

169/1975 Coll.
THE REGULATION
of the Ministry of Forest and Water Management
of the Slovak socialist Republic
from 24 November 1975
on Professional Technical-Security Supervision at some
Water Management Works, and on Technical-Security Supervision
of the National Committees on them

The Ministry of Forest and Water Management of the Slovak socialist Republic establishes, according to the Article 41 paragraph 1 c) of the Act No. 138/1973 Coll. on the Water (the Water Act), and according to the Article 10 paragraph 5 of the Act of the Slovak National Council No. 135/1974 Coll. on State Administration in the Water Management:

Article 1

This Regulation regulates professional technical-security supervision on the barrages, dams, dikes, as well as on parts of the buildings, determined for modification of water flows, for the protection against flooding, for shipping purposes, for water withdrawals, for discharging the waste water, and for the other usage of the water, as well as on created ponds (hereafter “works”) the administrators (owners, users, respectively investors) of these works, are obliged to arrange, and also the technical-security supervision, which, at the works, is being realised by the national committees.

PART ONE

Volume One

Professional technical-security supervision

Article 2

(1) Professional technical-security supervision (hereafter “supervision”) is professional activity for exploring technical statement of the work, from its security and stability point of view, and possible reasons of the breakdowns, and for proposing the measures for improvement.

(2) The supervision is being arranged in the period of preparation of the work, and is being realised during the construction, or reconstruction, during whole period of operation of the work, until closing the work for harmless statement.

(3) Investor fulfils the obligations, imposed for the administrator, according to this Regulation, during the preparation and construction of the work.

Volume Two

Categories of the works

Article 3

(1) For the aims of the supervision, the works are being categorised into I. to IV. category. The category of the work is being determined by the Ministry of Forest and Water Management of the Slovak socialist Republic (hereafter “the Ministry”), after negotiating with relevant regional national committee.

(2) When it is the work, with the exemption of the works, which were under construction or operation, as for the 1st of January, 1974, the administrator is obliged, no later than before finishing the project task of the construction, or reconstruction, respectively within 6 months from the day of the force of this Regulation, to submit to the Ministry the proposal for determining the category of the work. To his proposal, he is obliged to enclose professional expertise of the organisation, authorised by the Ministry to realise the supervision (hereafter “authorised organisation”), containing the proposal of the work category, and criteria, used for elaborating the proposal of the category; the Ministry will determine the category of the

work, without the proposal from the administrator, for the works, which as for the 1st of January, 1974, were under the construction or operation.

(3) After the reconstruction, or modification in the usage of the work, and for the works of the III. and IV. categories, as well as when the construction at the area, endangered by the work, is being changed, the administrator is obliged to propose examination of determined category of the work, to the Ministry.

Volume III Principles of performing the supervision

Article 4

In the frame of supervision, according to the kind and type of the work, adequately to the category and to technical statement, mainly changes and appearance of following facts and realities are being monitored:

- a) static and dynamic stability of the work, respectively its parts,
- b) space changes of the work, as a complex against its surroundings,
- c) work deformation, mutual shifting of individual parts of the constructions, splits in construction material,
- d) deformation of sub-base,
- e) physical-mechanical characteristics of construction and sub-base materials,
- f) regime of ground and soaking water, i.e. the pressure of the water, connections of the soakings, the direction and the speed of the water flow, partial and total quantity of the soakings, water jetting in the area of the work,
- g) the functions of protecting, sealing, filtration and drainage elements of the work and of its sub-base,
- h) hydraulic fall in construction and sub-base materials and their filtration stability,
- ch) the influence of the surroundings to technical statement of the work, and of its technological equipment, i.e. weather influences (mainly freeze, and wave-beating), slumping of the banks of the pond and slumping in close area of the work, aggressive influences of the air and water in the pond, ground and soaking water, the influences of construction and tearing jobs around the work, earthquakes, undermining, influences of operational and transport quakes, the influences of vegetation and animals, and non-approved actions of the third persons,
- i) the influence of the operation to technical statement of the work and to its technological equipment, i.e. the influences of the manipulation with water in the pond, mechanical and other influences of discharged water and by the water floated materials, out-usage and possible influences of breaking the locks and dike constructions of the spouts, overfalls and withdrawing equipment,
- j) flow relations in compare to original assumptions of the proposal for discharging and overfall equipment, e.g. influencing the flows at upper flow by new works, by breaking or by cancelling the existing works, by change of outflow relations in the watershed, by ice barriers, by vegetation,
- k) other facts and realities, which may, according to local circumstances, influence the security of the work.

Article 5

(1) Supervision is being realised mainly by viewing the work, measuring its deformations, soakings, and elaborating, analysis and evaluating the results of all examinations and measuring, in the relation to

predetermined marginal 1) or critical values, 2) assumptions of the project, knowledge from the construction, and from previous operation of the work.

(2) Reasonably divided monitoring of the realities, including common measuring of the values and statements, which are significant for the security of the work, also by-passing around, reports and inspections are the basis for realising the supervision.

(3) The selection of possible reasons of the breakdowns and other facts and realities, which are being monitored by the supervision, the selection of the measures and methods of monitoring and measuring, the quantity of installed equipment, the extent and quantity of working actions must be proportional to the category of the work, statement and operation of the work, respectively to local conditions, and must be in accordance with valid technical norms and current statement of engineer knowledge and possibilities of realisation.

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- 1) Marginal value is the expected limit value of the fact or reality for chosen statement of loading.
 - 2) Critical value is the value of monitored fact or reality, of which appearance inspires the awareness for the security of the work, and during which, the emergency measures are being therefor prescribed.

Article 6

(1) For the works of I. and II. categories, the administrator is obliged to arrange realisation of the supervision through authorised organisation, to which, he is obliged to submit the basis, according to the Article 5 paragraph 2, in the extent, determined by the program of the supervision.

(2) For the works of III. and IV. categories, the administrator realise the supervision by himself.

(3) The supervision is being realised proportionally to the category of the work, but at least in the extent, determined by this Regulation. As for the works of I. and II. categories, the administrator and authorised organisation may agree on temporary or permanent modification of the supervision over the extent, determined by this Regulation.

Article 7

The reports are being elaborated on the supervision, during the construction or reconstruction partial and total ones, during testing operation of the work partial and total ones, and during permanent operation of the work stage and total stage reports.

Article 8

Administrator is obliged to submit all the reports on the supervision to water management body, which is authorised to admit the work (hereafter “relevant water management body”); as for the works of I. and II. categories, he is obliged to arrange this submitting, through the authorised organisation.

Article 9

In the case, when during the construction or reconstruction of the work, the supplier uses such technology of the construction or reconstruction, that it would temporary create such construction, which captures, or is able to capture water, then the supplier is obliged to arrange the supervision, which is by this Regulation ordered to the administrator, in the relation to this part of the construction or reconstruction.

Volume Four

The extent of the supervision at the works of individual categories

Article 10

(1) As for the works of I. category, all the facts and realities, are being monitored, change of which may objectively signalise or cause overreaching of the assumptions of the project in such extent, that the level of the stability of the work or its important part would decrease under acceptable limit, determined by technical norms. Weather and operation conditions are being monitored in the extent, necessary for evaluating all the monitored facts and realities.

(2) Measuring is necessary to be realised not only in the spots, which characterise average values, but also in the spots, where un-connected development of the facts could mainly appear, e.g. breakdowns in the foundations, changes in organisation and in connection of sealing and draining elements.

(3) Authorised organisation will determine usage of several methods of measuring, in case of doubt on reliability of the method of monitoring the most important facts and realities.

Article 11

As for the works of II. category, the extent of the supervision is the same as for the works of I. category, with the notification, that it is not necessary to monitor the facts and realities, the existence of which, respectively non-adequate change, may be explained, in time, by other fact or complete expression, e.g. from total soakings, total deformations or shifting. Measuring are regularly focused on characteristic profiles. Only such weather and operation conditions are being checked, which immediately explain monitored facts and realities.

Article 12

As for the works of III. category, the supervision is being realised by professional evaluating of the facts and realities and their development, which are being explored regularly only during by-passing around. Out of common measuring, only measuring the soakings, respectively also the pressures of the water and measuring total deformations on the surface of the work are being implemented. Out of weather and operation conditions, only rains and the air temperatures and the level of the water in the pond, are being monitored.

Article 13

As for the works of IV. category, the supervision is being realised by evaluating the facts and realities, discovered during by-passing around. Measuring is being implemented only temporary for explaining unusual facts and realities.

Volume Five

The preparation of the supervision before the construction or reconstruction of the work

Article 14

(1) Administrator is obliged to enclose comment on the extent of the supervision from authorised organisation to project task of the building or reconstruction of the work of I. to III. category; for the works of IV. category the comment on the extent of the supervision, is not being elaborated.

(2) The comment on the extent of the supervision contains mainly:

- a) detail description and analysis of the risks, connected with future existence of the work in given environment, and the perspective of the future operation regime,
- b) the requirements for explore and project jobs over the frame of valid Czechoslovak state and department norms,
- c) the requirements for the future supervision tools, for the equipment and facilities for viewing and measuring,
- d) the requirements for connection tools, for warning and signalising

equipment for the aims of supervision, as well as for emergency measures during the construction and operation,

e) orientation estimation of the costs for the tools of supervision and its realisation, during construction or reconstruction, and during the operation of the work.

Article 15

(1) As for the works of I. and II. categories, the administrator arranges, together with project documentation, also elaboration of the project for measuring, and it will be elaborated at the level, at which the project documentation is elaborated. As for the works of III. category, the administrator arranges the project of measuring only in the cases, when authorised organisation will propose it in the comment on the extent of supervision; as for the works of IV. category, the project of measuring is not being arranged.

(2) The project of measuring must depart from the comment on the extent of supervision, from the requirements of relevant technical norms, and from the principles of realising supervision (the Articles 4 and 5).

(3) The project of measuring contains, besides the documentation of control equipment, mainly:

- a) overview of significant assumptions of the security and stability of long-term operation of the work, and estimation of its security,
- b) the proposal and explanation of the type, extent and preciseness of the methods of measuring and of the equipment and facilities for realising the supervision,
- c) overview of marginal values of monitored facts and realities, influencing the security of the work, and the environment endangered by it,
- d) the proposal of secure access to measuring equipment, and of the actions for arranging secured realisation of measuring, and of maintenance of measuring equipment, including its protection against breaking,
- e) schedule of the installations and of the first measuring, according to the progress of the construction.

(4) If any of the requirements, listed in the comment on the extent of supervision, will not be solved in the project of measuring, then these will have to be reflected into any other part of the project documentation.

Volume Six

The supervision during construction or reconstruction of the work

Article 16

(1) The supervision during construction or reconstruction, is being realised for the works of I. to III. categories, according to the comment on the extent of supervision (the Article 14). As for the works of all the categories, the schedule of inspections and measuring, will be determined after the agreement with author supervision of the project.

(2) The administrator is obliged, during the construction or reconstruction of the work, to arrange the subsequence of supplier's jobs, so that the equipment and facilities for inspection and measuring could be built in time and professionally, verified and protected against breaking, and so that the continuity of inspecting and measuring and reliability of the results are not being put in danger. As for the works of I. and II. categories, the administrator will arrange professional expertise of building the equipment and facilities, including verification of technical documentation, through authorised organisation.

(3) The supervision, during the construction or reconstruction of the work, must be in accordance with the progress of the construction or reconstruction of the work.

Article 17

(1) The results of inspection and measuring are, as for the works of I. and II. categories, processed during the construction, at least in one partial report; total report on the supervision, during the construction, must be processed before starting the testing operation.

(2) As for the works of III. and IV. categories, respectively during the reconstruction of the works of I. and II. categories, only total report on supervision during construction or reconstruction is being processed, before starting the operation.

(3) As for the works of IV. category, neither partial, nor total report on supervision during construction or reconstruction of the work, is being processed.

Article 18

Total report on supervision during construction or reconstruction of the work contains:

- a) description of the supervision,
- b) documentation of placing and description of all built-in measuring equipment and facilities, determined for supervision,
- c) total processing of the results of all, until now realised viewing and measuring,
- d) evaluation of all monitored facts and discovered realities, in compare with the assumptions of the project, and their influence on the security and stability of the work and of its sub-base,
- e) the program of the supervision in testing operation.

Volume Seven

Supervision in testing operation of the work

Article 19

(1) Testing operation of the work is the period of the first loading of the work, as a complex, by elevated water, and it includes testing such operation situations, and in such number of repeats, that fulfilling of the project assumptions may be responsibly evaluated, and reliable function and security of the work can be determined.

(2) Supervision at the works of I. to III. categories, is being realised according to the program of supervision in testing operation; for the works of IV. category, the program of supervision is not being elaborated.

(3) Supervision program in testing operation of the work contains:

- a) data on by who and which viewing and measuring are being realised,
- b) detail instructions (terms, working procedures, result taking) for measuring, realised by the operator of the work,
- c) instructions for by-passing around, realised by operator of the work,
- d) marginal, respectively critical values of monitored facts and realities,
- e) instructions on which results of measuring and by-passing around, and to whom, the operator of the work is obliged to report immediately, which connection tools he will use, which emergency and warning measures are available for extraordinary situations,
- f) the form of the reports, instructions for filling it out, terms of sending, and addresses of main representatives of supervision,
- g) data on who, and in which terms, processes and evaluates the results in partial reports.

(4) The program of supervision in testing operation of the work is being stored in, at least one, elaboration

- a) by the administrator,
- b) by authorised organisation for the works of I. and II. categories,
- c) by the operator of the work.

(5) The administrator is obliged to determine main supervision representative. Such appointment, he is obliged to report to relevant water management body. The administrator of the work of I. or II. category, is obliged to report also the name of main representative of supervision from authorised organisation.

Article 20

(1) Inspections and measuring at the works of I. to III. categories, are being realised in the extent and in the terms, according to the program of supervision. As for the works of IV. category, the inspections and measuring, are being realised in the extent, according to the Article 13 of this Regulation.

(2) The results of measuring are being written into reports. Operator of the work will immediately report discovering of marginal, respectively critical values, to main representatives of supervision.

(3) The results of measuring must be immediately compared to predetermined marginal, respectively to critical values, or to predetermined marginal development of monitored facts.

Article 21

(1) The work and its close surrounding, flow ratios, regularity of operation of all mechanisms, appearance of splits and clear deformations, shifting, appearance of soaking, jetting and wet up to moody spots, influences of the operation and environment on technical statement of the objects and technological facilities, mainly constructions of draining, overfall and withdrawing equipment are being monitored during by-passing around.

(2) By-passing around are being performed at least once a day at works of I. category, three times per week at works of II. category, once a week at works of III. category, and once a month at works of IV. category.

(3) By-passing around are being conducted by the operator of work.

(4) The results of by-passing around are being written into the reports. The operator of the work immediately reports discovering of marginal or any other unusual realities, which could influence the security and stability of the work, to main representatives of supervision.

Article 22

(1) Reporting the results of measuring and of by-passing around is being realised at the works of I. to III. categories on the form, according to supervision program, at the works of IV. category, in the form of written notice. Data on who, and when realised measuring, respectively by-passing around, are being mentioned in the report.

(2) The report is being elaborated in two, respectively in three copies. Original is being stored by the operator of the work. Other copies are being sent to main representatives of supervision.

(3) The report is being sent immediately, after finishing the periods, determined by supervision program, at least twice a month for the works of I. category, once a month for the works of II. category, once a two months for the works of III. category, once a six months for the works of IV. category.

Article 23

(1) The administrator, or authorised organisation at the works of I. and II. categories, will judge the data from reports, no later than by the end of the period for submitting another report. Discovered marginal values and realities, or other extraordinary data, reported by the operator of the work immediately after discovering, are being judged immediately.

(2) If administrator or authorised organisation, at the works of I. and II. categories, during judging or processing the results of inspection and measuring, find out, that the development of monitored facts or realities does not fulfil the assumptions, then he will verify the data at the sight, will implement additional measuring, examining investigation, respectively any other measures, until the explanation of extraordinary development, and until realising the repair.

(3) In case, that the fact or the reality reaches critical values, the administrator is obliged to realise emergency actions immediately.

Article 24

(1) Partial reports are being elaborated on the results of supervision, during testing operation of the work, for the works of I. to III. categories, in the terms, determined by supervision program. At the end of testing operation, the total report on supervision, during testing operation, is being elaborated. As for the works of IV. category, neither partial, nor total reports on the supervision, during testing operation, are being elaborated.

(2) Total report on supervision, during testing operation contains:

- a) supervision description,
- b) total processing of the results of inspection and measuring,
- c) evaluation of monitored facts and discovered realities,
- d) stating, whether the work, after examination of all main loading statements and operational situations, respectively after realising repair measures, does not dispose any insufficiencies, which would prevent its permanent operation (usage),
- e) supervision program, during permanent operation of the work.

Article 25

If testing operation of the work is in operation, still before submitting and overtaking of the work by the administrator, then investor has the obligation of supervision.

Volume Eight

Supervision, during permanent operation of the work

Article 26

(1) Supervision at the works of I. to III. categories is being realised, according to supervision program for permanent operation of the work. For the works of I. to III. categories, which as for the day of the force of this Regulation, are under permanent operation, the supervision program for permanent operation of the work, will be elaborated as a independent document, and the administrator is obliged to submit it to relevant water management body.

(2) Supervision program for permanent operation of the work contains

- a) documentation of placing and description of all built-in measuring equipment and facilities, or reference to this documentation in previous reports on supervision, during construction or reconstruction, and during testing operation of the work,
- b) data, according to the Article 19 paragraph 3, of this Regulation.

(3) Otherwise, the provisions of the Article 19 paragraphs 4 and 5, and the Article 20 to 23 of this Regulation, apply for supervision, during permanent operation.

Article 27

(1) Stage reports are being elaborated on the results of supervision, during permanent operation, at least once a year, for the works of I. category, once a two years for the works of II. category, and once a four years for the works of III. category.

(2) Stage report on supervision contains:

- a) description of supervision for previous period of permanent operation,
- b) brief overview of the results of inspection and measuring,
- c) evaluation of all monitored facts and realities, in their relations to marginal values,
- d) proposal of measures for improvement.

(3) At least, every fifth stage report is being processed as a total stage report.

(4) Total stage report contains:

- a) description of supervision for the period from the last total stage report,
- b) documentation of all changes in equipment of the work with measuring equipment and facilities,
- c) total elaboration of the results of inspection and measuring,
- d) evaluation of all monitored facts and realities,
- e) results of testing the stability of main constructions of the work and exploring the degree of the security, based on newly-gained knowledge, according to currently valid technical norms,
- f) expertise of the influence of surrounding and operation to depreciation, function reliability and total security of the work,
- g) proposal of improvement measures,
- h) examination of supervision program, including marginal, respectively critical values of monitored facts and realities.

(5) Stage reports and total stage reports, in one copy at least, are being stored by operator of the work.

(6) Neither stage, nor total stage reports are being elaborated for the works of IV. category.

Volume Nine Inspections of the work

Article 28

(1) The administrator is obliged to perform the inspections of the work, at least once a year, for the works of I. category, once a two years for the works of II. category, once a four years for the works of III. category. The number of the inspections for the works of IV. category, is not being predetermined.

(2) The administrator of the work is obliged to report the terms of inspections of the work, to relevant water management body, at least three weeks in advance.

(3) The inspection of the work is being managed by main representative of supervision of administrator; the administrator will also arrange the participation of:

- a) representative, responsible for the operation of the work,
- b) operator of the work,
- c) main representative of supervision of authorised organisation, for the works of I. and II. categories,
- d) experts from machinery, electric-technical, respectively from other fields of industry, according to the kind and type of the work, if the character of main negotiated questions will require so.

(4) The administrator will invite for the inspection those users of the work, who, by their activity, may influence its secure operation.

(5) The subject of the inspection of the work is mainly:

- a) inspection of operational ability, and function reliability of the work,
- b) inspection of the operation and maintenance,
- c) inspection of supervision, and its results,
- d) negotiation of all the ideas for improving the technical statement, usage, operation and maintenance, and for increasing the security of the work,
- e) plan of repair, and repair measures.

(6) Main representative of supervision of the administrator of the work will take the minutes from the inspection, and will send them to relevant water management body. In at least one copy, the minutes must be filed by the operator of the work.

PART TWO

Volume One

Technical-security supervision

Article 29

(1) Technical-security supervision, as a part of the water management supervision, presents the control of fulfilling the obligations, imposed for the administrator, by the Water Act 3), and by this Regulation.

(2) Technical-security supervision is being realised by national committees, which deal with water management supervision, 4) from admitting the work, up to starting the harmless operation of this work.

3) the Art. 41 par. 3 c) of the Water Act.

4) the Act of the Slovak National Council No. 135/1974 Coll. on the State Administration in Water Management.

Article 30

(1) The national committee, during technical-security supervision, departs mainly from these basis:

- a) admittance of the work, respectively its changes,
- b) determination of the category of the work,
- c) notification on water management approval,
- d) decision on starting the work with permanent operation (usage),
- e) final technical-economical appreciation of the building,
- f) approved manipulation guidelines, respectively operational guidelines, and from decisions, related to modifications of managing with water,
- g) from passport, or from any other document on main technical features of the work, and from data on repairs and reconstruction,
- h) notification of the administrator on appointing main representatives of

- supervision,
- ch) supervision programs and reports on supervision, respectively from reports on by-passing around,
- i) minutes on inspection of the work,
- j) documents on previously imposed repair measures and on the control of realising them,
- k) documents on performing previous control activity.

(2) The national committees realise technical-security supervision mainly:

- a) by viewing and controlling the basis, listed in the paragraph 1,
- b) by controlling at the work,
- c) by controlling the fulfilling of the measures for improvement.

Volume Two Realisation of technical-security supervision

Article 31

(1) National committee realises the control at the work permanently, taking into consideration the category and technical statement of the work. Directly at the work, he controls fulfilling the obligations by the administrator, with specific consideration to the fact, how does the administrator arrange supervision, and how does he fulfil improvement measures.

(2) In the case, that national committee, during controlling of the work, requires the information, or participation of responsible representatives of the administrator, who are not permanently present at the work, or submitting the documentation, which is not obligatory available at the work, then he will notify the administrator on realising the control, in advance.

Article 32

National committee will realise extraordinary control at the work, for which he will invite, from principle, professional experts, mainly:

- a) if he discovers, that the statement of the work has changed in significant rate, and that reasonable actions are not being taken,
- b) if the change in usage, or in operation of the work is in the process of preparation,
- c) if repair of bigger extent, reconstruction or cancellation of the work is being planned,
- d) if he needs detail basis for imposing improvement measures for repair of bigger extent,
- e) if the Ministry orders the extraordinary control at the work.

Article 33

National committee writes down the minutes on the control or on extraordinary control at the work, which is the document on realising technical-security supervision.

Article 34

(1) If national committee discovers, during realisation of technical-security supervision, any insufficiencies in fulfilling the obligations of supervision, or insufficiencies in technical statement of the work, then he will impose, in the form of decision, to take the measures for improving, with the term of its realisation. Administrator is obliged to notify national committee on fulfilling the imposed improvement measures.

(2) If national committee discovers insufficiencies at the work of I. to III. category, which in its impacts present immediate endangering of general interests, lives and property in endangered area, and neither improvement measures, nor immediate implementation of emergency measures, can significantly reduce increased danger, then he will notify the national committee of higher degree, respectively the Ministry, with the requirement for effective help for administrator of the work.

(3) If there is the situation, resulting from the breakdown at the work, which represents any of the stages of flooding activity, then it is necessary to follow the provision on the protection against flooding. 5)

5) the Decree of the Government of the Slovak socialist Republic No.
32/1975 Coll. on the Protection against Flooding.

PART THREE Preliminary and final provisions

Article 35

At the works, which, as for the day of entering this Regulation into force, were under the preparation, construction or operation, there must be supervision, respectively documentation of supervision, added in the extent, according to this Regulation, for the works of I. category within one year, for the works of II. category within one and half year, for the works of III. and IV. categories within two years, after this Regulation enters into force; the administrator is obliged to report the names and the addresses of main representatives of supervision, according to the Article 19 paragraph 5, to relevant water management body, within 6 months, after this Regulation enters into force.

Article 36

This Regulation enters into force on the day of its announcement.

Minister:
Hagara sign manual