



THE PLUMBERS, GASFITTERS, AND DRAINLAYERS REGULATIONS 1977

DENIS BLUNDELL, Governor-General

ORDER IN COUNCIL

At the Government Buildings at Wellington this 28th day of March 1977

Present:

THE RIGHT HON. B. E. TALBOYS PRESIDING IN COUNCIL

PURSUANT to the Plumbers, Gasfitters, and Drainlayers Act 1976, His Excellency the Governor-General, acting by and with the advice and consent of the Executive Council, hereby makes the following regulations.

ANALYSIS

1. Title and commencement		<i>Miscellaneous Provisions</i>
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REGULATIONS

1. Title and commencement—(1) These regulations may be cited as the Plumbers, Gasfitters, and Drainlayers Regulations 1977.

(2) These regulations shall come into force on the 1st day of April 1977.

2. Interpretation—In these regulations, unless the context otherwise requires,—

“The Act” means the Plumbers, Gasfitters, and Drainlayers Act 1976:

“Examining Authority” means the New Zealand Trades Certification Board constituted under the Trades Certification Act 1966.

Examinations

3. Arrangements for examinations—(1) The Board shall from time to time make arrangements with the Examining Authority for the Examining Authority to hold, at least once in every calendar year, examinations of candidates for registration—

- (a) As craftsman plumbers under section 21 of the Act:
- (b) As craftsman gasfitters under section 22 of the Act:
- (c) As plumbers under section 23 of the Act:
- (d) As gasfitters under section 24 of the Act:
- (e) As drainlayers under section 25 of the Act.

(2) The place at which any such examination is to be held, the advertising of the intention to hold any such examination, the manner of making and receiving applications to sit for any such examination, the charging of fees in respect of any such examination, the remuneration of examiners, and, subject to the other provisions of these regulations, ancillary matters relating to any such examination shall be in accordance with the practice and procedure of the Examining Authority acting under the Trades Certification Act 1966 and in consultation with the Board.

4. Subject matter of examinations—(1) The subject matter on which candidates shall be examined for registration as craftsman plumbers shall be that set out in the First Schedule to these regulations.

(2) The subject matter on which candidates shall be examined for registration as craftsman gasfitters shall be that set out in the Second Schedule to these regulations.

(3) The subject matter on which candidates (being persons who have completed an apprenticeship in the plumbing trade or persons to whom any of paragraphs (a), (c), and (d) of section 23 of the Act applies) shall be examined for registration as plumbers shall be that set out in the Third Schedule to these regulations.

(4) The subject matter on which candidates (being persons who have completed an apprenticeship in the gasfitting trade or persons to whom any of paragraphs (a), (c), (d), and (e) of section 24 of the Act applies) shall be examined for registration as gasfitters shall be that set out in the Fourth Schedule to these regulations.

(5) The subject matter on which candidates (being persons who, after the 1st day of January 1979, have completed an apprenticeship in the plumbing-gasfitting trade) shall be examined for registration as plumbers and for registration as gasfitters shall be that set out in the Fifth Schedule to these regulations.

(6) The subject matter on which candidates shall be examined for registration as drainlayers shall be that set out in the Sixth Schedule to these regulations.

(7) Every examination for candidates for registration as craftsman plumbers or as craftsman gasfitters shall consist of 2 parts, each comprising 1 written paper of not less than 3 hours' duration.

(8) Every examination for candidates for registration as plumbers or as gasfitters, prescribed by subclause (3) or subclause (4) of this regulation, shall consist of 2 parts, namely:

- (a) Two written papers, each of not less than 3 hours' duration:
- (b) A practical test of workmanship.

(9) Every examination for candidates for registration as plumbers and as gasfitters, prescribed by subclause (5) of this regulation, shall consist of 2 parts, namely:

- (a) Three written papers, each of not less than 3 hours' duration:
- (b) A practical test of workmanship.

(10) The examination for candidates for registration as drainlayers shall consist of 3 parts, namely:

- (a) One written paper of not less than 2 hours' duration:
- (b) A drawing test of not less than 1 hour's duration:
- (c) A practical test of workmanship.

5. Restrictions on sitting for examinations—Each examination may be passed as a whole or in its parts; but no candidate shall be allowed to present himself for an examination or part thereof until,—

- (a) In the case of a candidate for the examination for registration as a craftsman plumber, he has been engaged in sanitary plumbing for not less than 1 year since his registration as a plumber:
- (b) In the case of a candidate for the examination for registration as a craftsman gasfitter, he has been engaged in gasfitting for not less than 1 year since his registration as a gasfitter:
- (c) In the case of a candidate for the examination for registration as a plumber, prescribed by regulation 4 (3) of these regulations,—

- (i) He has been engaged in the plumbing trade for not less than 2 years after completing an apprenticeship in the gasfitting trade; or

- (ii) He has served 6000 hours of an apprenticeship as a plumber and passed such preliminary examinations as the Examining Authority may require to be passed by him; or

- (iii) He has held a limited certificate to do sanitary plumbing for a continuous period of 5 years (whether that period commenced before or after the commencement of the Act); or

- (iv) He has been engaged in the plumbing trade for an aggregate period of 7 years (commencing before the 1st day of April 1977):

- (d) In the case of a candidate for the examination for registration as a gasfitter, prescribed by regulation 4 (4) of these regulations,—

- (i) He has been engaged in the gasfitting trade for not less than 2 years after completing an apprenticeship in the plumbing trade or in an industry to which section 24 (c) of the Act applies; or

- (ii) He has served 6000 hours of an apprenticeship as a gasfitter, and passed such preliminary examinations as the Examining Authority may require to be passed by him; or

- (iii) He has held a limited certificate to do gasfitting for a continuous period of 5 years (whether that period commenced before or after the commencement of the Act); or

- (iv) He has been engaged in the gasfitting trade for an aggregate period of 7 years (commencing before the 1st day of April 1977):

- (e) In the case of a candidate for the examination for registration as a plumber and for registration as a gasfitter, prescribed by regulation 4 (5) of these regulations, he has served 6000 hours of an apprenticeship as a plumber-gasfitter, and passed such preliminary examinations as the Examining Authority may require to be passed by him:
- (f) In the case of a candidate for the examination for registration as a drainlayer, he has been engaged in drainlaying for an aggregate period of 12 months.

6. Further provisions relating to examinations—(1) Notwithstanding anything in regulations 3 to 5 of these regulations,—

- (a) A candidate for the examination for registration as a craftsman plumber or a candidate for the examination for registration as a craftsman gasfitter shall not be required to be examined in the subject matter described in Part 2 of the First Schedule, or (as the case may require) Part 2 of the Second Schedule, to these regulations if he has already passed the examination in that subject matter in the examination for registration as a craftsman gasfitter or (as the case may require) as a craftsman plumber; and a candidate who sits both examinations on the same occasion shall not be required to be examined on that subject matter in both of those examinations:
- (b) In respect of candidates who, after the 1st day of January 1979, have completed an apprenticeship in the plumbing-gasfitting trade, those questions and tests included in the examination prescribed by regulation 4 (5) of these regulations that do not relate only to gasfitting shall constitute the examination prescribed for the purposes of section 23 (b) of the Act, and those questions and tests in the said examination that do not relate only to plumbing shall constitute the examination prescribed for the purposes of section 24 (b) of the Act; but the Examining Authority shall not be obliged to award a pass to any candidate who does not pass the whole of the examination prescribed by the said regulation 4 (5) of these regulations:
- (c) The Registrar may, if he thinks fit, permit any person who is within 3 months of completing any period referred to in regulation 5 of these regulations to present himself for the examination to which the relevant period relates:
- (d) The Registrar may, if he thinks fit, reduce any period referred to in regulation 5 of these regulations in the case of a person—
 - (i) Who has served an apprenticeship wholly or partly, or has been employed, in any trade other than the trade in which he seeks to be examined under these regulations; or
 - (ii) To whom paragraph (b) of this subclause applies and who began an apprenticeship in the plumbing trade or in the gasfitting trade before the commencement of the Act.

(2) Notwithstanding anything in regulations 3 to 5 of these regulations or in subclause (1) of this regulation, the Examining Authority may permit any person to undergo that part of any examination that

consists of a practical test of workmanship by stages during the currency or after the expiration of any period specified in regulation 5 of these regulations, in such manner, at such place or places, under the supervision of such person or persons, and with the result of each stage authenticated by such evidence as the Examining Authority may require, and subject to such other conditions as it may see fit to impose.

Miscellaneous Provisions

7. Registers—Each of the registers referred to in section 20 (1) of the Act shall be kept in the form set out in the Seventh Schedule to these regulations, and the particulars shown on that form shall be completed in respect of each entry in any such register.

8. Form of certificates and licences—A certificate of registration issued under section 31 of the Act, a licence issued under section 36 of the Act, a provisional licence issued under section 37 (1) of the Act, and a limited certificate issued under section 38 (2) of the Act, shall each be in a form prescribed by the Board.

9. Duration of limited certificates—(1) A limited certificate issued to an apprentice gasfitter, or to an apprentice plumber, or to an apprentice plumber-gasfitter, shall continue in force until the period of apprenticeship is completed or the apprenticeship is otherwise determined.

(2) Subject to subclause (1) of this regulation, every limited certificate shall continue in force during the year or years in respect of which it is issued or renewed.

(3) Subject to subclause (1) of this regulation, a limited certificate may be issued or renewed for any period of years not exceeding 5, and may, subject to the approval of the Postmaster-General, be renewed through any Post Office.

(4) Any person who is entitled to renew a limited certificate shall be deemed to have obtained such renewal when he has duly applied for it and paid the prescribed fee.

(5) A limited certificate that is not renewed within 1 year after it expires shall lapse, and the Registrar, on becoming aware that any such limited certificate has lapsed, shall note the Register of Holders of Limited Certificates accordingly; but nothing herein contained shall entitle any person to do sanitary plumbing or gasfitting or drainlaying after his limited certificate has expired and before it has been renewed.

(6) In this regulation “year” means a period of 12 months beginning on the 1st day of April and ending with the 31st day of March in the next succeeding year.

10. Appeals—Where the Board makes, in respect of any person, a decision from which that person has a right of appeal under section 58 of the Act, the Registrar shall forthwith inform that person of the Board’s decision and of the reasons for it.

11. Fees—(1) The fees for registration, certificates of registration, licences, provisional licences, limited certificates, renewals of limited certificates, corrections of registers, and restoration of names to a register shall be those set out in the Eighth Schedule to these regulations:

Provided that—

- (a) In any case, where a person applies for both a craftsman plumber's licence and a craftsman gasfitter's licence together, the fee payable by that person in respect of both licences shall be \$30:
- (b) In any case where a person applies for both a registered plumber's licence and a registered gasfitter's licence together, the fee payable by that person in respect of both licences shall be \$7.50:
- (c) No fee shall be payable upon the issue of a licence to any person during the period from the 1st day of April in any year to the 31st day of March next following if, during that period, his name is entered in a register for the first time:
- (d) No fee shall be payable for the correction of any error in the register for which the person registered is not responsible:
- (e) No person who, before the commencement of the Act, has obtained a plumber's licence or gasfitter's licence, issued under section 13 of the Plumbers and Gasfitters Registration Act 1964, in respect of the year commencing on the 1st day of April 1977 shall be required to pay any further fee for that licence in respect of that year:
- (f) No person who, at the commencement of the Act, holds a provisional licence issued under section 14 of the Plumbers and Gasfitters Registration Act 1964, or a limited certificate issued under section 15 of that Act, shall be required to pay any further fee for that licence, or, until it falls due for renewal, for that certificate.

(2) The fee prescribed for a limited certificate shall be payable in respect of every year (as defined in regulation 9 (6) of these regulations) in respect of which the certificate is issued or renewed:

Provided that where any such certificate is issued between the 1st day of January in any year and the 1st day of April next following no part of that period shall be taken into account in calculating the fee (if any) that is payable.

12. Revocations—The Plumbers and Gasfitters Regulations 1966*, and the Plumbers and Gasfitters Regulations 1966, Amendment No. 1†, are hereby revoked.

*S.R. 1966/41
†S.R. 1969/112

SCHEDULES

Reg. 4 (1)

FIRST SCHEDULE

SYLLABUS OF EXAMINATION FOR REGISTRATION AS CRAFTSMAN
PLUMBERS*Part I—Written Examination*

1. A full understanding of, and ability to apply, legislation, bylaws, and standard specifications.
2. Practical plumbing and technology, including a knowledge of design and maintenance required by the drainage and plumbing regulations. Pipe sizing of water and waste installations. Prevention of ingress of water to structures. Principles of sewage treatment plants and plant maintenance. Flow rates and capacity of pipes; factors impeding flows. Principles of pipes and surface drainage.
3. Basic knowledge of gas and oil burning equipment and its installation for various forms of heating of air and water in buildings.
4. Operation of water pumps, mixing valves, and other controls used in water heating systems.

Part II—Written Examination

1. Practical knowledge of building construction and how it is affected by installation of service lines and appliances.
2. A practical understanding of natural and mechanical installations for heating and ventilation.
3. Advanced knowledge of design processes, planning and drawing interpretation for the purpose of directing staff in plumbing and gasfitting work, and an understanding of the work of the building services engineer.
4. Understanding of applied science as it affects design of installations of plumbing and gasfitting.
5. Overview of safety and safety procedures for carrying out plumbing and gasfitting.
6. Advanced knowledge of plumbing and gasfitting techniques of workmanship and technology, including testing installations and materials.
7. Ability in, and knowledge of, the efficient running of a business.
8. Working knowledge of legislation relating to running a business and employing staff, and relating to Government and local bodies.
9. Principles of industrial relations.

SECOND SCHEDULE

Reg. 4 (2)

SYLLABUS OF EXAMINATION FOR REGISTRATION AS CRAFTSMAN
GASFITTERS

Part I—Written Examination

1. A full understanding of and the ability to apply legislation, bylaws, codes, and standard specifications.
2. Knowledge of work of other trades to the extent that they may affect the work of a gasfitter.
3. Gasfitting practice and technology. Composition and physical properties of gases. Knowledge of gas control burners and principles of operation. Meters—types; knowledge of their installation and operation.
4. Installation—design and pipe sizing.
5. Principles of refrigeration by gas.

Part II—Written Examination

1. Practical knowledge of building construction and how it is affected by installation of service lines and appliances.
 2. A practical understanding of natural and mechanical installations for heating and ventilation.
 3. Advanced knowledge of design processes, planning and drawing interpretation for the purpose of directing staff in plumbing and gasfitting work, and an understanding of the work of the building services engineer.
 4. Understanding of applied science as it affects design of installations of plumbing and gasfitting.
 5. Overview of safety and safety procedures for carrying out plumbing and gasfitting.
 6. Advanced knowledge of plumbing and gasfitting techniques of workmanship and technology, including testing installations and materials.
 7. Ability in, and knowledge of, the efficient running of a business.
 8. Working knowledge of legislation relating to running a business and employing staff, and relating to Government and local bodies.
 9. Principles of industrial relations.
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Reg. 4 (3)

THIRD SCHEDULE

SYLLABUS FOR EXAMINATION FOR REGISTRATION AS PLUMBERS

Part I—Written Examination

1. Knowledge of the principles relating to good plumbing practice, workmanship, and safety.
2. Knowledge of materials and their working commonly used in the trade; principles relating to the applied science, including hydraulics, of the trade.
3. Ability to use the common methods of handling materials.
4. Ability to interpret drawings and calculate within trade practice.
5. Principles of heating and ventilation using water and gas.
6. Practical knowledge of all aspects of sanitary plumbing.
7. General knowledge of legislation relating to plumbing and sanitary plumbing.

Part II—Practical Test of Workmanship

This part is intended to satisfy the examiner that the candidate can execute in a satisfactory manner within a reasonable time the following:

1. Lead burning, sheet lead bossing of various types of flashing pieces.
2. Copper bending, jointing, welding, and brazing.
3. The jointing, bending, and manipulation of other pipes, hard sheet metals, and other materials used in plumbing work.
4. The oxy-acetylene gas cutting, and the welding of pipes and hard sheet metals, using gas, electric arc, and argon arc processes.

FOURTH SCHEDULE

Reg. 4 (4)

SYLLABUS FOR EXAMINATION FOR REGISTRATION AS GASFITTERS

Part I—Written Examination

1. Knowledge of the principles relating to good gasfitting practice, workmanship, and safety.
2. Knowledge of materials and their working commonly used in the trade; principles relating to applied science of the trade.
3. The ability to use the common methods of handling materials.
4. Ability to interpret drawings and calculate within trade practice.
5. Principles of heating and ventilation using water and gas.
6. Practical knowledge of gas appliances and their controls.
7. Knowledge of the types, uses, characteristics, and composition of fuel gases, including liquefied petroleum gas (L.P.G.).
8. General knowledge of legislation relating to gasfitting.

Part II—Practical test of workmanship

This part is intended to satisfy the examiner that the candidate can execute in a satisfactory manner within a reasonable time the following:

1. Lead bossing and lead burning of various types of flashing pieces.
2. Copper pipe bending, jointing, welding, and brazing.

FOURTH SCHEDULE—*continued*

3. The jointing, bending, and manipulation of other pipes, including asbestos cement pipes, and sheet metals, plastics, and other materials used in gasfitting work.
4. The oxy-acetylene gas cutting and welding of pipes and hard sheet metals using gas, electric arc, and argon arc processes.
5. Fitting, adjusting, and operation of all types of common domestic gas appliances, together with venting and flueing; general testing procedures; advice to consumers on correct use of appliances.

FIFTH SCHEDULE

Reg. 4 (5)

SYLLABUS FOR EXAMINATION FOR REGISTRATION AS PLUMBERS AND
REGISTRATION AS GASFITTERS

Part I—Written Examination

1. Knowledge of the principles relating to good plumbing and gasfitting practice, workmanship and safety.
2. Knowledge of materials and their working commonly used in these trades; principles relating to the applied science, including hydraulics, of these trades.
3. Ability to use the common methods in handling materials.
4. Ability to interpret drawings and calculate within trade practice.
5. Principles of heating and ventilation using water and gas.
6. Practical knowledge of plumbing and gas appliances and their controls.
7. Knowledge of the types, uses, characteristics, and composition of fuel gases, including liquefied petroleum gas (L.P.G.).
8. General knowledge of legislation relating to plumbing, sanitary plumbing, and gasfitting.

Part II—Practical Test of Workmanship

1. Safety aspects and health precautions.
 2. Trade skills, the use and maintenance of tools and appliances.
 3. Knowledge of processes in working hard and soft metals, other materials and plastics; identification of plastics and solvents, fabrication and jointing of materials.
 4. Use, care, and maintenance of gas welding and cutting apparatus, electric welding, including argon arc, fusion and bronze welding using sheet materials up to 3 millimetres. Precautions in handling, operation, and storage of gas cylinders.
 5. Use of meter test dials, burners and their adjustments, regulators, checking and setting gas pressures, flammability testing operation of thermostats, checking for faults; water heaters, cookers, types, sizes, installation, and ventilation.
 6. The checking of domestic gas appliances for correct functioning.
 7. Liquefied Petroleum Gas (L.P.G.). Cylinder handling, installation, and servicing.
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Reg. 4 (6)

SIXTH SCHEDULE

SYLLABUS FOR EXAMINATION FOR REGISTRATION AS DRAINLAYERS

Part I—Written Examination

Sketches should be used to illustrate answers wherever practicable.

Calculations: Simple calculations relating to volumes of earthworks (trenches) or shingle.

Materials: Cement sand, shingle, mortar, concrete (selection mixing and use), calcium chloride, sodium silicate (use of in concrete and water). Jointing materials—rings, sleeves, mortar, bitumen, clay, cement. Pipes and fittings—earthenware, concrete, asbestos, cement, plastics. Ideal qualities of pipes and fittings.

Tools and Equipment: Drainlayers' tools, electrical equipment.

Safety Precautions: Knowledge of dangerous gases as applicable to drains and sewers. Use of isolating transformers. Rescue breathing.

Principles of Drainage Design: Planning of drainage—domestic and commercial, access to and cleansing of drains, manholes and other access openings.

Sewerage Systems: General knowledge of storm water and foul water systems, combined systems, separate systems, storm water drain fittings, oil and petrol traps; sewage tanks—NZSS 758; septic closets. Simple understanding of decomposition of sewage and effluent disposal systems.

Drain Jointing: Methods of making flexible and rigid joints.

The Laying of Drains: Levelling, gradients, trenching, bedding of drains, back-filling, safety precautions for earthworks and excavations, the use of simple pumps. Application of the Construction Regulations 1961 to excavations. Safety measures to protect the public.

Testing of Drains: Air, water, coloured water, mirror, smoke, scent tests.

Ventilation of Drains: Methods of ventilating with or without the use of an interceptor trap. Factors influencing flow of air and gases through drains.

Regulations: A knowledge of the Drainage and Plumbing Regulations 1959 as applied to drainage work.

Insurance: Types of insurance applied to the drainlayer.

Part II—Drawing Test

The candidate will be supplied with a block plan of a section showing a dwelling or building and he shall be required to show on it:

- (a) The drainage plan drawn to scale.
- (b) The positions and types of fittings, ventilation pipes, and inspection openings or other "specials" that would be required.
- (c) The gradient of each portion of the drain.
- (d) A sketch of a selected structure or fitting that he might reasonably be expected to construct in the normal course of his work.

Contours or other information relating to levels will be shown where applicable.

SIXTH SCHEDULE—*continued*

Part III—Practical Test of Workmanship

Arrangements for a practical test will be made only after the candidate has passed the written examination and drawing test. The test shall include such of the following as the examiner may require to ascertain the competency of the candidate:

Preparing an application for permit and payment of fees:

Obtaining information regarding location of junctions on existing sewers:

Locating underground cables, ducts, and services:

Excavating to grade and size and protection of trench:

Actual laying of pipes and fittings to include not less than 20 m of pipe, including four rigid joints:

Bedding and haunching of pipes:

Sealing of inspection openings and dead ends:

Protecting pipes in shallow trench:

Installing and building up gully traps and surrounds:

Building and plastering inspection chambers:

Backfilling trenches and restoring properties:

Practical testing of drain after completion:

Completing a drainage installation.

SEVENTH SCHEDULE

Reg. 7

FORM OF REGISTER

Registration Number	Date of Registration	Name in Full	Postal Address	Authority Under Which Registered

Reg. 11

EIGHTH SCHEDULE

FEES

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1. <i>Registration:</i>	
As a craftsman plumber	20
As a craftsman gasfitter	20
As a registered plumber	5
As a registered gasfitter	5
As a registered drainlayer	5
Certificate of registration	3
Provisional licence under section 37 of the Act	2
2. <i>Licences under Section 36 of the Act:</i>	
As a craftsman plumber	20
As a craftsman gasfitter	20
As a registered plumber	5
As a registered gasfitter	5
As a registered drainlayer	2
3. <i>Other Fees:</i>	
Issue of a limited certificate	2
Renewal of a limited certificate	2
Correction of a register	2
Restoration of a name to a register	2

P. G. MILLEN,

Clerk of the Executive Council.

EXPLANATORY NOTE

This note is not part of the regulations, but is intended to indicate their general effect.

These regulations consolidate and amend the Plumbers and Gasfitters Regulations 1966, consequent upon the enactment of the Plumbers, Gasfitters, and Drainlayers Act 1976.

Regulation 1 relates to the Title and commencement. The regulations come into force on 1 April 1977.

Regulation 2 is interpretative.

Regulations 3 to 6 make provision for the conduct by the New Zealand Trades Certification Board of examinations of persons seeking registration under the Plumbers, Gasfitters, and Drainlayers Act 1976.

Regulation 7 prescribes the form of the various registers to be kept under the Act, and the particulars to be recorded in the registers.

Regulation 8 empowers the Plumbers, Gasfitters, and Drainlayers Board to prescribe the form of licences and certificates to be issued under the Act.

Regulation 9 relates to the duration of limited certificates issued to apprentices.

Regulation 10 requires the Registrar of the Board to give notice of a decision of the Board, and of its reasons for it, to every person who is entitled to appeal against that decision.

Regulation 11 prescribes the fees payable in respect of various matters under the Act.

Regulation 12 consequentially revokes the Plumbers and Gasfitters Regulations 1966 and their amendments.

Issued under the authority of the Regulations Act 1936.

Date of notification in *Gazette*: 31 March 1977.

These regulations are administered in the Department of Health.