



Licence Number: Gala.d. F1/1744/2021

LICENCE CONDITIONS FOR THE CONSTRUCTION OF A GAS DISTRIBUTION FACILITY IN THE PORT OF NGQURA, COEGA AREA OF THE NELSON MANDELA METROPOLITAN MUNICIPALITY IN THE EASTERN CAPE PROVINCE

Licence Number: Gala.d. F1/1744/2021

TABLE OF CONTENTS

DEFINITIONS	2
CHAPTER ONE: LICENSED ACTIVITIES	3
CHAPTER TWO: GENERAL CONDITIONS	5
CHAPTER THREE: SPECIFIC CONDITIONS	8

Annexure A:	Gas Distribution Facility Flow Diagrams
Annexure B:	Specifications of the Liquid Natural Gas
Annexure C:	List of applicable Regulations, Technical Standards and Codes for the licensed activity
Annexure D:	ArcGIS Map

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:

'the Act' means the Gas Act, 2001(Act No. 48 of 2001), and includes the Regulations made under the Act.

'Regulations' mean 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.**

'Rules' mean the Rules made by NERSA in terms of section 34(3) of the Act.

'CMS' means Customer Meter Station.

"LNG" Liquid Natural Gas;

"SANS" South African National Standards; and

"ASME" American Society of Mechanical Engineers;

CHAPTER ONE: LICENSED ACTIVITIES

1 Licensed Activities

1.1 NERSA grants the Licensee a licence to construct a gas distribution facility located in the Port of Ngqura, Coega area of the Nelson Mandela Metropolitan Municipality in the Eastern Cape Province, with the following specifications:

Table 1: Specifications of the pipeline

Specifications of the distribution pipeline	
Type of pipeline	Distribution pipeline
Location including coordinates	Ports of Ngqura
Design Capacity	
Pipeline Length (Seabed)	444 m (total)
Pipeline Length (Overland in the trenches)	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	6barg
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 facility contemplated in paragraph 1.1 above must be completed and become operational within 36 months of the date of issue of this licence.
- 1.3 Upon completion of the construction activities mentioned in 1.1 above, the licensee must apply for an operating and a trading licence for this facility as per section 16 of the Gas Act.
- 1.4 The Licensee may not assign this licence to another party.

2 Duration of Licence

The licence is valid for a period of 25 years from the date of issue, unless revoked by NERSA in accordance with the provisions of the Act.

CHAPTER TWO: GENERAL CONDITIONS

3 Amendment of Licence

This licence may be amended by NERSA in accordance with the provisions of the Act and the Rules.

4 Revocation of Licence

This licence may be revoked by NERSA in accordance with the provisions of the Act.

5 Compliance

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

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 Changes in Licensee Particulars

6.1 The Licensee must notify NERSA if control of the licensed company as contemplated in section 12(2) of the Competition Act, 1998 (Act No. 89 of 1998) changes.

6.2 The Licensee must at all times provide NERSA with the details of any changes in the registered name, operating or trading name, registered address and other contact details, including but not limited to, the names,

telephone numbers, facsimile numbers and email addresses of contact persons.

- 6.3 The notifications contemplated in 6.1 and 6.2 above must be provided within 14 days of the event giving rise to them

7 Correspondence with NERSA

- 7.1 All official communication by the licensee with NERSA must be in writing, signed and addressed to NERSA.
- 7.2 The Licensee must in all correspondence with NERSA quote the licence reference number as it appears on the licence certificate.

8 Entry, Inspection and Gathering of Information

- 8.1 The Licensee must permit any person authorised in terms of the Act, at all reasonable times, to enter any property on which a licensed activity is taking place, and inspect any facility, equipment, machinery, book, account or other document and gather any information in accordance with the Act and the Rules.

9 Participation of Historically Disadvantaged South Africans

- 9.1 The Licensee must annually provide NERSA with the information regarding the promotion of Historically Disadvantaged South Africans as prescribed in the Regulations.
- 9.2 The Licensee must submit the information contemplated in 9.1 above to NERSA within 30 days of its financial year end.

10 Monitoring and Provision of Information

- 10.1 The Licensee shall 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 14 days of receipt of a written request for such records.
- 10.2 The Licensee must provide NERSA with quarterly reports indicating the progress made in terms of the execution of the licensed activity.
- 10.3 Upon completion of the construction activities as contemplated in paragraph 1.1 above, the Licensee must provide NERSA with the as-built maps and drawings and identify any deviations and differences from **Annexures A to D**, hereto, as well as the reason for such deviations and differences.
- 10.4 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.

CHAPTER THREE: SPECIFIC CONDITIONS

11 Commencement of Activities

- 11.1 The Licensee must commence the construction activities contemplated in Chapter One above, within six months of the date of issue of the licence.
- 11.2 The Licensee must notify NERSA of the date of commencement of construction within seven days prior to the commencement of construction.

12 Construction of the Distribution Pipeline

- 12.1 All construction work must be performed in conformity with the Maps, diagrams and specifications as contained in **Annexures A - D** hereto.
- 12.2 The Licensee must comply with the Act regarding the rights and obligations it has in respect of the premises or land belonging to others.
- 12.3 All construction activities must comply with the latest issued, applicable and relevant codes and standards as listed in **Annexure C** hereto.

13 Whole Licence

- 13.1 This licence and licence conditions constitute the entire licence and supersedes all prior understandings and agreements between the Licensee and NERSA.

Annexure A: Gas Distribution Facility Flow Diagrams

Annexure B: Specifications of Liquid Natural Gas

Table 2: Specifications of the LNG

	<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
<i>Composition</i>			
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	
<i>Particles or Solids, and other Impurities</i>			
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
<i>Delivery Conditions</i>			

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

Annexure C: List of applicable Technical Standards and Codes and Regulations for the licensed activity

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 Butt welding 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 16.5 –** Pipe flanges and flanged fittings
- (j) **ASME B16.11 –** Forged Fittings, Socket-welding and threaded
- (k) **ASME VIII –** Rules for Construction of Pressure Vessels
- (l) **API 1104 –** Welding of pipelines and related facilities
- (m) **API RP520 –** Sizing, Selection and installation of pressure relieving devices in refineries: Part I – Sizing and selection;
- (n) **API RP 2201 –** Safe Hot Tapping Practices in the Petroleum and Petrochemical Industries;
- (o) **API RP521 –** Guide for pressure relieving and depressurising systems;
- (p) **API 6D –** Pipeline valves;
- (q) **ASTM A106 / A106M –** 19a Seamless Carbon Steel Pipe
- (r) **ASTM A193 / A193M –** 20 Alloy-Steel and Stainless Steel Bolting for High Temperature or High Pressure

- (s) **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
- (t) **ASTM A216 / A216M** – 18 Steel Castings, Carbon, Suitable for Fusion Welding
- (u) **ASTM A217 / A217M** – 20 Steel Castings, Martensitic Stainless and Alloy, for Pressure-Containing Parts
- (v) **ASTM A389 / A389M** – 13 Steel Castings, Alloy, Specially Heat Treated, for Pressure-Containing Parts
- (w) **ASTM A333 / A333M** – 18 Seamless and Welded Steel Pipe
- (x) **ASTM A352 / A352M** – 18a Steel Castings, Ferritic and Martensitic, for Pressure-Containing Parts
- (y) **ASTM A320 / A320M** – 18 Alloy-Steel and Stainless Steel Bolting
- (z) **DNV-OS-F101**- Submarine Pipeline Systems (DNV, 2010)
- (aa) **DNV-RP-B401**- Cathodic Protection Design (DNV, 2005)
- (bb) **DNV-RP-C204**- Design Against Accidental Loads (DNV, 2010)
- (cc) **DNV-RP-F103**- Cathodic Protection of Submarine Pipelines by Galvanic Anodes
- (dd) **DNV-RP-F106**- Factory Applied External Pipeline Coatings for Corrosion Control (DNV, 2011)
- (ee) **DNV-RP-F109** -On-bottom Stability Design of Submarine Pipelines (DNV, 2011)
- (ff) **AWS D1.1/D1.1M**- Structural Welding Code – Steel, Twenty-fourth Edition (AWS, 2020)
- (gg) **BS 6349-2:2019**- Maritime works. Code of practice for the design of quay walls, jetties and dolphins
- (hh) **BS EN 1992 Euro code 2**- Design of Concrete Structures
- (ii) **BS EN 1993-4-3 Euro code 3**- Design of steel structures. Pipelines

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; and
- (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; and
- (n) **SANS 1091** – National Colour standards for paint.
- (o) **ISO 12944-2:2017**- Paints and varnishes. Corrosion protection of steel structures by protective paint systems – Part 2: Classification of environments

- (p) **ISO 12944-5:2019**- Paints and varnishes. Corrosion protection of steel structures by protective paint systems – Part 5: Protective paint systems
- (q) **ISO 13847:2013**: Petroleum and natural gas industries. Pipeline transportation systems.
- (r) **ISO 13623:2017**: Petroleum and natural gas industries — Pipeline transportation systems
- (s) **ISO 15589-1:2015**: Petroleum, petrochemical and natural gas industries. Cathodic protection of pipeline systems – Part 1: On-land pipelines
- (t) **ISO 15589-2:2012**: Petroleum, petrochemical and natural gas industries. Cathodic protection of pipeline transportation systems – Part 2: Offshore pipelines
- (u) **ISO 21809**: External coatings for buried or submerged pipelines
- (v) **MSS SP-58-2018**: Pipe Hangers and Supports – Materials, Design, Manufacture, Selection, Application, and Installation (ANSI)
- (w) **NORSOK M-501**: Surface preparation and protective coating (Norwegian Standards, 2012)
- (x) **NORSOK Z-006**: Preservation (Norwegian Standards, 2001)
- (y) **OHSA 85/1993**: Pressure Equipment Regulations of South Africa
- (z) **SANS 347:2019**: Categorization and conformity assessment criteria for all pressure equipment
- (aa) **SANS 1200**: Standardised Specification for Civil Engineering Construction
- (bb) **SANS 2001**: Construction works.
- (cc) **SANS 10103**: Noise Standard.

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); and
- (x) Marine Pollution (Prevention of Pollution from Ships), 1986 (Act No. 2 of 1986).

Annexure D: ArcGIS Map