



Western Australia

Gas Standards Act 1972

**Gas Standards (Gas Supply and System Safety)  
Regulations 2000**

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As at 11 Apr 2008

Version 01-a0-04

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Western Australia

## Gas Standards (Gas Supply and System Safety) Regulations 2000

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**Defined Terms**







Reprinted under the  
*Reprints Act 1984* as  
at 11 April 2008

Western Australia

Gas Standards Act 1972

## Gas Standards (Gas Supply and System Safety) Regulations 2000

### Part 1 — Preliminary

#### 1. Citation

These regulations may be cited as the *Gas Standards (Gas Supply and System Safety) Regulations 2000*<sup>1</sup>.

#### 2. Commencement

These regulations come into operation on the 28<sup>th</sup> day after the day on which they are published in the *Gazette*<sup>1</sup>.

#### 3. Terms used in these regulations

- (1) In these regulations, unless the contrary intention appears —
- accepted safety case*, in relation to —
- (a) a distribution system, means a safety case that —
    - (i) has been accepted, or is to be regarded as having been accepted, by the Director under Part 4 Division 3; and
    - (ii) has been implemented by the network operator under that Division,

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and includes an accepted safety case amended under regulation 39 or 40; and

- (b) a gas plant, means a safety case that —
- (i) has been accepted, or is to be regarded as having been accepted, by the Director under Part 5; or
  - (ii) has been determined for the gas plant under that Part,

and includes an accepted safety case amended under regulation 62 or 63;

**AG** followed by a designation consisting of a number and a reference to a year, refers to the text, as from time to time amended and for the time being in force, of the document so designated, published by the Australian Gas Association;

**AS** followed by a designation consisting of a number and a reference to a year, refers to the text, as from time to time amended and for the time being in force, of the document so designated, published by Standards Australia;

**AS/NZS** followed by a designation consisting of a number and a reference to a year, refers to the text, as from time to time amended and for the time being in force, of the document so designated, jointly published by Standards Australia and Standards New Zealand;

**badged capacity** means the capacity of a meter as shown on the manufacturer's meter badge affixed to the meter;

**cubic metre** or **m<sup>3</sup>** means a cubic metre at a pressure of 101.325 kPa (absolute) and a temperature of 15°C;

**distribution system** has the same meaning as it has in section 3 of the *Energy Coordination Act 1994*;

**employee**, in relation to a network operator or plant operator, means —

- (a) a person employed or engaged by the operator;
- (b) a contractor or subcontractor to the operator; or

- (c) a person employed or engaged by a person referred to in paragraph (b);

**gas plant** means —

- (a) any system of pipes, equipment or apparatus utilised for the purpose of —
- (i) manufacturing, treating or storing gas with a view to supplying it to consumers through a distribution system; or
  - (ii) converting gas from one form to another with a view to supplying it to consumers through a distribution system;
- and
- (b) any equipment or apparatus utilised in conjunction with anything referred to in paragraph (a),

but does not include anything referred to in paragraph (a) or (b) that is connected to a pipeline within the meaning of the *Petroleum Pipelines Act 1969*;

**higher heating value** means the number of megajoules liberated when one cubic metre of gas is completely burnt in air and all the water formed by the combustion reaction is condensed to the liquid state, under the test conditions set down in ISO 6974 — 1984(E) for the analysis of the natural gas, using ISO 6976 — 1995(E) for the calculations from that analysis;

**implementation day**, in relation to a safety case, means the day notified to the Director under regulation 35(2) in respect of the safety case;

**ISO**, followed by a designation consisting of a number and a reference to a year, refers to the text, as from time to time amended and for the time being in force, of the document so designated, published by the International Organization for Standardization;

**lower heating value** means the number of megajoules liberated when one cubic metre of gas is completely burnt in air and all water formed by the combustion reaction remains in the vapour state, under the test conditions set down in ISO 6974 — 1984(E)

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for the analysis of the natural gas, using ISO 6976 — 1995(E)  
for the calculations from that analysis;

**LPG** means a mixture of hydrocarbons in liquid or vapour form,  
consisting mainly of butane, butene, propane, or propene, or any  
mixture of those substances;

**master meter** means a meter used to measure the amount of gas  
supplied to the point at which delivery of the gas is made to the  
consumer and includes any associated regulators, pipes, fittings,  
components, equipment or instruments;

**meter** means a device used to measure the amount of gas  
passing through the device;

**natural gas** means a hydrocarbon gas, in liquefied or vapour  
form, consisting mainly of methane;

**network operator** means an undertaker who operates a  
distribution system;

**nominated auditor**, in relation to —

- (a) the safety case or accepted safety case of a network  
operator, means the person whose nomination by the  
network operator has been accepted under regulation 30;  
or
- (b) the safety case or accepted safety case of a plant  
operator, means the person whose nomination by the  
plant operator has been accepted under regulation 52;

**plant operator** means an undertaker who operates or is to  
operate a gas plant;

**prescribed activity** means anything related to the conveyance,  
control, supply or use of gas done by, for, or with the authority  
of, the network operator in the course of the construction,  
maintenance, repair or operation of any part of a distribution  
system;

**quarter** means the period of 3 months beginning on 1 January, 1  
April, 1 July or 1 October in any year;

**safety case** means a document that sets out the safety management and technical practices and procedures to be followed by —

(a) a network operator in the operation of a distribution system; or

(b) a plant operator in the operation of a gas plant,  
as the case requires;

**utilised**, in relation to a purpose, includes capable of being, or intended to be, utilised for that purpose.

- (2) In these regulations, unless the contrary intention appears, the numerical values prescribed are subject to tolerances according to normal industry practice.

## **Part 2 — Standards for gas supplied**

### **Division 1 — General standard for gas pressure**

#### **4. Gas pressure**

(1) In this regulation —

*prescribed pressure*, in relation to —

- (a) a gas installation that uses or is to use tempered LPG, means 0.75 kPa (gauge);
- (b) a gas installation that uses or is to use natural gas or simulated natural gas, means 1.25 kPa (gauge); and
- (c) a gas installation that uses or is to use LPG, means 2.75 kPa (gauge);

*simulated natural gas* means a mixture of LPG and air having a higher heating value of more than 40 MJ/m<sup>3</sup> but not more than 51 MJ/m<sup>3</sup>;

*tempered LPG* means a mixture of LPG and air having a higher heating value of more than 23.5 MJ/m<sup>3</sup> but not more than 27.3 MJ/m<sup>3</sup>.

(2) An undertaker must ensure that the operating pressure of gas supplied to a consumer's gas installation, measured immediately after the consumer's master meter —

- (a) is not less than the prescribed pressure and not more than 3 kPa (gauge), except to the extent that the consumer and the undertaker have otherwise expressly agreed in writing; and
- (b) is within the pressure operating range specified by the manufacturer of the master meter.

(3) An undertaker must, when requested to do so, advise a consumer as to the greatest pressure of gas to which a consumer's gas installation could be subject in the event of a supply fault causing a breach of subregulation (2).

## Division 2 — Standards for natural gas

### 5. Quality standards

- (1) In this regulation —

**Wobbe index** means the result obtained using the following formula —

$$\frac{\text{Higher heating value}}{\sqrt{\text{Relative density}}}$$

- (2) An undertaker must ensure that natural gas supplied to a consumer through a distribution system or used for domestic purposes in an industrial facility —
- (a) has a Wobbe index that is not less than 46.5 MJ/m<sup>3</sup> and not more than 51.0 MJ/m<sup>3</sup>;
  - (b) is free by normal commercial standards from dust and other solid or liquid matters, waxes, gums and gum forming constituents, aromatic hydrocarbons and radioactive components that might cause injury to or interfere with the proper operation of all equipment through which it flows;
  - (c) does not have a total sulphur content exceeding 50 mg/m<sup>3</sup>;
  - (d) has a higher heating value produced by combustion of the gas of not less than 37.0 MJ/m<sup>3</sup> and not more than 42.3 MJ/m<sup>3</sup>; and
  - (e) is odourised in accordance with regulation 6 and is subject to periodic sampling to determine the effectiveness of the odourising.
- (3) Despite subregulation (2)(e) the Director may, in a particular case or class of case, permit an undertaker to supply natural gas that is not odourised if —
- (a) the gas is to be delivered for further processing or use; and

- (b) the odorant would serve no useful purpose as a warning agent.
- (4) The requirement in subregulation (2)(e) does not apply in relation to natural gas that is the subject of a permission under subregulation (3).
- (5) The undertaker must ensure that records are kept of sampling conducted under subregulation (2)(e) for a period of 3 years from the date of sampling.

**6. Odouring natural gas**

Natural gas must be odourised by the addition to the gas of an odourant that —

- (a) is distinctive, unpleasant and non-persistent; and
- (b) when the gas is discharged, throughout that discharge indicates to a person with a normal sense of smell the presence of gas down to  $\frac{1}{5}$  the lower explosive limit in air.

**Division 3 — Standards for LPG**

**7. Quality standards**

- (1) An undertaker must ensure that LPG supplied to a consumer in liquid form —
  - (a) is free of mechanically entrained water;
  - (b) does not contain any hydrogen sulphide or methane or any substance that, if the gas is used for lighting or heating purposes, is toxic or harmful to human health or safety;
  - (c) does not have a total sulphur content exceeding 0.02% by weight;
  - (d) does not contain more than 45 mg/m<sup>3</sup> of mercaptan sulphur;
  - (e) does not contain more than —
    - (i) 2 mol % of C2 hydrocarbons; or



- (ii) 2 mol % of C5 or higher hydrocarbons expressed as C5 hydrocarbons;
  - (f) does not contain impurities other than those permitted under paragraphs (c), (d) and (e);
  - (g) has a lower heating value produced by combustion of the gas of not less than 44.0 and not more than 47.7 MJ per kilogram of the gas;
  - (h) meets the requirement for evaporation in regulation 8; and
  - (i) is odourised in accordance with regulation 9 and is subject to periodic sampling to determine the effectiveness of the odourising.
- (2) Despite subregulation (1)(i) the Director may, in a particular case or class of case, permit an undertaker to supply LPG that is not odourised if the gas is to be used as a propellant in aerosol type containers.
- (3) The requirement in subregulation (1)(i) does not apply in relation to LPG that is the subject of a permission under subregulation (2).
- (4) The undertaker must ensure that records are kept of sampling conducted under subregulation (1)(i) for a period of 3 years from the date of sampling.

## **8. Evaporation**

If the LPG is evaporated at a temperature of 1.11°C corrected to a barometric pressure of 98.67 kPa (absolute), the quantity of gas so evaporated must be not less than 95% by volume.

## **9. Odourising LPG**

The LPG must be odourised by the addition to the gas of an odourant that —

- (a) is distinctive, unpleasant and non-persistent; and
- (b) when the gas is discharged, throughout that discharge indicates to a person with a normal sense of smell the

presence of gas down to  $\frac{1}{5}$  the lower explosive limit in air.

**10. Propane**

An undertaker must ensure that where LPG is supplied to a consumer as propane —

- (a) it contains not less than 90% by volume of —
  - (i) propane or propene; or
  - (ii) propane and propene;
- and
- (b) its vapour pressure does not exceed 1 530 kPa (gauge) at 40°C.

**11. Butane**

An undertaker must ensure that where LPG is supplied to a consumer as butane —

- (a) it consists predominantly of —
  - (i) butanes or butenes; or
  - (ii) butanes and butenes;
- (b) its vapour pressure does not exceed 520 kPa (gauge) at 40°C; and
- (c) the container in which it is supplied is marked with the designation “Butane”.

**12. Mixed LPG**

An undertaker must ensure that where LPG is supplied to a consumer as mixed LPG —

- (a) it is a mixture of —
  - (i) propane or propene, or propane and propene; and
  - (ii) butanes or butenes, or butanes and butenes;
- (b) its vapour pressure does not exceed 1 530 kPa (gauge) at 40°C; and

- (c) the container in which it is supplied is marked with —
  - (i) the designation “Mixed LPG”; and
  - (ii) the maximum and minimum points of the vapour pressure range in kPa (gauge) at 40°C.

**13. LPG supplied through a distribution system**

- (1) An undertaker must ensure that where LPG is supplied to consumers through a distribution system —
  - (a) it is supplied as propane;
  - (b) it is supplied in vapour form;
  - (c) the pressure at which it is supplied does not exceed 200 kPa (gauge); and
  - (d) it is odourised in accordance with regulation 9 and is subject to periodic sampling to determine the effectiveness of the odourising.
- (2) The undertaker must ensure that records are kept of sampling conducted under subregulation (1)(d) for a period of 3 years from the date of sampling.

## **Part 3 — Metering**

### **14. Term used in this Part**

In this Part —

**commencement** means the day on which these regulations come into operation.

### **15. Operating requirements for master meters**

- (1) A network operator must ensure that every master meter installed after commencement with a badged capacity of not more than 6 cubic metres per hour complies with the requirements of AG 702.
- (2) A network operator must ensure that every master meter not referred to in subregulation (1) installed after commencement measures, at the time of installation, the consumption of gas within a margin of error not exceeding plus or minus 1.5% of the actual volume of gas supplied.
- (3) Subject to the requirement in subregulation (2), a network operator must ensure that every master meter, whether installed before, on or after commencement, measures the consumption of gas within a margin of error of —
  - (a) plus or minus 2% of the actual volume of gas supplied, if the master meter has a badged capacity of more than 6 cubic metres per hour; or
  - (b) plus or minus 3% of the actual volume of gas supplied, if the master meter has a badged capacity of not more than 6 cubic metres per hour.

### **16. Replacement of master meters**

A network operator must ensure that every master meter installed after commencement is replaced at intervals not exceeding —

- (a) 5 years, in the case of turbine meters;
- (b) 10 years, in the case of rotary meters;

- (c) 10 years, in the case of diaphragm meters with a badged capacity of more than 12 cubic metres per hour;
- (d) 14 years, in the case of diaphragm meters with a badged capacity of more than 6 cubic metres per hour but not more than 12 cubic metres per hour; and
- (e) 18 years, in the case of diaphragm meters with a badged capacity of not more than 6 cubic metres per hour,

and in each case the first interval is to be calculated from the date of installation.

**17. Alternative requirements**

- (1) The Director may give approval in writing for a network operator, when supplying gas in a place or from a part of a distribution system described in the approval, to comply with an alternative requirement instead of a requirement under regulation 15 or 16.
- (2) A requirement under regulation 15 or 16 does not apply to the extent that a network operator complies with an alternative to that requirement in accordance with an approval under subregulation (1).

## **Part 3A — Entry and commingling of gas of different qualities**

*[Heading inserted in Gazette 4 Jan 2008 p. 3.]*

### **Division 1 — Preliminary**

*[Heading inserted in Gazette 4 Jan 2008 p. 3.]*

#### **17A. Terms used in this Part**

In this Part, unless the contrary intention appears —

***approved plan*** means a management plan approved under regulation 17E and includes the plan as amended or replaced under regulation 17F or 17G;

***corporation*** means —

- (a) a company within the meaning given in the *Corporations Act 2001* (Commonwealth) section 9; or
- (b) any other body corporate, or body corporate of a kind, prescribed by the regulations;

***determined heating value*** means the heating value for a HHV zone determined under regulation 17J(2) or (3);

***emergency*** means any event or circumstance arising in relation to a distribution system or sub-network or a pipeline from which gas is injected into a distribution system or sub-network that has a significant effect on the higher heating value of gas in a zone or zones;

***flow weighted average higher heating value*** or ***FWAHHV*** means the flow weighted average higher heating value of gas in a HHV zone on a gas day, calculated in accordance with the approved plan relating to the distribution system that includes the HHV zone;

***gas day*** means the 24 hour period beginning at 0800 hours on a day and ending at 0800 hours on the following day;

***HHV zone*** means a HHV zone in a distribution system or sub-network established under regulation 17I(2), (3) or (5);

***implementation period*** means —

- (a) in relation to an approved plan approved or taken to have been approved under regulation 17E, a period of 2 months, or any other period not exceeding 6 months specified in the plan for the purposes of this paragraph of this definition, beginning on the day on which the plan is approved or taken to have been approved; or
- (b) in relation to the replacement of an approved plan under regulation 17F, a period of one month, or any other period not exceeding 2 months specified in the replacement plan for the purposes of this paragraph of this definition, beginning on the day on which the replacement is approved or taken to have been approved;

***leanest supplied higher heating value*** or ***LSHHV*** means the higher heating value of gas supplied to a consumer from a HHV zone on a gas day with the lowest flow weighted higher heating value, calculated in accordance with the approved plan relating to the distribution system that includes the HHV zone;

***management plan*** means a plan that meets the requirements of regulation 17C(1) or (2);

***officer***, in relation to a body corporate, has the meaning given to “officer” of a corporation in the *Corporations Act 2001* (Commonwealth) section 9 but does not include an employee of the body corporate unless the employee is concerned in the management of the body corporate;

***permitted range*** means the range determined under regulation 17I(3)(b);

***retail market scheme*** means a retail market scheme approved under the *Energy Coordination Act 1994* Part 2B Division 3;

***sub-network*** means each part of a distribution system listed in Schedule 4.

*[Regulation 17A inserted in Gazette 4 Jan 2008 p. 3-5.]*

**Division 2 — Approved plan**

*[Heading inserted in Gazette 4 Jan 2008 p. 5.]*

**17B. Requirement for an approved plan**

- (1) A network operator must not operate a distribution system in which gas of different qualities from 2 or more pipelines is commingled without an approved plan relating to the operation of the system.
- (2) If a network operator is a corporation, an officer of the network operator must ensure that gas of different qualities from 2 or more pipelines is not commingled in a distribution system of the network operator unless there is an approved plan relating to the operation of the system.
- (3) A pipeline operator must not inject gas into a distribution system in which gas of different qualities from 2 or more pipelines is commingled without an approved plan relating to the injection of gas into that system.
- (4) If a pipeline operator is a corporation, an officer of the pipeline operator must ensure that gas is not injected from a pipeline of the pipeline operator into a distribution system in which gas of different qualities from 2 or more pipelines is commingled unless there is an approved plan relating to the injection of gas into that system from the pipeline.
- (5) This regulation does not apply to —
  - (a) a network operator or an officer of a network operator during the implementation period for an approved plan, or the replacement for an approved plan, relating to the operation of the network operator's distribution system; or
  - (b) a pipeline operator or an officer of a pipeline operator during the implementation period for an approved plan, or the replacement for an approved plan, relating to the



injection of gas into a distribution system from a pipeline of the pipeline operator.

*[Regulation 17B inserted in Gazette 4 Jan 2008 p. 5-6.]*

**17C. Content of management plan**

- (1) A management plan submitted by a network operator in relation to the operation of its distribution system is to —
  - (a) set out details of the distribution system, including in particular any sub-network of the system, to which it applies; and
  - (b) set out the configuration and operational characteristics of the distribution system; and
  - (c) work together with the management plan of a pipeline operator that injects gas into the system; and
  - (d) set out the methods or processes to be followed by the network operator in calculating the flow weighted average higher heating value of the gas transported through the distribution system or a sub-network of it and establishing a HHV zone or HHV zones in the distribution system or a sub-network of the system; and
  - (e) specify how the network operator is to publish or give interested persons details of the establishment of a HHV zone or HHV zones in a distribution system or a sub-network of the system; and
  - (f) set out the means for calculating and validating the flow weighted average higher heating value of gas in a HHV zone on a gas day; and
  - (g) set out the means for calculating the higher heating value of gas with the lowest flow weighted higher heating value supplied to a consumer from a HHV zone on a gas day; and
  - (h) set out principles, methods and processes to be applied by the network operator in the operation of a distribution system to ensure that the FWAHHV for a HHV zone on

- a gas day less the LSHHV for the HHV zone on that day is not more than 1 MJ/m<sup>3</sup>; and
- (i) set out measures to be taken by the network operator if the higher heating value of gas supplied through a HHV zone to a consumer is persistently less than the permitted range for the HHV zone; and
  - (j) set out the number of days in any period of 100 days on which the FWAHHV for a HHV zone less the LSHHV for the HHV zone must not be more than 1 MJ/m<sup>3</sup> and specify what action will be taken by the network operator if that number is exceeded; and
  - (k) provide that the network operator is to give to the Director at quarterly intervals (or such other intervals specified by the Director from time to time after consulting the network operator) a report on monitoring activity undertaken by the network operator in respect of gas entering the distribution system; and
  - (l) set out audit requirements in relation to the determination by the network operator of the heating value of gas under regulation 17J(1); and
  - (m) provide for an annual audit to be carried out on the operation of the management plan and for a report on the audit to be given to the Director.
- (2) A management plan submitted by a pipeline operator in relation to the injection of gas into a distribution system from a pipeline of the operator is to —
- (a) identify the distribution system and any sub-network of the system into which gas is injected; and
  - (b) work together with the management plan of the network operator of the distribution system; and
  - (c) set out details of the gas injected into the system by the pipeline operator including —
    - (i) the higher heating value of the injected gas; and
    - (ii) the volume of gas injected on a gas day; and

- (iii) the rate at which it is injected; and
  - (iv) if gas of different qualities is injected, the mixing ratios in respect of that gas;
- and
- (d) specify how and when the pipeline operator will advise the network operator of the distribution system about any change in the specifications referred to in paragraph (c); and
  - (e) set out which, and how, facilities will be used by the pipeline operator to —
    - (i) inject gas into the distribution system; and
    - (ii) control and monitor that injection;
- and
- (f) provide for the implementation of systems to —
    - (i) ensure, as far as is reasonably practicable, that commingling occurs at a controlled or determined rate; and
    - (ii) minimise, as far as is reasonably practicable, variations in the higher heating value of gas injected by the pipeline operator into a distribution system on any gas day;
- and
- (g) set out how the pipeline operator will, and which facilities will be used by the pipeline operator to, calculate the higher heating value of gas injected into the distribution system on each gas day including —
    - (i) the location of sample points; and
    - (ii) the method of calculation; and
    - (iii) the frequency of sampling and analysis; and
    - (iv) the details of the provision of backup measurement facilities or the processes the operator will use if facilities fail to operate or are unavailable;

and

- (h) provide for the recording of data in respect of the higher heating value and flow of gas injected into the distribution system on each gas day; and
- (i) provide for the data referred to in paragraph (h) —
  - (i) if a retail market scheme applies to the distribution system or sub-network and that scheme provides for the pipeline operator to give the network operator data the same as that referred to in paragraph (h), to be given to the network operator in the form and at the intervals specified in the scheme; or
  - (ii) if subparagraph (i) does not apply, to be given to the network operator in the form and at the intervals determined by the Director after consultation with the pipeline operator;

and

- (j) set out measures to be taken by the pipeline operator if a facility referred to in paragraph (e) malfunctions; and
- (k) provide for an annual audit to be carried out on the operation of the management plan and for a report on the audit to be given to the Director.

*[Regulation 17C inserted in Gazette 4 Jan 2008 p. 6-9.]*

**17D. Submission of management plan for approval**

- (1) In this regulation —
  - existing operator***, in relation to a distribution system, means a person who already carries out gas operations on the relevant day;
  - gas operations*** means —
    - (a) the operation of a distribution system; or
    - (b) the injection of gas into a distribution system;

***new operator***, in relation to a distribution system, means a person who is to commence gas operations after the relevant day;

***relevant day*** means the day on which the *Gas Standards (Gas Supply and System Safety) Amendment Regulations 2007* come into operation.

- (2) Each existing operator, and each new operator, must submit a management plan relating to the operation of or the injection of gas into the system, as the case may be, to the Director for approval.
- (3) An existing operator must comply with subregulation (2) within 3 months after the relevant day.
- (4) A new operator must comply with subregulation (2) not less than one month before the day on which the operator is to commence gas operations.

*[Regulation 17D inserted in Gazette 4 Jan 2008 p. 9.]*

**17E. Approval of management plan**

- (1) Subject to subregulation (5), the Director may in writing —
  - (a) approve a management plan submitted under regulation 17D; or
  - (b) request that it be amended.
- (2) If the Director requests a network operator or pipeline operator to amend a management plan, the request must be accompanied by written reasons of the Director for requesting the amendment.
- (3) The network operator or pipeline operator must comply with a request under subregulation (1)(b) within one month of the day on which the Director made the request by submitting a management plan amended in accordance with the Director's request.

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- (4) Subject to subregulation (5), the Director must approve a management plan amended as requested under subregulation (1)(b).
- (5) The Director is not to approve a management plan if the Director considers that it —
  - (a) will not meet the requirements of regulation 17C in respect of such plans; or
  - (b) will be inconsistent with the Act or any other written law.
- (6) If the Director has not given an approval or made a request under subregulation (1)(b) within one month of the submission of a management plan, the Director is to be taken to have approved the plan on the last day of that period of one month.

*[Regulation 17E inserted in Gazette 4 Jan 2008 p. 9-10.]*

**17F. Amendment or replacement of an approved plan**

- (1) With the approval of the Director, a network operator or pipeline operator may amend or replace an approved plan.
- (2) A network operator or pipeline operator must submit any proposed amendment or replacement to the Director for approval.
- (3) If an amendment or replacement is submitted, the Director may in writing —
  - (a) subject to subregulation (7), approve it; or
  - (b) request that it be amended; or
  - (c) refuse to approve it.
- (4) If the Director requests that an amendment or replacement be amended, the request must be accompanied by written reasons of the Director for requesting the amendment.
- (5) A network operator or pipeline operator must comply with a request under subregulation (3)(b) within one month of the day

on which the Director made the request by submitting an amendment or replacement amended in accordance with the Director's request.

- (6) Subject to subregulation (7), the Director must approve an amendment or replacement amended as requested under subregulation (3)(b).
- (7) The Director is not to approve an amendment or replacement of an approved plan if the Director considers that it —
  - (a) will not meet the requirements of regulation 17C in respect of management plans; or
  - (b) will be inconsistent with the Act or any other written law.
- (8) If the Director has not given an approval, made a request or refused to approve an amendment or replacement under subregulation (3) within one month of the submission of the proposed amendment or replacement, the Director is to be taken to have approved the proposed amendment or replacement on the last day of that period of one month.

*[Regulation 17F inserted in Gazette 4 Jan 2008 p. 10-11.]*

**17G. Director may require amendment**

- (1) This regulation applies if, in the opinion of the Director, an approved plan —
  - (a) does not meet the requirements of regulation 17C in respect of management plans; or
  - (b) is no longer consistent with the Act or any other written law.
- (2) The Director may direct a network operator or pipeline operator to amend an approved plan, within a specified period, in a manner specified by the Director in writing.
- (3) The network operator or pipeline operator must comply with a direction under subregulation (2).

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- (4) If a network operator or pipeline operator does not comply with a direction under subregulation (2) to amend an approved plan within the period specified by the Director, the approved plan ceases to have effect at the end of that period.

*[Regulation 17G inserted in Gazette 4 Jan 2008 p. 11.]*

**17H. Compliance with an approved plan**

- (1) A network operator must ensure that an approved plan relating to the operation of its distribution system is implemented and that any requirements set out in it are complied with.
- (2) A pipeline operator must ensure that an approved plan relating to the injection of gas into a distribution system from a pipeline of the operator is implemented and that any requirements set out in it are complied with.
- (3) Subregulations (1) and (2) do not apply during an emergency.

*[Regulation 17H inserted in Gazette 4 Jan 2008 p. 11-12.]*

**Division 3 — Determination of heating value of gas**

*[Heading inserted in Gazette 4 Jan 2008 p. 12.]*

**17I. Establishing a HHV zone or HHV zones**

- (1) This regulation applies if —
- (a) gas of different qualities from 2 or more pipelines is injected into a network operator's distribution system or sub-network; and
  - (b) that gas is commingled in the system or sub-network.
- (2) If the FWAHHV (calculated in accordance with the relevant approved plan) of the gas transported through a distribution system or sub-network throughout the system or sub-network does not vary by more than 1 MJ/m<sup>3</sup>, the network operator of the distribution system or sub-network must from time to time, in accordance with the relevant approved plan, establish one HHV zone for that system or sub-network.



- (3) If the FWAHHV (calculated in accordance with the relevant approved plan) of the gas transported through a distribution system or sub-network varies by more than 1 MJ/m<sup>3</sup> in parts of the system or sub-network, the network operator of the distribution system or sub-network must from time to time, in accordance with the relevant approved plan —
- (a) establish HHV zones in that system or sub-network for each of those parts where those heating values exist so that the FWAHHV of the gas in a zone does not vary by more than 1 MJ/m<sup>3</sup>; and
  - (b) determine the range of the FWAHHV, not more than 1 MJ/m<sup>3</sup>, for gas in the zones.
- (4) A network operator must review a HHV zone or HHV zones in the following circumstances —
- (a) at intervals of not more than 13 months commencing on the day on which the HHV zone or HHV zones are first established;
  - (b) if there is a material and sustained change in the quantity or the higher heating value of the gas injected into the network or sub-network by a pipeline operator.
- (5) After reviewing the HHV zone or HHV zones, the network operator must cancel the HHV zone or HHV zones and establish a new HHV zone or new HHV zones if that is necessary in order to comply with subregulation (2) or (3).
- (6) On each occasion that a network operator establishes a HHV zone or HHV zones in a distribution system or sub-network, the network operator must give the Director a plan of the system or sub-network showing —
- (a) the zone or zones; and
  - (b) the permitted range for the zone or zones.
- (7) The plan referred to in subregulation (6) must be given to the Director not later than 5 days after the zone or zones are established.

*[Regulation 17I inserted in Gazette 4 Jan 2008 p. 12-13.]*

**17J. Network operator to determine heating value of gas**

- (1) As soon as practicable after the end of each gas day, the network operator must determine the heating value of the gas transported through —
  - (a) if the distribution system or a sub-network of the system has only one HHV zone, that HHV zone; or
  - (b) if the distribution system or a sub-network of the system has more than one HHV zone, each of those HHV zones,in accordance with subregulation (2) or (3).
- (2) If the FWAHHV for a HHV zone less the LSHHV for the HHV zone is less than or equal to  $1 \text{ MJ/m}^3$ , the determined heating value for the HHV zone is the FWAHHV.
- (3) If the FWAHHV for a HHV zone less the LSHHV for the HHV zone is more than  $1 \text{ MJ/m}^3$ , the determined heating value for the HHV zone is the LSHHV plus  $1 \text{ MJ/m}^3$ .
- (4) For each gas day, a network operator must cause the determined heating value of gas transported through the HHV zone or HHV zones of the network operator's distribution system or sub-network to be published by the specified time —
  - (a) on a website maintained by the network operator and to which the Director and retail gas operators, within the meaning given in the *Energy Coordination Act 1994* section 11ZOC(1)(b), have access; or
  - (b) by such other means as the Director approves in writing on the written application of a network operator.
- (5) For the purpose of subregulation (4), the specified time is —
  - (a) if a retail market scheme applies to the distribution system or sub-network and that scheme requires the network operator to publish information the same as the determined heating value by a specified time, that time; or

- (b) if paragraph (a) does not apply, 1200 hours on the day following the end of the gas day or the time specified in the relevant approved plan for the purposes of this paragraph, whichever is the later.
- (6) If the determined heating value is determined under subregulation (3), the network operator must, as soon as reasonably practicable and in accordance with the approved plan, give the Director a written notice specifying —
  - (a) the gas day for which the determination was made; and
  - (b) the determined heating value for that day.

*[Regulation 17J inserted in Gazette 4 Jan 2008 p. 13-14.]*

## **Part 4 — Distribution system safety**

### **Division 1 — Obligations related to the carrying out of prescribed activities**

#### **18. Management of prescribed activities**

- (1) A network operator must ensure that each prescribed activity is, so far as is reasonable and practicable, carried out in such a way as to —
  - (a) provide for the safety of persons; and
  - (b) avoid or minimise any damage to property, inconvenience, or other detriment as a result of the activity.
  
- (2) Without limiting subregulation (1), a network operator must ensure that —
  - (a) adequate work procedures and practices are developed and implemented;
  - (b) proper plans are developed and implemented for the inspection, maintenance and (if necessary) replacement of the distribution system;
  - (c) adequate records of the location of the distribution system are maintained and made available on request to —
    - (i) the Director; or
    - (ii) a person who, for reasons of safety, requires access to the records;
  - (d) adequate supervision is provided taking into account the nature of the activity and the competency of the personnel carrying out the activity; and
  - (e) the design, engineering and operation of the distribution system are regularly reviewed for safety and effectiveness.

**19. Evidence of compliance: standards and codes**

- (1) Compliance by a network operator to whom Division 2 applies with a relevant provision of —
- (a) a standard or code published under a law of any jurisdiction in Australia;
  - (b) a standard or code published by Standards Australia or the Australian Gas Association;
  - (c) a standard or code published by any other body and approved by the Director; or
  - (d) a standard or code specified in Schedule 1,

is evidence of compliance by that network operator with regulation 18 if the provision is not inconsistent with a provision referred to in regulation 24(4).

- (2) A network operator may submit a standard or code to the Director for approval under subregulation (1)(c).

**20. Evidence of compliance: accepted safety case**

Compliance by a network operator to whom Division 2 does not apply with a practice, procedure or provision described in regulation 37 is evidence of compliance by that network operator with regulation 18.

**21. Persons carrying out prescribed activities**

- (1) A person must avoid, so far as is reasonable and practicable, doing anything, or permitting anything to be done, in the course of carrying out a prescribed activity, that results, or is likely to result, in —
- (a) a person sustaining any personal injury; or
  - (b) damage to any property or significant inconvenience or other detriment to any person.
- (2) In subregulation (1) —
- (a) the reference to doing anything includes a reference to omitting to do anything; and

- (b) the reference to permitting anything to be done includes a reference to permitting an omission to do anything.

**22. Network operator to notify Director of proposed major activities**

- (1) In this regulation —

**major activity** means any of the following kinds of prescribed activity —

- (a) construction of high pressure pipelines having a diameter of 100 mm or more and a length of 100 metres or more;
- (b) construction of medium and low pressure gas mains having a diameter of 150 mm or more and a length of 300 metres or more;
- (c) construction of high pressure gate stations;
- (d) construction of district regulator sets fed from high pressure pipelines.

- (2) A network operator must —

- (a) give to the Director written notice of each major activity not less than 7 days before it is carried out; or
- (b) submit to the Director, not less than 7 days before the beginning of each quarter, a written outline of the major activities that the network operator proposes to carry out in that quarter.

- (3) If, in a particular quarter, a network operator proposes to carry out a major activity that was not mentioned in an outline submitted in respect of that quarter under subregulation (2)(b), the network operator must give to the Director written notice of that major activity not less than 7 days before it is carried out.

- (4) A notice or outline under this regulation —

- (a) is to be in a form acceptable to the Director; and
- (b) may be submitted by facsimile transmission or other electronic means.

- (5) The network operator must provide the Director with information on any major activity referred to in a notice or outline under this regulation if the Director so requests.

### **Division 2 — Provisions applicable in absence of accepted safety case**

#### **23. Application of Division**

This Division applies to a network operator unless an accepted safety case has effect in relation to the distribution system of the network operator.

#### **24. Obligatory standards and codes**

- (1) A network operator must ensure that a prescribed activity is carried out in such a way as to comply with any provision of a standard or code specified in Schedule 2 that is expressed in mandatory terms.
- (2) If the Director is satisfied that the purpose of any provision described in subregulation (1) would be achieved at least as effectively if an alternative provision were complied with, the Director may give approval in writing to compliance with the alternative provision.
- (3) Subregulation (1) does not apply, when there is a failure to comply with a provision described in that subregulation, to the extent that an alternative provision is complied with in accordance with an approval under subregulation (2).
- (4) Compliance with a provision described in subregulation (1) or with an alternative provision in accordance with an approval under subregulation (2) is evidence of compliance with regulation 18 in so far as the scope of the prescribed activity is covered by the standard or code or the alternative provision, as the case may be.

**25. Information and training**

- (1) A network operator must ensure, so far as is reasonable and practicable, that any employee engaged in carrying out a prescribed activity —
  - (a) is provided with documents setting out appropriate work standards, procedures and practices; and
  - (b) is given instruction and training, and tested for competency, in how to safely apply and use those standards, procedures and practices.
- (2) Work standards, procedures and practices are not appropriate for the purposes of subregulation (1) unless they are consistent with these regulations.

**26. Action when danger reported**

- (1) If a network operator becomes aware that —
  - (a) anything at a place where a prescribed activity is being carried out; or
  - (b) the condition of any part of a distribution system or former distribution system at any place,is a threat to the safety of any person or property, the network operator must investigate the matter as soon as is practicable.
- (2) If the investigation reveals that there is a threat to the safety of any person or property, the network operator must take such remedial action as is required to remove the threat as soon as is practicable.
- (3) In subregulation (1) —

***former distribution system*** means anything owned by the network operator that would be a distribution system if it were still utilised for a purpose for which it previously was, but no longer is, utilised.



### **Division 3 — Safety case provisions**

#### **27. Submission of safety case**

- (1) A network operator may submit a safety case to the Director for the distribution system of the network operator.
- (2) A safety case submitted under subregulation (1) is to comply with —
  - (a) AG 606 — 1997; and
  - (b) AS 2885.1 — 1997 if that standard applies to the distribution system concerned.

#### **28. Exemption**

- (1) The Director may, by instrument —
  - (a) exempt a network operator from compliance with a provision of a code or standard referred to in regulation 27(2) if the Director is satisfied that compliance with the provision would be inappropriate having regard to the size or complexity of the distribution system of the network operator; or
  - (b) at any time revoke an exemption.
- (2) The Director may —
  - (a) make the exemption subject to any condition; and
  - (b) impose any further condition or vary or revoke a condition at any time.

#### **29. Guidelines**

The Director may from time to time issue guidelines to assist in the preparation of a safety case.

#### **30. Nomination of person to perform auditing role**

- (1) Before submitting a safety case under regulation 27 a network operator must nominate to the Director a person who, in the opinion of the network operator, is —
  - (a) independent of the network operator; and

- (b) competent to perform the functions of a nominated auditor under this Division,  
and provide the Director with enough information to enable the Director to decide whether or not to accept the nomination.
- (2) The Director may issue guidelines as to —
  - (a) the qualifications for nomination under subregulation (1); and
  - (b) the information to be provided under that subregulation.
- (3) The Director may accept a nomination under subregulation (1) or reject it.
- (4) A nomination is to be regarded as having been accepted unless, within 10 working days after receiving the nomination, the Director notifies the network operator that the Director has decided to reject the nomination.
- (5) If the Director decides to reject a nomination, the network operator may make an alternative nomination to the Director in accordance with subregulation (1).
- (6) Notification under subregulation (4) is to be in writing and is to give reasons for the Director's decision.

**31. Preliminary certification of safety case**

- (1) A safety case submitted under regulation 27 is to be accompanied by a certificate signed by the nominated auditor certifying that —
  - (a) the safety case complies with the requirements of this Division;
  - (b) the safety case is appropriate having regard to the size and complexity of the distribution system and the possible risks;

- (c) the safety case adequately identifies the measures necessary —
    - (i) to prevent hazardous events identified in the safety case from occurring; and
    - (ii) to protect consumers, the public, employees, plant, equipment and the environment, should such events occur;
  - (d) the safety case adequately identifies the training and equipment requirements necessary for personnel to be able to implement the various procedures set out in it; and
  - (e) the network operator has in place a plan (the *implementation plan*) for —
    - (i) implementing the measures referred to in paragraph (c); and
    - (ii) meeting the requirements referred to in paragraph (d).
- (2) The certificate is to —
- (a) include a summary of the procedures, standards, tests, inspections and maintenance measures contained in the safety case; and
  - (b) specify the estimated time for completion of the matters covered by the implementation plan.

**32. Approval of safety case for purposes of final certification**

- (1) The Director must assess any safety case submitted in accordance with this Division.
- (2) Following an assessment under subregulation (1), the Director may approve the safety case for the purposes of certification under regulation 33(1) or refuse approval, and is to notify the network operator in writing of the decision.

- (3) If the Director has not given notification under subregulation (2) within 20 working days after receiving the safety case (and the accompanying certificate), the safety case is to be regarded as having been approved for the purposes of certification under regulation 33(1).
- (4) Notification under subregulation (2) of a refusal to approve the safety case is to give —
  - (a) reasons for the refusal; and
  - (b) guidance as to the changes needed to make the safety case acceptable.
- (5) If the Director refuses to approve the safety case, the network operator may review and amend the safety case and submit it to the Director again in accordance with this Division.

**33. Final certification of safety case**

- (1) If a safety case is approved, or regarded as having been approved, under regulation 32, the network operator may, within such period as the Director allows having regard to the time specified under regulation 31(2)(b), submit to the Director a certificate signed by the nominated auditor certifying that —
  - (a) the measures referred to in regulation 31(1)(c) have been implemented; and
  - (b) the requirements referred to in regulation 31(1)(d) have been met.
- (2) The certificate is to specify the day on which the network operator proposes to implement the safety case if it is accepted under regulation 34(1).

**34. Acceptance or rejection of safety case**

- (1) On receipt of a certificate under regulation 33(1), the Director may accept the safety case or reject it, and is to notify the network operator in writing of the decision.

- (2) The Director may only reject the safety case if the Director is satisfied that —
- (a) the measures referred to in regulation 31(1)(c) have not been implemented; or
  - (b) the requirements referred to in regulation 31(1)(d) have not been met.
- (3) If the Director has not given notification under subregulation (1) within 14 working days after receiving the certificate, the safety case is to be regarded as having been accepted.
- (4) Notification under subregulation (1) of the rejection of the safety case is to give reasons for the rejection and specify the measures to be taken or requirements to be met to make the safety case acceptable.
- (5) If the Director rejects a safety case, the network operator may submit to the Director a certificate signed by the nominated auditor certifying that —
- (a) measures specified in the notification under subregulation (1) have been taken; or
  - (b) requirements specified in that notification have been met,

and this regulation applies, with all necessary changes, as if the certificate were a certificate under regulation 33(1).

**35. Implementation of safety case**

- (1) The acceptance of a safety case ceases to have effect for the purposes of these regulations if the network operator has not implemented it within 6 months after —
- (a) notification of its acceptance is received under regulation 34(1); or
  - (b) it is regarded as having been accepted under regulation 34(3),

as the case may be.

- (2) The network operator must notify the Director of the day on which the safety case is to be implemented not less than 7 days before that day.
- (3) Notification under subregulation (2) is to be in writing.

**36. Period of operation of accepted safety case**

Subject to regulation 40(5), an accepted safety case has effect in relation to a distribution system for the period of 5 years beginning on implementation day.

**37. Compliance with accepted safety case**

If an accepted safety case has effect in relation to a distribution system, the network operator must ensure that a prescribed activity is carried out in such a way as to comply with —

- (a) any practice or procedure set out in the accepted safety case; and
- (b) any provision of a code, standard or specification compliance with which is required under the accepted safety case.

**38. Periodical audit**

- (1) A network operator must, within one month after the end of each auditing period, lodge with the Director in respect of an accepted safety case a report by a person appointed by the network operator —
  - (a) certifying that —
    - (i) the measures referred to in regulation 31(1)(c) are still in place; and
    - (ii) there continue to be properly trained and equipped personnel available to implement the various procedures set out in the accepted safety case;
  - (b) reviewing the accepted safety case for its adequacy and appropriateness having regard to any changes in the

distribution system since a report was last lodged under this subregulation; and

- (c) making recommendations as to the amendments (if any) required to the accepted safety case.
- (2) The person appointed for the purposes of subregulation (1) is to be a person who, in the opinion of the network operator, is suitably qualified to provide an independent and objective report, but nothing in this subregulation prevents the appointment of an employee of the network operator.
- (3) In subregulation (1) —  
*auditing period* means —
  - (a) if a report is being lodged under subregulation (1) for the first time in respect of the accepted safety case, a period of 12 months commencing on implementation day; or
  - (b) otherwise, a period of 12 months, or such further period as the Director allows, commencing on the day on which a report was last lodged under subregulation (1) in respect of the accepted safety case.

**39. Amendment of accepted safety case**

- (1) A network operator may submit amendments to an accepted safety case to the Director for approval.
- (2) If a report under regulation 38 recommends amendments to an accepted safety case, the network operator must submit amendments consistent with those recommendations to the Director for approval.
- (3) The Director may approve or refuse to approve amendments submitted under subregulation (1) or (2), and is to notify the network operator in writing of the decision.
- (4) Notification under subregulation (3) of a refusal to approve amendments is to give reasons for the refusal and guidance as to any changes needed to make the amendments acceptable.

**40. Director may require amendment of accepted safety case**

- (1) If the Director is satisfied that an accepted safety case will no longer produce a safe outcome, the Director may, by notice in writing, require the network operator to make specified amendments to the accepted safety case within a specified period.
- (2) A network operator must comply with a requirement under subregulation (1) within the specified period.
- (3) If a network operator contravenes subregulation (2), the Director may, by notice in writing, suspend the operation of the accepted safety case with effect from the specified day until the relevant requirement is complied with.
- (4) Before giving notice under subregulation (3), the Director is to give the network operator a reasonable opportunity to make submissions in relation to the day to be specified in the notice for the purposes of that subregulation.
- (5) An accepted safety case does not have effect for the period of any suspension under subregulation (3).
- (6) In subregulations (1), (2) and (3) —  
*specified* means specified in the notice concerned.

**41. Records**

- (1) A network operator must establish and maintain a system for keeping records required to be kept under subregulation (2) in relation to an accepted safety case.
- (2) The records required to be kept are copies of —
  - (a) the accepted safety case;
  - (b) any amendment of the accepted safety case;
  - (c) the certificates under regulations 31(1) and 33(1) and under regulation 34(5) (if any);



- (d) each report in respect of the accepted safety case under regulation 38; and
  - (e) each notification and each report given by the network operator to the Director as required by Division 4.
- (3) The network operator must ensure that the records are kept —
- (a) at the address nominated by the network operator in the accepted safety case;
  - (b) in a manner that makes their retrieval reasonably practicable; and
  - (c) in a secure manner.
- (4) The network operator must ensure that each of the records is kept for a period of 5 years after its creation.

#### **Division 4 — Notification, investigation and reporting of incidents**

#### **42. Terms used in this Division**

In this Division —

***gas incident*** means an incident or event in, on or associated with a distribution system, other than a notifiable incident, that —

- (a) materially affects or is likely to materially affect the supply of gas; or
- (b) is caused by gas;

***major discharge*** means —

- (a) the unplanned and uncontrolled release inside a building of 10 cubic metres or more of gas; or
- (b) the unplanned and uncontrolled release in the open air of 1 000 cubic metres or more of gas;

***notifiable incident*** means an incident, event or other thing of which the Director requires notification under regulation 43;

***private property*** means property that does not belong to —

- (a) a network operator; or
- (b) a contractor or subcontractor to a network operator;

*serious damage* means —

- (a) damage to private property if the value of the damage is likely to exceed \$1 000 in total; or
- (b) damage to a distribution system, or to property belonging to the network operator or a contractor or subcontractor to the network operator, if the value of the damage is likely to exceed \$10 000 in total;

*serious injury* means an injury that is fatal or requires the victim to be admitted to hospital whether for assessment, monitoring or treatment.

[Regulation 42 amended in Gazette 5 Sep 2000 p. 5053.]

**43. Notifiable incidents**

- (1) A network operator must notify the Director of —
  - (a) any fire, explosion, or major discharge of flammable gas, in, on or from the distribution system;
  - (b) any incident or event that is caused, or significantly contributed to, by gas and that results in —
    - (i) serious injury; or
    - (ii) serious damage;or
  - (c) any unplanned interruption to the supply of gas from the distribution system to —
    - (i) any consumer whose annual gas consumption usually exceeds, or can reasonably be expected to exceed, 50 terajoules; or
    - (ii) at least 100 other consumers.
- (2) Notification under subregulation (1)(b)(i) is to be given by telephone immediately after the network operator becomes aware that serious injury has occurred.

- (3) In any other case notification is to be given in a form acceptable to the Director within 24 hours after the network operator becomes aware of the occurrence of the notifiable incident.

**44. Network operator to investigate and report on notifiable incidents**

- (1) If a notifiable incident occurs, then, subject to subregulation (2), the network operator must —
- (a) investigate the incident; and
  - (b) prepare a written report on the outcome of the investigation in a form acceptable to the Director.
- (2) Subregulation (1) does not apply in relation to —
- (a) a major discharge of flammable gas coming within paragraph (b) of the definition of “major discharge” in regulation 42 unless the quantity of gas released is 3 000 cubic metres or more; or
  - (b) an incident or event that results in serious damage unless —
    - (i) in the case of damage coming within paragraph (a) of the definition of “serious damage” in regulation 42, the value of the damage is likely to exceed \$5 000 in total; or
    - (ii) in the case of damage coming within paragraph (b) of that definition, the value of the damage is likely to exceed \$25 000 in total.
- (3) The network operator must give the report to the Director within 30 days after the day on which the notifiable incident occurred.

**45. Investigation of notifiable incidents by Director**

- (1) If the Director intends to investigate a notifiable incident, the Director must notify the network operator of that intention.
- (2) Notification under subregulation (1) is to —

- (a) include notification of any proposed examination of the site of the notifiable incident; and
  - (b) be given by telephone and confirmed in writing by facsimile transmission.
- (3) The Director must carry out the investigation as soon as is practicable after giving notification under subregulation (1).

**46. Examination of site of notifiable incident**

- (1) If a network operator is given notification as described in regulation 45(2)(a), the network operator must ensure that, so far as is practicable, the site of the notifiable incident is not disturbed in such a way as to prejudice the examination of the site except —
- (a) as authorised by or on behalf of the Director; or
  - (b) as is necessary to restore the supply of gas or to guard against the risk of personal injury, damage, or interruption to the supply of gas.
- (2) The Director must notify the network operator when the examination of the site has been completed.
- (3) Notification under subregulation (2) is to be given by telephone and is to be confirmed in writing by facsimile transmission.

**47. Reporting requirements for gas incidents**

- (1) As soon as is practicable after each quarter, or such other period as the Director allows, a network operator must give to the Director a report of gas incidents that have occurred in that quarter or period.
- (2) The report is to be in a summary form acceptable to the Director.

## **Part 5 — Gas plant safety**

### **48. Application**

This Part applies in relation to any gas plant constructed after the commencement of these regulations.

### **49. Plant operator to submit safety case**

- (1) A plant operator must submit a safety case to the Director for the gas plant of the plant operator.
- (2) A safety case submitted under subregulation (1) is to comply with Schedule 3.

### **50. Exemption**

- (1) The Director may, by instrument —
  - (a) exempt a plant operator from compliance with regulation 49(1) if the Director is satisfied that compliance with that subregulation would be inappropriate having regard to the size or complexity of the gas plant of the plant operator; and
  - (b) at any time revoke an exemption.
- (2) The Director may —
  - (a) make the exemption subject to any condition; and
  - (b) impose any further condition or vary or revoke a condition at any time.

### **51. Guidelines**

The Director may from time to time issue guidelines to assist in the preparation of a safety case.

### **52. Nomination of person to perform auditing role**

- (1) Before submitting a safety case under regulation 49 a plant operator must nominate to the Director a person who, in the opinion of the plant operator, is —
  - (a) independent of the plant operator; and

- (b) competent to perform the functions of a nominated auditor under this Part,  
and provide the Director with enough information to enable the Director to decide whether or not to accept the nomination.
- (2) The Director may issue guidelines as to —
  - (a) the qualifications for nomination under subregulation (1); and
  - (b) the information to be provided under that subregulation.
- (3) The Director may accept a nomination under subregulation (1) or reject it.
- (4) A nomination is to be regarded as having been accepted unless, within 10 working days after receiving the nomination, the Director notifies the plant operator that the Director has decided to reject the nomination.
- (5) If the Director decides to reject a nomination, the plant operator may make an alternative nomination to the Director in accordance with subregulation (1).
- (6) Notification under subregulation (4) is to be in writing and is to give reasons for the Director's decision.

**53. Certification of safety case**

- (1) A safety case submitted under regulation 49 is to be accompanied by a certificate signed by the nominated auditor certifying that —
  - (a) the safety case complies with Schedule 3;
  - (b) the safety case is appropriate having regard to the size and complexity of the gas plant and the possible risks;
  - (c) all measures intended —
    - (i) to prevent hazardous events identified in the safety case from occurring; and

- (ii) to protect consumers, the public, employees, plant, equipment and the environment, should such events occur,  
are in place; and
  - (d) there are properly trained and equipped personnel available to implement the various procedures set out in the safety case.
- (2) The certificate is to include a summary of the procedures, standards, tests, inspections and maintenance measures contained in the safety case.

**54. Acceptance or rejection of safety case**

- (1) The Director must assess a safety case submitted under regulation 49.
- (2) Following an assessment under subregulation (1), the Director may accept the safety case or reject it, and is to notify the plant operator in writing of the decision.
- (3) If the Director has not given notification under subregulation (2) within 20 working days after receiving the safety case (and the accompanying certificate), the safety case is to be regarded as having been accepted.
- (4) Notification under subregulation (2) of the rejection of the safety case is to give —
  - (a) reasons for the rejection; and
  - (b) guidance as to the changes needed to make it acceptable.

**55. Submission of modified safety case**

If the Director rejects a safety case, the plant operator must, within 28 days after receiving notification of its rejection under regulation 54(2) —

- (a) review and modify the safety case; and
- (b) submit the safety case again to the Director.

**56. Acceptance or rejection of modified safety case**

- (1) The Director must assess a safety case submitted under regulation 55.
- (2) Following an assessment under subregulation (1), the Director may accept the safety case or reject it, and is to notify the plant operator in writing of the decision.
- (3) If the Director has not given notification under subregulation (2) within 20 working days after receiving the safety case, the safety case is to be regarded as having been accepted.
- (4) Notification under subregulation (2) of the rejection of the safety case is to give reasons for the rejection.

**57. Director may determine safety case for gas plant**

- (1) The Director may determine the safety case (the *determined safety case*) that is to apply in respect of a gas plant if —
  - (a) the plant operator fails to submit a safety case under regulation 49 or 55; or
  - (b) the Director rejects a safety case submitted for the gas plant under regulation 55.
- (2) If the Director makes a determination under subregulation (1), the Director is to notify the plant operator in writing of the determination.
- (3) Notification under subregulation (2) is to set out the terms of the determined safety case.
- (4) On notification being given to the plant operator under subregulation (2), the determined safety case is to be regarded for the purposes of this Part as the accepted safety case for the gas plant.
- (5) Nothing in subregulation (4) prevents a plant operator submitting a safety case to the Director under this Part.



**58. When accepted safety case has effect**

Subject to regulation 63(5), an accepted safety case has effect in relation to a gas plant on and from —

- (a) the day on which notification of the acceptance of the safety case is given under regulation 54(2) or 56(2);
- (b) the day on which the safety case is to be regarded as having been accepted under regulation 54(3) or 56(3); or
- (c) the day on which notification is given under regulation 57(2),

as the case may be.

**59. Accepted safety case required for operation of gas plant**

- (1) A plant operator must not commission or operate a gas plant unless an accepted safety case has effect in relation to the gas plant.
- (2) Subregulation (1) does not apply if the plant operator holds an exemption under regulation 50 and complies with the conditions of the exemption (if any).

**60. Compliance with accepted safety case**

- (1) In this regulation —  
*prescribed activity* means anything related to the conveyance, control, supply or use of gas done by, for, or with the authority of, a plant operator in the course of the construction, maintenance, repair or operation of any part of a gas plant.
- (2) If an accepted safety case has effect in relation to a gas plant, the plant operator must ensure that a prescribed activity is carried out in such a way as to comply with —
  - (a) any practice or procedure set out in the accepted safety case; and

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- (b) any provision of a code, standard or specification compliance with which is required under the accepted safety case.

**61. Periodical audit**

- (1) A plant operator must, within one month after the end of each auditing period, lodge with the Director in respect of an accepted safety case a report by a person appointed by the plant operator —
  - (a) certifying that —
    - (i) the measures referred to in regulation 53(1)(c) are still in place; and
    - (ii) there continue to be properly trained and equipped personnel available to implement the various procedures set out in the accepted safety case;
  - (b) reviewing the accepted safety case for its adequacy and appropriateness having regard to any changes in the gas plant since a report was last lodged under this subregulation; and
  - (c) making recommendations as to the amendments (if any) required to the accepted safety case.
- (2) The person appointed for the purposes of subregulation (1) is to be a person who, in the opinion of the plant operator, is suitably qualified to provide an independent and objective report, but nothing in this subregulation prevents the appointment of an employee of the plant operator.
- (3) In this regulation —  
***auditing period*** means —
  - (a) if a report is being lodged under subregulation (1) for the first time in respect of the accepted safety case, a period of 12 months commencing on the day on and from which the accepted safety case has effect under regulation 58; or

- (b) otherwise, a period of 12 months, or such further period as the Director allows, commencing on the day on which a report was last lodged under subregulation (1) in respect of the accepted safety case.

**62. Amendment of accepted safety case**

- (1) A plant operator may submit amendments to an accepted safety case to the Director for approval.
- (2) If a report under regulation 61 recommends amendments to an accepted safety case, the plant operator must submit amendments consistent with those recommendations to the Director for approval.
- (3) The Director may approve or refuse to approve amendments submitted under subregulation (1) or (2), and is to notify the plant operator in writing of the decision.
- (4) Notification under subregulation (3) of a refusal to approve amendments is to give reasons for the refusal and guidance as to any changes needed to make the amendments acceptable.

**63. Director may require amendment of accepted safety case**

- (1) If the Director is satisfied that an accepted safety case will no longer produce a safe outcome, the Director may, by notice in writing, require the plant operator to make specified amendments to the accepted safety case within a specified period.
- (2) A plant operator must comply with a requirement under subregulation (1) within the specified period.
- (3) If a plant operator contravenes subregulation (2), the Director may, by notice in writing, suspend the operation of the accepted safety case with effect from the specified day until the requirement is complied with.

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- (4) Before giving notice under subregulation (3), the Director is to give the plant operator a reasonable opportunity to make submissions in relation to the day to be specified in the notice for the purposes of that subregulation.
- (5) An accepted safety case does not have effect for the period of any suspension under subregulation (3).
- (6) In subregulations (1), (2) and (3) —  
*specified* means specified in the notice concerned.

**64. Records**

- (1) A plant operator must establish and maintain a system for keeping records required to be kept under subregulation (2) in relation to an accepted safety case.
- (2) The records required to be kept are copies of —
  - (a) the accepted safety case;
  - (b) any amendment of the accepted safety case;
  - (c) the certificate under regulation 53(1); and
  - (d) each report in respect of the accepted safety case under regulation 61.
- (3) The plant operator must ensure that the records are kept —
  - (a) at the address nominated by the plant operator in the accepted safety case;
  - (b) in a manner that makes their retrieval reasonably practicable; and
  - (c) in a secure manner.
- (4) The plant operator must ensure that each of the records is kept for a period of 5 years after its creation.

## Part 6 — Review of decisions

### 65. Terms used in this Part

In this Part —

*application for review* means an application made under regulation 67(1);

*review panel* means a panel mentioned in regulation 68.

### 66. Decisions to which this Part applies

This Part applies to a decision of the Director —

- (a) to refuse approval under regulation 17(1); or
- (aa) to request that a management plan be amended under regulation 17E(1); or
- (ab) to refuse to approve a management plan under regulation 17E(5); or
- (ac) to request that an amendment or replacement be amended under regulation 17F(3); or
- (ad) to refuse to approve an amendment or replacement under regulation 17F(3); or
- (ae) to refuse to approve an amendment or replacement under regulation 17F(7); or
- (af) to direct a network operator or pipeline operator to amend an approved plan under regulation 17G(2); or
- (b) to refuse approval of a standard or code submitted under regulation 19(2); or
- (c) to refuse to grant an exemption under regulation 28(1) or 50(1); or
- (d) to revoke an exemption under regulation 28(1) or 50(1); or
- (e) to impose, vary or revoke a condition under regulation 28(2) or 50(2); or
- (f) to reject a nomination under regulation 30(3) or 52(3); or

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- (g) to refuse approval of a safety case under regulation 32(2); or
- (h) to reject a safety case under regulation 34(1) or 56(2); or
- (i) to refuse approval of an amendment submitted under regulation 39(1) or (2) or 62(1) or (2); or
- (j) to impose a requirement under regulation 40(1) or 63(1).

*[Regulation 66 amended in Gazette 4 Jan 2008 p. 14.]*

**67. Application for review**

- (1) A person who is aggrieved by a decision to which this Part applies may apply in writing to the Director for a review of the decision.
- (2) An application for review is to be made within 14 days after the applicant receives notice of the decision or within such further period as the Director in a particular case allows.

**68. Review panel**

The Director may convene a panel of 3 independent professional engineers to advise the Director in relation to an application for review.

**69. Procedure on review**

- (1) The Director must give the applicant a reasonable opportunity to make submissions in relation to the application for review.
- (2) The operation of a decision is not affected by an application for review unless, on application made by the applicant, the Director determines otherwise.
- (3) The Director, after considering submissions (if any) made under subregulation (1) and, if a review panel is convened, the recommendations (if any) made by the panel, may determine the application by —
  - (a) confirming the decision;
  - (b) varying the decision; or

- (c) reversing the decision,  
and the determination of the Director is final.
- (4) The Director must give written notice of his or her determination to the applicant.
- (5) If a review panel is convened, the notice under subregulation (4) is to set out the recommendations (if any) made by the panel.
- (6) The Director may publicise his or her determination in such manner as the Director thinks fit.

**70. Costs**

- (1) If the Director confirms the decision under regulation 69(3)(a), the applicant is liable to pay the reasonable costs of the review.
- (2) Any costs payable by the applicant under subregulation (1) are recoverable by the Director in a court of competent jurisdiction as a debt due to the State.

*[Part 7 (r. 71) omitted under the Reprints Act 1984 s. 7(4)(f).]*

**Schedule 1 — Standards and codes containing provisions compliance with which may be evidence**

[r. 19(1)]

*Utility Providers Code of Practice for Western Australia* produced by the Utility Providers Services Committee

*Manual of Practice for Provision of Subdivision Services in the Perth Metropolitan Region* published by the Urban Development Institute of Australia

*Railways of Australia Code for the Installation of Other Parties' Services & Pipelines within Railway Boundaries*

*Planning of gas distribution systems operating at pressures not exceeding 7 bar (IGE/GLI)* published by the Institution of Gas Engineers

*Recommendations on transmission and distribution practice, Distribution mains (IGE/TD/3)* published by the Institution of Gas Engineers

*Venting of natural gas (IGE/SR/23)* published by the Institution of Gas Engineers

AS/NZS 1020 *The control of undesirable static electricity*

AS 2832.1 — 1989 *Guide to the cathodic protection of metals*

AG 503 — 1976 *Code of Recommended Practice for Corrosion Control in Buried and Submerged Steel Piping Systems*

[Schedule 1 amended in Gazette 3 August 2001 p. 3969.]



**Schedule 2 — Standards and codes containing obligatory provisions for network operators**

[r. 24(1)]

AS 1596 — 1997	<i>LP Gas — Storage and handling</i>
AS 1697 — 1981	<i>SAA Gas Pipeline Code</i>
AS 2430.1 — 1991	<i>Classification of hazardous areas, Part 1 Explosive Gas Atmospheres</i>
AS 2430.3 — 1991	<i>Classification of hazardous areas, Part 3</i>
AS 2885.1 — 1997	<i>Pipelines — Gas and liquid petroleum, Part 1: Design and Construction</i>
AS 2885.2 — 1995	<i>Pipelines — Gas and liquid petroleum, Part 2: Welding</i>
AS 2885.3 — 1997	<i>Pipelines — Gas and liquid petroleum, Part 3: Operations and Maintenance</i>
AS 3723 — 1989	<i>Installation and maintenance of plastic pipe systems for gas</i>
AG 603 — 1978	<i>Gas Distribution Code</i>

## **Schedule 3 — Requirements for gas plant safety case**

[r. 49(2)]

### **Part 1 — Preliminary**

#### **1. Term used in this Schedule**

In this Schedule —

**gas incident** means any incident or event relating to the conveyance, control, supply or use of gas that causes or has the potential to cause —

- (a) the death of or injury to a person;
- (b) significant damage to property; or
- (c) an explosion.

#### **2. Performance standards**

If this Schedule requires a safety case to specify a performance standard in relation to an activity, that standard must be one that specifies —

- (a) who is responsible for carrying out the activity;
- (b) what has to be done in the performance of the activity;
- (c) when the activity has to be performed; and
- (d) the expected outcome of the activity.

### **Part 2 — Content of safety case**

#### **3. Person responsible for operation of gas plant**

A safety case must specify the title of the position, and the business address, of —

- (a) a person who has management or control of the gas plant; and
- (b) a person who has general responsibility for the safe operation of the gas plant.

**4. Person responsible for safety case**

A safety case —

- (a) must specify the title of the position of a person who is responsible for preparation and submission of the safety case; and
- (b) may specify the titles of the positions of any other persons who are responsible for or contributed to the preparation and submission of any part of the safety case.

**5. Plant description**

- (1) A safety case must contain a plant description.
- (2) The plant description must provide a description of the structure, assets, function and operation of the gas plant to which the safety case relates.
- (3) The plant description must provide sufficient information (including plans and diagrams showing the layout and nature of the gas plant) to enable —
  - (a) the extent and scope of the assets and operations of the plant operator in relation to the gas plant; and
  - (b) the risks associated with those assets and operations,to be assessed.

**6. Formal safety assessment**

- (1) A safety case must contain a formal safety assessment for the gas plant.
- (2) The formal safety assessment must be consistent with the plant description and must provide —
  - (a) a description of the methodology used and investigations undertaken for the formal safety assessment;
  - (b) an identification of all hazards having the potential to cause a gas incident;
  - (c) a detailed and systematic assessment of risk, including the likelihood and consequences of a gas incident; and

- (d) a description of technical and other measures undertaken, or to be undertaken, to reduce that risk as far as is practicable.
- (3) The formal safety assessment must include copies of any reports arising from the studies and investigations undertaken for the purposes of the formal safety assessment.

**7. Safety management system**

A safety case must specify, in accordance with Part 3, the safety management system followed or to be followed in relation to the gas plant.

**8. Reporting of gas incidents**

A safety case must specify the procedures to be followed by the plant operator for the reporting of gas incidents in relation to the gas plant.

**9. Address where records kept**

A safety case must specify the address at which all records relating to the safety case are to be kept.

**Part 3 — Content of safety management system**

**10. Safety policy**

A safety management system must specify —

- (a) the plant operator's safety policy;
- (b) the title of the position of the person responsible for determining the safety policy; and
- (c) the means by which the safety policy is or is to be communicated to all persons required to implement the policy.

**11. Organisational structure and responsibilities**

A safety management system must specify the titles of the positions and the duties of the persons responsible for the implementation of the safety policy.

**12. Published codes, standards and specifications**

A safety management system must specify all published technical codes, standards or specifications applied to or used or to be used in the design, construction, installation and operation of the gas plant.

**13. Means of ensuring adequacy of design, construction etc.**

A safety management system must specify the means used or to be used by the plant operator to ensure that the design, construction, installation, operation and maintenance of the gas plant and any modification of the gas plant —

- (a) are adequate for the safety and safe operation of the gas plant;
- (b) provide adequate means of achieving isolation of the gas plant or any part of the gas plant in the event of an emergency;
- (c) provide adequate means of gaining access for servicing and maintenance of the gas plant and machinery and other equipment;
- (d) provide adequate means of maintaining the structure and operation of the gas plant; and
- (e) take into account the results of the formal safety assessment for the gas plant.

**14. Control systems**

- (1) A safety management system must specify the control systems to be used for the gas plant including —
  - (a) alarm systems;
  - (b) fire and gas detection and protection systems;
  - (c) temperature and pressure control systems; and
  - (d) emergency shut-down systems.
- (2) The control systems specified must be adequate for the normal operation of the gas plant and for any reasonably foreseeable emergency.

**15. Machinery and equipment**

A safety management system must, where relevant specify —

- (a) the critical equipment (including process equipment, machinery and electrical and instrumentation systems) that relates to, or may affect, the safety of the gas plant; and
- (b) the systems in place to ensure that the equipment is fit for the purpose —
  - (i) for which it is used in normal operating conditions; and
  - (ii) to the extent that it is intended to function, or be used, in an emergency.

**16. Emergency preparedness**

- (1) A safety management system must specify a response plan designed to address all reasonably foreseeable gas related emergencies that have been identified through the formal safety assessment.
- (2) The response plan must —
  - (a) ensure the safety of the public; and
  - (b) specify the performance standards to be used to ensure the continued safe operation and structural safety of the gas plant.

**17. Emergency communications systems**

- (1) A safety management system must specify communications systems that, in the event of an emergency, are adequate for communication —
  - (a) within the gas plant; and
  - (b) with the relevant fire authorities and emergency service authorities.
- (2) In particular, a safety management system must provide for the communications systems to be —
  - (a) adequate to handle —
    - (i) a likely emergency in, or relating to, the gas plant; and
    - (ii) the normal operational requirements of the gas plant; and

- (b) protected so as to be capable of operation in an emergency to the extent specified by the formal safety assessment for the gas plant.

**18. Internal monitoring, auditing and reviewing**

- (1) A safety management system must specify the work practices or processes to be used by the plant operator for monitoring, auditing and reviewing the implementation of the safety policies, objectives, procedures and performance standards specified in the safety management system.
- (2) A safety management system must specify the procedures to be used to ensure the ongoing effectiveness of the work practices or processes specified under subclause (1) being procedures that enable —
  - (a) regular and systematic identification of deficiencies in those work practices or processes; and
  - (b) regular and systematic improvement of those work practices or processes.

**19. Gas incident recording, reporting and investigation**

A safety management system must specify —

- (a) the performance standards to be used for recording and investigating gas incidents; and
- (b) the management systems to be used for reviewing and taking action on the information so recorded or arising from those investigations.

**20. Training**

- (1) A safety management system must specify the work and staffing systems to be used in relation to the gas plant to ensure, as far as is practicable, that —
  - (a) each area of safety critical work in relation to the gas plant is assessed to identify the minimum skills, knowledge and experience requirements for a person assigned to carry out that work;
  - (b) only persons with the skills, knowledge and experience appropriate to an area of safety critical work are assigned to carry out that work; and

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(c) any training necessary for persons assigned to carry out safety critical work is provided.

(2) In subclause (1) —

**safety critical work** means anything related to the conveyance, control, supply or use of gas that —

(a) is done by, for, or with the authority of, a plant operator in the course of the construction, maintenance, repair or operation of any part of a gas plant; and

(b) may affect the safety of the gas plant.



## **Schedule 4 — Sub-networks**

[r. 17A]

*[Heading inserted in Gazette 4 Jan 2008 p. 15.]*

Each of the following parts of the distribution system the subject of distribution licence GDL 8 under the *Energy Coordination Act 1994* is a sub-network —

- (a) Geraldton (Nangetty Road);
- (b) Eneabba;
- (c) Muchea;
- (d) Ellenbrook;
- (e) Metro North;
- (f) Metro South;
- (g) Barter Road, Naval Base;
- (h) Rockingham;
- (i) Pinjarra;
- (j) Oakley Road (Pinjarra);
- (k) Harvey;
- (l) Kemerton;
- (m) Clifton Road, Bunbury.

*[Schedule 4 inserted in Gazette 4 Jan 2008 p. 15.]*

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**Notes**

<sup>1</sup> This reprint is a compilation as at 11 April 2008 of the *Gas Standards (Gas Supply and System Safety) Regulations 2000* and includes the amendments made by the other written laws referred to in the following table. The table also contains information about any reprint.

**Compilation table**

<b>Citation</b>	<b>Gazettal</b>	<b>Commencement</b>
<i>Gas Standards (Gas Supply and System Safety) Regulations 2000</i>	4 Jul 2000 p. 3475-540	1 Aug 2000 (see r. 2)
<i>Gas Standards (Gas Supply and System Safety) Amendment Regulations 2000</i>	5 Sep 2000 p. 5053	5 Sep 2000
<i>Gas Standards (Gas Supply and System Safety) Amendment Regulations 2001</i>	3 Aug 2001 p. 3969	3 Aug 2001
<i>Gas Standards (Gas Supply and System Safety) Amendment Regulations 2007</i>	4 Jan 2008 p. 3-15	r. 1 and 2: 4 Jan 2008 (see r. 2(a)); Regulations other than r. 1 and 2: 5 Jan 2008 (see r. 2(b))

**Reprint 1: The *Gas Standards (Gas Supply and System Safety) Regulations 2000* as at 11 Apr 2008** (includes amendments listed above)

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## Defined Terms

*[This is a list of terms defined and the provisions where they are defined.  
The list is not part of the law.]*

<b>Defined Term</b>	<b>Provision(s)</b>
accepted safety case .....	3(1)
AG.....	3(1)
application for review .....	65
approved plan.....	17A
AS .....	3(1)
AS/NZS.....	3(1)
auditing period .....	38(3), 61(3)
badged capacity.....	3(1)
commencement .....	14
corporation .....	17A
cubic metre.....	3(1)
determined heating value .....	17A
determined safety case .....	57(1)
distribution system.....	3(1)
emergency .....	17A
employee.....	3(1)
existing operator.....	17D(1)
flow weighted average higher heating value.....	17A
former distribution system .....	26(3)
FWAHHV .....	17A
gas day .....	17A
gas incident .....	42, Sch. 3 cl. 1
gas operations.....	17D(1)
gas plant .....	3(1)
HHV zone .....	17A
higher heating value .....	3(1)
implementation day.....	3(1)
implementation period .....	17A
implementation plan.....	31(1)(e)
ISO .....	3(1)
leanest supplied higher heating value .....	17A
lower heating value .....	3(1)
LPG.....	3(1)
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