submitted. The abovementioned

information may also be notified and submitted electronically if an operator has indicated it in the application.

46. The State Environmental Service shall electronically send copies of the application and documents appended thereto to the territorial local government in the administrative territory of which storage of extractive waste is planned. If the local government has justified objections to the issuance of the permit or specific requirements in relation to the content of the permit, it shall, within 14 days after receipt of the application and the documents appended thereto, submit proposals to the State Environmental Service.

47. The State Environmental Service shall issue the permit if:

47.1. the information referred to in the application for the permit conforms to the requirements of this Regulation;

47.2. the extractive waste management plan conforms to the requirements referred to in Paragraphs 36 and 37 of this Regulation and to the respective regional waste management plan.

48. The following shall be indicated in the annex to the permit:

48.1. the requirements for the reduction of such environmental pollution which originates during the operation of an extractive waste facility;

48.2. the requirements for the operation of an extractive waste facility;

48.3. the measures to prevent the risk of accidents or, where it is not possible, to avoid emergencies, but in case of an emergency – to reduce the consequences thereof;

48.4. the requirements for control measures of the extractive waste management and monitoring of the environmental condition (Annex 4);

48.5. the condition regarding the obligation to provide information on the extractive waste management activities specified in the respective permit upon request of environmental protection authorities, other State authorities, local governments, and the public.

49. The State Environmental Service shall, within 60 days after receipt of the application, issue the permit in the form of an electronic document (Annex 5) or take the decision on refusal to issue the permit and shall notify it to the applicant on the website of the Service, and also electronically or by post.

[27 August 2013]

50. The State Environmental Service shall, within five working days after issuance of the permit or cancellation of the permit, publish information on the issued and cancelled permits on its website.

51. The permit shall be issued for five years or for a shorter period of time if such has been indicated in the application.

52. The State Environmental Service shall revise and change the conditions of the permit:

52.1. if the permitted management of extractive waste results in permanent human health disorders or deteriorates the quality of the environment;

52.2. if there are substantial changes in the operation of the extractive waste facility or in the waste stored therein;

52.3. on the basis of the results of monitoring performed by the operator or the results of inspections of the extractive waste facility performed by the State Environmental Service;

52.4. taking into account the latest information on substantial changes in the use of the best available methods.

53. The State Environmental Service shall cancel a permit in the following cases:
- 53.1. if an operator does not comply with the requirements laid down in the permit and laws and regulations governing the management of extractive waste;
 - 53.2. if an operator has submitted false or misleading information;
 - 53.3. if an operator has submitted information on termination of the commercial activity.
54. The State Environmental Service shall provide the information included in permits for statistical needs upon a written request of the respective authorities, without publishing commercial secrets and information on the quantity of stocks of mineral resources.

V. Public Participation

55. Within seven days after an application for a new activity, continuation of the present activity has been submitted to the State Environmental Service or the conditions of the permit are changed in accordance with Paragraph 52 of this Regulation, an operator shall ensure that the public is informed in the following way:
- 55.1. publicly – providing an opportunity to receive information at the office of the operator or at the local government;
 - 55.2. individually – by sending notices to owners (possessors) whose immovable properties have borders with the place of the declared extractive waste facility or are located in the direct area of impact thereof;
 - 55.3. on the website of the operator;
 - 55.4. in the local newspaper.

[27 August 2013]

56. The operator shall inform the State Environmental Service in writing of the method of informing the public in accordance with Paragraph 55 of this Regulation.

57. The State Environmental Service shall post the information referred to in Paragraph 58 of this Regulation on its website.

58. The operator shall inform the public in accordance with the procedures laid down in Paragraph 55 of this Regulation of:

- 58.1. the application and the documents appended thereto, and also the extractive waste management plan;
- 58.2. the transboundary impact of the extractive waste facility and cooperation thereof with other states in accordance with Chapter X of this Regulation;
- 58.3. address of the State Environmental Service and the nature of the potential decisions thereof;
- 58.4. the conditions for granting the permit (indicating detailed information);
- 58.5. other measures of public information taken by the operator;
- 58.6. address of the operator.

59. Upon providing the information referred to in Paragraph 58 of this Regulation, the operator shall indicate the date until which the public may submit written proposals regarding the information referred to in Paragraph 58 of this Regulation to the State Environmental Service in accordance with Paragraph 61 of this Regulation, and also indicate the website where the public may become acquainted with the information referred to in Paragraph 58 of this Regulation.

60. In addition to the information referred to in Paragraph 58 of this Regulation, information which may be used in taking of decisions, but which has become accessible only after informing

the public in accordance with Paragraph 56 of this Regulation or after public discussion, and also information on recommendations and reports received during public discussion shall also be available to the public at the State Environmental Service.

61. The public may submit proposals or opinions on the issuing of a permit or the conditions thereof in writing within 30 days after notification of the information referred to in Paragraph 58 of this Regulation.

62. The State Environmental Service shall inform the operator of the proposals and opinions received and indicate the term by which an explanation of the operator regarding them should be submitted.

63. The State Environmental Service shall evaluate the proposals and opinions submitted by the public upon issuing the permit or taking the decision on refusal to issue the permit. The State Environmental Service shall provide information to the public on the decision taken in accordance with the procedures laid down in Sub-paragraph 55.4 of this Regulation, indicating the content, reasons of the decision and considerations on which decision is based, and also appending a copy of the permit.

VI. Prevention of Accidents and Provision of Information

64. An operator of a Category A extractive waste facility shall ensure registration of hazards caused by accidents, and also shall take the necessary measures during designing, construction, operation, closure and during the period after closure of the extractive waste facility in order to prevent accidents and reduce adverse effects thereof on human health and the environment (including any transboundary impacts).

65. Prior to commencing the operation of a Category A extractive waste facility (if the respective facility in accordance with the Civil Protection Law is to be regarded as an object of increased danger), an operator shall develop and approve a civil protection plan in accordance with the laws and regulations regarding the development and approval of a civil protection plan insofar they are not in contraction with this Regulation, and also in accordance with the laws and regulations regarding the official appointed for civil protection who is responsible for the introduction and periodic revision of the civil protection plan.

[18 March 2014]

65.¹ The State Fire and Rescue Service in cooperation with the State Environmental Service shall, by inviting (if necessary) the representatives and experts of other State authorities, develop the off-establishment civil protection plan. The off-establishment civil protection plan shall comprise measures to be taken outside a Category A extractive waste facility in case of an accident.

[27 August 2013]

65.² The off-establishment civil protection plan shall:

65.² 1. indicate the procedures by which the State Fire and Rescue Service, local government, and other responsible authorities receive a warning or information on an accident, and also warn about the accident or provide information thereon;

65.² 2. indicate the procedures for alarm notification and the procedures for summoning emergency or operative services;

65.² 3. characterise the response and consequence-liquidation emergency measures and determine the procedures by which the containment and reduction of the hazard and consequences of an accident shall be performed outside the territory of the facility;

65.²4. indicate the State authorities, local government services, or other emergency or operative services and the involved merchants which participate in the implementation of the off-establishment civil protection plan and the functions thereof;

65.²5. determine the procedures by which the employees of the facility provide assistance to the State Fire and Rescue Service or other State or local government authorities for the taking of response and consequence-liquidation emergency measures outside the territory of the facility;

65.²6. determine the procedures by which the inhabitants shall be warned of threats and by which information shall be provided to the inhabitants on action in case of an accident and the protective measures to be taken;

65.²7. indicate the possible time period after receipt of information within which the State Fire and Rescue Service and other emergency services may arrive at the place of an accident.

[27 August 2013]

65.³ An operator shall provide to the State Fire and Rescue Service all information necessary for developing the off-establishment civil protection plan.

[27 August 2013]

66. The following objectives shall be determined in the civil protection plan referred to in Paragraph 65 of this Regulation and the off-establishment civil protection plan referred to in Paragraph 65.¹ of this Regulation:

66.1. to limit and control accidents and other emergencies in order to minimise their consequences, in particular harm to human health and the environment;

66.2. to implement measures in order to prevent accidents and other emergencies, and also the potential impact of such accidents on human health and the environment;

66.3. to ensure the availability of information to the public and responsible services or institutions in the local government in the administrative territory of which the extractive waste facility is located;

66.4. to ensure environmental rehabilitation, restoration, and clean-up after an accident.

[27 August 2013]

66.¹ An operator shall develop a safety system which ensures the following:

66.¹ 1. identification and evaluation of major hazards – adoption and implementation of the procedures for systematically identifying major hazards arising from normal and abnormal operations and assessment of their likelihood and severity;

66.¹ 2. operational control – development of the procedures and instructions for safe operation, including maintenance of a plant, processes, equipment, and temporary stoppages;

66.¹ 3. management of changes – development and implementation of such procedures in order to plan modifications to the extractive waste facilities or temporary stoppage of the operation;

66.¹ 4. monitoring performance – development and implementation of such procedures in order to assess compliance with the objectives set out in the civil protection plan developed by the operator, and also the mechanisms for investigation and taking corrective action in case of non-compliance with the respective objectives. The abovementioned procedures should cover the operator's system for reporting major accidents or near misses, particularly those involving failure of protective measures, and their investigation and follow-up on the basis of lessons learnt.

[27 August 2013]

67. The State Fire and Rescue Service shall, by placing a notification on its website, inform natural and legal persons who are affected or could be affected by the plans referred to in

Paragraphs 65 and 65.¹ of this Regulation or who have an interest in decision-making (hereinafter – the interested public) of the developed draft civil protection plan, the draft off-establishment civil protection plan, or amendments to the off-establishment civil protection plan. The notification shall comprise the information referred to in Paragraph 68 of this Regulation and shall also state that the interested public has the right to submit feedback or questions to the State Fire and Rescue Service within 30 days after the day of publishing the information.

[18 March 2014]

67.¹ The State Fire and Rescue Service shall evaluate the feedback and questions and, to the extent possible, take them into consideration, coordinating the civil protection plan of the facility or approving the off-establishment civil protection plan.

[18 March 2014]

68. The interested public shall be provided with the following information:

68.1. the operator (for a natural person – the given name and surname, for a merchant – the firm name) and the address of the extractive waste facility;

68.2. the given name, surname, and position of the provider of information;

68.3. the laws and regulations which apply to the extractive waste facility;

68.4. the date of issuing and number of the permit for the management of extractive waste;

68.5. the process of development and approval of the civil protection plan and the off-establishment civil protection plan;

68.6. an unambiguous and simply expressed explanation regarding whether any activity or activities have been performed in the relevant storage site of extractive waste;

68.7. the names or designations of such substances and compounds used in everyday life (including the characteristics of such substances and compounds) which are present at the extractive waste facility, and also in the extractive waste and which could cause accidents and pose threats to people and the environment;

68.8. the nature of the hazards resulting from potential accidents, also potential effects thereof on residents and the environment;

68.9. the procedures by which residents are warned and informed of an accident at the extractive waste facility;

68.10. on actions of residents in case of an accident;

68.11. on measures for the prevention of accidents and reduction of consequences thereof taken by the operator at the storage site of extractive waste in cooperation with the emergency services;

68.12. on cooperation with the emergency services and execution of the instructions and requirements of these services in case of an accident;

68.13. on additional information sources in conformity with the requirements laid down in the Freedom of Information Law.

[27 August 2013]

69. An operator shall electronically submit the information referred to in Paragraph 68 of this Regulation free of charge to the State Fire and Rescue Service, and also shall post it on its website. Once every three years the operator shall revise the information, make the necessary amendments thereto, and electronically submit the updated information to the State Fire and Rescue Service for the posting thereof on the website, and also shall post it on its website.

[18 March 2014]

70. In case of an accident an operator shall immediately inform the State Environmental Service, the State Fire and Rescue Service, and the local government in the administrative

territory of which the extractive waste facility is located and shall provide all necessary information on the accident, helping to minimise the impact on human health and to assess and minimise the actual and potential harm caused to the environment.

[4 October 2011]

VII. Construction and Management of Extractive Waste Facilities

71. If extractive waste is returned to excavation voids in order to perform rehabilitation or construction, an operator shall:

71.1. ensure the conformity of an extractive waste facility with the requirements referred to in Paragraphs 72 and 73 of this Regulation;

71.2. ensure the prevention of pollution of soil, surface, or ground waters in accordance with Paragraphs 76, 78, and 80 of this Regulation;

71.3. perform the monitoring of the extractive waste and excavation voids in accordance with Paragraphs 84 and 85 of this Regulation.

72. The State Environmental Service shall ascertain that an operator, in constructing a new extractive waste facility or in modifying an existing extractive waste facility:

72.1. ensures that the extractive waste facility is appropriately placed pursuant to the spatial plan:

72.1.1. takes into account the status of a special area of conservation, geological, hydrological, hydro-geological, seismic and geo-technical factors;

72.1.2. designs and constructs the extractive waste facility in such a way as to ensure short-term and long-term prevention of the pollution of soil, surface, or ground waters in accordance with the laws and regulations regarding the quality of surface and ground waters and other laws and regulations;

72.1.3. performs the collection of the polluted water and leachate according to the conditions of the permit;

72.1.4. reduces the erosion caused by water or wind insofar as it is allowed by technical capabilities and economic feasibility;

72.2. ensures the construction, management, and maintenance of the extractive waste facility according to the stability thereof, and also by preventing the pollution of soil, air, surface, or ground waters and without causing damage to the landscape;

72.3. ensures that the responsible person appointed by the operator (a person who has technical knowledge and experience in waste management) regularly monitors and inspects the extractive waste facility and acts in accordance with the requirements of this Regulation if results of the monitoring and inspections indicate instability of the extractive waste facility or the pollution of water or soil;

72.4. takes measures for rehabilitation of the land and closure of the extractive waste facility;

72.5. takes measures for the after-closure management of the extractive waste facility;

72.6. ensures that the responsible person appointed by the operator is technically competent (the competence is confirmed by corresponding documents), and also ensures the provision of training in waste management issues to the persons employed at the extractive waste facility.

73. Documentation of the monitoring and inspections referred to in Sub-paragraph 72.3 of this Regulation and the documentation of the permit shall be stored by the operator sufficiently long in order to ensure the transfer of information should a change of operator occur.

74. After an accident an operator shall immediately inform the State Environmental Service, the State Fire and Rescue Service, and the territorial local government in the administrative

territory of which the extractive waste facility is located of all events and disorders which may affect the stability of the extractive waste facility and the effects thereof on the environment, taking into account the deficiencies detected during control and monitoring procedures of the extractive waste facility. The operator shall implement the measures specified in the civil protection plan, comply with the instructions of services regarding taking of the measures for the prevention of the consequences of an accident, and also cover the costs related to taking the measures.

75. By 1 March each year, an operator shall submit a report to the State Environmental Service on the results of monitoring in the preceding calendar year.

76. In order to prevent the deterioration of the status of surface and ground waters an operator shall take the following measures:

76.1. evaluate whether the occurrence of leaching from extractive waste stored at an extractive waste facility is possible during operation and after the closure thereof (also the level of pollution in the leachate) and determine the water balance at the extractive waste facility;

76.2. prevent or reduce the occurrence of leaching and the pollution of surface or ground waters and soil with extractive waste;

76.3. accumulate and treat the water polluted in the extractive waste facility and the leachate in accordance with the laws and regulations regarding the use of water resources in order to discharge it into the environment.

[27 August 2013]

77. An operator shall take measures in order to prevent or reduce emission of dust and gasses.

78. The requirements referred to in Sub-paragraphs 76.2 and 76.3 of this Regulation shall not be applied if it has been established that the extractive waste facility does not cause danger to soil and surface or ground water and the State Environmental Service shall take a decision that the leachate need not be collected and treated.

79. Extractive waste, whether in solid, slurry or liquid form, may be stored in a water body other than one constructed for the purpose of disposing of extractive waste if an operator conforms to the requirements laid down in the laws and regulations regarding water management.

80. Upon returning extractive waste to excavation voids, an operator shall take measures in order to prevent or reduce the pollution of water and soil in accordance with the laws and regulations regarding protection of water and shall inform the State Environmental Service thereof in writing within 14 days after taking of the respective measures.

81. An operator shall, taking into account the conditions at the extractive waste facility and using the best available methods, reduce the concentration of weak acid dissociable cyanide to the lowest possible level and ensure that the concentration of weak acid dissociable cyanide does not exceed 10 mg/kg. Upon request of the State Environmental Service, an operator shall, using the risk assessment where the conditions at the specific extractive waste facility are taken into account, prove that the limit values of the concentration need not be reduced further.

[4 October 2011]

VIII. Closure of Extractive Waste Facilities and Management Thereof after Closure

82. An operator shall close the respective facility if one of the following conditions has occurred:

82.1. it is provided for by the conditions of a permit for the management of extractive waste;

82.2. the State Environmental Service has taken a decision on the basis of a written request of the operator;

82.3. the State Environmental Service has taken a decision on its own initiative.

83. An extractive waste facility shall be deemed closed after the State Environmental Service has performed on-site inspections of the closed facility, evaluated the reports provided by the operator and information on the rehabilitation of the land affected by the facility, and also the decision of the State Environmental Service on the closure of the extractive waste facility has entered into effect.

84. After closure of the extractive waste facility the operator shall ensure the maintenance, monitoring, inspections, and corrective measures of the extractive waste facility until the end of the term specified in the decision of the State Environmental Service, taking into account the threats caused by the extractive waste facility to the environment and human health and the duration of existence of such danger if the State Environmental Service takes the decision to take over the abovementioned measures of the operator.

85. After closure of the extractive waste facility the operator shall examine the physical and chemical stability of the respective facility and reduce the adverse effects thereof on the environment (particularly on surface and ground waters), ensuring that:

85.1. the structures existing in the extractive waste facility are being monitored and maintained and the devices for control and measuring devices are always ready for use;

85.2. overflow channels and spillways are clean and unobstructed.

86. After closure of the extractive waste facility the operator shall immediately inform the State Environmental Service, the State Fire and Rescue Service, and the local government in the administrative territory of which the respective facility is located of all events or incidents which affect or could affect the stability of the closed extractive waste facility and any adverse effects thereof on the environment on the basis of the control and monitoring measures taken in the extractive waste facility. The operator shall implement the measures specified in the civil protection plan and comply with all instructions of services regarding the taking thereof, and also shall cover all costs related to taking the measures.

[27 August 2013]

87. The operator shall inform the State Environmental Service of the monitoring results after closure of the extractive waste facility in the cases and terms specified in the decision of the State Environmental Service.

88. The State Environmental Service shall, at least once a year, inspect the conformity of the operation of the extractive waste facility (including a closed extractive waste facility) with the requirements referred to in Chapter IV of this Regulation and the respective conditions of the permit, and also verify whether the operator stores the documents referred to in Paragraph 73 of this Regulation.

89. The State Environmental Service shall inform *valsts sabiedrība ar ierobežotu atbildību "Latvijas Vides, ģeoloģijas un meteoroloģijas centrs"* [State limited liability company Latvian

Environment, Geology and Meteorology Centre] (hereinafter – the Centre) in writing of the decision taken in respect of the closure of such extractive waste facilities (also an abandoned extractive waste facilities) which cause a significant impact on the environment or which could cause danger to human health or the environment. The Centre shall prepare and post a list of such closed extractive waste facilities (also abandoned extractive waste facilities) which significantly affect the environment or which may cause danger to human health or the environment on the website of the Centre by 1 May 2012, and also regularly update it.

IX. Financial Guarantees

90. Prior to commencement of activities related to the storage or disposal of the extractive waste at an extractive waste facility, an operator shall submit to the State Environmental Service copies of such documents (the original of a document shall be presented upon request of the State Environmental Service) which confirm the existence of a financial guarantee in the form of a financial security, a security deposit, an insurance policy for the performance of commitments, or a guarantee from a credit institution.

91. The financial guarantee referred to in Paragraph 90 of this Regulation shall ensure:

91.1. compliance with the requirements provided for in the permit issued in accordance with this Regulation (also compliance with the requirements regarding the management of an extractive waste facility after the closure thereof);

91.2. the financing available at any time for the rehabilitation of land affected by an extractive waste facility according to the extractive waste management plan and the permit issued in accordance with the procedures laid down this Regulation.

92. The State Environmental Service shall determine the decision on the amount of the financial guarantee referred to in Paragraph 90 of this Regulation, taking into account:

92.1. the anticipated impact of the extractive waste facility on the environment and human health, the category thereof, the type and characterisation of the extractive waste, future use of the rehabilitated land and the extractive waste facility;

92.2. the conformity of the rehabilitation work to be performed with the laws and regulations regarding preventative and rehabilitation measures and the procedures for the evaluation of environmental damage and the calculation of costs of preventative, emergency, and rehabilitation measures;

92.3. the laws and regulations in the field of environmental protection, including the physical stability of the extractive waste facility, mandatory quality standards for soil and water resources, and also the maximum release rate of polluting substances;

92.4. the measures aimed at ensuring the stability of the extractive waste facility through the limitation of environmental damage;

92.5. the measures which are necessary to achieve the objectives specified in the extractive waste management plan during the closure of the extractive waste facility and after the closure thereof, including land rehabilitation, if necessary, clean-up and monitoring after closure of the facility, and also the measures for restoring biological diversity;

92.6. the estimated duration of the harmful effects and the measures necessary for minimising such effects;

92.7. the assessment of the costs related to rehabilitation, the closure of the extractive waste facility, and the implementation of the measures after closure of the facility, including possible pollution monitoring after closure of the facility or clean-up of polluting substances.

93. An independent expert with appropriate qualification shall perform the assessment referred to in Sub-paragraph 92.7 of this Regulation, taking into account the probability of the unplanned or premature closure of an extractive waste facility.

94. The State Environmental Service shall regularly review the amount of the financial guarantee, taking into account the planned rehabilitation work of the land affected by an extractive waste facility according to the extractive waste management plan and the conditions of the permit, and also in case if the conditions of the permit are changed.

95. If the State Environmental Service agrees to the closure of an extractive waste facility in accordance with Paragraph 83 of this Regulation, it shall issue a written notification to the operator releasing the operator from the liability of guarantee referred to in Paragraph 90 of this Regulation (except for the liabilities of after-closure referred to in Paragraph 84 of this Regulation).

X. Transboundary Effects

96. If a Category A extractive waste facility existing in the territory of Latvia may have significant adverse effects on the environment in another European Union Member State and thus cause threats to human health, and also upon request of another European Union Member State the State Environmental Service shall provide the information referred to in Chapter IV of this Regulation to the Member State (and concurrently also to residents of Latvia). An operator shall ensure the preparation of information in the respective language. Such information shall serve as the basis for any consultations necessary within the context of bilateral relations between the two Member States on a reciprocal and equivalent basis.
[27 August 2013]

97. In the case referred to in Paragraph 96 of this Regulation the State Environmental Service shall ensure that the application for a permit in accordance with Chapter V of this Regulation is available sufficiently long so that the interested public of the European Union Member State which could be affected by the extractive waste facility would be able to express their opinion of the respective facility prior to taking a decision by the State Environmental Service.

98. In case of an accident at the extractive waste facility referred to in Paragraph 96 of this Regulation, the State Environmental Service shall immediately send the information referred to in Paragraph 70 of this Regulation to the respective European Union Member State in order to help minimise the harm caused by the accident to human health, and also to assess and minimise the actual and potential harm caused to the environment.
[4 October 2011]

XI. Closing Provisions

99. If the permit has been issued to an extractive waste facility or it was already in operation on 1 May 2008, the conformity thereof with the requirements of this Regulation (except for Chapter IX of this Regulation) shall be ensured from 1 May 2012. Chapter IX of this Regulation shall come into force on 1 May 2014.
[4 October 2011]

100. This Regulation shall not apply to extractive waste facilities which have been closed until 1 May 2008.

101. Chapters III and IV, Paragraphs 65, 67, and 70, Chapter V, Paragraph 82, and Chapter IX of this Regulation shall not be applied to extractive waste facilities which concurrently conform to the following requirements:

101.1. they have finished accepting extractive waste prior to 1 May 2006;

101.2. closure and rehabilitation measures thereof were completed on 1 May 2008;
101.3. they were closed until 31 December 2010.

102. The extractive waste facilities referred to in Paragraph 101 of this Regulation shall be managed in accordance with the requirements laid down in this Regulation and the laws and regulations regarding the protection of water.

103. Cabinet Regulation No. 354 of 19 May 2008, Procedures for the Management of Waste from the Extraction of Mineral Resources (*Latvijas Vēstnesis*, 2008, No. 90; 2009, No. 184), is repealed.

Informative Reference to the European Union Directives

The Regulation contains legal norms arising from Directive 2006/21/EC of the European Parliament and of the Council of 15 March 2006 on the management of waste from extractive industries and amending Directive 2004/35/EC.

Prime Minister

V. Dombrovskis

Acting for the Minister for Environmental Protection and
Regional Development – Minister for Transport

U. Augulis

Characterisation of the Extractive Waste

[27 August 2013]

I. General Information

1. General information on the extraction of mineral resources and the objectives of such activities:
 - 1.1. information on prospecting, extraction, and processing of mineral resources;
 - 1.2. a list of methods for the extraction of mineral resources;
 - 1.3. characteristics of the planned product.

II. Geological Background of the Exploitable Deposit

2. Identification of the waste units to be exposed by extraction and processing by providing relevant information on:
 - 2.1. type of surrounding rocks, their chemical and mineralogical content, including hydrothermal alteration of mineralised rocks and barren rocks;
 - 2.2. characteristics of mine deposits, including characteristics of mineralised rocks or rock-bearing mineralisation;
 - 2.3. mineralisation typology, their chemistry and mineralogy, including physical properties such as density, porosity, particle size distribution, water content, covering worked minerals, gangue minerals, hydrothermal newly-formed minerals;
 - 2.4. size and geometry of deposit;
 - 2.5. weathering and supergene alteration from the chemical and mineralogical point of view.

III. Extractive Waste and Intended Handling Thereof

3. Description of the types of all the wastes occurring in each prospecting, extraction, and processing phase, including overburden, waste rock and tailings, by providing information on the following elements:
 - 3.1. origin of the extractive waste in the extraction site and the process generating that waste such as prospecting, extraction, milling, or concentration;
 - 3.2. quantity of the extractive waste;
 - 3.3. description of the extractive waste transport system;
 - 3.4. description of the chemical substances to be used during treatment and their stability;
 - 3.5. classification of the extractive waste in accordance with the laws and regulations regarding waste classification and characteristics making waste hazardous;
 - 3.6. type of the intended extractive waste facility, final form of the exposure of the waste, and method of deposition of the extractive waste into the extractive waste facility.

IV. Geotechnical Behaviour of the Extractive Waste

4. Identification of the suitable parameters for assessing the intrinsic physical characteristics of the extractive waste, taking into account the type of the extractive waste facility. Relevant parameters to be considered are: granulometry, plasticity, density, and water content, degree of compaction, shear strength and angle of friction, permeability and void ratio, compressibility and consolidation.

V. Geochemical Characteristics and Behaviour of the Extractive Waste

5. Specification of the chemical and mineralogical characteristics of the extractive waste, and also of any additives or residuals remaining in the extractive waste. Prediction of drainage chemistry over time for each type of the extractive waste, taking into account its intended handling, in particular:

5.1. evaluation of metals, oxyanion and salt leachability over time which is determined by one or several of the following methods:

5.1.1. pH dependence leaching test;

5.1.2. percolation test;

5.1.3. time-dependent release;

5.1.4. another suitable testing method;

5.2. for sulphide-containing extractive waste, static or kinetic tests shall be carried out in order to determine acid-rock drainage and metal leaching over time.

Acting for the Minister for Environmental Protection and
Regional Development – Minister for Transport

U. Augulis

Formula for the Calculation of the Average Yearly Increase in Stored Water within the Tailings Pond and Estimation of the Maximum Concentration in the Aqueous Phase

1. The average yearly increase in stored water within the tailings pond ΔQ shall be calculated, using the following formula:

$$\Delta Q_i = (\Delta M_i / D) \times P \text{ where}$$

ΔQ_i – yearly increase of stored water in the tailing pond (m^3/year) during the year “i”;
 ΔM_i – yearly mass of tailings discharged to pond (tonnes dry weight/year) during the year “i”;
 D – average dry bulk density of the deposited tailings (t/m^3);
 P – average porosity of the sedimented tailings (m^3/m^3) defined as the ratio of the volume of voids to the total volume of sedimented tailings.

If exact data are not available, default values of $1.4 t/m^3$ for the dry bulk density and $0.5 m^3/m^3$ for the porosity should be used.

2. The maximum concentration in the aqueous phase (C_{\max}) shall be estimated, using the following formula:

$$C_{\max} = S_i / \Delta Q_i \text{ where}$$

S_i – yearly mass of each identified substance and preparation, discharged into the pond during the year “i”.

Acting for the Minister for Environmental Protection and
Regional Development – Minister for Transport

U. Augulis

Application for Receipt of a Permit for the Storage of Extractive Waste

1. Operator of the extractive waste facility

(firm name (name) of the merchant (or another person))

(date of registration in the Enterprise Register)

(legal address)

Manager

(given name, surname)

For further communication please use (mark the appropriate):

legal address

e-mail address (please indicate) _____

telephone (please indicate the telephone number) _____

fax (please indicate the fax number) _____

2. Address of the extractive waste facility (including the addresses of all alternative locations)

3. Licence for extraction of mineral resources (if any) No. _____, issued on _____

4. Land cadastre number _____

5. Characterisation of the extractive waste facility:

5.1. construction of the extractive waste facility commenced in year _____;

5.2. the intended quantity of the extractive waste facility _____ m³;

5.3. the intended length of operation of the extractive waste facility – _____ years;

5.4. the intended length of operation of the extractive waste facility after receipt of the permit for storage of extractive waste – _____ years.

6. Types of waste disposed at the extractive waste facility prior to receipt of the permit for storage of extractive waste

7. Quantity of waste stored at the extractive waste facility prior to receipt of the permit for storage of extractive waste (m³)

8. Please, issue the permit from _____ to _____ to store the following extractive waste at the extractive waste facility:

No.	Year or another period of time	Type of extractive waste	Quantity of extractive waste (m ³ /per year, specify for each type of waste)
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Annexed:

1. The land boundary plan of the extractive waste facility on ___ pages
2. The list of machinery used by the extractive waste facility on _____ pages
3. The extractive waste management plan on ___ pages
4. A document (a copy) confirming the existence of a financial guarantee in the form of financial security, a security deposit, an insurance policy for the performance of commitments, or a guarantee from a credit institution on _____ pages
5. A copy of the final report of environmental impact assessment or technical provisions on ___ pages

I hereby declare that the information provided in the report is complete and true.

Date¹ _____

Operator of the extractive waste facility or representative thereof²:

given name, surname _____

personal identity number _____

position or number and date of issuance of power of attorney _____

signature¹ _____

Place for seal¹

Notes.

¹ The details “signature”, “date”, and “place for a seal” of the document shall not be completed if the electronic document has been prepared in accordance with the laws and regulations regarding drawing up of electronic documents.

² The application shall be signed by the person with such right according to the documents of incorporation of the commercial company or according to a corresponding power of attorney. The applicant shall present the document confirming the right of representation thereof or a corresponding power of attorney.

Acting for the Minister for Environmental Protection and
Regional Development – Minister for Transport

U. Augulis

Parameters of Monitoring of the State of the Environment at an Extractive Waste Facility and Vicinity Thereof

No.	Parameters of monitoring and control	Frequency of monitoring and control	
		during operation	after closure
1.	Leachate at the extractive waste facility:		
1.1.	quantity	2 times a year	2 times a year
1.2.	chemical composition ¹	2 times a year	2 times a year
2.	Chemical composition of the surface waters ¹	2 times a year	2 times a year
3.	Vacuity of the storage site of the extractive waste ²	once a year	–
4.	Underground water ³ :		
4.1.	level	2 times a year	2 times a year
4.2.	chemical composition ¹	2 times a year	2 times a year

Notes.

¹ The parameters to be determined during analysis of the chemical composition:

- 1) pH (during pumping of a boring well);
- 2) electric conductance (during pumping of a boring well);
- 3) chemical consumption of oxygen;
- 4) total amount of nitrogen;
- 5) total amount of phosphorus;
- 6) chlorides (Cl).

² The capacity of a filled container shall be determined by carrying out a topographic measurement.

³ Samples for chemical analysis of ground waters shall be taken only after the stabilisation of pH and electrical conductivity.

Acting for the Minister for Environmental Protection and
Regional Development – Minister for Transport

U. Augulis

Permit for Storage of Extractive Waste

[27 August 2013; 18 March 2014]

No. _____

1. Issued to _____
(firm name (name) of the merchant (or another person))

(date of registration in the Enterprise Register)

(legal address, telephone number)

2. Permit valid from _____ to _____

3. It is allowed to store the following extractive waste (class and quantity):

No.	Class of waste (name)	Code of the class of waste	Quantity of extractive waste (tonnes per year, specify for each class of waste)

4. Category of the extractive waste facility _____

5. Annexes forming an integral part of the permit:

5.1. waste management plan;

5.2. information on financial guarantees;

5.3. environmental impact assessment report in accordance with the law On Environmental Impact Assessment if the extractive waste facility requires the environmental impact assessment.

Date _____

Annexed: Requirements for storage of extractive waste on _____ pages

Acting for the Minister for Environmental Protection and
Regional Development – Minister for Transport

U. Augulis