

LICENCE CONDITIONS FOR OPERATION OF A GAS DISTRIBUTION FACILITY

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DEFINITIONS

For the purpose of this licence and its conditions, any word or expression to which a meaning has been assigned in the Act and the Rules shall have the meaning so assigned, unless the context indicates otherwise.

In these licence conditions, the following expressions shall have the following meanings:-

“Act” means the Gas Pipelines Act, 2003 (Act No. 60 of 2003) and includes Regulations;

“Regulations” means the Piped-Gas Regulations made in terms of section 34(1) of the Act.
Piped Gas Regulations published under GN R321 in GG 29792 of 20 April 2007.

“Authorised person” means authorised person as defined in the Rules;

“Licensed activity” means the activity contemplated in condition 1 of these conditions;

“Regulations” means Regulations made in terms of sections 33(1) and 33(2) of the Act;

“Rules” means Rules made by the Energy Regulator in terms of section 33(3) of the Act;

“LNG” Liquid Natural Gas;

“SANS” South African National Standards; and

“ASME” American Society of Mechanical Engineers;

CHAPTER ONE: LICENSED ACTIVITY

1. Licensed Activity

The Energy Regulator grants the Licensee a licence to operate a gas distribution facility located in the Port of Richards Bay area of the Mhlathuze Local Municipality in the KwaZulu-Natal province, with the following specifications:

1.1 The specifications of the proposed pipeline are detailed in **Table 1** below:

Table 1: Specifications of the pipeline

Specifications of the distribution pipeline	
Type of pipeline	Distribution pipeline
Location including coordinates	Ports of Richards Bay
Design Capacity	
Pipeline Length (Seabed)	770 m (total)
Pipeline Inner Diameter	24 inch
Pipeline Outer Diameter	24 inch
Material composition	Carbon Steel
Maximum operating pressure	10 bar gauge
Maximum Design Pressure	15 bar gauge
Allocated area size and coordinates	Not Available
Material	Carbon n steel Grade X42 (min) to API 5L
Maximum operating pressure	10 barg
Minimum operating pressure	6 barg
Flow at maximum operating pressure	
Flow at minimum operating pressure	3 500 m3/h
Inlet Pressure	10 barg
Outlet Pressure	10 barg

1.2 The chemical and physical composition of the gas are outlined in **Table 2** below.

Table 2: Specifications and Properties of the Liquid Natural Gas

		<i>KH Limit Values</i>	
<i>Heating Value</i>		<i>Units</i>	<i>Value</i>

Lower heating value (LHV)	Min.	MJ/m ³ _N	30
Composition			
Methane number			72
Methane contents, CH ₄	Min.	Vol-%	70
	Max.		
Total Concentration of the Heavier Hydrocarbons than Butane (C ₄); i.e. Pentane (C ₅), Hexane (C ₆), Heptane (C ₇) etc.	Min.		
	Max.	Vol-%	1
Hydrogen sulphide, H ₂ S	Min.		
	Max.	Mg/m ³ _N	5
Total Sulphur	Min.		
	Max.	Mg/m ³ _N	30
Hydrogen, H ₂	Min.		
	Max.	Vol-%	3
Carbon dioxide	Min.		
	Max.	Vol-%	20
Water		Not allowed	
Water and Hydrocarbon condensates (before the Engine)		Not allowed	
Particles or Solids, and other Impurities			
Ammonia	Max.	Mg/m ³ _N	25
Total Fluorine Content	Max.	Mg/m ³ _N	5
Total Chlorine Content	Max.	Mg/m ³ _N	10
Particles or solids, content	Max.	Mg/m ³ _N	50
Particles or solids size	Max.	µm	5
Dust	Max.	g/m ³ _N	0.005
Tar	Max.	g/m ³ _N	0.5
Delivery Conditions			
Relative Humidity	Max.		80%

Gas inlet temperature	Min.	°C	5
Gas inlet temperature	Max.	°C	50
Fluctuations in gas pressure	Max.		%1.5 of gas press.
Gas pressure to gas regulating unit	Max.	bar (g)	6.0 - 9.0 bar
Max. Supply Pressure	Max.	bar (g)	10

- 1.3 The distribution operation licence is granted to the Licensee for the purpose of distribution of gas to the Powership.
- 1.4 The Licensee must carry out these activities in a manner consistent with the provisions of the Act.
- 1.5 The Licensee must commence with operation activities contemplated in paragraph 1.1 above within thirty six (36) months of the date of issue of the licence.
- 1.6 The Licensee may not assign this licence to another party.
- 1.7 The process flow layout is provided in **Annexure A: Schematic diagram**.
- 1.8 The layout area of the distribution facility is shown in **Annexure B: ArcGis Map**.
- 1.9 The Licensee must carry out the activities for which this licence is granted from date of issue of this licence.

2. Duration of Licence

- 2.1 The licence is valid for a period of twenty-five (25) years from the date of issue, unless revoked by NERSA in accordance with the provisions of the Act.
- 2.2 The Licensee may apply to have its licence renewed subject to the provision of the Act.

CHAPTER TWO: GENERAL CONDITIONS

3. General Conditions of Licence

Sections 21(1) (a), (b), (c), (q), (r), (t) and (u) of the Act are conditions of this licence.

4. Compliance with Conditions of Licence

The Licensee must at all times comply with the conditions of this licence, the Act and the Rules.

5. Compliance with Legislation, Operation Codes and Standards

5.1. The Licensee must comply with the applicable standards, legislations and codes relevant to the distribution, use and handling of the gas including those listed in **Annexure C: Legislation, Operation Codes and Standards**.

5.2. This licence is granted only in terms of the Act and for the activities specified and described in paragraph 1.1 above. This licence does not exempt the Licensee from compliance with any other legislation.

6. Amendment of Licence

6.1. This licence may only be amended in accordance with the Act and the Rules.

6.2. The Energy Regulator may temporarily change these licence conditions in an emergency.

7. Revocation of Licence

This licence may only be revoked in accordance with the Act and the Rules.

8. Changes in Details of the Licensee Particulars

- 8.1. The Licensee must, within thirty (30) days of changes in its control as contemplated in section 12(2) of the Competition Act, 1998 (Act No. 89 of 1998), notify the Energy Regulator of such changes.
- 8.2. The Licensee must, within fourteen (14) days of any change in its registered name, operating or trading name, registered address or other contact details, notify the Energy Regulator of such a change.

9. Changes to the Distribution Facility

- 9.1. Changes to the distribution facility in terms of the Act, may require an amendment or revocation of this licence, or a new licence, must not be effected until the Energy Regulator has amended or revoked this licence or issued a new licence.
- 9.2. Changes to the distribution facility must be made in accordance with applicable legislation, codes and standards, including those listed in **Annexure C: Legislation, Operation Codes and Standards.**

10. Maintenance and Interruption of Operations

- 10.1. The Licensee must maintain the distribution facility in a fully operational condition.
- 10.2. The Licensee must notify the Energy Regulator and the Licensee's affected customers and distributors at least forty-eight (48) hours prior to any:
 - (a) interruptions of or changes in normal operations; or
 - (b) maintenance or repair work that may adversely affect the delivery of gas.
- 10.3. Where delivery of gas is adversely affected as a result of an emergency, the licensee must notify the Energy Regulator as soon as possible or within seven (7) days of the emergency.

10.4. Any maintenance or repair work done to the distribution facility must be done in accordance with applicable legislation, codes and standards, including those listed in **Annexure C: Legislation, Operation Codes and Standards**.

11. Correspondence with the Energy Regulator

11.1. All official communication with the Energy Regulator must be in writing and must be addressed to the Chief Executive Officer and copied to the Regulator Member Primarily Responsible for Piped Gas Regulation.

11.2. The Licensee must, in all correspondence with the Energy Regulator, quote the licence number as it appears on the licence certificate.

CHAPTER THREE: SPECIFIC CONDITIONS

12. Participation of Historically Disadvantaged South Africans

The Licensee must:

- 12.1. comply with the Regulations regarding mechanisms to promote Historically Disadvantaged South Africans ('HDSAs'); and
- 12.2. on an annual basis and at the time of the anniversary of the date of issue of this licence, lodge with the Energy Regulator information regarding the participation of HDSAs in its activities, as prescribed in the Regulations.

13. Regulatory Reporting

The Licensee must comply with the Energy Regulator's Regulatory Reporting Manuals published under GN 1118 in *Government Gazette* No. 31392 of 10 September 2008, which may be amended by the Energy Regulator from time to time.

14. Entry, Inspection and Gathering of Information

The Licensee must, in a manner prescribed by the Rules, permit any authorised person to enter and inspect any property on which the licensed activity is taking place.

15. Transaction recording and Regulator Financial Reporting

- 15.1. The Licensee must comply with the Energy Regulator's Regulatory Reporting Manuals (RRM) published under GN 1118 in *Government Gazette* No. 31392 of 10 September 2008, which may be amended by the Energy Regulator from time to time.
- 15.2. The Licensee must keep detailed records of all gas distributions and agreements entered into.

15.3. The Licensee must maintain separate accounts for its operation of a gas distribution activities and compile gas distribution data separately from any other accounts or data collection. These separately maintained accounts must be prepared in accordance with the Regulator Reporting Manuals as prescribed by NERSA.

15.4. The Licensee must comply with the requirements on Regulator Financial Reporting as prescribed by NERSA in the Regulatory Reporting Manuals.

16. Monitoring and Provision of Information

16.1. The Licensee must keep all records relating to the compliance or non-compliance with the conditions of this licence. Such records shall be made available to NERSA within fourteen (14) days of receipt of a written request for such records.

16.2. The Licensee must provide NERSA with reports indicating the progress made in terms of executing the licensed activities, every three (3) months, from the date of issue of the licence.

16.3. The Licensee must furnish NERSA with any information in such form and manner and at such times as NERSA may require in the performance of its duties or functions under the Act and the Agreement.

16.4. The Licensee must provide NERSA with entails of any changes to the Licensee's health, safety and emergency plans. Details of changes to these plans must be submitted to the Energy Regulator within three calendar months of such changes being effected.

17. Operation and Maintenance Plans of the Distribution Facility

- 17.1. The Licensee must operate, maintain, decommission, recommission or abandon the distribution facility in accordance with the relevant and applicable standards and codes including those listed in **Annexure C**.
- 17.2. The Licensee must upon commencement of this licence develop, maintain and submit the following management plans to the Energy Regulator in accordance with the applicable and relevant standards, codes and legislation including those listed in **Annexure C**:
- (a) An operating and maintenance plan;
 - (b) An emergency plan; and
 - (c) A decommissioning plan, where applicable.
- 17.3. The plans contemplated in 17.2 above form part of the licence conditions of this licence.
- 17.4. The Licensee must submit the management plans contemplated in 17.2 (a) and (b) above to NERSA within three months (3) from the date of issue of this licence.
- 17.5. In the event of amendments to or change in the requirements of the standards and codes listed in **Annexure C**, the Licensee must submit the consequent amendments or changes to the plans mentioned in 17.2 above to NERSA within three (3) months of such amendments or changes in the requirements of the standards and codes.
- 17.6. The Licensee must submit the procedures for decommissioning, re-commissioning or abandonment to NERSA prior to commencement of such activities. Once those procedures are submitted to NERSA, they will become conditions of this licence.

18. Maintenance and Interruption of operations

18.1. The Licensee must notify the Energy Regulator and its affected customers of any planned or unplanned:

- (a) Interruptions in the supply or delivery of gas; and
- (b) Maintenance and repair work that may affect the supply or delivery of gas.

18.2. Notifications of all planned interruptions or maintenance and repair work that may affect the supply or delivery of gas to customers must be provided in writing to both the Energy Regulator and the affected customers at least three days in advance of the planned interruption or maintenance and repair work.

18.3. Any maintenance or repair work to the licensed activity must be done in accordance with the standards listed in **Annexure C** hereto.

19. Non-discrimination

The Licensee may not discriminate between customers or classes of customers regarding access to gas distribution facilities, tariffs, prices,

20. Emergency Plan

The Licensee must annually submit to the Energy Regulator:

20.1. an emergency plan for implementation in the event of system failures, accidents and other emergencies; and

20.2. proof that it has:

- (a) trained its operating and maintenance employees with regard to the applicable portions of the plan; and

- (b) established liaison with the appropriate emergency response officials with respect to the plan.

21. Rehabilitation of Land

21.1. The Licensee must comply with the Regulations regarding the rehabilitation of land on which the licensed activity is taking place.

21.2. Within three (3) months of the date of issue of this licence, the Licensee must:

- (a) submit to the Energy Regulator an estimate of the costs of rehabilitating land used in connection with the licensed activity;
- (b) submit an explanation of the basis for that estimate;
- (c) submit to the Energy Regulator, for approval, its proposed mechanism to provide financial security for the purposes of rehabilitating land used in connection with the licensed activity;
- (d) submit a short explanation of how that mechanism will work and what measures will exist to prevent such financial security from being used for other purposes;
- (e) submit a funding plan for that financial security for purposes of rehabilitating land used in connection with its licensed activity; and
- (f) submit the date on which it expects to draw down such financial security.

21.3. Thereafter, the Licensee must submit any information related to financial security for the rehabilitation of land used in connection with its licensed activity, whenever requested to do so by the Energy Regulator.

21.4. The Licensee must obtain from the Energy Regulator written approval to terminate that financial security mechanism before terminating that financial security mechanism.

22. Ancillary Obligations

The Licensee is responsible for compliance with these licence conditions regarding any work on the distribution facility or services that are the subject of this licence and/or that are subcontracted to other parties.

23. Whole Licence

This licence constitutes the entire licence and supersedes any prior understandings and agreements between the Licensee and the Energy Regulator.

Annexure A: Gas Distribution Facility Flow Diagrams

Annexure B: ArcGIS Map

Annexure C: Legislation, Codes and Standards

1. The Licensee must comply with all relevant codes and standards including but not limited to the following:

1.1. Standards & Codes

- (a) **ASME B16.5 – 2017** Pipe Flanges and Flanged Fittings: NPS 1/2 through NPS 24 Metric/Inch.
- (b) **ASME B16.9 – 2018** Factory-Made Wrought Buttwelding Fittings.
- (c) **ASME B31.1 – 2020** Power Piping [for application of ASME B31E].
- (d) **ASME B31E – 2008** Standard for the Seismic Design and Retrofit of Above-Ground Piping Systems.
- (e) **ASME B31.3 – 2018** Process Piping.
- (f) **ASME B31.8 – 2018** Gas Transmission and Distribution Piping Systems.
- (g) **ASME B36.10M – 2018** Welded and Seamless Wrought Steel Pipe.
- (h) **ASME B16.25 –** Butt welding Ends.
- (i) **ASME B16.11 –** Forged Fittings, Socket-welding and threaded.
- (j) **ASME VIII –** Rules for Construction of Pressure Vessels.
- (k) **API 1104 –** Welding of pipelines and related facilities.
- (l) **API RP520 –** Sizing, Selection and installation of pressure relieving devices in refineries: Part I – Sizing and selection.
- (m) **API RP 2201 –** Safe Hot Tapping Practices in the Petroleum and Petrochemical Industries.
- (n) **API RP521 –** Guide for pressure relieving and depressurising systems;
- (o) **API 6D –** Pipeline valves.
- (p) **ASTM A106 / A106M –** 19a Seamless Carbon Steel Pipe.
- (q) **ASTM A193 / A193M –** 20 Alloy-Steel and Stainless Steel Bolting for High Temperature or High Pressure.
- (r) **ASTM A194 / A194M –** 20a Standard Specification for Carbon Steel, Alloy Steel, and Stainless Steel Nuts for Bolts for High Pressure or High Temperature Service, or Both.
- (s) **ASTM A216 / A216M –** 18 Steel Castings, Carbon, Suitable for Fusion Welding

- (t) **ASTM A217 / A217M** – 20 Steel Castings, Martensitic Stainless and Alloy, for Pressure-Containing Parts.
- (u) **ASTM A389 / A389M** – 13 Steel Castings, Alloy, Specially Heat Treated, for Pressure-Containing Parts.
- (v) **ASTM A333 / A333M** – 18 Seamless and Welded Steel Pipe.
- (w) **ASTM A352 / A352M** – 18a Steel Castings, Ferritic and Martensitic, for Pressure-Containing Parts.
- (x) **ASTM A320 / A320M** – 18 Alloy-Steel and Stainless Steel Bolting.
- (y) **DNV-OS-F101**- Submarine Pipeline Systems (DNV, 2010).
- (z) **DNV-RP-B401**- Cathodic Protection Design (DNV, 2005).
- (aa) **DNV-RP-C204**- Design Against Accidental Loads (DNV, 2010)
- (bb) **DNV-RP-F103**- Cathodic Protection of Submarine Pipelines by Galvanic Anodes.
- (cc) **DNV-RP-F106**- Factory Applied External Pipeline Coatings for Corrosion Control (DNV, 2011).
- (dd) **DNV-RP-F109** -On-bottom Stability Design of Submarine Pipelines (DNV, 2011).
- (ee) **AWS D1.1/D1.1M**- Structural Welding Code – Steel, Twenty-fourth Edition (AWS, 2020).
- (ff) **BS 6349-2:2019**- Maritime works. Code of practice for the design of quay walls, jetties and dolphins.
- (gg) **BS EN 1992 Euro code 2**- Design of Concrete Structures.
- (hh) **BS EN 1993-4-3 Euro code 3**- Design of steel structures.
- (ii) **NFPA 52** – National Fire Protection Association.
- (jj) **NFPA 54** – National Fuel Gas Code.

1.2. ISO and SANS Standards

- (a) **SANS 10268-2:2004** – Welding of Thermoplastics – Welding Processes Part 2: Electro fusion Welding.
- (b) **SANS 10269:2009** – Welding of thermoplastics – Testing and approval of welders.
- (c) **SANS 10270:2011** – Welding of Thermoplastics – Approval of Welding procedures and welds.

- (d) **SANS 347:2010** – Categorisation and Conformity Assessment Criteria for all Pressure Equipment.
- (e) **SANS 10227:2007** – Criteria for the Operation of Inspection Authorities Performing Inspection in Terms of the Pressure Equipment Regulations.
- (f) **SANS 0121** – Cathodic Protection of buried and submerged structures.
- (g) **SANS 329: 2007** Edition 1 – Industrial Thermo Processing Equipment.
- (h) **SANS 10089-1** – South Africa National Standard, Storage and distribution of petroleum products in above ground bulk storage installations.
- (i) **SANS 10108** – Classification of hazardous locations and selection of electrical apparatus use in such location.
- (j) **SANS 10142-1** – The wiring premises.
- (k) **SANS 1019** – Standard voltages, currents and insulation level for electricity supply.
- (l) **SANS 347** – Categorisation and conformity assessment criteria for all pressure equipment.
- (m) **SANS 10227:2007** – Criteria for the operation of inspection authorities performing inspection in terms of the Pressure Equipment Regulations.
- (n) **SANS 1091** – National Colour standards for paint.
- (o) **SANS 347:2019:** Categorization and conformity assessment criteria for all pressure equipment.
- (p) **SANS 1200:** Standardised Specification for Civil Engineering Construction.
- (q) **SANS 2001:** Construction works.
- (r) **SANS 10103:** Noise Standard.
- (s) **SANS 208:2005** – The design and installation of CNG filling stations.
- (t) **SANS 29001: 2006** – Sector specific quality management system for, petroleum, petrochemical and natural gas industries – requirements for product and service supply organisations.
- (u) **SANS 13631: 2003** – Packed reciprocating gas compressors.
- (v) **SANS 10232 – 3** – Emergency Response guides.
- (w) **SANS 10087:6 2006** – The application of liquefied petroleum and compressed natural gasses at engine fuels for internal combustion engines.
- (x) **SANS 29001: 2006** – Sector specific quality management system for, petroleum, petrochemical and natural gas industries – requirements for product and service supply organisations.

- (y) **ISO 12944-2:2017**- Paints and varnishes. Corrosion protection of steel structures by protective paint systems – Part 2: Classification of environments
- (z) **ISO 12944-5:2019**- Paints and varnishes. Corrosion protection of steel structures by protective paint systems – Part 5: Protective paint systems.
- (aa) **ISO 13847:2013**: Petroleum and natural gas industries. Pipeline transportation systems.
- (bb) **ISO 13623:2017**: Petroleum and natural gas industries — Pipeline transportation systems.
- (cc) **ISO 15589-1:2015**: Petroleum, petrochemical and natural gas industries. Cathodic protection of pipeline systems – Part 1: On-land pipelines.
- (dd) **ISO 15589-2:2012**: Petroleum, petrochemical and natural gas industries. Cathodic protection of pipeline transportation systems – Part 2: Offshore pipelines.
- (ee) **ISO 21809**: External coatings for buried or submerged pipelines.
- (ff) **MSS SP-58-2018**: Pipe Hangers and Supports – Materials, Design, Manufacture, Selection, Application, and Installation (ANSI).
- (gg) **NORSOK M-501**: Surface preparation and protective coating (Norwegian Standards, 2012).
- (hh) **NORSOK Z-006**: Preservation (Norwegian Standards, 2001).
- (ii) **OHSA 85/1993**: Pressure Equipment Regulations of South Africa.

2. Legislations

The Licensee must also comply with all other relevant legislation, including but not limited to the following:

- (a) Gas Act,2001 (Act No. 48 of 2001).
- (b) Piped Gas Regulations, 2007.
- (c) National Energy Regulator Act,2004 (Act No. 40 of 2004).
- (d) Constitution of the Republic of South Africa, 1996 (Act No. 107 Of 1996).

- (e) The Occupational Health and Safety Act, 1993 (Act No. 85 of 1993).
- (f) The National Environmental Management Act, 1998 (Act No. 107 of 1998).
- (g) The National Water Act, 1998 (Act No. 36 of 1998).
- (h) The Water Services Act, 1997 (Act No. 108 of 1997).
- (i) The National Environmental Management Air Quality Management Act, 2004 (Act No. 39 of 2004).
- (j) The Hazardous Substances Act, 1973 (Act No. 15 of 1973).
- (k) The Health Act, 1977 (Act No. 63 of 1977).
- (l) National Health Act, 2003 (Act No. 61 of 2003).
- (m) The National Building Regulations and Building Standards Act, 1977 (Act No. 103 of 1977).
- (n) Construction Regulations, 2014.
- (o) Marine Living Resources Act, 1998 (Act No. 18 of 1998).
- (p) National Environmental Management: Integrated Coastal Management Act, 2008 (Act No. 24 of 2008).
- (q) National Forest Act, 1998 (Act No. 84 of 1998).
- (r) National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004).
- (s) National Environmental Management: Protected Areas Act, 2004 (Act No. 31 of 2004).
- (t) Strategy on Buffer Zones for National Parks, 2012 (Act No. 106 of 2012);
- (u) National Heritage Resources Act, 1999 (Act No. 25 of 1999).
- (v) Conservation of Agricultural Resources Act, 1983 (Act No. 43 of 1983).
- (w) Hazardous Substances Act, 1973 (Act No. 15 of 1973).
- (x) Marine Pollution (Prevention of Pollution from Ships), 1986 (Act No. 2 of 1986).

Annexure D: ArcGIS Map

