

THE GOVERNMENT

**DECREE NO. 209/2004/ND-CP OF DECEMBER 16, 2004 ON QUALITY
MANAGEMENT OF CONSTRUCTION WORKS.**

THE GOVERNMENT

*Pursuant to the December 25, 2001 Law on Organization of the
Government;*

Pursuant to the November 26, 2003 Law on Construction;

At the proposal of the Construction Minister;

DECREES:

Chapter 1

GENERAL PROVISIONS

Article 1. Scope and subjects of application.

This Decree guides the implementation of the Construction Law regarding the quality management of construction works; applies to investor, contractors, organization and individuals involved in the survey, designing, construction, warranty and maintenance, management and use of construction works in the Vietnamese territory.

Article 2. – System of construction standard

1. The system of Vietnamese construction standards consists of construction rules and construction standards.

2. Construction rules serve as the basis for the management of construction activities and the promulgation of construction standards.

3. The Construction Ministry shall promulgate construction rules as well as construction standards for civil construction works including public works and dwelling houses, industrial works and technical infrastructures defined in Clause, Article 4 of this Decree.

The Ministries that manage specialized construction works shall base themselves on the construction rules to promulgate construction standards for specialized works falling under their respective management.

4. Vietnamese construction standards in the following domains must be compulsorily applied:

- a/ Construction climatic conditions;
- b/ Hydrogeological, hydrometeorological conditions;
- c/ Earthquake zoning;
- d/ Fire and explosion prevention and fighting;
- e/ Environmental protection;
- f/ Labor safety.

In cases of Points d, e and f of this Clause where Vietnamese standards are unavailable or insufficient, it is permitted to apply foreign standards after they are approved in writing by the branch – managing ministries.

5. The Construction Ministry shall prescribe the application of foreign standards on the Vietnamese territory.

Article 3. – Supervision by people of the quality of construction works.

1. Investors must put up signboards in easy – to – see and easy-to-read positions in construction sites, which have the contents prescribed in Article 74 of the Construction Law in order to facilitate the supervision by people.

2. Organizations and individuals, when detecting acts of violation related to the quality of construction works, must promptly report them to investors, People's Committees of communes, wards or townships where construction works are situated or to competent State management agencies in charge of construction.

3. Recipients of information reported by people shall have to promptly examine and process such information and reply in writing within 15 working days after the date of receiving such information.

Chapter II

CLASSIFICATION AND GRADING OF CONSTRUCTION WORKS

Article 4. – Classification of construction works

Construction works are classified as follows:

- 1. Civil works:
 - a/ Dwelling houses, including apartment buildings and separate houses;

b/ Public works, including cultural works; educational works, medical works; trading and service works; office buildings; hotels, guest houses; houses in service of traffic; houses in service of communication, towers for radio and television wave reception and broadcasting; railway stations, bus terminals; sports facilities of all kinds.

2. Industrial works, including coal-mining, ore-mining works; oil and gas-exploitation works; chemical, petrochemical works; petrol, oil and liquefied gas depots and gas and oil distribution pipelines; metallurgical works; mechanical and engineering works; electronics-informatics industrial works; energy works; light industrial works; food industrial works; construction material industrial works; industrial explosive manufacturing works and depots.

3. Traffic works, including road works; railway works; waterway works; bridges; tunnels; airfields.

4. Irrigation works, including: reservoirs; dams; culverts; pumping stations; wells; water pipelines; canals; assorted canal works and embankments.

5. Technical infrastructure works, including water supply, water drainage works; wastewater treatment plants; waste treatment works; garbage storing and dumping grounds; garbage treatment plants; urban lighting works.

Article 5.- Grading of construction works

1. Construction works are graded according to the levels prescribed in Appendix 1 to this Decree. Work grades shall serve as the basis for the grading and selection of contractors in construction work warranty duration.

2. When the grade of a construction work is prescribed according to many different criteria, it shall be determined according to the highest grade's criteria.

Chapter III

QUALITY MANAGEMENT OF CONSTRUCTION SURVEYS

Article 6. - Construction surveying tasks

1. Construction surveying tasks shall be elaborated by designing consultancy organizations or construction surveying constructors and approved by investors.

2. Construction surveying tasks must be suitable to the requirements of each type of surveying job and each designing step, and cover the following contents:

- a/ Surveying purposes;
- b/ Surveying scope;
- c/ Surveying methods;
- d/ Expected volumes of assorted surveying jobs;
- e/ Applied survey standards;
- f/ Surveying duration.

Article 7. – Construction survey technical plans

1. Construction survey technical plans shall be elaborated by construction surveying contractors and approved by investors.

2. Construction survey technical plans must satisfy the following requirements:

- a/ Being suitable to the construction surveying tasks approved by investors;
- b/ Complying with the applied construction survey standards.

Article 8. – Contents of construction survey result reports

1. The contents of a construction survey result report:

- a/ Major contents of the construction surveying task;
- b/ Characteristics, size and nature of the work;
- c/ Position and natural conditions of the construction survey area;
- d/ Applied construction survey standards;
- e/ Surveying volume;
- f/ Surveying process, methods and equipment;
- g/ Data analysis, survey result evaluation;
- h/ Proposed technical solutions in service of the designing and construction of the work;
- i/ Conclusions and recommendation;

j/ Reference materials;

k/ Encloses appendices.

2. Construction survey result reports must be checked and accepted by investors according to the provisions of Article 12 of this Decree and shall serve as the basis for carrying out construction designing steps. They must be made in 06 sets; in cases where more than 06 sets are needed, investors shall decide on the number of sets after consulting construction surveying contractors.

3. Construction surveying contractors must be responsible to investors and law for the truthfulness and accuracy of the survey results; compensate for damage caused by their improper performance of surveying tasks, for the increased volumes due to wrong surveys; for damage caused by the use of irrelevant information, materials, regulations and standards on construction surveys, and other acts of violation.

Article 9. –Supplementation of construction surveying tasks

1. Construction surveying tasks may be supplemented in the following cases:

a/ In the course of conducting construction surveys, construction surveying contractors detect unusual factors that directly affect design solutions;

b/ In the course of designing, designing contractors detect that survey documents fail to meet the design requirements.

c/ In the course of construction, construction contractors detect unusual factors compared to the survey documents, which directly affect design solutions and construction measures.

2. Investors shall have to consider and decide on the supplementation of surveying contents in the cases defined in Clause 1 of this Article at the proposals of designing, construction surveying and/ or construction contractors and take responsibility before law for their decisions.

Article 10. – Responsibilities of construction surveying contractors for protection of the environment and construction works in the survey areas

In the course of conducting field surveys, construction surveying contractors shall have the responsibilities:

1. Not to pollute water sources, air or cause noise beyond the prescribed limit;

2. To fell trees or crops only when it is so permitted by the organizations or individuals that manage or own such tress or crops;
3. To restore the construction survey sites back to their original conditions;
4. To protect technical infrastructures and other construction works in the survey places or sites. If causing damage to such works, to pay compensation therefore.

Article 11. – Supervision of construction surveys

1. Responsibilities for supervising construction surveys:
 - a/ Construction surveying contractors must have a section specialized in self-supervising construction surveys;
 - b/ Investors shall supervise construction surveys on a regular and systematic basis, from commencement till completion of surveys. If not fully capable, investors must hire consultants to supervise construction surveys.
2. Contents of self-supervision of construction surveys by construction surveying contractors:
 - a/ Monitoring and checking the compliance with the construction survey technical plans already approved by investors;
 - b/ Recording monitoring and checking results in construction survey diaries.
3. Contents of supervision of construction surveys by investors:
 - a/ Examining the construction activity capability conditions of construction surveying contractors against the bid documents in terms of manpower, equipment and machinery in service of the surveys, laboratories to be used by construction surveying contractors;
 - b) Monitoring and examining the survey sites, surveying volumes and the observance of the surveying process according the approved technical plans. Monitoring and supervising results must be recorded in construction survey diaries;
 - c) Monitoring and requesting construction surveying contractors to protect the environment and construction works in the survey sites according to the provisions of Article 10 of this Decree.

Article 12. – Checking and acceptance of construction survey results

1. Grounds for checking and acceptance of construction survey results:
 - a/ Construction surveying contracts;
 - b/ Construction surveying tasks ad technical plans already approved by investors;
 - c/ Applied construction survey standards;
 - d/ Construction survey result reports.
2. Checking and acceptance contents:
 - a/ Assessing the quality of the surveys against the construction surveying tasks and the applied construction survey standards;
 - b/ Checking the construction survey result reports in terms of their presentation and number;
 - c/ Checking and accepting the construction surveying volumes already performed under the signed construction surveying contracts. Where the construction survey results are obtained in accordance with the surveying contracts and applied construction standards but fail to satisfy the investment objectives set by the investors, the investors must still pay for the volumes already checked and accepted in accordance with the contracts.
3. The results of checking and accepting the construction survey result reports must be recorded in writing according to the form prescribed in Appendix 2 to this Decree (not printed herein). Investors shall be accountable before law for the checking and accepting of the construction survey result reports.

Chapter IV

QUALITY MANAGEMENT OF WORK CONSTRUCTION DESIGNS

Article 13. – Technical designs

1. Grounds for creation of technical designs:
 - a/ Designing tasks and basic designs in the approved construction investment projects;
 - b/ Reports on the construction survey results at the basic designing step, additional construction survey data and other conditions at the construction sites in service of the technical designing step;
 - c/ Applied construction rules and standards;

d/ Other requirements of the investors.

2. Technical design dossiers must accord with basic designs and approved construction investment projects, each consisting of:

a/ The written explanation, covering the contents defined in the Government's Decree on management of construction investment projects, reconsidering and clarifying the selected plan on production techniques, technological chains and equipment, comparing economic and technical criteria, checking figures used as the designing basis; technical indications; explicating the contents not yet demonstrated in the design drawings and other contents requested by the investors;

b/ Drawings, which must demonstrate in detail major dimensions and technical parameters as well as main materials, ensuring sufficient conditions for the making of cost estimates, total cost estimates and the creation of work construction drawing designs;

c/ Cost estimates, total cost estimates for the construction of works.

Article 14. – Construction drawing designs

1. Grounds for creation of construction drawing designs:

a/ Designing tasks approved by the investors, for cases of one-step designing; the approved basic designs, for cases of two-step designing; the approved engineering designs, for cases of three-step designing;

b/ Applied construction standards and technical indications;

c/ Other requirements of the investors.

2. A construction drawing design dossier consists of:

a/ The written explanation, which must fully explain the contents not yet demonstrated in the drawings so that builders can correctly follow the designs;

b/ Drawings, which must demonstrate in detail all parts of the works, their structures with full dimensions, materials and technical parameters to ensure the precise construction and sufficient conditions for the making of construction cost estimates;

c/ Construction cost estimates.

Article 15. – Requirements on the specifications of construction design dossiers.

1. Construction design drawings must have sizes, scales and title frames and be demonstrated according to construction standards. In the title frame of each drawing there must be the names and signatures of the designers, design employers, design managers, representatives-at-law of the designing contractors and the stamps of the construction designing contractors, except for cases where designing contractors are independent practitioners.

2. Written explanations, design drawings and cost estimates must be bound into design dossier files according to a uniform format, containing document lists, serial numbers and symbols for reference, and be preserved for a long time.

Article 16. – Checking and acceptance of construction design dossiers

1. Design products, before being put to construction, must be checked, accepted and certified by investors. Investors must be responsible for design drawings handed to construction contractors. Reports on the checking and acceptance of construction design dossiers shall be made according to the form prescribed in Appendix 3 to this Decree (not printed herein).

2. Grounds for checking and acceptance of construction design dossiers:

a/ Construction designing contracts;

b/ Approved designing tasks, designing steps;

c/ Applied construction rules and standards;

d/ Construction design dossiers shall each consist of the written explanation, design drawings, cost estimate or total cost estimate.

3. Contents of checking and acceptance.

a/ Assessing the design quality;

b/ Checking the construction design dossiers in terms of their form and quantity.

4. Depending on the nature, size and requirements of construction works, investors may hire fully capable consultants suitable to the type and grade of works to verify the designs and take responsibility for the verification results. Where a design fails to satisfy the requirements as contracted, the designing contractor must redesign and bear all costs, including design verification costs.

5. Construction designing contractors shall be accountable to investors and law for the quality of construction designs and must compensate for damage caused by their use of irrelevant information, documents, construction rules and

standards, technical solutions, technologies, thereby affecting the quality of construction works, and other acts of violation.

Article 17. – Change of construction designs

1. The approved construction designs may be changed only in the following cases:

a/ The construction investment projects are adjusted, thus requiring the change of the designs;

b/ Irrationalities are detected in the course of construction and if the designs are not changed, the quality of the works, construction progress, construction methods and/ or investment efficiency of the projects will be affected.

2. Where the construction design drawings are changed without causing any changes in the approved engineering designs or basic designs, investors or their construction supervising contractors shall be allowed to amend the designs. Those who amend the designs must sign their names and be responsible for the amendment.

Chapter V

MANAGEMENT OF CONSTRUCTION QUALITY

Article 18. – Organization of construction quality management

1. Construction quality management includes quality management activities of construction contractors; construction supervision and construction work checking and acceptance by investors; and author supervision by construction designing contractors.

2. Construction contractors must have a quality management system to perform the contents of construction quality management as prescribed in Article 19 and Article 20 of this Decree.

3. Investors must organize the construction supervision according to the contents prescribed in Article 21 of this Decree. Where an investor has no fully qualified supervision consultancy organization, it must hire a construction supervision consultant with sufficient construction activity capability conditions to conduct such supervision. Investors shall organize by themselves the checking and acceptance of construction works.

4. Construction designing contractors shall conduct author supervision according to the provisions of Article 22 of this Decree.

Article 19. – Construction quality management by contractors.

1. Contents of contractors' construction quality management:

a/ Setting up a quality management system suitable to the requirements, nature and size of construction works, defining the responsibility of each individual builder or building section for managing the quality of construction works;

b/ Performing experiments to test construction materials, structures, supplies, equipment and technological equipment before construction and installation into construction works according to design standards and requirements;

c/ Planning and conducting the examination of construction methods and progress;

d/ Opening, and make entries in, construction diaries according to regulations;

e/ Examining labor safety and environmental sanitation inside and outside the construction sites;

f/ Checking and accepting internally and making construction completion drawings for completed construction part, construction items and works;

g/ Reporting to investors on the construction progress, quality and volumes, labor safety and environmental sanitation tin the construction sites at the investors' requests;

h/ Preparing documents to serve as the basis for checking and acceptance according to the provisions of Articles 24, 25 and 26 of this Decree and make written requests for checking and acceptance by investors.

2. Construction contractors must be accountable to investors and law for the quality of jobs they have done; compensate for damage caused by their contract breaches, use of materials of wrong types, poor=quality construction, for failures, environmental pollution and damage caused by their other acts.

Article 20. – Construction quality management by general contractors

1. General contractors shall manage the construction quality according to the provisions of Clause 1, Article 19 of this Decree.

2. General contractors shall supervise the quality of construction performed by subcontractors according to the provisions of Clause 1, Article 21 of this Decree.

3. General contractors must be accountable to investors and law for the quality of jobs undertaken by them and done by subcontractors; compensate for damage caused by their contract breaches, use of materials of wrong types, poor-quality construction, for failures, environmental pollution and damage caused by their other acts of violation.

4. Subcontractors shall be accountable to general contractors for the quality of jobs they have done.

Article 21. – Construction quality supervision by investors

1. Contents of construction quality supervision by investors:

a/ Checking the conditions for commencement of construction of works according to the provisions of Article 72 of the Construction Law;

b/ Checking the relevance of the construction contractors' capabilities to the bid dossiers and construction contracts, including:

- Checking the construction contractors' construction manpower and equipment brought into the construction sites;

- Checking the construction contractors' quality management system;

- Checking the permits for use of machinery, equipment and supplies subject to safety requirements in service of construction;

- Checking the construction contractors' laboratories and establishments manufacturing construction materials, structures and products in service of the construction.

c/ Checking and supervising the quality of supplies, materials and equipment to be installed in the works, which are supplied by the construction contractors according to the design requirements, including:

- Checking the manufacturers' quality certificates, the testing results of standard complying laboratories and the results of equipment quality expertise conducted by organizations recognized by competent State bodies with regard to construction materials, structures, products and equipment to be installed in the works before they are put under construction;

- When doubting the results of the checking of the quality of materials and equipment to be installed in the works, which are supplied by the construction contractors, investors may check by themselves such supplies, materials and equipment.

d/ Checking and supervision in the course of construction of works, including:

- Checking the construction methods applied by the construction contractors;
- Checking and supervising on a regular and systematic basis the process of performance of jobs by the construction contractors at the construction sites. The checking results must be recorded in the investors' supervision diaries or checking reports according to regulations;
- Certifying construction completion drawings;
- Checking and accepting construction works according to the provisions of Article 23 of this Decree;
- Collecting and checking documents serving the checking and acceptance of construction jobs, construction parts, construction stages, the checking and acceptance of equipment, the checking and acceptance of each completed construction item and the completed construction work;
- Detecting design errors and irrationalities and redress them or request the designing contractors to redress them;
- Re-expertising the quality of construction parts, construction items and the whole construction works when doubting their quality;
- Assuming the prime responsibility for, and coordinating with the concerned parties in, setting problems arising in the course of construction of works.

2. Contents of construction quality supervision by investors with regard to general contracts:

a/ In case of performance of general construction contracts and general engineering procurement and construction (EPC) contracts:

- Performing the jobs defined at Point a, Point b and Point c, Clause 1 of this Article with regard to general contractors and subcontractors;
- Checking and supervising general construction contractors according to Point d, Clause 1 of this Article;
- Joining general contractors in checking and supervising the construction by subcontractors

b/ In case of performance of general turnkey contracts:

- Investors shall approve the progress of construction of works and the time for checking and acceptance of completed construction works;

- Before checking and accepting completed works, investors shall receive documents and expertise the quality of construction works if deeming it necessary for use as the basis for the checking and acceptance.

3. Investors must notify decisions on the tasks and powers of construction supervisors to construction contractors and construction designing contractors for collaboration.

4. Investors shall have to compensate for their contract breaches to construction contractors; be accountable before law for poor-quality checking and acceptance, thereby distorting the checking and acceptance results, for checking and acceptance of wrong volumes, volumes performed at variance with designs, and other acts of violation. Upon detecting construction quality-related wrongdoings committed by construction contractors, investors must force the contractors to stop construction and ask them to remedy consequences.

5. Investors' construction supervision contractors must compensate for damage caused by their contract breaches; be accountable before law and investors for the poor-quality checking and acceptance conducted not in accordance with the applied standards and technical indications, at variance with designs, and other damage-causing acts.

Article 22. – Author supervision by construction designing contractors

1. Construction designing contractors shall appoint fully capable persons to conduct author supervision according to regulations in the construction process.

2. When detecting construction performed at variance with designs, persons conducting author supervision must record such in the investor's supervision diaries and request compliance with the designs. In case of failure to redress the wrong construction, construction designing contractors shall notify investors thereof in writing. Any design changes in the construction process must comply with the provisions of Article 17 of this Decree.

3. Construction designing contractors shall have to participate in checking and accepting construction works when so requested by investors. Through supervision, if detecting that construction items or construction works are not qualified for acceptance, construction designing contractors must inform investors thereof in writing, clearly stating the reasons for non-acceptance.

Article 23. – Organization of checking and acceptance of construction works

1. Construction contractors must organize by themselves the checking and acceptance of construction jobs, particularly hidden jobs and parts; construction

parts, construction items and whole works before requesting the checking and acceptance by investors. For construction jobs already checked and accepted but not yet promptly performed, they must be re-checked before being performed. For construction jobs and stages which, after being checked and accepted, are transferred to other contractors for continued performance, they must be certified, checked and accepted by such subsequent contractors.

2. Investors shall have to organize the checking and acceptance of construction works immediately after receiving the construction contractors' written requests for checking and acceptance. The checking and acceptance of construction works is phased out as follows:

a/ Checking and acceptance of each construction job in the course of construction;

b/ Checking and acceptance of construction parts or construction stages;

c/ Checking and acceptance of completed construction items or construction works before they are put to use.

3. Completed construction items and completed construction works may be put to use only after they are checked and accepted by investors.

4. When investors and/or contractors are foreign persons, the checking and acceptance reports, and the construction completion drawings of completed construction parts or works shall be made in Vietnamese and a foreign language selected by investors.

Article 24. – Checking and acceptance of construction jobs

1. Grounds for checking and acceptance of construction jobs:

a/ Written checking and acceptance requests of construction contractors;

b/ Construction drawing design dossiers approved by investors and approved design changes;

c/ Applied construction rules and standards;

d/ Technical instruction manuals enclosed with construction contracts;

e/ Results of material and equipment quality checks and tests performed in the course of construction;

f/ Construction diaries, supervision diaries of investors and other documents related to the checked and accepted objects;

g/ Reports on the construction contractors' internal checking and acceptance of construction jobs.

2. Checking and acceptance contents and order:

a/ Checking the objects subject to checking and acceptance at the construction sites: construction jobs and equipment statically installed at the sites;

b/ Checking the results of tests and measurements which the construction contractors must perform to determine the quality and volumes of construction materials, structures and equipment to be installed in the works;

c/ Assessing the compliance of construction jobs and equipment installation with the designs, construction standards and technical instruction manuals;

d/ Checking and accepting before allowing the performance of subsequent jobs. The results of checking and acceptance of construction jobs shall be recorded according to the forms prescribed in Appendix 4a and Appendix 4b to this Decree (not printed herein). Persons directly engaged in the checking and acceptance must sign and write their full names in the checking and acceptance reports.

3. Participants in the checking and acceptance:

a/ Construction supervisors of investors or construction supervisors of general contractors for general contracts;

b/ Construction contractors' persons in charge of construction techniques. In case of general contracts, investors' construction supervisors shall participate to oversee the general contractors' checking and acceptance of jobs done by subcontractors.

4. Where jobs are not accepted due to the construction contractors faults, the construction contractors must remedy consequences and bear all costs, including re-expertising costs. Where jobs are not accepted due to the investors' faults, the investors shall have to remedy consequences and indemnify construction contractors for any losses.

Article 25. – Checking and acceptance of construction parts or construction stages

1. Grounds for checking and acceptance of construction parts or construction stages:

a/ Documents stated at Point a, b, c, d, e and f, Clause 1, Article 24 of this Decree and other experiment results;

b/ Reports on the checking and acceptance of jobs belonging to construction parts or construction stages to be checked and accepted;

c/ Construction completion drawings of construction parts;

d/ Reports on the checking and acceptance of completed construction parts and construction stages, conducted internally by construction contractor;

e/ Preparatory work for deployment of subsequent construction stages.

2. Contents and order of checking and acceptance:

a/ Checking the objects subject to checking and acceptance at the construction sites: construction parts, construction stages, conducting trial single-action and multiple-action non-load operation;

b/ Checking the results of tests and measurements already performed by construction contractors;

c/ Checking the construction completion drawings of construction parts;

d/ Concluding on the compliance with the approved construction designs and construction standards; allowing the shift to another construction stage. The checking and acceptance results shall be recorded in writing according to the forms prescribed in Appendices 5a, 5b and 5c to this Decree (not printed herein).

3. Participants in the checking and acceptance:

a/ Investors' persons in charge of the construction supervision sections or general contractors' persons in charge of the construction supervision sections in case of checking and accepting construction parts or construction stages performed by subcontractors.

b/ Construction contractors' persons in charge of construction;

In case of general contracts, investors' persons in charge of the construction supervision sections shall participate to oversee the general contractors' checking and acceptance of jobs done by subcontractors.

Article 26. – Checking and acceptance of completed construction items or construction works before they are put to use

1. Grounds for checking and acceptance of completed construction items or construction works before they are put to use:

a/ Documents stated at Points a, b, c, d, e and f, Clause 1, Article 24 of this Decree;

b/ Reports on the checking and acceptance of construction parts or construction stages;

c/ Results of experiments, adjustment, and multi-action load operation of the technological equipment system;

d/ Construction completion drawings of construction works;

e/ Reports on the checking and acceptance of completed construction items or construction contractors;

f/ Competent State bodies' written approvals regarding fire and explosion prevention and fighting; environmental safety and operation safety according to regulations.

2. Contents and order of checking and acceptance of completed construction items or construction works:

a/ Inspecting the sites;

b/ Checking the construction completion drawings of construction works;

c/ Checking the results of trial operation of the entire technological equipment and machine system;

d/ Checking competent State bodies' written approvals regarding fire and explosion prevention and fighting; environmental safety and operation safety;

e/ Checking the operation procedures and maintenance procedures of construction works;

f/ Approving the checking and acceptance for putting construction works to operation and use. Checking and acceptance reports must be made according to the forms prescribed in Appendix 6 and Appendix 7 to this Decree (not printed herein).

3. Participants in the checking and acceptance include:

a/ On the investor's side:

- The investors' representatives-at-law and persons in charge of the construction supervision sections;

- The construction supervising contractors' representatives-at-law and persons in charge of the construction supervision sections.

a/ On the construction contractor's side:

- Representatives-at-law;

- Persons in charge of field construction.

b/ On the side of construction designing contractors participating in the checking and acceptance at the requests of the construction works' investors:

- Representatives-at-law;

- Design managers.

Article 27. – Construction completion drawings

1. Construction completion drawings are drawings of completed construction parts or construction works, reflecting the actual dimensions compared to the design dimensions, made on the basis of the approved construction design drawings. All changes compared to the approved designs must be reflected on the construction completion drawings.

Where the actual dimensions and parameters of construction parts or construction works are the same as those of the construction drawing designs, the design drawings in question shall be construction completion drawings.

2. Construction contractors shall have to make construction completion drawings of construction parts and construction works. In such drawings there must be the full names and signatures of their makers. Construction contractors' representatives-at-law must sign and affix stamps thereon. Construction completion drawings shall serve as the basis for warranty and maintenance.

3. Construction completion drawings shall be signed for certification by investors' construction supervisors.

Article 28. – Checking and certification of construction quality compliance.

1. For construction works where incidents, once occurring, can cause disasters, they must be checked and certified in terms of their quality compliance in order to ensure safety before they are put to operation and use. These works include:

a/ Public works where people gather in large numbers, such as theaters, cinemas, circuses, school buildings, stadiums, gymnasiums, department stores, and construction works with similar functions;

- b/ Apartment buildings, office buildings, multi-story hotel;
- c/ Chemical and petrochemical works, oil and gas depots;
- d/ Big dykes, dams, bridges, tunnels;

2. Important works which must have their quality checked and certified at the Prime Minister's requests.

3. It is encouraged to check and certify the construction quality compliance of construction works not mentioned in Clause 1 and Clause 2 of this Article.

4. The Construction Ministry shall guide the checking and certification of the quality compliance of construction works.

Chapter VI **WARRANTY OF CONSTRUCTION WORKS.**

Article 29. – Warranty of construction works.

1. The warranty duration shall start from the date the investors sign the reports on checking and acceptance of completed construction items or construction works for being put to use and are prescribed as follows:

a/ Not shorter than 24 months, for all types of works of special grade and grade I;

b/ Not shorter than 12 months, for other works.

2. Levels of warranty money for construction works:

a/ Construction contractor and equipment supply contractors shall have to pay warranty money into investors' accounts at the following levels:

- 3% of the contractual value for construction works or construction items specified at Point a, Clause 1 of this Article;

- 5% of the contractual value for construction works or construction items specified at Point b, Clause 1 of this Article.

b/ Construction contractors and equipment supply contractors shall only be refunded the warranty money for construction works after the expiration pf the warranty duration and after obtaining the investors' certifications of the completion of the warranty work;

c/ Warranty money for construction works and their equipment shall enjoy interests agreed upon by the two involved parties. Construction contractors and investors may reach agreement on the substitution of the warranty money for construction works with the banks' letters of underwriting of equivalent value.

Article 30. – Responsibilities of involved parties for warranty for construction works.

1. Investors, owners or use managers of construction works shall have the responsibilities;

a/ To check the conditions of construction works, detect failures and request construction contractors and/or equipment supply contractors to repair and replace. Where contractors fail to provide proper warranty, investors, owners or use managers of construction works may hire other contractors. Hiring costs shall be paid from the warranty money for construction works.

b/ To supervise, check and accept the remedy and repair by construction contractors and equipment supply contractors.

c/ To certify the completion of the warranty for construction works by construction contractors and equipment supply contractors.

2. Construction contractors and equipment supply contractors shall have the responsibilities;

a/ To organize the remedy of failures immediately after receiving the requests of investors, owners or use managers of construction works and bear all costs therefor ;

b/ To refuse to provide warranty for construction works and their equipment in the following cases:

- Construction works and their equipment are out of order not due to the contractors' faults;

- Investors commit violations of construction legislation and therefore are forced by competent State bodies to dismantle;

- Equipment or construction works are used at variance with operation procedures.

3. Construction surveying contractors, construction designing contractors, construction contractors, construction supervising contractors must compensate for damage or incidents caused to construction works due to their faults even after the expiration of the warranty duration and, depending on the seriousness of their violations, may be handled according to law provisions.

Chapter VII
MAINTENANCE OF CONSTRUCTION WORKS

Article 31. – Levels of maintenance of construction works.

1. Construction works, after being checked, accepted and put to use, must be maintained for long-term operation. The maintenance of construction works shall be carried out at the following levels:

- a/ Maintenance level;
- b/ Minor repair level;
- c/ Medium repair level;
- d/ Major repair level;

2. The contents and methods of construction work maintenance at different levels shall comply with maintenance procedures.

Article 32. – Construction work maintenance duration.

1. The construction work maintenance duration shall start from the date of checking, acceptance and putting pf construction works to use till the expiry of their useful life prescribed by construction designing contractors.

2. Where construction works are already beyond their useful life but still request to be further used, competent State management agencies must consider and decide to permit such use on the basis of the expertise and assessment of the works' quality conditions conducted by fully capable consultancy organizations. Persons who issue decisions permitting the use of construction works shall be responsible for their decisions.

Article 33. Construction work maintenance procedures.

1. For newly built construction works, designing contractors, equipment manufactures shall work out the maintenance procedures suitable to the types and grades of such construction works being in use for which maintenance procedures are unavailable, their owners or use managers must hire consultancy organization to expertise their quality and work out their maintenance procedures.

2. Construction designing contractors shall work out maintenance procedures for each type of construction work on the basis of relevant technical standards for construction work maintenance.

Article 34. Responsibilities of owners or use managers of construction works for construction work maintenance.

Owners, use managers of construction works shall have the following responsibilities for construction work maintenance:

1. To organize the maintenance of construction works in accordance with construction work maintenance procedures.
2. To be accountable before law for the degraded quality of construction works due to non-compliance with the prescribed construction work maintenance procedures.

Chapter VIII

INCIDENTS OF CONSTRUCTION WORKS.

Article 35. Contents of handing of incidents of construction works.

1. Prompt incident reports:

a/ Investors make reports on incidents occurring at the construction works under construction;

b/ Owners or use managers make reports on incidents occurring at construction works being in use, operation or exploration;

c/ Construction work incident reports shall be sent to the provincial – level People's Committees' State management agencies in charge of construction. Where incidents occur in construction works of grade I or higher grades or incidents occur in construction works of all grades, inflicting damage, construction works of all grades, inflicting damage, construction work owners or use managers must also report such incidents to the investment decision makers and the Construction Ministry.

Prompt incident reports shall be made according to the form prescribed in Appendix 8 to this Decree (not printed herein) within 24 hours after the incidents occur.

2. Clearance of incident scenes:

a/ Before clearing the incident scenes, construction work incident dossiers must be compiled;

b/ After obtaining full documents for the identification of the causes of construction work incidents, construction contractors, investors or use managers shall be permitted to proceed with the clearance of the incident scenes;

c) In cases where it is urgent to provide medical emergency for victims and prevent incidents from causing subsequent disasters, the responsible persons defined at Points a and b, Clause 1 of this Article shall be permitted to dismantle

or clear up the incident scenes. Before doing so, investors or use managers must take photos, shoot films or record images, gather evidences, and take notes in service of later investigation of the incidents.

3. Remedy of incidents:

a/ The causes of incidents must be accurately identified and thoroughly remedied;

b/ Organizations or individuals causing construction work incidents shall have to compensate for all damage and bear all expenses for the remedy of incidents, and, depending on the seriousness of their violations, may be handled according to law provisions;

c/ Where construction work incidents occur due to force majeure causes, investors or insurers, for insured construction works, shall have to bear expenses for the remedy of incidents.

Article 36. Construction work incident dossiers

1. When incidents occur at construction works, investor, owners or use managers shall have to compile dossiers of such construction work incidents.

Where it is necessary to investigate and assess the seriousness and causes of incidents, if construction work investors or use managers are incapable of doing so, they must hire construction consultancy organizations which are fully capable according to regulations to investigate, assess and identify the causes of incidents, clearly determine the liability of persons causing construction work incidents.

2. A construction work incident dossier consists of:

a/ The report on the inspection of the incident scene, made according to the form prescribed in Appendix 9 to this Decree (not printed herein);

b/ Written description of the occurrence of the incident;

c/ Results of investigation, assessment, determination of the seriousness and cause of the incident;

d/ Documents on the design and construction of the work, which are related to the incident.

Chapter IX
ORGANIZATION OF IMPLEMENTATION

Article 37. – State management responsibilities for the quality of construction works.

1. The construction Ministry shall perform the uniform State management over the quality of construction works nationwide. The ministries managing specialized construction works shall coordinate with the Construction Ministry in managing the quality of specialized construction works.

2. The provincial – level People’s Committees shall, according to their decentralized powers, have to perform State management over the quality of construction works within the localities under their respective management.

Article 38. – Organization of implementation.

1. The ministries, the ministerial – level agencies, the Government-attached agencies, and the provincial-level People’s Committees shall annually examine the quality of construction works under their respective management and send reports there on to the Construction Ministry for sum-up report to the Prime Minister.

2. The ministers, the heads of the ministerial-level agencies, the heads of the Government-attached agencies, and the presidents of the provincial-level People’s Committees shall, within the scope of their respective tasks and powers, have to organize the implementation of this Decree.

3. The Construction Minister shall assume the prime responsibility for, and coordinate with the concerned ministries and branches in, guiding the implementation of this Decree.

Article 39. – Implementation effect

This Decree takes implementation effect 15 days after its publication in the Official Gazette. All regulations guiding the management of the quality of construction works, which are contrary to this Decree, are hereby annulled.

On behalf of the Government
Prime Minister
Phan Van Khai

APPENDIX 1

GRADING AND CLASSIFICATION OF CONSTRUCTION WORKS

(Promulgated together with the Government's Decree No. 209/2004/ND-CP of December 16, 2004)

Code	Types of works		Grades of works				
			Special grade	Grade I	Grade II	Grade III	Grade IV
I-1	CIVIL WORKS						
	Dwelling houses	a/ Apartment buildings	Height of 30 stories or total floor area of 15,000m ²	Height or 20-29 stories or total floor area of 10,000m ² -<15,000m ²	Height or 9-19 stories or total floor area of 5,000m ² -<10,000m ²	Height or 4-8 stories or total floor area of 1,000m ² -<5,000m ²	Height or 3 stories or total floor area of <1,000m ²
		b/ Separate dwelling houses					
I-2	Public Works	a/ Cultural works: Libraries, museums, exhibition halls, cultural houses, clubs, performance halls, theaters, cinemas, circuses, radio stations, television stations. b/ Educational works: Nurseries, kindergartens, general schools of all levels, universities, colleges, intermediate vocational schools, job – training schools, technical workers' schools, professional schools and schools of other kinds. c/ Medical works: Heath stations, general hospitals, specialized hospitals at central and local levels; regional general and specialized clinics, maternity hospitals, sanatoriums, health resorts, homes for the aged, healthcare, epidemic prevention and combat agencies.	Height of 30 stories or span of 96 m or total floor area of 15,000m ²	Height of 20-29 stories or span of 72-< 96 m or total floor area of 10,000 < 15,000m ²	Height of 9-19 stories or span of 36 -<72m or total floor area of 5,000-<10,000m ²	Height of 4-8 stories or span of 12-<36 m or total floor area of 1,000-<5,000m ²	Height of 3 stories or span of 12 m or total floor area of <1,000m ²
		d/ Commercial works: Market places, shops, trading centers, department stores. Restaurants, pubs, public service stations. e/ Office building: Offices, headquarters f/ Hotels, guest houses	Height of 30 stories or span of 96m or total floor area of 15,000m ²	Height of 20-29 stories or span of 72-< 96m or total floor area of 10,000-	Height of 9-19 stories or span of 36-<72 m or total floor area of 5,000-<10,000	Height of 4-8 stories or span of 12-< 36m or total floor area of 1,000-<5,000m ²	Height of 3 stories or span of < 12m or total floor area of <1,000m ²

Code	Types of works		Grades of works				
			Special grade	Grade I	Grade II	Grade III	Grade IV
		g/ Traffic service works: Stations and terminals of all kinds.		<15,000m ²	m ²		
		h/ Communication service works: Post offices, works installed with communication equipment, air traffic towers.					
		i/ Telecommunication, radio and television wave- receiving and transmitting towers.	Height >300m	Height of 200-<300m	Height of 100-<200m	Height of 50-<100m	Height <50m
		j/ Stadiums	Capacity > 40,000 seats, covered, international standards	Capacity of 20,000 - 40,000 seats, covered, international standards	Capacity of 10,000 - 20,000 seats	Capacity of 10,000 seats	Assorted gymnasiums for public use
		k/ Sports halls	Span of 96m or capacity > 7,500 seats	Span of 72-96m or capacity of 5,000 - 7,500 seats	Span of 36 - 72m or capacity of 2,000-< 5,000 seats	Span < 36m or capacity < 2,000 seats	
		l/ Aquatic sports works	Swimming pools for competition, covered, international standards, capacity >7,500 seats	Swimming pools for competition, covered, capacity of 5,000 -7,500 seats	Swimming pools for competition, covered, capacity of 2,000 -<5,000 seats	Swimming pools for competition, covered, capacity <2,000 seats	Swimming pools for public use
II	INDUSTRIAL WORKS						
II-1	Coal-mining works	a/ Coal pits	-	Output > 3 million tons/year	Output of 1-3 million tons/year	Output of 0.3-<1 million tons/year	Output <0.3 million tons/year
		b/ Open-cast coal mines	-	Output > 5 million tons/year	Output of 2-5 million tons/year	Output of 0.5-<2 million tons/year	Output <0.5 million tons/year
		c/ Coal-sorting, - washing and - selecting works	-	Output > 5 million tons/year	Output of 2-5 million tons/year	Output of 0.5-<2 million tons/year	Output <0.5 million tons/year

Code	Types of works		Grades of works				
			Special grade	Grade I	Grade II	Grade III	Grade IV
II-2	Ore-mining works	a/ Ore pits	Output >5 million tons/year	Output >1 million tons/year	Output of 0.5 -1 million tons/year	Output 0.5 < million tons/year	-
		b/ Open-cast ore mines	-	Output > 2 million tons/year	Output of 1-2 million tons/year	Output 1 < million tons/year	-
		c/ Ore-selecting and-enriching mines	-	Output >3 million tons/year	Output of 1 - 3 million tons/year	Output 1 < million tons/year	-
II-3	Oil –and gas-mining works	a/ Marine prospection and exploitation derricks	Depth below sea level > 5km	Depth below sea level of 300m to 5km	Depth below sea level < 300 m	-	-
II-4	Chemical, petrochemical and gas-processing industrial works	a/ Works for manufacture of basic chemicals, consumer chemicals	-	Output > 500,000 tons/year	Output > 100,000 – 500,000 tons/year	Output < 100,000 tons/year	-
		b/ Works for manufacture of pharmaceutical chemicals, cosmetic chemicals	-	Output > 300,000 tons/year	Output > 50,000 – 300,000 tons/year	Output < 50,000 tons/year	-
		c/ Works for manufacture of fertilizers (urea, DAP)	-	Output > 1 million tons/year	Output > 500,000 –1 million tons/year	Output < 500,000 tons/year	-
		d/ Works for manufacture of industrial explosive materials	Of all sizes	-	-	-	-
		e/Petrochemical refineries	Crude oil-processing capacity > 500 barrels/day	Crude oil-processing capacity of 300 - 500 barrels/day	Crude oil-processing capacity of 100 - 300 barrels/day	Crude oil-processing capacity < 100 barrels/day	-
		f/ Gas processing plants	Output > 10 million m ³ of gas/day	Output of 5- 10 million m ³ of gas/day	Output < 5 million m ³ of gas/day	-	-
II-5	Petrol and kerosene depots,	a/ Petrol and kerosene depots	Tank capacity > 20,000m ³	Tank capacity > 10,000m ³	Tank capacity of 5,000 - 10,000 m ³	Tank capacity < 5,000m ³	Tank capacity < 1,000m ³

Code	Types of works		Grades of works				
			Special grade	Grade I	Grade II	Grade III	Grade IV
	liquefied gas depots, and gas and petrol pipelines	b/ Liquefied gas depots	-	Tank capacity > 10,000m³	Tank capacity of 5,000 - 10,000 m³	Tank capacity < 5,000m³	-
		c/ Industrial explosive materials depots	Of all sizes	-	-	-	
		d/ Gas and petrol pipelines	-	Offshore pipelines; onshore pipelines with pressure > 60 bars	Onshore pipelines with pressure of 19-60 bars	Onshore pipelines with pressure of 7-19 bars	-
II -6	Metallurgical works	a/ Non-ferrous metallurgical works	-	Output of 500,000-1 million tons/year	Output of 100,000 - < 500,000 tons/year	Output < 100,000 tons/year	-
		b/ Steel – metallurgical works	Metallurgical complexes	Output > 1 million tons/year	Output of 500,000 – 1 million tons/year	Output < 500,000 tons/year	-
II -7	Engineering, manufacturing works	a/ Engineering works for manufacture of assorted tool machines	-	Output > 5,000 pieces/year	Output of 2,500 – 5,000 pieces/year	Output < 2,500 pieces/year	-
		b/ Works for manufacture of industrial equipment	-	Output > 10,000 tons/year	Output of 5,000-10,000 tons/year	Output < 5,000 tons/year	-
		c/ Works for assembly and repair of automobiles and motorcycles.	-	>10,000 vehicles/years	3,000-10,000 vehicles/year	< 3,000 vehicles/year	-
II-8	Electronics-informatics industry	a/ Product assembly (Products equivalent to TV sets, or computers)	Output > 300,000 products/year	Output of 200,000 – 300,000 products/year	Output of 150,000 – < 200,000 products/year	Output of 100,000 – 150,000 products/year	Output < 100,000 products/year
		b/ Manufacture of accessories, spare parts and assemblies (products equivalent to electronic circuits or ICs)	Output >500 million products/year	Output of 400-500 million products/year	Output of 300- < 400 million products/year	Output of 200-300 million products/year	Output < 200 million products/year
II-9	Power works	a/ Thermo-electric source works	Output > 2,000 MW	Output of 600 - 2,000 MW	Output of 50 - 600 MW	Output of 5 - 50 MW	Output<5MW

Code	Types of works	Grades of works				
		Special grade	Grade I	Grade II	Grade III	Grade IV
	b/ Hydro-electric source works (graded by electric output or by size of reservoir or main dam prescribed in the Section on Irrigation Works, codes IV-1 and IV-2)	Output > 1,000 MW	Output of 300 - 1,000 MW	Output of 30- < 300 MW	Output of 3- < 30 MW	Output<3MW
	c/ Atomic power source works	> 1,000MW	1,000MW	-	-	-
	d/ Power grids and transformer stations	-	500KV	110KV	35KV	-
II-10	Light industry works	a/ Textile factories	-	Output of 25 million meters/year	Output of 5-< 25 million meters/year	Output of < 5 million meters/year
		b/ Printing and dyeing factories	-	Output of 35 million meter/year	Output of 10-< 35 million meters/year	Output of < 10 million meters/year
		c/ Garment factories	-	Output of 10 million products/year	Output of 2-< 10 million meters/year	Output < 2 million meters/year
		d/ Leather-tanning and leather products factories	-	Output of 12 million pairs (or the equivalent)/ year	Output of 1-<12 million pairs (or the equivalent)/ year	Output < 1 million pairs (or the equivalent)/ year
		e/ Plastic products factories	-	Output of 15,000 tons/year	Output of 2,000-<15,000 tons/year	Output < 2,000 tons/year
		f/ Porcelain ware and glassware factories	-	Output of 25,000 tons/year	Output of 3,000-< 25,000 tons/year	Output < 3,000 tons/year
		g/ Pulp and paper factories	-	Output of 60,000 tons/year	Output of 25,000-< 60,000 tons/year	Output < 25,000 tons/year
II-11	Food processing works	a/ Edible oil and flavorings factories	-	Output of 150,000 tons/year	Output of 50,000-150,000 tons/year	Output < 50,000 tons/year
		b/ Alcohol, beer, beverage factories	-	Output of 100 million liters/year	Output of 25-<100 million liters/year	Output of < 25 million liters/year

Code	Types of works		Grades of works				
			Special grade	Grade I	Grade II	Grade III	Grade IV
		c/ Tobacco factories	-	Output of 200 million packs/year	Output of 50-<200 million packs/year	Output of < 50 million packs/year	-
		d/ Dairy factories	-	Output of 100 million liters of product/year	Output of 30-<100 million liters of product/year	Output of < 30 million liters of product/year	-
		e/ Confectionery and instant noodle plants	-	Output > 25,000 tons/year	Output of 5,000-25,000 tons/year	Output of < 5,000 tons/year	-
		f/ Freezing stores	-	Storing capacity > 1,000 tons	Storing capacity of 250-1,000 tons	Storing capacity > 250 tons	-
II-12	Works of construction materials industry	a/ Cement factories	-	Output > 2 million tiles/year	Output of 1-2 million tons/year	Output < 1 million tons/year	-
		b/ Ceramic tiles, granites, and flooring and walling tiles factories	-	Output > 5 million tiles/year	Output of 2-5 million tiles/year	Output < 2 million tiles/year	-
		c/ Baked clay bricks and tiles factories	-	Output > 20 million tiles/year	Output of 10-20 million bricks or tiles/year	Output < 10 million bricks or tiles/year	-
		d/ Sanitary ware factories	-		Output of 500,000 products/year	Output < 500,000 products/year	-
		e/ Glassware factories	-	Output >20 million m ² /year	Output of 10-20 million m ² /year	Output < 10 million m ² /year	-
		f/ Concrete mixture and concrete structure factories	-	Output > 1 million m ³ /year	Output of 500,000 –1 million m ³ /year	Output < 500,000 m ³ /year	-
III	Traffic works						
III-1	Roads	a/ Assorted motorways	Motorways with a traffic flow > 30,000 virtual	Motorways with a traffic flow of between 10,000	Traffic flow > 3,000 and 10,000 virtual	Traffic flow of between 300 and 3,000 virtual	Traffic flow < 300 virtual vehicles/day
		b/ Expressways, highways					

Code	Types of works		Grades of works				
			Special grade	Grade I	Grade II	Grade III	Grade IV
		c/ Rural roads	vehicles/day and night or speed > 100km/h	and 30,000 virtual vehicles/day and night or speed > 80 km/h	vehicles/day and night or speed > 60 km/h	vehicles/day and night or rural roads of type A	and night or rural roads of type B
III-2	Railways		High-speed railways	Subway railways, overhead railways	Ordinary national railway	Special-use railway and local railways	-
III-3	Bridges	a/ Road bridges	Span > 200m	Span of 100-200m or built with new building technology or of special architecture	Span of 50-100m	Span of 25-50m	Span < 25m
		b/ Railway bridges					
III-4	Tunnels	a/ Expressway tunnels	Subway tunnels	Length > 3,000m, with at least two car lanes and 1 railway	Length of 1,000-3,000m, with at least two car lanes and 1 railway	Length of 100-1,000m	Length < 100m
		b/ Railway tunnels					
		c/ Pedestrian tunnels					
III-5	Waterway works	a/ Seaport piers, docks	-	Piers, docks for ships > 50,000 DWT	Piers, docks for ships of > 30,000-50,000 DWT	Piers, docks for ships of 10,000-30,000 DWT	Piers, docks for ships < 10,000 DWT
		b/ Ports for ships and ship-building and –repairing plants	>5,000tons	3,000-5,000 tons	1,500-3,000 tons	750 – 1,500 tons	< 750 tons
		c/ Ship locks	> 3,000tons	1,500 – 3,000 tons	750-1,500 tons	200-750 tons	< 200 tons
		d/ Waterways with a breadth (B) and a water depth (D) for navigation	B > 120m D > 5m	B = 90-<120m D= 4-<5m	B=70-<90m D=3-<4m	B=50-<70m D=2-<3m	B<50m D< 2m
		- On rivers					
		- On canals	B> 70m D>6m	B=50-<70m D=5-<6m	B=40-<50m D=4-<5m	B=30-<40m D=2-<4m	B< 30m D< 3m
III-6	Airfields	Runways for take-off and landing (graded according to ICAO standards)	IV E	IV D	III C	II B	I A

Code	Types of works		Grades of works				
			Special grade	Grade I	Grade II	Grade III	Grade IV
IV	IRRIGATION WORKS						
IV-1	Reservoirs		Capacity > 5,000 x 10 ⁶ m ³	Capacity of 1,000 x 10 ⁶ – 5,000 x 10 ⁶ m ³	Capacity of 100 x 10 ⁶ – 1,000 x 10 ⁶ m ³	Capacity of 1 x 10 ⁶ – 100 x 10 ⁶ m ³	Capacity < 1x10 ⁶ m ³
IV-2	Dams	a/ Earth, earth-rock dams	Height > 100m	Height of 75-100m	Height of 25-<75m	Height of 15<25m	Height < 15m
		b/ Concrete dams	Height > 150m	Height of 100-150m	Height of 50-<100m	Height of 15-50m	Height < 15m
		c/ Revetment walls	-	-	Height > 50m	Height of 5-50m	Height < 5m
IV-3	Rural irrigation works	a/ Irrigational systems with a supplying or draining capacity over an acreage: Sx10 ³ ha	Acreage>75	Acreage >50-75	Acreage of 10-<50	Acreage of 2-<10	Acreage < 2
		b/ Works that supply water for daily life and production, with a flow: Q(m ³ /s)	Flow > 20	Flow of 10- < 20	Flow of 2-<10	Flow < 2	-
IV-4	Dykes Embankments	Main dykes, girdle-shaped dykes, cofferdams (graded according to the irrigation sector's dyke grading regulations)	Special	I	II	III	IV
V	TECHNICAL INFRASTRUCTURE WORKS						
V-1	Water supply and drainage works	a/ Water supply	> 500,000 m ³ /day and night	300,000÷500,000 m ³ /day and night	100,000÷<300,000 m ³ /day and night	20,000÷100,000 m ³ /day and night	<20,000 m ³ /day and night
		b/ Water drainage	> 300, 000 m ³ /day and night	300,000÷100,000 m ³ /day and night	50,000 < ÷100,000 m ³ /day and night	10,000÷<50,000 m ³ /day and night	<10,000 m ³ /day and night
V-2	Waste treatment works	a/ Garbage dumping grounds	-	500 tons/day	300-<500 tons/day	150-<300 tons/day	<150 tons/day
		b/ Garbage-treating plants	> 3,000 tons	1,000 ÷ < 3,000 tons/days	300÷<1,000 tons/days	100÷<300 tons/day	<100 tons/day