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If a whole or part of a section has been amended, the date of the amending law appears in square brackets at the end of the section. If a whole section, paragraph or clause has been deleted, the date of the deletion appears in square brackets beside the deleted section, paragraph or clause.

Republic of Latvia

Cabinet
Regulation No. 92
Adopted 17 February 2004

Requirements for the Monitoring of Surface Water, Groundwater and Protected Areas and the Development of Monitoring Programmes

Issued pursuant to
Section 20, Paragraph three and Section 22, Paragraph five of
the Water Management Law
[27 July 2010]

I. General Provisions

1. This Regulation prescribes the requirements for the monitoring of surface water, groundwater and protected areas and for the development of monitoring programmes, as well as the activities to be performed if the environmental quality objectives set forward have not been achieved in a water body.

2. The State limited liability company "Latvian Environment, Geology and Meteorology Centre" (hereinafter – Centre) shall develop a programme for the monitoring of the water status for each river basin district, and it shall form part of the Environmental Monitoring Programme. The Centre shall involve experts and specialists in the field of water quality assessment in developing of the monitoring programme. The programme shall include the monitoring of surface water and groundwater, including in highly sensitive areas, in accordance with the laws and regulations regarding water and soil protection from the pollution with nitrates caused by agricultural activities, as well as the monitoring of protected areas. The placement of monitoring stations, the parameters to be set and the frequency of sampling shall be determined in the programme. A monitoring programme of protected areas shall include the requirements laid down also in other laws and regulations regarding environmental protection.
[27 July 2010]

3. The Centre shall organise the implementation of monitoring programmes for surface water, groundwater and protected areas within the framework of the competence thereof. The Centre shall be subordinate to the Ministry of Environmental Protection and Regional Development in relation to the carrying out of the requirements referred to in this Regulation. Implementation of the programme for monitoring of bathing waters shall be organised and

performed by the Health Inspectorate. Implementation of the programme for monitoring of marine waters and agricultural run-off shall be organised and performed by the Latvian Institute of Aquatic Ecology in co-operation with the Latvia University of Agriculture according to the competence.
[27 July 2010; 18 December 2012]

4. The Centre has the right to receive information and data regarding any monitoring performed by other State and local government institutions from the relevant institutions.
[27 January 2009; 27 July 2010]

5. The Minister for Environmental Protection and Regional Development shall approve the programme for monitoring of water status. The Centre shall, within three months after approval of the relevant programme, send a notification to the European Commission regarding the programme for monitoring of water status approved by the Minister for Environmental Protection and Regional Development.
[18 December 2012]

5.[1] Chemical monitoring of water status shall be performed in accordance with the requirements referred to in Annex 2 to this Regulation.
[27 July 2010 / Paragraph shall come into force on 20 August 2011. See Paragraph 42]

II. Monitoring of Surface Water

6. Upon developing a programme for monitoring of surface water, the Centre shall conform to the following requirements:

6.1. the number and placement of monitoring stations shall be selected so that the data obtained would ensure a comprehensive overview on the ecological and chemical quality of surface water bodies and on the ecological potential and chemical quality of artificial or heavily modified water bodies and the data obtained would allow the determination of the surface water quality class;

6.2. the programme shall include the parameters to be set, which characterise the ecological and chemical quality criteria laid down in the laws and regulations regarding the types of surface water bodies, characterisation and classification thereof and the procedures for determination of anthropogenic load. The taxonomical level necessary for the monitoring of biological quality criteria shall be determined so as to ensure the credibility and accuracy of the water quality classification;

6.3. the frequency of sampling shall be determined so as:

6.3.1. to ensure the credibility and accuracy of the results obtained;

6.3.2. to show the changeability and seasonal variations of the values of the quality criteria caused by natural conditions and anthropogenic activities.
[27 January 2009; 27 July 2010]

7. The purpose of the surface water monitoring shall be to ensure information regarding the ecological and chemical quality of surface water bodies and the ecological potential and chemical quality of artificial or heavily modified water bodies. According to the tasks set forward, the surface water monitoring shall be divided in:

7.1. surveillance monitoring;

7.2. operational monitoring;

7.3. investigative monitoring.

8. The task of a surface water surveillance monitoring shall be to obtain information:

8.1. in order to evaluate the present status or ecological potential of water bodies and to determine the impact of anthropogenic load;

8.2. in order to optimise the monitoring programme;

8.3. in order to determine a reference status corresponding to the type of surface water bodies;

8.4. regarding natural conditions and anthropogenic activities caused by the changes in the surface water quality within a longer period of time.

9. A surface water surveillance monitoring shall be performed:

9.1. in such number of surface water bodies so that the data obtained would characterise the status of surface water in each catchment area or sub-basin of a water body within the river basin district, as well as provide information regarding the amount of transboundary transfer of pollution and the amount of pollution reaching the marine environment;

9.2. in large surface water bodies, which are substantial to the whole district of the river catchment area, for example, in the large rivers, catchment area of which exceeds 2500 m^2, and in large lakes or water reservoirs;

9.3. in places where significant surface water bodies cross the State border;

9.4. in monitoring stations of the Daugava, the Lielupe, the Venta and the Gauja in order to ensure the exchange of information regarding the quality of surface freshwater in the European Union.

[27 January 2009; 27 July 2010]

10. Surveillance monitoring in a surface water surveillance monitoring station shall be performed within one year and not less than in six years. The frequency of sampling and observations is specified in Annex 1 to this Regulation. On the basis of an expert evaluation, the Centre shall determine different frequency for sampling in relation to physico-chemical criteria, if the changeability of the values of the abovementioned criteria is observed under the influence of natural and anthropogenic conditions and seasonal variations.

[27 July 2010]

11. If data of a surveillance monitoring attest that good status of surface water has been achieved in the relevant water body and the anthropogenic impact on the particular surface water body has not changed afterwards, the surveillance monitoring may be performed within one year during the implementation period of three consecutive plans for the management of river basin districts (hereinafter – management plan).

[18 December 2012]

12. The task of a surface water surveillance monitoring shall be to obtain information:

12.1. regarding the status of surface water bodies and the ecological potential of artificial and highly modified water bodies, in which, upon performing the surveillance monitoring or determining anthropogenic loads, the risk not to achieve the environmental quality objectives set forward (hereinafter – surface water bodies of risk) has been determined;

12.2. regarding the quality changes in the surface water bodies of risk after the implementation of a programme of measures.

13. Operational monitoring of surface water shall be performed in all surface water bodies of risk, as well as in all surface water bodies and artificial and highly modified water bodies, in which the priority substances, including substances especially dangerous to the aquatic environment (hereinafter – the priority substances), and dangerous substances are discharged.

[27 July 2010]

14. Upon determining the number and placement of operational monitoring stations necessary in a surface water monitoring programme, the particular conditions, as well as the following requirements shall be taken into account:

14.1. in a water body, which is affected by one or several point pollution sources, such number of monitoring stations shall be arranged so it would be possible to evaluate the total load created by pollution sources and the impact thereof;

14.2. in a water body, which is affected by diffuse pollution, such number of monitoring stations shall be arranged so it would be possible to evaluate the total load created by pollution and the impact thereof. Water bodies shall be selected so that it would be possible to characterise the potential occurrence risk of such load, as well as to evaluate the probability that the referred to water bodies will not achieve good status of surface water. If the impact caused by diffuse pollution affects several adjacent surface water bodies, monitoring stations may be placed only in part of them if the data obtained regarding the load and impact thereof are sufficient;

14.3. if hydromorphological conditions of a surface water body have been significantly changed by anthropogenic activities, such number of monitoring stations shall be arranged in the water body so that it would be possible to evaluate the impact and the consequences of anthropogenic activities. Water bodies shall be selected so that they would characterise the total impact of hydromorphological load, to which all relevant water bodies are subjected;

14.4. if priority substances and dangerous substances are discharged in a surface water body, the number of monitoring stations shall be determined in accordance with the laws and regulations regarding emission of polluting substances in the water and regarding the quality of surface water.

[27 January 2009; 27 July 2010]

15. Such biological, hydromorphological and physico-chemical quality criteria shall be selected as the parameters to be determined in a programme of surface water operational monitoring, which are mainly affected by the particular load, as well as priority substances and other polluting substances, which are discharged in the relevant water body in substantial amounts, shall be tested. The frequency of sampling and observations is specified in Annex 1 to this Regulation. On the basis of an expert evaluation, the Centre shall determine different frequency for sampling, if the changeability of the values of the referred to quality criteria is observed under the influence of natural and anthropogenic conditions and seasonal variations.

[27 July 2010]

16. If the data of a surface water operational monitoring and the evaluation of anthropogenic load attest that the impact of anthropogenic activities on the water bodies referred to in Paragraph 14 of this Regulation is insignificant or has been eliminated after implementation of the relevant programme of measures, the Centre shall reduce the frequency of operational monitoring and the number of the quality criteria to be included in the monitoring programme.

[27 January 2009; 27 July 2010]

17. The task of a surface water investigative monitoring shall be to ascertain:

17.1. the causes for exceeding the environmental quality standards;

17.2. the causes, which prevent the achievement of environmental quality objectives, if it has been detected during a surveillance monitoring;

17.3. the impact of the pollution caused by accidents on surface waters and to obtain the relevant data in order to develop recommendations for measures of elimination of the consequences of an accident.

18. The placement of surface water investigative monitoring stations, the parameters to be set and the frequency of monitoring in a surface water monitoring programme shall be determined, taking into account the relevant conditions.

18.[1] Monitoring of priority substances and dangerous substances in surface water may be replaced by alternative monitoring of such substances in sediment or biota, if the following requirements are met:

18.[1] 1. for chemical quality assessment of water the laws and regulations regarding aquatic protection lay down the relevant environmental quality standards of priority substances and dangerous substances in sediment or biota;

18.[1] 2. the environmental quality standards referred to in Paragraph 18.[1] 1 of this Regulation ensure a protection level equivalent to aquatic ecosystems as the relevant environmental quality standards in surface water laid down in the laws and regulations regarding aquatic protection.

[27 July 2010]

18.[2] In performing the alternative monitoring referred to in Paragraph 18.[1] of this Regulation, biota or sediment samples shall be taken at least once a year. Upon developing the programme for the monitoring of the water status referred to in Paragraph 2 of this Regulation, the Centre, on the basis of an expert evaluation on changeability of concentration of priority substances and dangerous substances under the influence of natural and anthropogenic circumstances and seasonal variations, may determine other frequency of sampling.

[27 July 2010]

18.[3] Upon replacing the monitoring of priority and dangerous substances in surface water with the alternative monitoring laid down in Paragraph 18.[1] of this Regulation, the Centre shall provide the relevant information to the Commission. The following shall be provided in the information:

18.[3] 1. the reasons for selecting the alternative monitoring shall be justified;

18.[3] 2. information regarding environmental quality standards of priority and dangerous substances in sediment or biota, which are laid down in the laws and regulations regarding aquatic protection, including information regarding data and methods used for determining such quality standards shall be provided;

18.[3] 3. surface water bodies shall be indicated, to which the specific alternative environmental quality standards in sediment or biota apply;

18.[3] 4. the planned frequency of monitoring in sediment or biota shall be indicated and justified.

[27 July 2010; 18 December 2012]

18.[4] On the basis of the information obtained in monitoring of the water status, the institutions referred to in Paragraph 3 of this Regulation according to the competence shall evaluate changes in concentration of such priority substances and dangerous substances in sediment or biota, which accumulate in sediment or biota due to their physico-chemical properties. Long-term trends of changes in concentration shall be analysed for at least the following substances:

18.[4] 1. anthracene;

18.[4] 2. brominated diphenylether;

18.[4] 3. cadmium and its compounds;

18.[4] 4. C_{10-13} chloroalkanes;

18.[4] 5. Di(2-ethylhexyl) phthalate (DEHP);

18.[4] 6. fluoranthene;

18.[4] 7. hexachlorobenzene;

18.[4] 8. hexachlorobutadiene;
18.[4] 9. hexachlorocyclohexane;
18.[4] 10. lead and its compounds;
18.[4] 11. mercury and its compounds;
18.[4] 12. pentachlorobenzene;
18.[4] 13. polyaromatic hydrocarbons (PAO):
18.[4] 13.1. benzo(a)pyrene;
18.[4] 13.2. benzo(b)fluor-anthrene;
18.[4] 13.3. benzo(k)fluor-anthrene;
18.[4] 13.4. benzo(g,h,i)-perylene;
18.[4] 13.5. indeno(1,2,3-cd)pyrene;
18.[4] 14. tributyltin compounds (tributyltin-cation).
[27 July 2010]

18.[5] In order to ensure data for credible analysis of long-term trends of changes in concentration, samples for sediment or biota supervision for carrying out the requirements laid down in Paragraph 18.[4] of this Regulation shall be taken once in three years. Upon developing the programme for the monitoring of the water status referred to in Paragraph 2 of this Regulation, the Centre, on the basis of an expert evaluation on changeability of concentration of priority substances and dangerous substances under the influence of natural and anthropogenic circumstances and seasonal variations, may determine other frequency of sampling.
[27 July 2010]

III. Monitoring of Protected Areas

19. The surface water bodies, which are used for extraction of water intended for human consumption and from which on average more than 100 m^3 of water intended for human consumption per day are extracted, shall be included in the monitoring of protected areas. The following parameters to be set shall be selected in protected area water body monitoring:

19.1. the priority substances and dangerous substances discharged in the relevant water body;

19.2. the substances, which are controlled in water intended for human consumption in accordance with Cabinet Regulation No. 235 of 29 April 2003, *Mandatory Harmlessness and Quality Requirements for Drinking Water, and the Procedures for Monitoring and Control thereof*, and which are discharged in the relevant water body in such amount, which may affect the status of the water body.
[27 July 2010]

20. If on average more than 100 m^3 of water intended for human consumption per day is extracted in a surface water body, the following frequency of sampling shall be determined in a monitoring programme:

20.1. four times a year if drinking water is supplied to less than 10000 residents;

20.2. eight times a year if drinking water is supplied from 10000 to 30000 residents;

20.3. twelve times a year if drinking water is supplied to more than 30000 residents.

21. If there are protected areas in a river basin district, in which special environmental quality objectives have been set forward due to the protection mode thereof, the placement of monitoring stations, the parameters to be set and the frequency of monitoring in a surface water monitoring programme shall be determined, taking into account the particular conditions.

IV. Monitoring of Groundwater

22. Upon developing a programme for monitoring of groundwater, the Centre shall conform to the following requirements:

22.1. such number and placement of monitoring stations shall be selected so that:

22.1.1. credible and sufficient monitoring data would be obtained, ensuring a coherent and comprehensive overview on the indicators of chemical quality of groundwater and a review on water horizons and complexes in each groundwater body, as well as the relevant data in plan and cut would be characterised;

22.1.2. the data obtained would allow the determination of the groundwater quality class;

22.1.3. each trend of changes in quantitative status of groundwater would be detected, all significant and stable upward trends would be identified as regards the concentration of polluting substances, groups of polluting substances or pollution indicators, as well as the starting point would be determined at which measures for preventing or reducing the relevant upward trend should be commenced (hereinafter – the starting point). The upward trend of concentration of polluting substances, groups of polluting substances or pollution indicators is a statistically significant increase, which is also significant to the environment, of concentration of polluting substances, groups of polluting substances or pollution indicators in a groundwater body or group of bodies under the influence of anthropogenic activity, which must be prevented or reduced in accordance with the conditions referred to in Paragraph 40 of this Regulation;

22.1.4. sufficient number of monitoring stations would be included in order to characterise the particular situation and allow the determination of water resources in each groundwater body, taking into account the short-term and long-term restoration changes in water resources;

22.2. in groundwater bodies crossing the border of Latvia such density of monitoring stations and frequency of sampling shall be ensured, which allows the evaluation of the direction, rate and changes in the chemical quality of transboundary groundwater flow, as well as the determination of the cause of changes;

22.3. in groundwater bodies where the risk of non-achievement of the environmental quality objectives set forward (hereinafter – groundwater bodies of risk) has been detected, such density of monitoring stations, selection of location and frequency of sampling shall be ensured so that it would be possible to evaluate the impact of water extraction and artificial replenishment of groundwater stocks on groundwater level, and by identifying the upward trend of the concentration of polluting substances, groups of polluting substances or pollution indicators it would suffice in order to:

22.3.1. on the basis of the information acquired, distinguish accurately and credibly the upward trend of the concentration of polluting substances, groups of polluting substances or pollution indicators and the variations of natural origin;

22.3.2. determine in due time the upward trend of the concentration value of polluting substances, groups of polluting substances or polluting indicators, and to perform measures in order to prevent or reduce significant deterioration of the groundwater quality;

22.3.3. evaluate the temporary physical and chemical properties of a groundwater body of risk, including the specificity and regeneration rate of the groundwater flow and infiltration time of polluting substances through soil or sub-layer of soil;

22.4. such methods of monitoring and analyses shall be used, which conform to the international quality control principles, including standard methods of the European Committee for Standardisation or internationally recognised standard methods of states and

organisations in order to ensure equivalent scientific quality and comparability of the data obtained;

22.5. upon performing the trend analysis of data time series for monitoring places, the statistical method, inclusion regression analysis, shall be used for evaluation;

22.6. in order to avoid any errors in determination of upward trends in the concentration of polluting substances, groups of polluting substances or pollution indicators in groundwater bodies of risk, all such measurement results of groundwater quality indicators, which do not reach the limit of quantification, shall be assigned such value, which is equivalent with half of the highest limit of quantification evaluated in time series, except total pesticides.

[27 January 2009; 27 July 2010; 18 December 2012]

23. Groundwater monitoring shall ensure information regarding quantitative status and chemical quality of groundwater bodies.

24. The task of the monitoring of groundwater quantitative status shall be to obtain information in order to evaluate:

24.1. the impact of anthropogenic load;

24.2. changes in quantitative status of the groundwater body observed over a longer period of time, which are caused by changes in natural conditions or by anthropogenic activities.

25. Monitoring of groundwater quantitative status shall be performed in:

25.1. groundwater bodies of risk;

25.2. groundwater bodies where artificial replenishing of groundwater stocks takes place;

25.3. groundwater bodies, which are located in regional depression districts of groundwater;

25.4. parts of those groundwater bodies where concentrated groundwater extraction takes place if the groundwater stocks in groundwater deposit exceed 100 m^3 per day;

25.5. territories where intense replenishment of groundwater complexes or horizons, which are significant for water supply, takes place;

25.6. groundwater bodies, which cross the State border of Latvia.

26. Such number and placement of monitoring stations, as well as frequency of groundwater level observations shall be determined for the monitoring of the groundwater quantitative status in a groundwater monitoring programme, which allows the evaluation of the replenishment conditions and amounts of groundwater resources, as well as of the impact of water extraction and anthropogenic activities of other types on groundwater resources, taking into account short-term and long-term restoration changes in groundwater resources.

[27 January 2009]

27. In groundwater deposits where groundwater stocks exceeds 100 m^3 per day, the user of water resources shall ensure the monitoring of the quantitative status of groundwater according to the requirements specified in the groundwater deposit passport. Results of the monitoring shall be submitted to the Centre once a year.

[27 July 2010]

28. According to the task set forward the monitoring of groundwater chemical quality shall be divided in:

28.1. surveillance monitoring;

28.2. operational monitoring;

28.3. investigative monitoring.

29. The task of the monitoring of groundwater chemical quality shall be to obtain information in order to evaluate:

29.1. the impact of anthropogenic load, as well as to confirm the accuracy of evaluation thereof and to obtain additional information regarding anthropogenic loads;

29.2. chemical quality changes in groundwater over a longer period of time, which have occurred under the influence of natural conditions or anthropogenic activities;

29.3. the necessity to optimise the monitoring programme.

[27 January 2009]

30. Surveillance monitoring of groundwater chemical quality shall be performed in:

30.1. groundwater bodies of risk;

30.2. groundwater bodies, which are significant for the supply of water intended for human consumption and where concentrated groundwater extraction takes place if the groundwater stocks in groundwater deposit exceeds 100 m^3 per day;

30.3. groundwater bodies, which cross the State border of Latvia.

31. The parameters to be set in a surveillance monitoring of chemical quality of the groundwater monitoring programme shall be selected according to the type of pollution and polluting substances, which affect the water body. At least the following shall be tested in the surveillance monitoring of chemical quality:

31.1. the oxygen content;

31.2. the negative logarithm of the hydrogen ion concentration (pH);

31.3. electrical conductivity;

31.4. nitrate ions;

31.5. ammonium ions;

31.6. chloride ions, sulphate ions, hydrogencarbonate ions, as well as sodium, potassium, calcium and magnesium ions;

31.7. organic substances.

[27 January 2009]

32. In addition to the parameters referred to in Paragraph 31 of this Regulation:

32.1. monitoring of such parameters to be set shall be performed in groundwater bodies of risk, which characterise the cause and impact of the problem that caused the risk;

32.2. monitoring of such parameters to be set shall be performed in groundwater bodies crossing the State border of Latvia, which allow the consideration of the suitability of water for present and potential ways for usage of water, as well as allow the determination of the risk of transboundary impact and the evaluation of transboundary impact.

33. The task of the operational monitoring of groundwater chemical quality shall be to obtain information in order to:

33.1. determine the chemical quality for all groundwater bodies of risk;

33.2. determine the trend of increase in concentration of polluting substances caused by continuous anthropogenic impact;

33.3. control the groundwater quality changes in such parts of groundwater bodies where concentrated groundwater extraction takes place if the groundwater stocks in groundwater deposit exceeds 100 m^3 per day, and in deposits where groundwater stocks is replenished artificially, as well as in regions where intense replenishment of groundwater takes place;

33.4. to justify the programmes of measures of individual water bodies or the necessary remediation measures.

34. Operational monitoring of groundwater chemical quality shall be performed not less than once a year. The Centre shall determine the number and placement of operational monitoring stations of groundwater chemical quality, the parameters to be set and the frequency of sampling in the groundwater monitoring programme, taking into account the particular conditions and the results of surveillance monitoring, as well as the condition that the data obtained in the particular station would be representational with respect to the quality of the particular groundwater body. Operational monitoring shall be mandatorily performed in all water bodies of risk.
[27 January 2009; 27 July 2010]

35. In groundwater deposits where groundwater stocks exceeds 100 m^3 per day, as well as if groundwater resources are replenished artificially, the user of water resources shall ensure the operational monitoring of groundwater chemical quality according to the requirements specified in the groundwater deposit passport. The user of water resources shall submit the results of the monitoring to the Centre once a year.
[27 July 2010]

36. The task of a groundwater investigative monitoring of chemical quality shall be to ascertain:

36.1. the causes for exceeding the environmental quality standards;

36.2. the causes, which prevent the achievement of environmental quality objectives, if it has been detected during a surveillance monitoring;

36.3. the impact of the pollution caused by accidents on surface waters and to obtain the relevant data in order to develop recommendations for measures of elimination of the consequences of an accident.

37. The placement of groundwater investigative monitoring stations, the parameters to be set and the frequency of monitoring in a groundwater monitoring programme shall be determined, taking into account the relevant conditions.

V. Activities to be Performed if Environmental Quality Objectives Set Forward have not been Achieved in Water Bodies

38. If the results of a surface or ground monitoring or other data attest that the environmental quality objectives set forward for the particular water body have not been achieved or will not be achieved in the planned deadlines, the Ministry of Environmental Protection and Regional Development shall:

38.1. obligate the Centre:

38.1.1. to study and evaluate the reasons for the non-conformity;

38.1.2. where appropriate, to perform additional evaluation of concentration trends of polluting substances in groundwater, quality of which may be endangered by point or diffuse pollution, in order to ascertain whether the area of pollution does not expand, does not deteriorate the chemical quality of groundwater body and does not cause risk to the human health and environment;

38.1.3. to revise and define more precisely the programmes of monitoring and measures;

38.2. obligate the regional environmental boards to revise the conditions of permits for polluting activity of category A or B or permits for the use of water resources, to reduce the emission limits specified or to change the conditions for the use of water resources. Upon revising the conditions of a permit for direct or indirect emission of polluting substances caused by anthropogenic load in groundwater, the regional environmental board shall evaluate

whether prevention or restriction of the referred to emissions is technically possible without the performance of such measures, which would increase the hazard to human health or the environment, as well as shall evaluate whether the measures for the reorganisation and control of the polluted groundwater sites are not disproportionately expensive. If after the evaluation the regional environmental board, in accordance with the laws and regulations regarding discharge of polluting substances into water, includes direct emission in groundwater in the conditions of the relevant permit, the board shall record such permits;

38.3. [27 January 2009];

38.4. perform other measures in order to prevent further deterioration of the status of surface or groundwater, substantial increase in concentration of priority and dangerous substances in sediment and biota, and to promote the improvement of the status of surface or groundwater.

[27 January 2009; 27 July 2010; 18 December 2012]

39. The Ministry of Environmental Protection and Regional Development shall not instruct to perform the measures referred to in Paragraph 38 of this Regulation if it is not possible to achieve the environmental quality objectives because of insurmountable circumstances, for example, great flood or lasting draught.

[18 December 2012]

40. In order to gradually reduce the pollution of groundwater, including to change the upward trends in the concentration of polluting substances, groups of polluting substances or pollution indicators, which cause significant risk of harm to the quality of aquatic ecosystems or terrestrial ecosystems, human health or use of the aquatic environment now or in future, and to prevent the deterioration of the water quality in groundwater bodies of risk, as well as taking into account the environmental quality objectives set forward for the particular water body, the Centre shall perform the tasks referred to in Sub-paragraph 38.1 of this Regulation, revise the programme of measures, as well as:

40.1. on the basis of the information obtained during monitoring, shall identify such groundwater bodies or parts of water bodies where measures for changing of the upward trends of the concentration of polluting substances, groups of polluting substances or pollution indicators should be performed. The responsible authorities determined in the management plan shall commence measures if the concentration of a polluting substance reaches 75 per cent of the environmental quality standard or limit value laid down in accordance with the laws and regulations regarding procedures for ascertaining of groundwater resources and quality criteria. Starting point values for each groundwater body of risk shall be determined once every six years, developing management plans. Starting point values shall not be changed within the time period comprised by one management plan. Measures may also be commenced at other time if:

40.1.1. it is economically more advantageous to perform the relevant measures before the concentration of polluting substances reaches 75 per cent of the environmental quality standard or limit value;

40.1.2. the limit of detection of the method of analysis of the concentration of a polluting substance does not allow accurate determination of 75 per cent of the environmental quality standard or limit value of the abovementioned substance, therefore, a starting point other than that laid down in Sub-paragraph 40.1 of this Regulation must be selected;

40.1.3. the rate of changes in the upward trends of the concentration of polluting substances, groups of polluting substances or pollution indicators attests that later commencement of measures will still ensure the possibility to prevent or reduce significant deterioration of groundwater quality in the most economically advantageous way and the achievement of the environmental quality objectives set forward for a particular water body will not be delayed;

40.1.4. for activities to which a law or regulation regarding water and soil protection from pollution with nitrates caused by agricultural activity applies, the starting point shall be determined, taking into account the concentration of nitrates laid down in the abovementioned law or regulation and the environmental quality objectives laid down in accordance with the Water Management Law;

40.2. in determining the upward trends in the concentration of polluting substances, groups of polluting substances or pollution indicators for polluting substances that are both natural and occur as a result of anthropogenic activity, information regarding the baseline level of such substances, which is the average value of the concentration of the abovementioned substances, if obtained by implementing the water status monitoring programme developed in accordance with the Water Management Law, as well as the data aggregated before the commencement of the abovementioned monitoring programme shall be used in the management plans for 2010-2015 developed in accordance with the abovementioned law. The Centre shall prove changes in the upward trends of polluting substances, groups of polluting substances or pollution indicators by statistically justified data obtained during monitoring the course of which conforms to the conditions referred to in Sub-paragraphs 22.3, 22.4, 22.5 and 22.6 of this Regulation.
[18 December 2012]

41. A summary regarding the evaluation results referred to in Sub-paragraph 38.1.2 of this Regulation shall be included in the management plan once in six years.
[18 December 2012]

VI. Closing Provision

[27 July 2010]

42. Paragraph 5.[1] of and Annex 2 to this Regulation shall come into force on 20 August 2011.

Informative Reference to European Union Directives

[27 January 2009; 27 July 2010]

This Regulation contains legal norms arising from:

1) Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy;

2) Directive 2006/118/EC of the European Parliament and of the Council of 12 December 2006 on the protection of groundwater against pollution and deterioration;

3) Council Directive 91/676/EEC of 12 December 1991 concerning the protection of waters against pollution caused by nitrates from agricultural sources;

4) Directive 2008/105/EC of the European Parliament and of the Council of 16 December 2008 on environmental quality standards in the field of water policy, amending and subsequently repealing Council Directives 82/176/EEC, 83/513/EEC, 84/156/EEC, 84/491/EEC, 86/280/EEC and amending Directive 2000/60/EC of the European Parliament and of the Council;

5) Commission Directive 2009/90/EC of 31 July 2009 laying down, pursuant to Directive 2000/60/EC of the European Parliament and of the Council, technical specifications for chemical analysis and monitoring of water status.

Prime Minister E. Repše

Minister for Environment R. Vējonis

Annex 1
Cabinet Regulation No. 92
17 February 2004
[27 July 2010]

Frequency of Sampling for Surface Water Monitoring

I. Frequency of Sampling for Surveillance Monitoring

No.	Quality criteria	Rivers	Lakes	Transitional waters	Coastal waters
1.	**Biological criteria**				
1.1.	phytoplankton	not less than once a year	not less than once a year	not less than once a year	not less than once a year
1.2.	other aquatic plants (flora)	not less than once a year	not less than once a year	not less than once a year	not less than once a year
1.3.	macrozoobenthos (invertebrates)	not less than once a year	not less than once a year	not less than once a year	not less than once a year
1.4.	fish	not less than once a year	not less than once a year	not less than once a year	–
2.	**Hydromorphological criteria**				
2.1.	continuity	not less than once a year	–	–	–
2.2.	hydrology	continuously	once a month	–	–
2.3.	morphology;	once during a monitoring	once during a monitoring	once during a monitoring	once during a monitoring
3.	**Physico-chemical criteria**				
3.1.	temperature	once every three months	once every three months	once every three months	once every three months
3.2.	oxygen content	once every three months	once every three months	once every three months	once every three months
3.3.	salinity	once every three months	once every three months	once every three months	–
3.4.	biogenic elements	once every three months	once every three months	once every three months	once every three months
3.5.	acidification	once every three months	once every three months	–	–
3.6.	other polluting substances	once every three months	once every three months	once every three months	once every three months
3.7.	priority substances	once a month	once a month	once a month	once a month

II. Frequency of Sampling for Operational Monitoring

No.	Quality criteria	Rivers	Lakes	Transitional waters	Coastal waters
1.	**Biological criteria**				
1.1.	phytoplankton	not less than once every six months	not less than once every six months	not less than once every six months	not less than once every six months
1.2.	other aquatic plants (flora)	not less than once every three years	not less than once every three years	not less than once every three years	not less than once every three years
1.3.	macrozoobenthos (invertebrates)	not less than once every three years	not less than once every three years	not less than once every three years	not less than once every three years
1.4.	Fish	not less than once every three years	not less than once every three years	not less than once every three years	–
2.	**Hydromorphological criteria**				
2.1.	continuity	not less than once every six years	–	–	–
2.2.	hydrology	continuously	once a month	–	–
2.3.	morphology	not less than once every six years	not less than once every six years	not less than once every six years	not less than once every six years
3.	**Physico-chemical criteria**				
3.1.	temperature	not less than once every three months	not less than once every three months	not less than once every three months	not less than once every three months
3.2.	oxygen content	not less than once every three months	not less than once every three months	not less than once every three months	not less than once every three months
3.3.	salinity	not less than once every three months	not less than once every three months	not less than once every three months	–
3.4.	biogenic elements	not less than once every three months	not less than once every three months	not less than once every three months	not less than once every three months
3.5.	acidification	not less than once every three months	not less than once every three months	–	–
3.6.	other polluting substances	not less than once every three months	not less than once every three months	not less than once every three months	not less than once every three months
3.7.	priority substances	not less than once a month	not less than once a month	not less than once a month	not less than once a month

Minister for Environment R. Vējonis

Annex 2
Cabinet Regulation No. 92
17 February 2004

Requirements for Chemical Monitoring of Water Status

[27 July 2010 / Annex shall come into force on 20 August 2011. See Paragraph 42]

1. Public persons or private individuals who, in the laws and regulations regarding water protection, have been laid down a duty to perform monitoring which includes chemical monitoring of water status, shall ensure conformity with the following requirements:

1.1. all laboratories, field and online testing methods, which are used for testing physico-chemical and chemical parameters of water, sediment and biota in monitoring of water status, are validated (evaluated) and documented in accordance with the requirements of the standard LVS EN ISO/IEC 17025:2005 "General requirements for the competence of testing and calibration laboratories";

1.2. laboratories or their subcontractors, with which a laboratory has entered into a contract regarding carrying out of specific work in relation to chemical monitoring (hereinafter – subcontractors), participate in proficiency tests:

1.2.1. which are organised by organisations accredited in the European Union Member States, states of the European Economic Area and the Republic of Turkey or by competent authorities that conform to the technical specifications for chemical analysis and monitoring of water status laid down in legal acts of the European Union in relation to proficiency tests;

1.2.2. the results obtained in which are evaluated according to result scoring systems that conform to the standards laid down in legal acts of the European Union regarding technical specifications for chemical analysis and monitoring of water status as regards proficiency tests or application of statistical methods in evaluation of proficiency test results, performing interlaboratory testing.

2. The chemical monitoring testing methods of water status must evaluate at least:

2.1. the limit of detection as the value of output signal or concentration, above which it may be asserted with a pre-determined level of confidence that the sample is different from an blank sample which does not contain the parameter to be determined;

2.2. limit of quantification as a pre-stated multiple of the limit of determination at such concentration of the parameter to be determined, which may be justifiably determined with acceptable exactness and accuracy. The limit of quantification may be calculated, using a corresponding standard substance or sample, as well as it may be obtained from the lowest calibration point of the calibration curve, disregarding the blank sample;

2.3. measurement uncertainty as a positive parameter that characterises the dispersion of quantitative values of the value to be measured. Experimental data, testing internal control data, expert evaluation, as well as literature data and data of comparison tests of representative laboratories may be used for determination of uncertainty.

3. Such testing methods shall be used in chemical monitoring of water status, the performance characteristics of which ensure fulfilment of the following requirements:

3.1. measurement uncertainty, which has been evaluated for a specific parameter at the level of the relevant environmental quality standard, is 50% or less, if k = 2 (k is a numerical value used in statistics – coverage factor which is used as the multiplier for the calculation of

uncertainty in order to ensure the level of confidence of at least 95% for measurement uncertainty);

3.2. limit of quantification of a specific parameter is equal to 30% or is less than 30% from the value of the relevant environmental quality standard.

4. If a specific parameter has not been determined a respective environmental quality standard or there is not such testing method that ensures conformity with the requirements laid down in Paragraph 3 of this Annex, chemical monitoring of water status shall be performed using the best available analytical methods which do not result in incommensurate costs.

5. The following requirements shall be conformed to in calculating the average value of monitoring results:

5.1. if individual values of physico-chemical or chemical measurements in the particular sample are less than the limit of quantification of the relevant parameter, then results of such measurements for calculating the average value shall be determined as half of the relevant limit of quantification;

5.2. if the calculated average value of measurements results is less than the limit of quantification of the relevant parameter, the calculated value shall be indicated as "smaller than the limit of quantification";

5.3. the conditions referred to in Sub-paragraph 5.1 of this Annex do not apply to measurements determined as the sum total of a group of physico-chemical parameters or a group of chemical parameters, including the substantial metabolites, degradation and reaction products thereof. In the cases referred to in this Paragraph the results under the limit of quantification of individual substances shall be considered as equivalent to zero.

6. For quality assurance and control of results of chemical monitoring of water status, laboratories or their subcontractors shall conform to the following requirements:

6.1. any activity that includes chemical monitoring of water status is performed according to the procedures of the quality management system, which conform to the requirements of the standard LVS EN ISO/IEC 17025:2005 "General requirements for the competence of testing and calibration laboratories";

6.2. attest their competence by analysing the relevant physico-chemical or chemical parameters according to the following requirements for quality assurance of testing results:

6.2.1. by participating in proficiency tests in which testing is performed applying the testing methods referred to in Sub-paragraph 1.1 of this Annex and in which the parameters provided for analysis are at the level of such concentration, which is characteristic to concentration of the parameters to be determined in samples of the relevant chemical monitoring;

6.2.2. by analysing the available reference materials, the composition of which is characteristic to samples of the relevant chemical monitoring, in which concentration of the parameters to be determined is at the level of concentration determined in the corresponding environmental quality standards.