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VICTORIA GOVERNMENT GAZETTE

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[1961

GAS AND FUEL CORPORATION ACT 1958.

At the Executive Council Chamber, Melbourne, the eleventh day of July, 1961.

PRESENT:

His Excellency the Administrator of the Government of Victoria.

Mr. Petty

Mr. Porter.

GAS-FITTING REGULATIONS OF VICTORIA 1961.

PURSUANT to the powers conferred by section 43 of the *Gas and Fuel Corporation Act 1958* (No. 6260) and all powers thereunto him enabling His Excellency the Administrator of the Government of the State of Victoria by and with the advice of the Executive Council thereof makes the following Regulations (that is to say):—

1. These Regulations shall be known and may be cited as the Gas-fitting Regulations of Victoria.

2. These Regulations shall cover all gas-fitting work carried out in the State of Victoria and in the areas of supply of the following utilities:—

The Colonial Gas Association Limited (in respect of the Box Hill, Footscray, Shepparton and Wangaratta portions of its undertaking).

The Gas and Fuel Corporation of Victoria (in respect of those portions of its undertaking supplying gas)—

(i) Within the Melbourne and Metropolitan reticulation area and any extension thereto.

(ii) From a main between Morwell and Dandenong and any extension thereto, including Traralgon.

(iii) Within the Bendigo reticulation area and any extension thereto.

(iv) Within the Castlemaine reticulation area and any extension thereto.

(v) Within the Kyneton reticulation area and any extension thereto.

The Gas Supply Company Limited (in respect of the Ballarat, Colac, Sale and Warrnambool portions of its undertaking).

The Geelong Gas Company Limited (in respect of the Geelong portions of its undertaking).

Where the supply of gas is reticulated by pipes laid under, on, or above the ground in any area of supply of the above or any other Gas Supply Authority.

PART A.—ADMINISTRATION.

SECTION 1.—TITLE AND DEFINITION.

In the construction and for the purposes of these Regulations the following terms shall, if not inconsistent with the context or subject-matter, have the respective meanings hereby assigned to them:—

- “Appliance” means any gas-fired apparatus installed and connected to a fitting pipe.
- “Approved” means approved by the Authorized Officer of the Gas Supply Authority responsible for the reticulated supply of gas.
- “Authorized Officers” means the Inspecting Officers of the Gas Supply Authority appointed in respect of these Regulations and includes any person acting as such with the authority of the Gas Supply Authority.
- “Authorized person” means any person registered as a gas-fitter under provisions of the *Health Act* 1958 and includes an apprentice working under the control of a registered gas-fitter.
- “Chief Inspector” means the Senior Authorized Officer of the Gas Supply Authority.
- “Fitting pipe” means any pipe for conveying gas connecting or intended to connect the outlet side of any gas meter to any appliance other than a portable appliance.
- “Flue pipe” means a conduit or passageway, vertical or nearly so, for conveying flue gases to the outer air.
- “Gas-fitting work” means any act whatsoever performed in the course of installing, repairing, or making addition to any gas installation or any part of a gas installation.
- “Gas installation” includes all pipes, meters, fittings, appliances and apparatus of whatsoever nature installed or being installed upon any premises for the purpose of conveying gas.
- “Gas Supply Authority” means the undertaker who supplies or who is authorized to supply gas to the premises upon which any gas-fitting work is performed or to be performed or intended to be performed.
- “Non-return valve or check valve” means an approved valve installed on a fitting pipe for the purpose of preventing a pressure greater than the gas supplied from entering any pipe for conveying gas.
- “Portable appliance” means any appliance designed and constructed for portability and for connexion to outlets by means of a flexible connexion.
- “Service pipe” means any pipe for conveying gas connecting or intended to connect any gas main to a position for connexion with a gas meter.

SECTION 2.—ADMINISTRATION.

1. *Scope of Regulations.*—These Regulations shall extend and apply to all gas installations which are connected or are intended to be connected to gas supply mains of the Gas Supply Authority and all the relevant provisions of the Regulations shall apply as well to the case of any alteration or addition to any existing gas installations as to any new gas installation.

2. *Only Authorized Persons to do Gas-fitting Work.*—No person other than an authorized person shall engage in or perform any gas-fitting work.

3. *Notice to be Given Before Commencing Gas-fitting Work.*—(i) No person shall engage in or undertake or perform any gas-fitting work (other than urgent emergency repairs) unless he shall first have furnished to the Gas Supply Authority at least 48 hours before commencing work, two copies of Preliminary Notice completed in writing for the following cases:—

- (a) To do gas-fitting work on premises not yet supplied with gas.
- (b) To install additional fitting work at premises already supplied with gas.
- (c) To alter existing fitting work on premises already supplied with gas.
- (d) To effect repairs to a gas installation on premises supplied with gas.
- (e) To remove existing appliances and/or fitting work on premises supplied with gas.
- (f) To replace existing appliances with new appliances.
- (g) To carry out any gas-fitting work on any premises.

(ii) Every person engaging in undertaking or performing any gas-fitting work shall submit the work performed for inspection by an Authorized Officer and for that purpose shall within 48 hours of completion of the work, furnish to the Gas Supply Authority a copy of the Final Notice completed in writing.

(iii) In the case where urgent emergency repairs are effected without prior notice, the Preliminary Notice and the Final Notice shall be furnished to the Gas Supply Authority within 48 hours of completion of the work.

(iv) All such notices shall be in the form prescribed in the Schedules to these Regulations.

Authorized Officers.

4. The administration of these Regulations shall be carried out by the Authorized Officers.

5. Any Authorized Officer may prosecute for any breach of these Regulations.

6. Every person engaging in undertaking or performing any gas-fitting work shall submit such work for inspection and testing by an Authorized Officer who shall when satisfied that the work has been performed in accordance with the requirements of these Regulations sign the approval form prescribed in the Schedule to these Regulations.

7. An Authorized Officer shall on making any inspection of gas-fitting work complete an inspection record in the form prescribed in the Schedule to these Regulations and shall therein record such particulars and directions as he considers requisite in relation to any part of the gas installation which in his opinion does not conform with the requirements of these Regulations.

8. Every Authorized Officer shall have power to enter any building at all reasonable times for the purpose of inspecting the gas installation or for carrying out any power or function conferred upon him by these Regulations.

9. Every Authorized Officer shall be empowered to withdraw withhold cut off or cause to be cut off supply of gas to any appliance which or in respect of which any gas-fitting work performed does not conform with the requirements of these Regulations.

Service of Notices.

10. Any notice or order issued by an Authorized Officer to any person shall be deemed to have been properly and sufficiently served upon such person if such notice or order is:—

(a) Served personally upon such person or upon his authorized representative.

(b) Sent by registered post addressed to the last known place of residence or business of such person provided always that where no place of residence or business is known the said notice or order shall be deemed to have been properly and sufficiently served if affixed to the building or premises to which such notice relates.

Penalties.

11. (a) Any person doing any act forbidden by these Regulations to be done or failing to do any act directed by these Regulations to be done shall be guilty of an offence. Every person found guilty of an offence under these Regulations shall for a first offence thereunder be liable to a penalty of not more than Fifty pounds and for every subsequent offence to a penalty of not less than Three pounds nor more than Fifty pounds in respect of every such offence.

(b) Every person found guilty by any Court of an offence under these Regulations which offence comprised either a failure to furnish any notice required by these Regulations or a failure to comply with any order or direction of an Authorized Officer or the performance of any gas-fitting work not in conformance of the requirements of these Regulations shall within such time as an Authorized Officer may by notice in writing require furnish such notice or comply with such direction or order or remedy such gas-fitting work to conform with the requirements of these Regulations as the case may be.

12. Failure to comply with such notice shall be an offence in the nature of a continuing offence against these Regulations punishable by fine of Five pounds for each day of failure to so comply.

Notwithstanding anything implied or not implied in these Regulations, the authorized person shall be solely responsible for the satisfactory installation of all work carried out by him or by his apprentice and shall be solely liable for any claim which may arise through any cause whatsoever from the work performed.

In any case where the Chief Inspector, upon application being made to him in writing, by any authorized person proposing to make any installation, is satisfied that strict compliance with these Regulations would involve expenditure out of proportion to the degree of freedom from gas hazard to be secured by such compliance, the Chief Inspector may excuse compliance with any requirements of these Regulations, other than Regulation 2 of Section 2, with or without conditions, and in such case subject to the observance of those conditions, the non-compliance shall not be an offence. Every such application shall be accompanied by a full statement of the reasons why such modification is desired and of the nature thereof.

SECTION 3.—INTER-RELATION WITH OTHER SERVICES.

1. *Department of Health.*—No gas-fired appliance shall be fixed in any location which is contrary to the requirements of the Department of Health.
2. *Uniform Building Regulations.*—The requirements of the Uniform Building Regulations in so far as they apply to the installation of gas-fired appliances ventilation and flueing requirements shall be strictly adhered to.
3. *Melbourne and Metropolitan Board of Works, or Other Water Supply Authority.*—All appliance installations which involve water connexions to the Melbourne and Metropolitan Board of Works or other Water Supply Authorities water supply mains shall be carried out in such a manner as to comply with the Regulations and By-laws of the Melbourne and Metropolitan Board of Works or other such Water Supply Authority.
4. *State Electricity Commission of Victoria.*—The requirements of Wiring Regulations of the State Electricity Commission of Victoria in so far as they apply to gas pipes shall be strictly adhered to.

SECTION 4.—GENERAL.

1. (a) No person shall apply to the Gas Supply Authority for supply of a meter to be connected to a gas installation in respect of which gas-fitting work has been performed by other than an authorized person.
- (b) Any authorized person making such application shall be deemed for all the purposes of these Regulations himself to have performed the gas-fitting work carried out and shall be bound within seven days of notice in that behalf given by an Authorized Officer to perform all such work as the Authorized Officer shall in such notice have specified as being requisite to ensure conformance with these Regulations.

Compliance with Fire Underwriters' Requirements.

2. All gas-fitting work shall be carried out to conform with the requirements of the Fire and Accident Underwriters' Association of Victoria.
3. All gas-fitting work shall be carried out in workmanlike manner and in all respects in accordance with any directions and requirements of an Authorized Officer.

PART B.—GENERAL INSTALLATION REQUIREMENTS.

SECTION 1.—SERVICE PIPES.

Service Pipes Not to be Interfered With.

1. Any person (other than a Gas Supply Authority) who shall alter, extend, repair or otherwise howsoever interfere in any way with any service pipe shall be guilty of an offence.

SECTION 2.—GAS METERS.

1. The location of any gas meters or meter shall be determined by an Authorized Officer prior to the commencement of the installation of any gas-fitting pipes and shall not be altered, extended or otherwise interfered with by any person other than an Authorized Officer.
2. Gas meters shall be fixed in a level position and in such a manner that the index is clearly visible for reading and shall be adequately insulated from any dampness.
3. The meter shall be located in a position such that it will be accessible for readings should the consumer be absent from the premises and gas meters shall not be located in any of the following positions:—
 - In any room which is used for sleeping accommodation.
 - Under draining boards, adjoining sinks, or in any position likely to be affected by dampness.
 - In any unventilated position.
 - In any position which is subjected to wide variations of temperature, or where conditions are likely to affect its accuracy.
 - Immediately above or directly below any gas appliance.
4. Gas meters shall be housed either in a suitable compartment provided within the building or in a specially constructed housing external to the building. Housing which is external to the building shall be weatherproof, adequately ventilated and of sufficient size to permit access to the meter for reading, testing or exchanging, and shall be provided and erected by the consumer or builder or owner. Gas governors having a capacity of 300 cubic feet per hour or greater and which are provided with screwed vent outlets shall be vented to atmosphere with a suitable vent pipe designed in accordance with all fitting pipe requirements. Where gas meters are fitted with gas governors and filters

and the Gas Supply Authority directs, adequate space to incorporate all ancillary equipment shall be provided within the housing. Where housings are required for meters having a capacity greater than 1,500 cubic feet per hour, such housing shall conform to the design and specifications of an Authorized Officer.

5. When gas meters are located in a recess formed within any cavity wall, such recess shall be completely sealed from any adjoining recess with fireproof materials.

6. Subsidiary prepayment gas meters whether hired from the Gas Supply Authority, or purchased privately, shall be located in a position determined by an Authorized Officer after an inspection of the premises and shall not be located externally to any building. Except in the case of private residences not more than one appliance may be connected to a prepayment meter unless approved by an Authorized Officer.

7. The gas-fitting supply pipe from any master meter to the inlet side of a subsidiary meter shall be of approved piping to which shall be fitted an approved type $\frac{3}{4}$ -in. diameter control thumb cock in an easily accessible position.

8. The connexion from the control cock to the inlet of the subsidiary meter shall be made by means of an approved pipe having not less than $\frac{3}{4}$ -in. internal diameter and to which is attached an approved union joint.

9. The connexion from the outlet of the subsidiary meter shall be made to the appliance fitting pipe by means of an approved pipe having not less than $\frac{3}{4}$ -in. internal diameter and to which is attached an approved union joint.

10. When meters are connected to any fitting supply pipe where compressors, fans or air gas torches, or any pressure-raising device, will be utilized or where pressure in excess of the gas supplied is likely to be introduced into the gas-fitting pipe, an approved type of non-return valve (check valve) shall be fitted in the gas supply pipe in a location determined by an Authorized Officer.

11. To ensure a continuous supply of gas to commercial, industrial and public institutions in the instance of meter failure, a system of pipes and valves (known as by-pass) whereby gas may be led around instead of through the meter, may be fitted with the written permission of an Authorized Officer. All such by-passes shall be fitted with types of valves or cocks approved by the Gas Supply Authority and the by-pass cock shall be sealed by an Authorized Officer.

12. *Proximity to Electric Switchboards.*—Gas meters shall not be located immediately above or directly below an electrical switchboard or in closer proximity to same than 4 feet.

SECTION 3.—FITTING PIPES.

1. All pipes and fittings shall be approved by an Authorized Officer and shall be of one of the following minimum standards:—

(a) Galvanized steel or wrought iron pipe and fittings shall conform with the requirements of Australian Standard Specification No. B105—1960.

(b) Copper tubes shall conform with the requirements of Table 1, Table 2 or Table 3 of Australian Standard Specification No. B2—1950.

2. Non-ferrous pipe fittings shall be of forged or extruded manufacture.

3. Joints in copper tube shall be of flanged, capillary, screwed and sweated, or compression of the flared tube type. Under no circumstances shall non-ferrous fittings of the cone or olive type be used for gas.

4. Black steel pipe and fittings may be used where electric arc-welding is utilized on fitting pipes and shall conform with the requirements of Australian Standard Specification No. B105—1960.

5. Steel or iron fitting pipes of any description shall not be laid under or upon the surface of the ground within the boundary walls of any building but shall rise vertically from ground level in an external position before any change of direction is made to under a floor. Fitting pipes laid under floors shall be correctly graded for fall and be securely attached to the underside of the floor members in a position not less than 3 inches from the surface of the ground. Galvanized fitting pipes greater than 2-in. diameter which are laid under or upon the surfaces of the ground may continue directly through a wall of a building before a change of direction is made to floor level provided that the pipe is adequately protected against corrosion and that such building is not used for residential purposes.

6. Fitting pipes which are laid under floors which are covered with lead, tiles, or any other composition shall be of heavy gauge copper pipe conforming to Table 1 of Australian Standard Specification No. B2—1950, with screwed and sweated joints or of galvanized steel pipe encased within a gas-tight conduit approved by an Authorized Officer and vented to atmosphere.

7. Pipes under floors shall be covered with boards fixed with screws where required by an Authorized Officer, but in all cases drop tees and running joints or connexions shall be so covered.

8. Fitting pipes laid underground shall be galvanized or copper pipe and shall be bedded upon the solid bottom of the trench at a minimum depth of 12 inches having regard to the fall required. Care shall be taken to avoid unstable soils, clay or ashes.

9. Jointing compounds shall be of high quality non-hardening type permitting the making of a satisfactory gas-tight joint, and must be approved by an Authorized Officer.

10. Fitting pipes shall wherever possible be concealed and shall be provided with adequate supports.

11. All fitting pipes from the outlet of the meter shall be graded towards the meter. Where this is not practicable, the pipes shall be graded to a drip or tailpiece at the lowest point for draining of condensates. The drip or tailpiece shall not be less than 12 inches in length, fitted with a greased plugged socket and shall in all instances be in an accessible location.

12. All vertical rising pipes greater in length than 10 feet shall be provided with a rust trap of minimum length of 12 inches at the base of the riser in an accessible position.

13. In changing direction of fitting pipes, square elbows shall not be used. Plugged teepieces shall be provided to facilitate the cleaning of pipes. Round elbows or bends may be used where directed by an Authorized Officer.

14. Fitting pipes shall not be laid within any cavity wall unless approved by the Authorized Officer and shall not be laid in any lift well.

15. The bore of the fitting pipe shall not be restricted as a result of bending or cutting and any burr left on the internal bore of the pipe after cutting shall be removed by a file or reamer.

16. All brackets, supports and fixings for fitting pipes shall be of sufficient strength and durability and shall not detract from the appearance of any building when in an exposed position. Where fitting pipes are laid on the surface of a structure supports shall permit sufficient clearance to allow the use of tools without any damage to the surface of the structure.

17. Points for the connexion of appliances shall be located to suit the position of the appliance and shall provide for a neat and convenient connexion. Pending the connecting of an appliance, every point shall be securely capped or plugged with a standard cap or plug.

18. Every gas cock or valve attached to fitting pipes shall be approved by an Authorized Officer and shall be located in position which is easily accessible for operation, repair or replacement. Unless the outlet is capped or plugged, a valve *must not* be used to shut off an open gas line.

19. The maximum pressure drop between the meter and any appliance installed shall not exceed 3/10 inch water gauge with all appliances operating at full gas load.

20. Fitting pipes which run parallel with or cross any electric conduit shall not be closer than 1 inch to any conduit, such space of 1 inch to be permanently maintained. Where there is a possibility of either the conduit or gas pipe sagging a spacing piece of durable approved insulation shall be securely fixed between the two and shall extend beyond the pipe for at least 1 inch in all directions at the crossings.

21. All fitting piping upon completion before any painting *in situ* or connexion of the gas meter is made shall be tested for soundness by the authorized person.

22. The ends of the piping under test shall be capped or otherwise sealed with the exception of one end to which shall be fitted a teepiece carrying a cock on one outlet and a pressure gauge on the other outlet. The test shall be made with air under pressure sufficient to support a column of water 30 inches high at which pressure it shall remain steady for a period of five minutes. Where capillary fittings are used the test pressure shall be 20 lb. per square inch gauge. The test will be deemed to be satisfactory provided that no fall in pressure occurs during that period of time.

23. Fitting pipes or sections thereof which will be embedded in the building structure shall in addition be tested as they are laid and before the pipes are covered.

24. Where liquefied petroleum gas or refinery tail gas constitutes more than 20 per cent. by volume of the gas being reticulated, fitting pipes shall conform to the requirements set out in these Regulations, with the following exceptions:—

(a) Cast-iron pipes and fittings shall only be used for low pressure and when placed underground.

- (b) Cast-iron pipes and fittings, when used for the above purposes, shall not be placed under buildings or structures.
- (c) Fitting pipes shall comply with the following additional requirements:—
 - (i) Pipe joints shall be screwed, flanged, welded or soldered with a material having a melting point exceeding 1,000°F.
 - (ii) Joints on seamless copper or non-ferrous gas tubing shall be made by fittings specifically designed for this purpose, or be soldered or brazed with a material having a melting point exceeding 1,000°F.
 - (iii) The connecting fitting to a gas appliance shall be screw type or union type permanently attached.
 - (iv) Compounds used in making up joints shall be resistant to the action of the particular gas to which they are subjected.
 - (v) Materials such as valves, packing gaskets, diaphragms, &c., shall be of approved quality resistant to the action of the particular gas under the service conditions to which they are subjected.

SECTION 4.—FLUE PIPES.

1. A flue pipe shall be fitted to every gas appliance where a flue spigot or outlet is provided for such or where in the opinion of an Authorized Officer a flue is necessary. In all gas appliances the following components constitute normal flue equipment and shall be fitted in this sequence:—

Primary flue. (This may be integral with the appliance.)

Draught diverter or baffle. (This may be integral with the appliance.)

Secondary flue.

Terminal.

In addition to these components a slip ring for facilitating the disconnection of the flue shall be included and fitted immediately between the draught diverter and the secondary flue pipe.

2. When appliances are not fitted with integral draught diverters the disconnecting slip ring shall be fitted between the appliance flue spigot and the primary flue pipe.

3. Materials used for the construction of flue pipes shall be mechanically robust, resistant to internal and external corrosion, durable and incombustible. Where brick flues are used they shall be parged with an approved waterproofing compound. *Asbestos cement, galvanized sheet iron double-seamed pipe not less than 24-gauge are approved materials.*

4. The size of the flue pipe shall not be less in area than the external diameter of the flue spigot of the appliance, except where obviously the appliance is designed so that the flue pipe may be fitted to the interior of the flue spigot. Built-in brick flues provided in cavity walls by a builder shall have a cross-sectional area of not less than 24 square inches and shall have 1 square inch of clear cross-sectional area for each 4,000 B.T.U.'s per hour of gas rate of the appliance to be connected and shall be completely sealed from all cavities, be free from mortar droppings, and shall be parged with a waterproof compound.

5. Flue pipes may be formed or fitted in a cavity wall or partition provided that the flue is constructed of materials and in such manner as are approved by an Authorized Officer.

6. Flue pipes shall be constructed to have a continuous rise with all socket joints looking upwards and bends or offsets avoided wherever possible. Flue pipes shall wherever possible rise vertically from the appliance to discharge through the roof into the open air. Where it is impracticable to extend a flue pipe vertically through the roof, it shall rise not less than 2 feet from the appliance or as directed by an Authorized Officer before any change of direction is made through a wall and shall rise vertically on the external wall to discharge in a suitable position. Bends and offsets shall be designed to avoid sharp turns or angles. Bends and offsets shall be at an angle of not more than 70 degrees from the vertical.

7. Flue pipes shall be extended through the roof or wall to terminate at ridge level and shall not terminate under eaves or projecting ridges. Flue pipes may discharge into a roof space provided that an Authorized Officer is satisfied that adequate ventilation exists under all conditions and that the flue outlet is rendered birdproof and in such cases a clearance of 18 inches from the rafters must be obtained and the flue shall be carried up at an angle from the eaves towards the centre of the roof.

8. Flue pipes may be discharged into a chimney provided that the chimney flue has a good updraught and that the discharge end of the flue is protected from falling mortar.

9. Where a parapet roof is designed for public use, the flue terminal shall not be less than 7 feet above the roof level unless approved by the Chief Inspector. This dimension shall be increased if required to maintain a minimum of 2 feet above the surrounding parapet and the flue pipe shall be adequately and securely supported.

10. Every flue pipe terminating into the open air or in a roof cavity shall be provided with a flue terminal of an approved design and type. Flue terminals designed for external fixing shall not be fitted in roof cavities.

11. A flue pipe terminal shall be located in such a position that the wind can blow freely across it at all times and shall not be located adjacent to the termination of soil vent pipes, window openings, or any fresh air inlets. Wall face terminals shall not be used except with the approval of an Authorized Officer.

12. An approved type of draught diverter shall be fitted to all flue pipes in every case where a draught diverter is not an integral part of an appliance.

13. Draught diverters fitted to flue pipes shall be located in the same room as the appliance and shall fit not less than 4 inches below a ceiling.

14. Where a draught diverter is fitted to a flue pipe which is carried through a wall, the flue pipe shall rise vertically for a height of not less than 2 feet to the draught diverter before any change in direction is made to the flue pipe.

15. Where the flue connexion is of a section differing from that of the flue pipe to which it is to be connected, a transition piece or adaptor must be used. The full cross-sectional area of the flue connexion shall be maintained and the length of the transition piece shall be equal to two and one-half times the diameter of the flue pipes.

16. Where a long length of flue pipe from an appliance is exposed on an external wall a condensation teepiece shall be fitted to the bottom end of the flue pipe and provision shall be made for the disposal of any condensation.

17. In all cases where a flue pipe affixed to a gas appliance passes through a roof or wall a suitable flashing shall be affixed to the flue pipe in such manner as will make the roof or walls watertight.

18. The flashing attached to an asbestos cement flue pipe shall have an approved waterproof compound packing between it and the flue pipe and a suitable clip shall be securely bolted around the collar of the flashing.

19. Where a flue pipe passes through any woodwork or other combustible material it shall be surrounded by an asbestos or metal ring. The diameter of the ring shall be sufficient to provide an annular space of not less than 1 inch between the flue pipe and the combustible material when the flue pipe is in position. All ventilating holes shall be clear of any obstruction.

20. Any flue which has been used for other fuels shall not be used for venting of gas-fired appliances until the flue has been examined and found to be satisfactory.

21. Exposed flue pipes shall be securely fixed by means of adequate supporting brackets fastened to the building structure at points which will ensure permanent stability of the flue pipes.

22. Asbestos cement flue pipes rising from an appliance through the ceiling and roof shall be fitted with a suitable clip around the flue pipe in the ceiling space and shall be attached to the roof structure in such manner as will prevent the weight of the flue pipe resting upon the draught diverter. Where gas-fired appliances of the same type are located side by side in the same room the flue pipes may discharge into one common flue stack which shall be of sufficient cross-sectional area to accommodate the flues from the appliances. Combined flue pipes shall not be fitted when appliances are located on intermediate floors of buildings unless approved by an Authorized Officer.

23. Where a draught diverter is not an integral part of an appliance such diverter shall be fabricated to conform to the appended Sketch and Table of Dimensions.

24. Galvanized flue pipes shall not be fitted to any boiler used for processing of foodstuffs.

25. Industrial flue pipes carrying high temperature products of combustion shall be installed with welded black sheet steel pipes, of not less than 18-gauge wall thickness.

PART C.—APPLIANCE INSTALLATIONS.

SECTION 1.—GENERAL.

1. Where metallic contact of auxiliary electric motors or other electrical equipment is made direct to the gas appliance, such appliances shall be electrically earthed in accordance with S.E.C. requirements.

2. Appliances shall not be connected to any existing fitting pipe or service pipe unless such pipes conform to the requirements of these Regulations.

3. Additional appliances shall not be connected to any existing fitting pipe or service pipe unless such pipes are adequate size to supply the additional appliance with all existing appliances in operation.

4. Appliances which are considered to be unsafe shall be disconnected from the fitting pipe and shall not be reconnected until such appliance has been made safe by repair or modification and have been approved by an Authorized Officer. All burner control cocks on cookers, gas fires, room heaters, wash coppers and points for portable appliances shall be of an approved self-latching type. Appliances shall be installed so that they are readily accessible for maintenance purposes. Adequate clearance or provision shall be left for the removal of heat exchanges, flue baffles, and other parts.

SECTION 2.—COOKERS.

1. Gas cookers shall be located on a rigid and level surface in such position as will provide for convenient use, be free from draughts and such that adequate light is available. Gas cookers should not be fitted in close proximity to any door opening inwards. A free standing cooker shall have sufficient space at the back and sides to permit the cleaning of the appliance and adjacent surfaces. Cookers built into a recess or forming part of a unit assembly shall have provision made to prevent spillage passing between the sides of the cooker and adjacent surfaces.

2. Where in the opinion of an Authorized Officer there is any hazard from overheating, adequate heat insulation shall be provided for all surfaces in proximity to the cooker wherein directed.

3. The fitting pipe to any cooker shall not be less in size than $\frac{3}{4}$ -in. diameter. The connecting pipe from the gas supply pipe to a cooker shall not be less in diameter than the diameter of inlet connexion to the cooker, except that where a flush back cooker is fitted in a recess $\frac{1}{2}$ -in. copper tube of maximum length of 4 feet may be used to facilitate easy connexion.

4. The connecting union to a gas cooker shall be fitted in a position easily accessible for the disconnexion of cooker for maintenance or cleaning purposes.

5. Boiling burners and small hotplates shall be fixed with a rigid copper connexion without any undue strain and shall be fitted with a fireproof material mat or shelf. Gas cookers shall not be installed in any location which does not comply with Department of Health requirements.

SECTION 3.—GAS COPPERS.

1. Gas coppers shall be fixed in a level position upon a rigid surface in such a position as to afford convenient usage and accessibility to the gas control cock and emptying tap.

2. Where a gas wash copper is installed in a common laundry (as in multiple flat constructions) locking cocks of an approved design shall be provided on the outlet of each meter before branching into the common fitting line installed for the wash copper. This does not apply where a special laundry meter is provided.

3. The fitting pipe to any wash copper shall not be less in size than $\frac{1}{2}$ inch. The connecting pipe from the gas supply pipe to a copper shall not be less in diameter than the diameter of the gas control cock provided on the copper and shall be of maximum length of 3 feet.

4. Gas coppers shall be fitted with an approved flue pipe except where such is considered unnecessary by the Authorized Officer.

Refer to Section 6—Flue Pipes.

SECTION 4.—REFRIGERATORS.

1. Refrigerators shall be located in a well-ventilated position providing convenience for use, be well-lighted and free from draught, and shall be fitted level on a firm foundation. Refrigerators shall not be fitted in a pantry or larder or immediately under any cupboard used for storage of perishable foodstuffs, unless separate ventilation is provided for the discharge of combustion products from the refrigerator.

2. The gas-fitting pipe to a refrigerator shall not be less than $\frac{1}{2}$ -in. approved pipe to which shall be fitted an approved type of union control cock, unless otherwise approved by an Authorized Officer.

3. The gas connexion to a refrigerator shall be of approved material not less than $\frac{3}{8}$ -in. diameter and of a maximum length of 10 feet.

SECTION 5.—SINK HEATERS.

1. Sink heaters shall be located in such a position as will provide for ease and convenience of operation and shall be firmly and securely attached to the wall. Sink heaters shall not be fitted in any position at sides of windows where window hangings or drapings may present a hazard from fire.

2. The gas-fitting pipe to a sink heater shall not be less than $\frac{1}{2}$ -in. diameter approved pipe and approved type union control cock, if not integral part of unit, shall be fitted.

3. The gas connexion from the fitting pipe to the appliance shall be made with brass or copper tubing fitted in a rigid manner. In no case shall the connexion be of less diameter than the inlet of the appliance.

4. Connecting unions shall be fitted on gas connexion and water connexion and hot discharge pipe to enable easy disconnection of the appliance.

5. An approved pattern control stop cock shall be fitted to the cold water supply pipe and therefrom shall extend a copper pipe to connect to the appliance.

6. Hot outlet shall be of brass or copper tubing properly graded and securely held by means of approved clips and to discharge over sink bowl.

7. No restriction shall be placed on the outlet pipe of any sink heater unless the appliance has been so designed.

8. A flue pipe shall be fitted to a sink heater where directed by an Authorized Officer.

SECTION 6.—GAS FIRES AND OTHER ROOM HEATERS.

1. The gas-fitting pipe to a gas fire shall not be less than $\frac{1}{2}$ -in. diameter.

2. Gas fires shall be connected to the fitting pipe by means of a solid drawn brass or copper pipe fitted in a rigid manner free from undue strain and shall as far as possible be concealed.

3. Where a gas fire is to be fitted on a floor not formed by incombustible material there shall be laid flush with or upon the floor a hearth or slab constructed of incombustible material. Combustible materials in close proximity to a gas fire shall be protected to the satisfaction of an Authorized Officer.

4. Where the opening of a fireplace is too large to be covered by the gas fire a surround of non-combustible material shall be fitted.

5. Every gas fire shall be provided with an independent flue pipe and free inlet area of which shall not be less than 18 square inches. A gas fire shall not be fitted in an existing fireplace until it has been established that the flueway is clear and it is not interconnected with other flues and any existing register plates or damper plates of any kind shall be removed. Chimneys which have been proved unsatisfactory for solid fuel shall not be used for venting a gas fire until they have been examined and any faults corrected.

6. Gas fires shall not be installed in any bedroom when the gas supplied to the fire is through a prepayment meter unless an approved type of safety cut-out valve is fitted on the supply pipe to the gas fire.

7. Panel gas fires shall be fitted into an approved recess. Wooden plugs shall not be used to support the fire.

8. Approved flueless room heaters may be used provided that the total gas rate does not exceed 1 cubic foot of gas per 80 cubic feet of room space and shall be fitted with a gas-pressure controlling governor. Flueless room heaters shall not be fitted in bedrooms.

9. The fitting pipe to any flueless room heaters shall not be less in diameter than $\frac{1}{2}$ inch and an approved type gas control cock shall be fitted.

10. The connexion from the fitting pipe to the appliance shall be rigidly made without any undue strain.

11. An approved flexible connexion may be used to connect a portable appliance and an approved isolating control cock shall be fitted on the permanent piping before the inlet to the flexible connexion. No control cock shall be attached directly to any portable appliance. Flexible connexions exceeding 9 feet in length shall not be used for portable appliances and in no circumstances shall rubber tubing be used as a connexion to any portable appliance except for laboratory usage.

SECTION 7.—GAS LIGHTING.

1. All connexions for gas lighting brackets shall be of approved tube not less than $\frac{1}{4}$ -in. diameter and the bracket shall not be located less than 6 feet above the floor.

2. Provision shall be made for the fixing of a wall lighting bracket by securely attaching a wooden block to the wall surface.

3. The wall lighting bracket shall be firmly screwed to such wooden block.

4. All hanging fittings shall be provided with an approved ball joint. Each hanging fitting shall be connected to a branch pipe between two joists on each of which joists the branch pipe shall rest. No hanging fitting shall be connected directly to the main lead. Where the distance between the light and the ceiling is less than 2 feet a ceiling plaque or disc of incombustible material shall be fitted above the light.

5. Gas lights shall be fitted in such manner that the light source cannot come into contact with curtains or combustible materials.

SECTION 8.—BATH HEATERS.

1. Bath heaters shall be supported on an approved bracket or stand and so fixed that the operating taps are conveniently situated.
2. Bath heaters fitted on a solid shelf shall have sufficient opening at the base of the heater for the free admission of air for correct combustion within the heater.
3. A bath heater shall not be installed in any bathroom in which the permanent ventilation does not permit the proper combustion of gas under normal conditions, i.e., a minimum of four changes of air per hour. Various means of ventilation may be approved by the Authorized Officer.
4. The main gas-fitting pipe to any bath heater shall not be less in size than $\frac{3}{4}$ -in. diameter. Bath heaters shall be connected from the gas-fitting pipe by means of a $\frac{1}{2}$ -in. diameter of maximum length of 2 feet, or larger diameter pipe, and an approved type of gas control cock shall be fitted at the inlet to the bath heater.
5. The cold water supply to bath heater shall be of $\frac{1}{2}$ -in. diameter and a high pressure stop cock shall be fitted in an accessible position close to the bath heater. Cold water supply pipes and stop cock shall comply with all requirements as prescribed by Melbourne and Metropolitan Board of Works or Water Supply Authority Regulations.
6. The connexion from the cold water supply pipe to the bath heater shall be made by means of brass or solid drawn copper tube and approved coupling unions shall be fitted. Every bath heater shall be provided with an independent flue pipe. See Part B, Section 4.

SECTION 9.—INSTANTANEOUS WATER HEATERS.

1. Instantaneous multi-point water heaters shall be fitted as near as possible to the tap most frequently used. No instantaneous multi-point water heater shall be installed in any bedroom or annexe thereto (i.e., where no full-height partition and latchable door is provided between the bedroom and an adjoining space).
2. When instantaneous multi-point water heaters are installed in a room the following are the minimum ventilation requirements:—The room shall be provided with fixed free and unobstructed openings to external atmosphere equal to 1 square inch for every 2,500 B.T.U. gas input of the heater. This requirement shall be in addition to the ventilation necessary to comply with Local Government Ordinance. Half the additional ventilation shall be within 18 inches of the floor level and the remainder within 2 feet of the ceiling. The openings should be in opposite walls where practical. Instantaneous multi-point water heaters may be installed in a bathroom to serve points in the bathroom only and shall not supply any point outside the bathroom. Balanced flued type units may supply points outside bathroom.
3. When a water heater other than a balanced flued unit is totally enclosed in any housing, such housing shall be constructed of fireproof materials. Provision shall be made for the entry of ample supply of fresh air to the enclosure by ensuring that the area of the air inlet is not less than twice the area of the flue socket of the heater and for the effective discharge of the products of combustion outside the building.
4. Instantaneous multi-point water heaters shall be fitted on a properly secured bracket attached to the building structure in such location and manner which will permit of easy accessibility for disconnecting and cleaning.
5. The gas-fitting pipe to any instantaneous water heater shall be determined by the rated hourly consumption of the appliance and by the maximum allowable pressure drop of $\frac{3}{10}$ -in. water gauge between the meter and the appliance with all other connected appliances operating at full load.
6. The gas connexion from the fitting pipe to the appliance shall not be less in size than the diameter of the gas inlet provided on the appliance and shall be fitted with an approved pattern gas control cock.
7. The cold water supply and connexion to an instantaneous multi-point water heater shall not be less than $\frac{1}{2}$ -in. diameter and shall be fitted with a high-pressure water control cock.
8. All cold water supply pipes, connexions, and control cocks shall comply in full with the requirements of the Melbourne and Metropolitan Board of Works or Water Supply Authority Regulations.
9. Every instantaneous multi-point water heater shall be fitted with an independent flue. See Part B, Section 4.

SECTION 10.—STORAGE WATER HEATERS.

1. Floor standing storage water heaters shall be fixed in a level position on a suitable fire-resistant surface or a slab laid upon the floor and shall be located in a position free from draughts and easily accessible for cleaning. The provision of a fire-resistant slab is not required where a fire-resistant panel of approved design is incorporated in the construction of the appliance.

2. Circulating water heaters designed for wall mounting shall be securely attached to the building structure in such a position as will afford easy access for cleaning and be free from draughts. They shall be installed in such manner and as close as practicable to the storage cylinder providing for short flow and return pipes.

3. Mains pressure storage heaters, i.e., water heaters having no cold feed tank or pressure reduction valve, but connected directly to the water mains, shall be fitted with an approved type of pressure relief valve and means for discharge from same shall be provided.

4. Cold water supply to a low-pressure storage water heater shall be provided by means of an approved cold feed tank fitted with a ball valve or by means of an approved type of pressure reduction valve. The installation of a cold feed tank or pressure reduction valve shall comply in all respects to regulations as prescribed by the Melbourne and Metropolitan Board of Works or Water Supply Authority.

5. A storage water heater supplied by means of a cold feed tank shall have an open-end expansion pipe from the highest part of the draw-off pipe or storage cylinder to terminate over the cold feed tank.

6. A low-pressure storage water heater supplied by means of a pressure reduction valve shall be fitted with an approved type of pressure relief valve, or, alternatively, an expansion pipe shall be fitted.

7. The gas-fitting pipe to any storage heater shall be determined by the rated hourly consumption of the appliance and by the maximum allowable pressure drop of 3/10-in. water gauge between the meter and the appliance with all other connected appliances operating at full load.

8. In no case shall the gas connexion from the fitting pipe to the appliance be less in size than the diameter of the gas inlet on the appliance.

9. Where a storage water heater is totally enclosed in any housing, such housing shall be constructed of fireproof materials. Provision shall be made for the entry of an ample supply of fresh air to the enclosure by ensuring that the area of the air inlet is not less than twice the area of the flue spigot of the heater and for the effective discharge of the products of combustion, according to Section 6. A full-length door shall be provided for access to the heater.

10. A flue pipe shall be fitted to all storage water heaters where a flue spigot is provided on the appliance. The installation of flue pipes shall be carried out in accordance with directions as set out in Part B, Section 4.

SECTION 11.—LAUNDRY DRYING CABINETS.

1. Laundry drying cabinets shall be located in a position free from draughts and shall be fitted in a rigid and level manner.

2. The fitting pipe to a laundry dryer shall not be less in diameter than 1-in. diameter.

3. The gas connexion from the fitting pipe to the appliance shall not be less in diameter than the inlet provided on the appliance.

PART D.

SECTION 1.—INDUSTRIAL.

1. Industrial gas-fired appliances shall be fitted in accordance with these Regulations.

2. Floor standing industrial room heaters or gas fires shall be located and fitted in accordance with these Regulations governing domestic appliances.

3. Where due to high temperature conditions, the use of asbestos cement or galvanized sheet iron is not possible for flue pipes, then the use of black iron double-seamed pipe of not less than 24-gauge is permitted.

4. Overhead gas-fired space heaters shall be fixed in such position which does not create a fire hazard, and shall be firmly and securely attached to the building structure and pipe sizes and connexions shall conform to these Regulations.

5. Where any industrial gas-fired appliance which has an electric supply connected to a motor or fan or any pressure-raising device where pressure in excess of the gas supplied may be introduced into the gas-fitting pipe as installed, a non-return valve shall be fitted in the fitting pipe to such appliance, or at the outlet of the gas meter as directed by an Authorized Officer.

6. Air gas torches shall be fitted with an approved non-return valve in the supply pipe.

7. When a fan or blower for additional air is fitted to an industrial appliance, an approved air line of the same diameter as the outlet of the fan or blower shall be fitted.

8. Every gas engine shall be supplied by a separate meter and no other appliance shall be connected thereto.

9. Anti-fluctuators shall be fitted to gas-engine installations where considered necessary by an Authorized Officer.

10. The installation of steam boilers shall comply with these Regulations governing pipe sizes and flueing and shall also conform to the requirements of the Melbourne and Metropolitan Board of Works or Water Supply Authority and the requirements of the Mines Department.

11. All appliances must be controlled through an isolating cock.

12. Where industrial gas-fired appliances are provided with a flue outlet the flue shall be fitted in accordance with these Regulations as prescribed under Part B, Section 4.

13. The following equipment of approved design shall be fitted to all industrial appliances if required by an Authorized Officer:—

- Automatic ignition equipment.
- Flame failure equipment.
- Pressure regulating equipment.
- Interlocking control equipment.
- Solenoid valves.
- Explosion doors.
- Explosion discs.
- Thermostatic controls.
- Flame trap.

Other safety and control equipment may be specified by the Authorized Officer and if so specified shall be fitted accordingly. No gas appliance shall be connected to a gas-fitting pipe until the appliance has been inspected and approved by an Authorized Officer.

14. When a fan, blower, or other pressure-raising device which may lower the inlet pressure of gas supplied below a minimum of 2½ inches water gauge, or such other pressure as the Authorized Officer may require, is installed, an approved safety cut-out shall be fitted to operate when the minimum pressure is reached.

Form A.

GAS AND FUEL CORPORATION OF VICTORIA.

GAS-FITTING REGULATIONS.—REGULATION 3 (i).

PRELIMINARY NOTICE.

Before Commencing Gas-fitting Work.

(Here set out particulars of gas-fitting work about to be commenced.)

Signature of Gas-fitter.

Form B.

GAS AND FUEL CORPORATION OF VICTORIA.

GAS-FITTING REGULATIONS.—REGULATION 3 (ii).

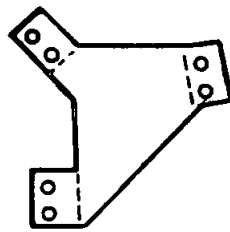
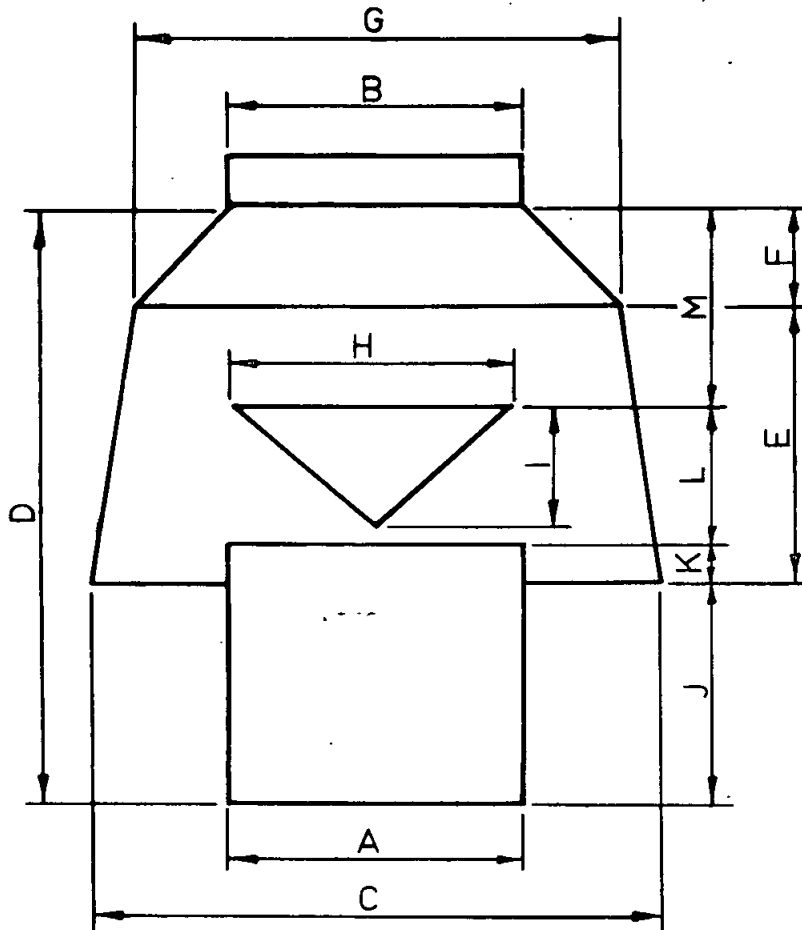
FINAL NOTICE.

Of Completion of Gas-fitting Work.

I, the undersigned, hereby declare that the following gas-fitting works have been completed in conformity with the Gas-fitting Regulations.

(Here set out particulars of gas-fitting works completed.)

Signature of Gas-fitter.



SUPPORT

DRAUGHT DIVERTER

TABLE OF DIMENSIONS (INCHES)

PIPE SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M
2½	2½	2½	4.8	5.8	3.3	0.6	4.0	2.5	1.2	1.9	.5	1.2	2.2
3	3	3	5.5	7.0	3.8	0.7	4.4	3.0	1.5	2.5	0.7	1.5	2.3
3½	3½	3½	6.3	8.2	4.4	0.8	5.2	3.5	1.8	3.0	0.8	1.8	2.6
4	4	4	7.2	9.5	5.0	1.0	6.0	4.0	2.0	3.5	1.0	2.0	3.0
4½	4½	4½	8.3	10.0	5.1	1.2	7.0	4.5	2.1	3.7	0.9	2.2	3.2
5	5	5	9.4	10.8	5.3	1.5	8.0	5.0	2.3	4.0	0.9	2.4	3.5
6	6	6	11.5	12.0	5.6	1.9	9.8	6.0	2.5	4.5	0.8	2.7	4.0
7	7	7	13.5	13.9	6.4	2.3	11.6	7.0	2.9	5.3	0.9	3.1	4.6
8	8	8	15.5	15.8	7.1	2.7	13.4	8.0	3.2	6.0	1.0	3.5	5.3
9	9	9	17.5	17.5	7.7	3.1	15.2	9.0	3.5	6.7	1.0	4.0	5.8
10	10	10	19.7	18.8	7.9	3.6	17.2	10.0	3.8	7.3	1.0	4.3	6.2
11	11	11	22.2	20.7	8.4	4.3	19.6	11.0	4.1	8.0	1.5	4.6	6.6
12	12	12	24.7	22.2	8.7	5.0	22.0	12.0	4.4	8.5	1.7	5.0	7.0

And the Honorable Henry Edward Bolte, Her Majesty's Premier for the State of Victoria, shall give the necessary directions herein accordingly.

A. MAHLSTEDT.
Clerk of the Executive Council.

23