

### VICTORIA

# GOVERNMENT GAZETTE.

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No. 131]

THURSDAY, AUGUST 15.

[1935

### GAS REGULATION ACT 1933.

THE following Regulations, which have been made by the

Metropolitan Gas Company, Colonial Gas Association Limited, Brighton Gas Company Limited, Geelong Gas Company, Bendigo Gas Company, Ballaarat Gas Company, Mordialloc City Council, Warrnambool City Council, and Heidelberg City Council,

and approved by me pursuant to the provisions of Section 9 of the Gas Regulation Act 1933, are published in the Government Gazette in accordance with the requirements of Section 34 of the said Act.

M. W. J. BOURCHIER, Chief Secretary.

Chief Secretary's Office, Melbourne, 9th August, 1935.

Gas Regulation Act 1933.

#### REGULATIONS.

Notices: The Notices required by the Undertaker from the registered gas-fitter are as follow:-

- 1st. Preliminary Notice before commencing work for premises not supplied with gas.
- 2nd. Notice of intention to connect additional lights or apparatus to existing fittings.
- 3rd. Notice of intention to repair fittings or apparatus. 4th. Final Notice for inspection and test.

#### and tost.

Undertaker: "Undertaker" means any corporation company firm or person making or supplying gas for lighting heating motive power or other purposes and disposing of the same for profit, and also any municipality or the council thereof (whether it is or is not a municipality as hereinbefore defined) in so far as it makes supplies and disposes of gas for any purpose other than the lighting of streets places or buildings vested in or under the control and management of the municipality or the council thereof or vested in or under the control and management of any other public body.

DEFINITIONS.

Gas-fitter: "Gas-fitter" means any person registered as a gas-fitter under the provisions of the Health Acts and in conformity with the Plumbers and Gas-fitters Regulations 1933.

Fittings: "Fittings" shall include all pipes, pipe connexions, and appliances or accessories through which gas is supplied or by which gas is consumed.

No. 131-9279.

#### NEW INSTALLATIONS.

Preliminary Notice.—Prior to the work being commenced the preliminary notice required by the Undertaker must be duly filled in by the registered gas-fitter and lodged with the Undertakers.

#### PART I.—THE METER.

Position of Meter.—The gas-fitter shall in all cases consult with the Inspector or authorized officer of the Undertaker so that the position may be determined prior to the commencement of the work. In the event of a disagreement the meter shall be placed in the position indicated by the Inspector or authorized officer of the Undertaker.

Additional Meters.—In buildings which are divided into residential flats, the meters shall be fixed in a suitable position on ground floor or in basement, side by side, as shown in Figure 1.

Where it is not practicable to install meters side by side on ground floor these may be fixed at various points with the consent of the Inspector or authorized officer of the Undertaker.

Master and Subsidiary Meters.—Where master and subsidiary or accommodation meters are required in suites of offices or other large buildings, the gas-fitter must submit detailed plans to the Undertaker for the purpose of ascertaining the sizes of pipe to be installed before the job is commenced. See Figure 2.

Excessive Temperatures to be Avoided.—Under no circumstances shall meters be fixed in positions where they are liable to excessive temperatures. Thus no meter shall be installed in close proximity to any furnace or boiler for central heating or hot water supply.

Connecting Meter.—The meter shall be fixed and connected to the inlet and outlet services by the Undertaker, and no meter shall in any case be connected until the work is finally inspected and unless the work is performed according to these Regulations, and to the satisfaction of the Undertaker.

Meters Fixed Outside.—All meters fixed out of doors or in positions where they are liable to be damaged shall be covered by a well-ventilated box properly constructed and of sufficient size.

#### PART II.-HOUSE PIPING.

Size of Piping.—The sizes of all pipes to be used shall not be less than those shown on Appendix "A." The riser and principal run of piping throughout the premises shall not be less than 1 inch internal diameter, except in special cases where the Inspector or authorized officer of the Undertaker may allow pipes of smaller diameter.

Quality of Piping.—All pipes used shall be of best quality iron, unless otherwise agreed by the Inspector or authorized officer of the Undertaker.

Piping Under Floors.—Except by special permission of the Inspector or authorized officer of the Undertaker pipes shall not be laid under floors where such are covered with lead, tiles, or any composition, or in any cavity walls.

Where required by the Inspector or authorized officer of the Undertaker pipes under floors shall be covered with boards fixed by screws, but in all cases drops, tees, and running connexions shall be so covered.

Piping Laid Underground.—In cases where outlet pipes are run underground, care must be taken to see that all pipes are properly graded, and at the lowest point provision made for the draining off of any condensation by means of a short length of pipe, not less than 12 inches long, to the end of which shall be screwed a socket and well-greased solid plug, so as to be easily accessible for clearing purposes. The drip or tail-piece must in all cases be carried into the open.

Square Elbows not Allowed .- Square elbows shall not under any circumstances be used.

Piping Changing Direction.—Where a pipe-line changes direction, elbows must not be used, but plugged tees or crosses shall in all cases be fitted to permit of easy clearing.

Precaution with Electric Wiring.—When installing new fittings, or altering existing fittings, on any premises where there is a supply of electricity, every gas pipe shall be so run that there is a space of at-least 2 inches left between it and the electric conduit or wire beside which it might run, or which it might cross. Where there is any possibility of either a conduit or gas pipe sagging, a spacing piece of dry hardwood must be rigidly fitted between, so as to preserve this space of 2 inches, and thus avoid any possible contact.

Piping for Brackets.—All connexions for brackets shall be of iron pipe, compo. pipe, or brass tube, not less than \$\frac{1}{3}\$-in. diameter.

Support for Hanging Fittings.—All hanging fittings shall be provided with approved ball-joints where necessary, and shall be adequately supported from joists or beams to prevent fixtures from swinging, and so as not to exert undue strain on the connexion.

Water Slide Chandeliers.—The use of water slide chandeliers will not under any circumstances be allowed.

Final Notice.—Before completion of any fitting work the gas-fitter shall deliver to the Undertaker, the final notice on the form prescribed, in order that the work may be inspected and tested.

Inspection of Work.—No work shall be covered up before it has been inspected and passed by the Inspector or authorized officer of the Undertaker.

If any such work or part thereof is not performed according to these Regulations and to the satisfaction of the Inspector or authorized officer of the Undertaker, the gas-fitter shall forthwith remedy any fault, defect, or omission.

#### PART III.—INSTALLATION OF APPLIANCES

Appliances to be Approved.—The appliances installed shall be approved by the Inspector or authorized officer of the Undertaker. Where standard requirements for the construction and performance of appliances have been adopted by the Testing Laboratories of the Gas Companies' Association of Australia, and published, such requirements shall be the basis for approval.

#### GAS COOKERS.

Connecting Gas Cookers.—All gas cookers (except small types having an approved 1-inch connexion) shall be connected by a pipe not less than 3-inch bore, which shall be carried direct from the principal run of piping for coupling up to the said cooker.

#### BATH HEATERS AND OTHER WATER HEATERS.

Connecting Bath Heaters. &c .- Bath heaters and other water heaters shall be supported on a suitable bracket or stand, and so fixed that the operating taps are conveniently placed. When fitted on a solid shelf, care must be taken to see that sufficient opening is left at the base for the free admission of air. No compo. piping shall be used on water connexions to bath heaters or other water heaters.

Sizes of Connexions.—All bath heaters shall be connected by a main gas lead of at least 3-inch pipe, and the water supply pipe shall not be less than 1-inch diameter with a 1-inch IIP. stop cock fixed in a position close to the heater.

Condensation Outlet .- Condensation from a non-contact bath heater must not be permitted to drip into bath, but must be conveyed through the floor or wall to discharge on to the ground or any other suitable point. this is not practicable, a receptacle must be provided in the bathroom for the purpose.

Multipoint Heater.-No multipoint or distributing bath heater (i.e., an instantaneous water heater supplying more than one hot water point) shall be fixed in a bathroom if it supplies taps situated outside the bathroom, except with the express permission of the Inspector or authorized officer of the Undertaker.

Storage Heaters, &c.—Storage heaters, hot water urns, and thermostatically controlled appliances shall be connected by a pipe of a size not less than the diameter of the gas inlet provided on the appliance.

Expansion Pipes Required .- An expansion pipe must be provided on every hot water storage or circulating system unless considered unnecessary by the Inspector or authorized officer of the Undertaker. . . .

#### GAS' COPPERS.

Coppers.—When fixing a gas copper a 3-inch pipe shall be carried to the nearest point possible to the copper and then reduced to 1-inch pipe, and a 1-inch full-way T head cock and union connected thereto.

Where a wash copper is installed in a common laundry for a block of flats, lock stop cocks are to be provided on each outlet service, unless a special laundry meter is provided. The arrangement of the pipes and cocks shall be as shown on Fig. 3.

#### GAS FIRES AND RADIATORS.

Gas Fires, &c.-Gas fires and radiators shall be connected by brass tube of a size to be determined by the Inspector or authorized officer of the Undertaker, and shall in all cases be provided with a full-way gas control cock.

#### FLUELESS ROOM HEATERS.

Flueless Room Heaters.—Flueless room heaters may be used without flues provided the total gas rate does not exceed I cubic foot per hour for each 50 cubic feet of room space, and provided the gas supply to the appliance is controlled by a pressure governor, or through governor burners.

#### GAS ENGINES AND COMPRESSORS.

Gas Engine.—Except with the special permission of the Inspector or authorized officer of the Undertaker, every gas engine installed shall be supplied by a special meter, and no other appliance shall be connected thereto.

Check Valve on Compressor.—An approved check valve shall be fitted on every installation where a compressor or blower is in use, and such check valve shall be fitted between the outlet of the meter and the inlet of the compressor

Anti-Flictuators.—Anti-fluctuators shall be provided on gas engine installations where considered necessary by the Inspector or authorized officer of the Undertaker.

#### OTHER APPLIANCES.

Other Appliances.—The fixing of any appliance not expressly mentioned herein must be carried out in a workmanlike fashion, and to the satisfaction of the Inspector or authorized officer of the Undertaker.

Consumption of Appliances.—The rated hourly gas consumption of particular appliances can be ascertained, whenever required, on application to the Undertaker. Approximate consumptions are given in Appendix "B."

#### PART V.-FLUE EQUIPMENT. FLUE PIPES.

Size of Flue Pipes.—A flue pipe must be fitted to every gas appliance where in the opinion of the Inspector or authorized officer of the Undertaker such is necessary. Flue pipes shall have an opening of the same sectional area as the flue opening of the particular appliance to be installed, except in the case of gas fires, where the size of the flue shall be at the discretion of the Inspector or authorized officer of the Undertaker.

(a) shall be carried through the roof or wall to end in a suitable terminal at a point at least 2 feet above

(a) shall be carried through the roof or wall to end in a suitable terminal at a point at least 2 teet above the eaves. The most exposed position for the terminal must be adopted. Flues must never terminate under eaves or protruding ridges. See Fig. 4; or
(b) shall be led into a chimney, provided that the chimney flue has a good up-draught, and that the end of the flue pipe is suitably protected from falling mortar, &c. See Fig. 5. Wherever practicable, all such bends or offsets shall be at an angle of not less than 45 deg. from the horizontal; or
(c) shall discharge into the roof space, provided the Inspector or authorized officer of the Undertaker is satisfied that adequate ventilation exists under all wind conditions. In all cases a clearance of 18 inches from the rafters must obtain, and the flue carried at an angle from the caves rising towards the centre of the roof. See Fig. 6. the centre of the roof. See Fig. 6.

Flashing of Walls and Roofs.—Walls and roofs cut to permit flue pipes being fixed shall be securely flashed and made water-tight. See Fig. 8.

Direction of Flue.—All flue pipes shall have a continuous rise, and shall be fitted with the sockets looking upwards. A better joint is thus obtained, and any moisture condensed in the flue will not show itself on the outside, should a joint not be perfectly tight.

Bends and Offsets.—The use of bends or offsets is to be avoided wherever possible, but where this is not practicable, such bends or offsets shall be so designed as to avoid sharp turns which offer excessive resistance to the flow of the flue gases.

Flues shall not be fitted in cavity walls and partitions.

Where the flue passes through any woodwork or other inflammable material, an air space of not less than 1 inch shall be provided all round. This space shall be covered with a standard ventilated ring.

Bath heater and water heater flues shall be fitted to the sleeve of the heater in such a manner as to prevent

the flue pipe falling below the cap of the heater.

Where it is impracticable to extend the flue pipe from a bath heater or water heater through the ceiling, the flue must be taken through outside wall, and a suitable terminal provided, or, alternatively, it shall be extended up the wall to a point at least 2 feet above the roof.

In the latter case a condensation tee shall be fixed at the lowest end of the flue, and provision made to suitably

-dispose of the condensates. See Figs. 7 and 7A.

No bath heater shall be installed in a bathroom in which the facilities for ventilation do not permit the proper combustion of gas under normal conditions of use. In addition to a door, a window capable of being opened—preferably at the top—is necessary, while an effective air vent in an outer wall is desirable.

#### BAFFLERS (DOWN-DRAUGHT DIVERTERS) AND TERMINALS. . .

A baffler shall be fitted to any flue pipe where the Inspector or authorized officer of the Undertaker considers such necessary.

Except in cases where the baffler is an integral part of the appliance, every bath heater or water heater shall have the baffler fitted vertically above the flue outlet of the heater. It shall not be less than 4 inches below the ceiling.

The baffler shall always be placed in the same room as the appliance.

Flue pipes shall rise vertically above the heater for at least 2 feet before any change in direction is made.

All flue pipes shall have an approved cowl, cap, or terminal fitted at the discharge end.

All bafflers and terminals installed shall be of a type approved by the Testing Laboratories of the Gas Companies' Association of Australia. For flue bafflers see Appendix "C."

#### EXISTING INSTALLATIONS.

Connecting Additional Appliances.—No additional apparatus, i.e., gas cookers, bath heaters, gas fires, wash coppers, lights, &c., shall be connected to existed fittings without the gas-fitter first delivering to the Undertaker notice of the intention so to do on the prescribed form marked "Additional Apparatus," and no fittings shall be connected until the necessary alterations to the fittings (if any) required by the Inspector or authorized officer of the Undertaker have been carried out.

Removal or Re-connexion of Appliances.—Under no circumstances shall gas consuming apparatus hired from the Undertaker be removed or re-connected without the written permission of the Undertaker being first obtained.

Connexion or Disconnexion of Meter. - No gas-fitter shall connect or disconnect any gas meter inlet or outlet service

except with the written permission of the Undertaker.

Urgent Repairs.—Urgent repairs may be undertaken by a gas-fitter without prior notice, provided that a notice of such repairs is sent to the Undertaker as soon thereafter as possible.

#### TESTING FOR TIGHTNESS.

On completion of the job—whether it be a new installation or an extension from an existing installation—the whole of the work shall be subjected by the Inspector or authorized officer of the Undertaker to a pressure test in the following manner:—

Method of Testing.—An ordinary U-shaped gauge reading in inches of mercury shall be fixed in an approved position

on the pipe line, and all open ends plugged or capped, and all cocks shut off.

The pressure of air inside the piping is then to be raised by the aid of a pump, until the gauge reads 3 inches of mercury, at which pressure it shall remain steady for a period of five minutes. If there is no alteration or drop, the installation will be passed as tight or sound. If any fall in pressure occurs within the period named, all connexions, taps, and cocks must be carefully examined, and, where found leaking, tightened. Any defective material must be replaced. The test will then be repeated until such time as the installation fulfils requirements.

APPENDIX "A."

CAPACITIES OF GAS PIPES IN CUBIC FEET PER HOUR.

With pressure drop of 0 3 in. w.g. Spec. Grav. of gas = 0.55. (Based on Lacey expts. Proc. Inst. Gas Eng. 1923.)

Longth of Pipe (Feet).		Nominal Diameter of Pipe (Inches).											
			1.	<b>1</b> .	<b>}</b> .	ž.	1.	11.	11.	2.	21.	8.	4.
10 20 30 40 50 60 70 80 90 00 150 250			24 12  	63 37 26 20 	123 82 65 755 48 43 37	220 150 117 100 90 80 75 68 62 59 44	400 280 220 190 165 150 135 125 117 110 88 74	830 575 460 390 340 310 290 270 255 240 190 160	1,320 900 720 610 530 450 410 390 370 290 250 220	2,700 1,860 1,490 1,300 1,120 1,010 940 880 820 775 620 525 470 420	4,980 3,360 2,750 2,320 2,020 1,840 1,710 1,600 1,480 1,410 1,110 940 830 750	8,150 5,500 4,440 3,800 3,350 3,000 2,800 2,400 2,400 1,530 1,530 1,220	13,550 9,650 7,850 6,000 5,500 5,500 4,820 4,550 4,300 3,520 3,052 2,730 2,500

### BENDS AND TEES.

Bends and tees are to be allowed for by adding to the overall net length of pipe the lengths given in the table below. The gross length so obtained is the length shown in the table above.

2167

·	Tominal Pi	pe Diamete	r (Inches).		Addition to be made to Overall Length of a Pipe in Feet to allow for Increased Resistance introduced by Fittings.		
1 to 1 11 to 11					Tees. 2 3 5	90 deg. Bends. 1 1 1 2	
$\frac{\overline{2}_{\frac{1}{2}}}{3}$			• •	::	7 8	2 <del>1</del> 3	
4 6	••	••	••	::	10 15	6	

## APPENDIX "B." TABLE SHOWING APPROXIMATE CONSUMPTIONS OF GAS APPLIANCES WITH 3.0 INCHES W.G. PRESSURE.

A	ppliance.		B.T.U. per hour.	C. Ft. per Hour of 500 R.T.U. Gas (according to size of appliance).						
Cooking:										
Domestic gas cooker ovens					10,000 15,000	20- 30				
Domestic gas cooker hotplat	tes				25,000- 45,000	50 90				
Commercial type gas ovens					25,000- 90,000	50-180				
Commercial type gas hotpla	tes				25,000-200,000	50-400				
Domestic gas rings		• •			5,000- 15,000	10 30				
Water Heating:						1-0				
Bath heaters (single point o	r geyser type	3)			30,000- 75,000	60-150				
Multipoint water heaters					50,000-100,000	100-200				
Instantaneous sink heaters					15,000- 30,000	30- 60				
Storage type sink heaters					4,000- 7,500	8 15				
Storage water heaters and o	circulators	• •	• •	••	4,000- 30,000	8 60				
House Warming:				ł		0.5				
Gas fires			• •		12,500- 25,000	<b>25- 5</b> 0				
Gas radiators			• •		4,000- 25,000	8- 50				
Flueless heaters	• •	••	••	• • •	4,000- 10,000	8- 20				
Gas Lighting:					1.000 17.000	2- 30				
Street lamps	• •	• •	••	••	1,000- 15,000	2- 30 2- 10				
Domestic lamps	••	.**			1,000- 5,000	2- 10				
Other Appliances:					F00 4 000	2- 8				
Gas refrigerators				••	500- 4,000	2- 8 3- 30				
Gas irons			• •		1,500- 15,000					
Gas furnaces (industrial)					According to rated					
Fish frycrs				• • •	30,000-250,000	60500				

### APPENDIX "C."

#### FLUE BAFFLERS OR DRAUGHT DIVERTERS.

REQUIREMENTS AS SPECIFIED BY THE RESEARCH AND TESTING LABORATORIES OF THE GAS COMPANIES ASSOCIATION OF AUSTRALIA.

(a) Any design for the construction of a flue baffler will be approved, provided that the baffler so designed complies, under test, with the requirements for satisfactory performance as set out hereunder.

A design which has given satisfactory results is shown on the following page. Samples of bafflers made to this design must, however, be subjected to the tests for satisfactory performance before being approved by the Testing Laboratories.

nowever, no subjected to the tests for satisfactory performance before being approved by the Testing Laboratories.

(b) In the construction of a flue baffler no solder must be used. The support shall be made of not less than No. 26 gauge galvanized iron or copper, and of a width as set out in the following table. All supports shall be held in position by bolts or rivets. Alternatively, welding may be employed for this purpose, provided that the baffler is galvanized after construction.

(c) The flue baffler shall be so constructed that it will support without damage thereto a load of 50 lb. uniformly applied at the top.

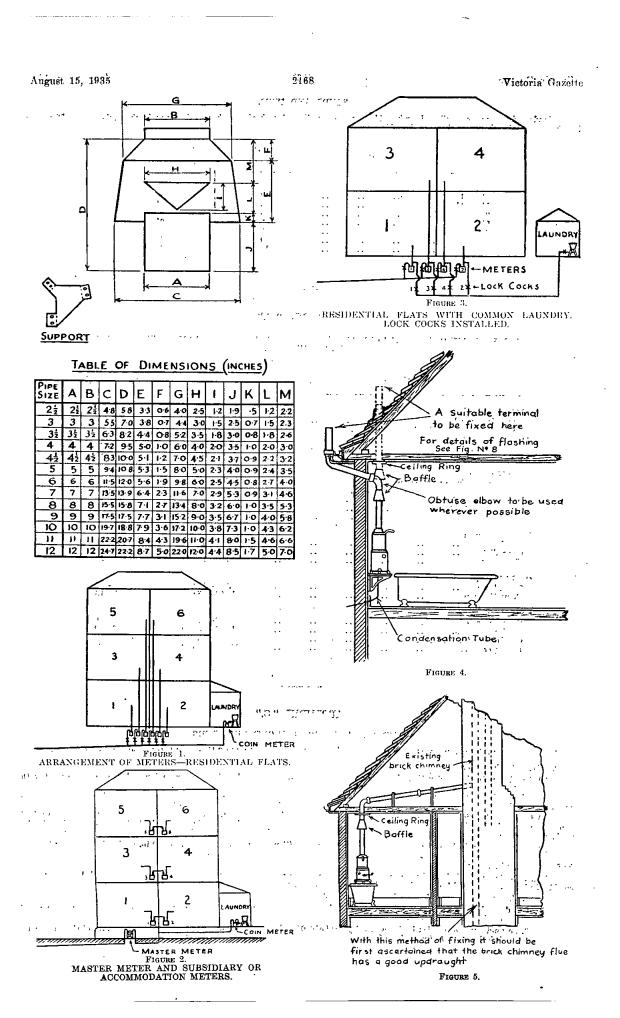
#### Performance Requirements:

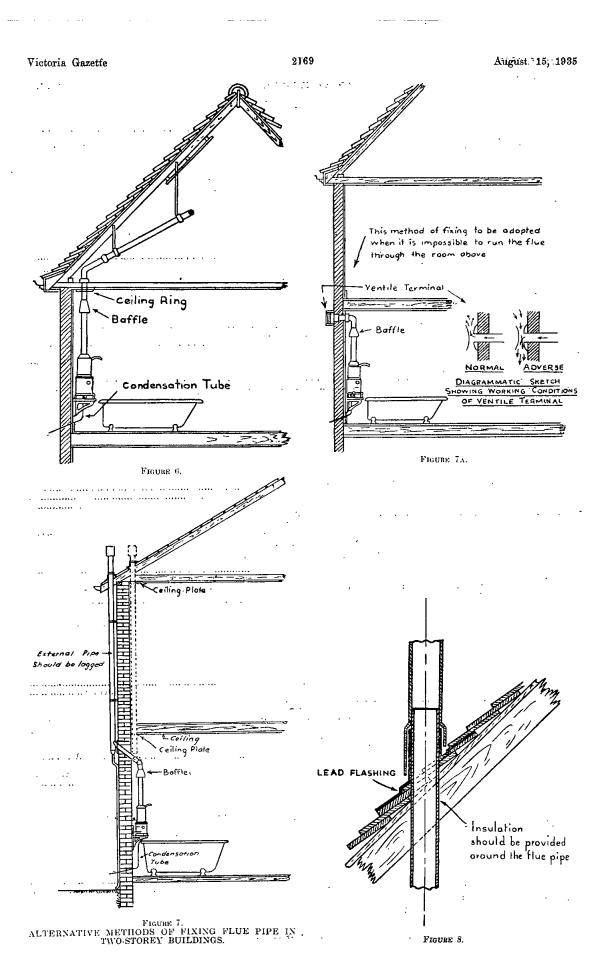
When the flue baffler is in position above the gas appliance, the flames in the combustion chamber shall not flash back, float, burn outside the heater, be extinguished, or otherwise show interference with normal combustion, when—

1. the upper or outlet end of the flue baffler is closed.

2. a down-draught having a velocity head of 0 '03-inch water-gauge pressure (measured at the centre of the air stream) is imposed on the top of the baffler.

3. an up-draught or suction having a velocity head of 0 '03-inch water-gauge pressure (measured at the centre of the air stream) is imposed at the top of the baffler.





# (Name of Undertaker.) Gas Regulation Act 1933.

No. 1.

•	gas-fitter's i	PRELIMINARY NOTICE FOR P		ED WITH GAS.		
To the Secreta In acco	ordance with the	Regulations gazetted under the oned apparatus, &c.:—		I hereby give notice that I		
Applia	nces, &c.		,			
Number.	Description.	Name of Owner or Tenant.	Occupation.	Situation of Premises.		
			,			
	·		Reg	istered Gasfitter No.		
		(Name of Un	dertaker.)	. No. 2.		
GAS-	FITTER'S NOTI	Gas Regulation CE FOR "ADDITIONAL APPA IS ALREADY	RATUS" TO PREMISES WH	ERE GAS SERVICE		
idermentioned	nce with the Regu apparatus, &c., off y has installed	ulations gazetted under the provision existing reticulation :—	s of the above Act, I hereby give	e notice that I intend installing th		
Applian	ces, &c.	1	1	-FF		
Number.	Description.	Name of Owner or Tenant.	Occupation.	Situation of Premises.		
ate here the siz	e or sizes and lengt	th of existing outlet pipe or pipes	***************************************			
		Authorized (	Pfficer,	gistered Gasfitter No		
		(Name of Un Gas Regulation	•	No. 3.		
o the Secretary		GAS-FITTER'S NOTICE		193		
In accords	ance with the Reg	ulations gazetted under the provision				
pairs to the ap	pparatus, &c. as ur	der, and that same will be ready for	inspection on			
Nature of Wor	rk to be Done.	Name of Owner or Tenant.	Occupation.	Situation of Premises.		
		Authorized Offi		egistered Gasfitter No		
		Authorized Offi (Name of Un-	dertaker.)	No. 4.		
	•	GAS-FITTER'S NOTICE FO	<del></del>	•		
the Secretary Further to	my notice dated	y give notice that the undermentioned	and in accordance with the	ne Regulations gazetted under the		
Applian						
Number.	Description.	Name of Owner or Tenant.	Occupation.	Situation of Premises.		
spected and wo	ork approved			gistered Gasfitter No		
		Authorized Officer.		-		