

**TERMS AND CONDITIONS**

**FOR**

**TRANSPORTATION**

**OF GAS**

**IN**

**GASSLED**

**Valid from 1 October 2026**

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# 1 APPLICABILITY, RELATIONSHIP, DEFINITIONS, AND DOCUMENTS

## 1.1 Applicability

The objective of these Terms and Conditions is to regulate the rights and obligations of the Parties with regard to the provision and use of the Transportation Services.

The Terms and Conditions apply to all of the Shipper's Bookings in the Transportation System and any Transportation Services provided in respect of Shipper's Gas.

The Shipper's Bookings and the Terms and Conditions, the Appendices and the relevant parts of the Shipper Manual and of the Booking Manual constitute the Transportation Agreement.

The Parties' rights and obligations pursuant to these Terms and Conditions shall be interpreted and construed to comply with, and be limited by, applicable statutory laws and regulations pertaining to the Transportation System, hereunder "*Forskrift 27. juni 1997 nr. 653 til lov om petroleumsvirksomhet kapittel 9*" and *Tarifforskriften* as amended from time to time.

## 1.2 Relationship

The Transportation Agreement is entered into between the Shipper and Gassled.

The Operator is Gassled's representative under the Transportation Agreement. The Operator will conduct all operations in the Transportation System and, on behalf of Gassled, provide the Transportation Services and execute all Gassled's rights and obligations under the Transportation Agreement.

## 1.3 Definitions

In the Terms and Conditions and in the Appendices the following terms shall have the meaning ascribed to them below:

1. "Affiliated Company" shall in relation to a Participant or the Shipper, mean:
  - (i) any enterprise which directly or indirectly holds more than 50 per cent of the share capital or the votes, or in any other way directly or indirectly exercises a controlling interest, in such Participant or Shipper, or
  - (ii) any enterprise in which such Participant or Shipper directly or indirectly holds more than 50 per cent of the

share capital or the votes, or in any other way directly or indirectly exercises a controlling interest, or

- (iii) any enterprise of which more than 50 per cent of share capital or votes are held directly or indirectly, or which in any other way directly or indirectly is controlled, by one or more enterprise(s) which hold directly or indirectly more than 50 percent of the share capital or the votes, or in any other way exercises directly or indirectly a controlling interest, in such Participant or Shipper.
2. "Agent" shall mean any person who has been appointed by the Shipper and who acts on behalf of the Shipper with regard to that Shipper's rights and obligations in connection with the Transportation Agreement.
  3. "Appendix" or "Appendices" shall mean the documents listed in Article 1.4.
  4. "Area" shall mean the relevant area of the Transportation System as further detailed in the Transportation System Description.
  5. "Article" shall mean an article of the Terms and Conditions.
  6. "Bilateral Transaction" shall mean transactions related to change of entitlement to Gas upstream of or at any Entry Point, within the Transportation System and/or at any Exit Point, which will affect deliveries or redeliveries of Shipper's Gas.
  7. "Booked Capacity" shall mean the Booked Entry Capacity, Booked Exit Capacity, Booked Quality Service, Booked Processing Capacity and / or Interruptible Booking, as the case may be, according to the Shipper's Bookings.
  8. "Booked Entry Capacity" shall mean the sum of the capacity rights expressed in Sm<sup>3</sup> per Day for which the Shipper holds Bookings at the designated Entry Point(s). For Area A, Area B, Area G, Area H and Area I the Booked Entry Capacity shall mean the Booked Exit Capacity for each respective Area.
  9. "Booked Exit Capacity" shall mean the sum of the capacity rights expressed in Sm<sup>3</sup> per Day, for which the Shipper holds Bookings at the designated Exit Point(s). For Area F the Booked Exit Capacity shall mean the sum of the Booked Entry Capacity for the Area.
  10. "Booked Processing Capacity" shall mean the Shipper's Processing Capacity rights for the services in Area C and/or Area E.
  11. "Booked Quality Blending Service" shall mean the Shipper's rights for blending services in Area C, Area D and / or Area E.

12. "Booked Quality Removal Service" shall mean the Shipper's rights for removal services in Area C.
13. "Booked Quality Service" shall mean the Shipper's Booked Quality Blending Service and Shipper's Booked Quality Removal Service.
14. "Booking" shall mean a Transportation Request made by the Shipper and accepted by the Operator in accordance with the Booking Manual.
15. "Booking Manual" shall mean the detailed procedures established by the Operator, at any time applicable, for inter alia the reservation, allocation, transfer, release and adjustment of capacity in the Transportation System.
16. "Booking Period" shall mean the period that consists of each of the Days for which the Shipper has Booked Capacity.
17. "Business Day" shall mean any calendar day that is neither a Saturday, a Sunday nor public holiday in Norway.
18. "Capacity Fee Obligation" shall have the meaning set forth in Article 5.2 first paragraph.
19. "Company Agreement" shall mean the "Company Agreement for Utilisation of Gassco Systems" between the Operator and the Shipper.
20. "Confidential Information" shall mean any information obtained by the Shipper from the Operator or by the Operator from the Shipper in connection with the Transportation Agreement, which is not available in the public domain.
21. "Contractor" shall mean any person who has entered into an agreement with a Party for the supply of materials and/or services in connection with the Transportation Agreement and who acts in its own name and on its own behalf.
22. "Daily Nominations" shall have the meaning set forth in Article 3.3 first paragraph.
23. "Daily Transportation Commitment" shall have the meaning set forth in Article 2.3.
24. "Day" shall mean the period beginning at 06:00 hours on a day and ending at 06:00 hours on the following day. However, for transportation of gas to Exit Point A3 (12" Statfjord UK Gas Pipeline), Exit Point F1 (Flags transportation system) and Exit Point I1 (Flags transportation system), Day shall mean the period beginning at 07:00 hours on a day and ending at 07:00 hours on the following day. The date of any Day shall be the date of its beginning as herein defined.

25. "Degree Celsius" or "°C" shall be determined as the particular interval between any temperature in Kelvin minus the temperature of 273.15 Kelvin.
26. "Desk Quotation" shall mean the broker proposal obtained by the Operator each year for insurance of the Transportation System, including Third Party liability insurance.
27. "Dry Gas" shall mean Gas which has been processed to remove all or some of the NGL, Stabilised Condensate and the water vapour in order to meet the Specifications for delivery into Area D.
28. "Entry Point" shall mean the point at which the Shipper will deliver Gas to Gassled for Transportation Services. The Entry Points are further defined in the Transportation System Description.
29. "Exit Point" shall mean the point at which Gassled will redeliver Gas to the Shipper. The Exit Points are further defined in the Transportation System Description.
30. "Financially Qualified Company" shall mean an undertaking that has passed and continues to pass the credit rating conditions given in the Qualification of Shipper Procedure.
31. "Force Majeure" shall have the meaning set forth in Article 11.1.
32. "Fuel Gas" shall mean Gas used as fuel for the operation of the Transportation System.
33. "Gas" shall mean any Dry Gas, Rich Gas, NGL, Stabilised Condensate and/or Unstabilised Condensate, as the case may be.
34. "Gassco Booking System" shall mean the internet based solution for inter alia booking of capacity and services in the Transportation System.
35. "Gassled" shall mean Petoro AS in its capacity as sole licensee in the Transportation System, managed on behalf of the Norwegian State's Direct Financial Interest – SDFI .
36. "Gudrun Blend Lifting Procedure" shall mean the detailed regulation for lifting of Stabilised Condensate in Area C as described in Appendix E.
37. "Interruptible Booking" shall mean a Transportation Request in respect of Interruptible Capacity made by the Shipper and accepted by the Operator in accordance with the Booking Manual.
38. "Interruptible Capacity" shall mean capacity that may be interrupted by the Operator at any time in order to fulfil shippers' nominations under a firm capacity reservation.

39. "Island mode" shall have shall have the meaning set forth in Article 3.7.
40. "Landfall Bund" shall mean the dry stone revetment that covers the trench where the 30" Ormen Lange production pipelines, Polarled pipeline and the Langeled pipeline come onshore at the Nyhamna gas plant.
41. "Linefill" shall have the meaning set forth in Article 2.1.
42. "Lineflex" shall have the meaning set forth in Article 3.5.2.
43. "Maintenance Period" shall have the meaning set forth in Article 2.5.
44. "Ministry" shall mean the Norwegian Ministry of Energy or its successor.
45. "Month" shall mean the period beginning on the first Day of any calendar month and ending on the first Day of the succeeding calendar month.
46. "NGL" (or "Natural Gas Liquids") shall mean the components of the Rich Gas with molecular structure consisting of two or more carbon atoms condensed to the liquid state.
47. "NGL Lifting Procedure" shall mean the detailed regulation for lifting of NGL in Area C as described in Appendix C.
48. "Off-spec Gas" shall mean Gas that does not meet the Specifications at the relevant Entry Point and / or Exit Point.
49. "Operations Manual" shall mean the detailed requirements for operation of the Transportation System as described in Appendix A.
50. "Operator" shall mean Gassco AS or its successor as determined by the Ministry.
51. "Opflex" shall have the meaning set forth in Article 3.5.1.
52. "Origo Shipment Planning" shall mean the internet based solution for inter alia nomination of NGL/Condensate lifting out of the Transportation System as further described in Appendix C.
53. "Participant" shall mean Petoro AS in its capacity as sole licensee in the Transportation System, managed on behalf of the Norwegian State's Direct Financial Interest – SDFI.
54. "Party" shall mean either Gassled or the Shipper, and "Parties" shall mean Gassled and the Shipper.

55. "Processing Capacity" shall mean the services in Gassled for processing of Gas. The Processing Capacity is further defined in the Transportation System Description.
56. "Qualification of Shipper Procedure" shall mean the at any time applicable part of the Booking Manual regarding the credit rating requirements applicable for undertakings that want to transport Gas in the Transportation System.
57. "Quality Blending Service" shall mean the services in Gassled for blending of Off-spec Gas. The Quality Blending Service is further defined in the Transportation System Description.
58. "Quality Removal Service" shall mean the services in Gassled for removal of CO<sub>2</sub> and / or H<sub>2</sub>S from the Gas. The Quality Removal Service is further defined in the Transportation System Description.
59. "Quality Service" shall mean Quality Removal Service and / or Quality Blending Service.
60. "Reasonable and Prudent" when used to describe the standard of care to be exercised by a Party or the Operator in performing its obligations hereunder shall mean that degree of diligence, prudence and foresight reasonably and ordinarily exercised by experienced companies engaged in the same line of business under the same or similar circumstances and conditions having due consideration to the interests of the other Party.
61. "Replacement Gas" shall mean Gas for replacement of minor losses under normal operation of the Transportation System.
62. "Rich Gas" shall mean any hydrocarbon or mixture of hydrocarbons and non-combustible gases in the gaseous state, which is extracted from the reservoirs in a particular field in its natural state or together with the liquid hydrocarbons, processed and exported in dense phase in order to meet the Specification for delivery into Area A, Area B, Area E, Area F, Area G, Area H or Area I, as applicable.
63. "Shipper" shall mean the company designated as such in the Booking and thereby being a Party to the Transportation Agreement. When the term "shipper" or "shippers" is used it shall mean the parties designated as such in some or all bookings in the Transportation System and thereby parties to some or all transportation agreements with Gassled. The term shipper/shippers shall also include the Shipper.
64. "Shipper Manual" shall mean detailed procedure established by the Operator, at any time applicable, for inter alia regulating the communication between the Shipper and the Operator.

65. "Shipper's Bookings" shall mean the sum of the Bookings the Shipper holds at any time.
66. "Shipper's Facilities" shall mean;
  - a) any platforms, pipelines, wells, plant, machinery or any other equipment or facilities (whether or not owned or operated by the Shipper) upstream of the Entry Point(s) used from time to time to produce, receive, process, compress, store, treat and transport Gas to be delivered at the Entry Point(s) under the Transportation Agreement; and/or
  - b) any pipelines, plant, machinery, meters, valves or other equipment or facilities (whether or not owned or operated by the Shipper) at or immediately downstream of the Exit Point(s) required for the Shipper to take redelivery of Gas at the Exit Point(s).
67. "Sm<sup>3</sup>" (standard cubic metre) of Gas shall mean the quantity of Gas at 15 Degrees Celsius and at an absolute pressure of 1.01325 bar and when free of water vapour occupies the volume of 1 cubic metre.
68. "Specifications" shall mean the operating conditions and quality specifications given in the Operations Manual articles 4.1 and 4.2.
69. "Stabilised Condensate" shall mean the non-refrigerated C<sub>5+</sub> product produced from Unstabilised Condensate and redelivered from an Exit Point in Area C. In Appendix E the Stabilised Condensate is referred to as Gudrun Blend.
70. "Subcontractor" shall mean any person who has entered into an agreement with a Contractor for the supply of materials and/or services in connection with the Terms and Conditions and who acts in its own name and on its own behalf.
71. "Tariff(s)" shall mean the at any time applicable fees payable for the Transportation Services.
72. "Tarifforskriften" shall mean "Forskrift om fastsettelse av tariffer m.v. for bestemte innretninger av 20. desember 2002" as amended from time to time.
73. "Terms and Conditions" shall mean the rules herein setting out the Parties rights and obligations regarding the services in the Transportation System.
74. "Third Party" shall mean any party other than the Operator and the Parties.
75. "Transportation Agreement" shall have the meaning set forth in Article 1.1 third paragraph.

76. "Transportation Commitment" shall have the meaning set forth in Article 2.2.
77. "Transportation Request" shall mean a request for Transportation Services submitted to the Operator in accordance with the Booking Manual.
78. "Transportation Services" shall mean all or part of the services offered to the Shipper by Gassled in the Transportation System.
79. "Transportation System" shall mean the facilities at any time in place to receive Shipper's Gas at the Entry Point(s), process, handle, transport and redeliver the Gas at the Exit Point(s), in accordance with the Transportation Agreement, as detailed in Transportation System Description.
80. "Transportation System Description" shall mean the detailed description of the Transportation System described in Appendix B.
81. "Unstabilised Condensate" shall mean any hydrocarbon or mixture of hydrocarbons and non-combustible gases in the liquid state, which is extracted from the relevant field reservoirs in its natural state separately or together with gaseous hydrocarbons.
82. "Year" shall mean a period of 12 Months commencing at 06:00 hours on the 1 October of any calendar year and ending at 06:00 hours on the 1 October in the succeeding calendar year, and the Year shall be named after the year in which the Year commences.

#### **1.4 Appendices**

The following Appendices are attached to the Terms and Conditions:

|             |                                                                  |
|-------------|------------------------------------------------------------------|
| Appendix A: | Operations Manual                                                |
| Appendix B: | Transportation System Description                                |
| Appendix C: | NGL Lifting Procedure – Kårstø Gas Plant                         |
| Appendix D: | Allocation of Removal and Abandonment Costs                      |
| Appendix E: | Gudrun Blend Lifting Procedure – Kårstø Gas Plant                |
| Appendix F: | Principles for Operator's publication of operational information |

#### **1.5 Hierarchy**

Unless otherwise explicitly stated or clearly appears from the context, in the event of any conflict between the provisions in the various parts of the Transportation Agreement, they shall be given priority in the following order:

- 1) The Terms and Conditions
- 2) The Appendices
- 3) The Shipper Manual

## 2 TRANSPORTATION COMMITMENT AND OPERATION

### 2.1 Shipper's obligation to provide Linefill

In order for Gassled to take on the Transportation Commitment, the Shipper is obliged to provide Gassled with its share of the minimum quantity of Gas necessary to pressurise the Transportation System ("Linefill").

The basis for and any change or recalculation of the ownership of the Linefill shall be in accordance with the procedure set forth in the Shipper Manual.

### 2.2 Transportation Commitment

Gassled undertakes for each Area to receive quantities of Gas up to the Booked Entry Capacity from the Shipper at the Entry Point(s) and to process Gas up to the Booked Processing Capacity and handle Gas up to the Booked Quality Removal Service, and transport and redeliver Gas to the Shipper at each Exit Point(s) up to the Booked Exit Capacity throughout the Booking Period (the "Transportation Commitment").

Gassled does not undertake any Transportation Commitment in respect of Booked Quality Blending Service and / or Interruptible Capacity.

### 2.3 Daily Transportation Commitment

Gassled's Daily Transportation Commitment shall unless otherwise specified in the Transportation Agreement be equal to the quantities nominated by the Shipper in accordance with Article 3.3.

If the Shipper after the deadline for the Daily Nominations makes a re-nomination, the Operator shall use reasonable endeavours to accept the re-nomination. If the Operator accepts the re-nomination, the Transportation Commitment shall be equal to the re-nominated quantities.

### 2.4 Operation

Throughout the Booking Period Gassled shall operate, maintain and repair the Transportation System in a Reasonable and Prudent manner.

### 2.5 Planned maintenance

Gassled shall each Year for reasons of planned maintenance of the Transportation System have the right to reduce (if necessary down to 0) the Transportation Services (the "Maintenance Period").

The Maintenance Period shall preferably be within the Months of April through September. The Maintenance Period shall be determined by the Operator in accordance with the Operations Manual article 2.7. The

Operator shall use all reasonable efforts to minimise the duration of the Maintenance Period and to coordinate the Maintenance Period for each Area in order to minimise the disruption to the Transportation Services.

The Maintenance Period shall for:

- a) Area A be limited to 20 consecutive Days, provided, however, that the total reduction in the Transportation Commitment during the Maintenance Period shall not exceed the sum of the Booked Exit Capacity for the 12 Days during the Maintenance Period that the Shipper has its largest Booked Exit Capacity;
- b) Area B be limited to 20 consecutive Days, provided, however, that the total reduction in the Transportation Commitment during the Maintenance Period shall not exceed the sum of the Booked Exit Capacity for the 12 Days during the Maintenance Period that the Shipper has its largest Booked Exit Capacity;
- c) Area C be unlimited, provided, however, that the Operator shall use all reasonable efforts to minimise the duration of the Maintenance Period and to coincide with the Maintenance Period for Area A, Area B and relevant parts of Area D;
- d) Area D be limited to 20 consecutive Days on each Exit Point, provided, however, that the total reduction in the Transportation Commitment on each Exit Point during the Maintenance Period shall not exceed the sum of the Booked Exit Capacity at such Exit Point for the 12 Days during the Maintenance Period that the Shipper has its largest Booked Exit Capacity at such Exit Point;
- e) Area E be unlimited, provided, however, that the Operator shall use all reasonable efforts to minimise the duration of the Maintenance Period and to coincide with the Maintenance Period for relevant parts of Area D;
- f) Area F be limited to 20 consecutive Days, provided, however, that the total reduction in the Transportation Commitment during the Maintenance Period shall not exceed the sum of the Booked Exit Capacity for the 12 Days during the Maintenance Period that the Shipper has its largest Booked Exit Capacity;
- g) Area G be limited to 20 consecutive Days, provided, however, that the total reduction in the Transportation Commitment during the Maintenance Period shall not exceed the sum of the Booked Exit Capacity for the 12 Days during the Maintenance Period that the Shipper has its largest Booked Exit Capacity;
- h) Area H be limited to 20 consecutive Days, provided, however, that the total reduction in the Transportation Commitment during the Maintenance Period shall not exceed the sum of the Booked

Exit Capacity for the 12 Days during the Maintenance Period that the Shipper has its largest Booked Exit Capacity;

- i) Area I be limited to 20 consecutive Days, provided, however, that the total reduction in the Transportation Commitment during the Maintenance Period shall not exceed the sum of the Booked Exit Capacity for the 12 Days during the Maintenance Period that the Shipper has its largest Booked Exit Capacity.

## **2.6 Safety, system integrity and/or environmental protection**

Gassled may for reasons of safety, system integrity and/or environmental protection curtail or shut-off the Shipper's delivery of Gas to the Transportation System to perform repairs and/or extraordinary maintenance of the Transportation System, provided that said actions cannot reasonably be deferred to a subsequent Maintenance Period.

The curtailment or shut-off period will be determined by the Operator acting in a Reasonable and Prudent manner. The Operator shall promptly notify the Shipper of the reason for such action, the extent of curtailment or shut-off and the possible duration of such curtailment or shut-off. To the extent time is available, the Operator shall coordinate the curtailment or shut-off with the Shipper in order to minimise the effect of such curtailment or shut-off.

## **2.7 Installations, connections, modifications, tie-in**

Gassled may curtail or shut-off the Shipper's delivery of Gas to the Transportation System if necessary for reasons of any operations, inter alia installations, connections, modifications, tie-in operations, disconnections and removals which cannot be reasonably deferred to a Maintenance Period.

Gassled's right to curtail or shut-off the Shipper's delivery of Gas shall for each of Area A, Area B, Area F, Area G, Area H, Area I and for each Exit Point in Area D each Year be limited to 20 Days. For Area C and Area E the right to curtail or shut-off the Shipper's delivery of Gas shall be unlimited, provided, however, that the Operator shall use all reasonable efforts to minimise the duration of any such curtailment or shut-off.

The Operator shall as soon as possible and not less than 120 days prior to commencement notify the Shipper of the timing and extent of any such operations. In the planning and scheduling of the operations the Operator shall seek to minimise necessary shut-off periods and to cause least possible disruptions to the Transportation Services including minimising the negative effects for the Shipper.

## **2.8 Priorities**

In case of reduced capacity in the Transportation System the Operator will reallocate capacity to the shippers according to the priority rules set out in the Operations Manual article 3.3.

# **3 DELIVERY RIGHT AND OBLIGATION AND OFFTAKE**

## **3.1 Delivery Right and Obligation**

The Shipper has, throughout the Booking Period, the right and obligation to deliver at the Entry Point(s), the quantities of Gas corresponding to its Daily Nominations.

The Shipper has, throughout the Booking Period, the right to deliver at the Entry Point in Area C, any quantities of Unstabilised Condensate up to its Booked Processing Capacity.

## **3.2 Forecasts**

The Shipper shall provide forecasts of its deliveries of Gas at each Entry Point. The content of the forecasts shall be in accordance with the requirements of the Operations Manual article 2.1.

## **3.3 Nomination**

The Shipper shall for each Day make nominations of quantities of Gas to be delivered at each of the Entry Point(s) and redelivered at each of the Exit Points (the "Daily Nominations"). The Daily Nominations shall be made, and adjusted in case of re-nominations, in accordance with the Operations Manual article 2.3.

The Daily Nominations shall not exceed the Shipper's Booked Capacity for the Day in question.

The sum of the Daily Nominations for the Entry Point(s) in Area D must always be equal to the sum of the Daily Nominations for the Exit Point(s) in Area D, adjusted for Bilateral Transaction and any utilisation of Opflex, Lineflex, Linefill or adjustment of shipper imbalance.

Notwithstanding the above, the nominations for redelivery of NGL and Stabilised Condensate at the relevant Exit Points in Area C shall be made in accordance with the NGL Lifting Procedures and Gudrun Blend Lifting Procedure respectively.

## **3.4 Offtake**

The Shipper shall on each Day be obliged to accept redelivery at the Exit Point(s) quantities of Gas equal to the Daily Nominations.

The Shipper's rights and obligations to take NGL and Stabilised Condensate at the relevant Exit Points in Area C shall be as set out in the

NGL Lifting Procedure and Gudrun Blend Lifting Procedure respectively.

The Shipper's shall on each Day be obliged to accept redelivery of NGL at the relevant Exit Point in Area E, processed from the Rich Gas delivered to Area E.

### **3.5 Shipper's right to system flexibility**

#### **3.5.1 Opflex**

If the Shipper's ability to deliver Gas to meet the sum of its Exit Point nominations in Area D is reduced due to unforeseen events in the Transportation System or at the Shipper's Facilities delivering the Shipper's Gas, the Shipper shall be entitled to utilise available system flexibility in accordance with section 6, first paragraph in Tarifforskriften ("Opflex").

#### **3.5.2 Lineflex**

If the Shipper due to planned curtailments or shut-offs in the Transportation System or at the Shipper's Facilities delivering the Shipper's Gas cannot utilise its Booked Capacity, the Shipper shall be entitled to make deliveries into Area A, Area B and/or Area D in advance of redelivery in accordance with section 6, second paragraph in Tarifforskriften ("Lineflex").

### **3.6 Changes to Booked Capacity**

Any changes to the Shipper's Booked Capacity shall be made in accordance with the Booking Manual.

### **3.7 Island mode**

If the Operator receives notification or has reason to believe that Shipper due to circumstances affecting either Shipper or Operator is isolated from normal communication lines affecting the ability to perform dispatching ("Island mode"), the Operator shall be authorised, as the Operator deems appropriate in its sole opinion, to proceed in accordance with the Island mode procedure as described in the Shipper Manual. Any costs, claims (including third party claims), losses and other consequences related to the Operator's actions or inactions under Island mode shall be for the Shipper's risk and account.

## **4 OPERATING AND QUALITY REQUIREMENTS**

### **4.1 Requirements at the Entry Point(s)**

The Shipper shall at the Entry Point(s) deliver Gas that meets the Specifications.

Notwithstanding the above, if the Shipper's Gas is delivered together with other shippers' Gas at the Entry Point, the Shipper's Gas shall be deemed to meet the Specifications if the commingled stream of all shippers' Gas delivered at the Entry Point, meets the Specifications at such Entry Point. This shall only apply for Off-spec Gas where there are no Quality Services.

#### **4.2 Right to refuse delivery**

The Operator may at all times refuse to accept the Shipper's Off-spec Gas or the Shipper's Gas if delivered in an Off-spec Gas commingled stream. The Shipper shall in such case immediately stop any delivery of Gas.

#### **4.3 Gas not complying with requirements at the Entry Point**

Notwithstanding Articles 4.1 and 4.2, Gassled shall use reasonable endeavour to accept Off-spec Gas or the Shipper's Gas if delivered in an Off-spec Gas commingled stream, provided that, in the reasonable opinion of the Operator, such Off-spec Gas would not be detrimental to the operation of the Transportation System and;

- a) not affect Gassled's ability to redeliver Gas to all shippers in accordance with Article 4.6, or
- b) Shipper has adequate blending capacity downstream of the applicable Exit Point.

The above shall only apply for Off-spec Gas where there are no available Quality Services.

For the avoidance of doubt, irrespective of the acceptance of Off-spec Gas pursuant to this Article 4.3, the gas shall still be considered to be Off-spec Gas at the Entry Point and any liability associated with Off-spec Gas, including as set out in Article 10.5, shall remain with the Shipper.

#### **4.4 Right to take operational actions**

If the Shipper has delivered Off-spec Gas or has delivered Gas in an Off-spec Gas commingled stream, the Operator shall have the right to take necessary operational actions to dispose of the Shipper's Gas at a convenient location or, if possible and subject to the respective field operator's prior approval, backflow the Gas.

#### **4.5 Quality Service**

If Shipper has delivered Off-spec Gas under a Booked Quality Removal Service the Gas shall be considered to be in compliance with the Specifications at the Entry Point.

If Shipper has delivered Off-spec Gas under a Booked Quality Blending Service the Gas shall be considered to be Off-spec Gas at the Entry Point and the liability associated with Off-spec Gas deliveries shall remain with the Shipper.

Quality Blending Service is pending on other Gas being delivered into the Transportation System and will only be offered if, in the Operators reasonable opinion, Gas can be redelivered within the Specifications at the Exit Points.

#### **4.6 Requirements at the Exit Point(s)**

Gassled shall redeliver at the Exit Point(s) Gas that meets the Specifications.

#### **4.7 Right to refuse redelivery**

The Shipper may refuse to accept redelivery of its Gas provided that the transportation system downstream of the Exit Point, based on the quality provisions of that system, refuses to take said Gas. In such case the Operator shall in agreement with the Shipper and at the Shipper's cost take the necessary operational action to dispose of such Gas.

However, if Article 4.6 is not fulfilled by Gassled, then the Operator shall, notwithstanding Articles 10.2 and 10.3, at Gassled's cost take the necessary operational action to dispose of such Gas.

## **5 TARIFF**

### **5.1 Transportation Tariffs**

The Tariffs for the Transportation Services shall be calculated in accordance with Tarifforskriften.

The Tariffs shall be published on [www.gassco.no](http://www.gassco.no).

### **5.2 Capacity Fee Obligation**

Throughout the Booking Period, the Shipper is obliged to pay the Tariffs for a quantity of Gas corresponding to the Booked Entry Capacity and/or the Booked Processing Capacity and/or the Booked Quality Service and/or the Booked Exit Capacity (the "Capacity Fee Obligation"), or the Daily Nominations, whichever is the higher, for the applicable Entry and Exit Points and services in Area C, Area D and/or Area E.

The Capacity Fee Obligation shall be suspended during any period and to the extent Gassled does not provide Transportation Services including, but not limited to;

- a) events described in Articles 2.5, 2.6 or 2.7 or Force Majeure (according to Article 11) affecting Gassled, in one Area preventing the Shipper's Gas from being received, processed, handled, transported or redelivered by Gassled in the same Area,
- b) periods when Gassled does not redeliver Gas in accordance with Article 4.6 and the Shipper has the right according to Article 4.7 second paragraph to refuse to take redelivery,

- c) periods when the Shipper is curtailed or shut-off in Area A, Area B or Area H and cannot utilise, in whole or in part, its Booked Processing Capacity in Area C, provided that the Capacity Fee Obligation related to other Areas shall not be affected,
- d) periods when the Shipper is curtailed or shut-off in Area C and cannot utilise, in whole or in part, its Booked Exit Capacity in Area A and/or Area B and/or Area H, provided that the Capacity Fee Obligation related to other Areas shall not be affected.

Notwithstanding the first paragraph, the obligation to pay Tariff for the ethane treatment storage and loading service in Area C shall be based on actual production of ethane product.

### **5.3 Other costs**

The Shipper shall reimburse the Operator or Gassled, as applicable, relevant taxes and/or fees levied on the Shipper's Gas that the Operator or Gassled pays on behalf of the Shipper.

### **5.4 Removal and abandonment costs**

Costs for removal and/or abandonment according to legal requirement, of all or any part of the Transportation System, and any costs including but not limited to clean up costs associated therewith, shall be paid by the Shipper based on an allocation method as described in Appendix D.

## **6 MONTHLY INVOICE AND PAYMENT**

### **6.1 Monthly statement and invoice**

On or before the 7th Business Day of each Month or later subject to postponed allocation report according to the Operations Manual article 6.1.1, the Operator shall submit an invoice to the Shipper showing the total amount payable by the Shipper to Gassled for the preceding Month. The invoice shall inter alia specify;

- a) the Booked Capacity,
- b) the Tariffs applicable,
- c) deductions, if any, in Capacity Fee Obligation according to Article 5.2 second paragraph, and
- d) any other information that influence the amount payable.

The Tariffs and the total amount payable shall be in the official Norwegian currency.

If all data is not available, Gassled may issue a preliminary invoice.

## **6.2 Payment**

The amount payable by the Shipper shall be paid and credited to bank accounts designated by Gassled on the 20th day of the Month in which the invoice referred to in Article 6.1 was submitted or not later than 10 days after receipt of said invoice, whichever date comes later.

The invoiced amount shall except in the case of manifest errors be paid without any deductions whether or not any part of or the entire amount is disputed.

## **6.3 Adjustment of preliminary invoice**

If any invoice was based on preliminary figures Gassled shall, as soon as possible, render to the Shipper a new invoice showing the appropriate adjustments to the preliminary invoice in the same manner as described in Article 6.1. The amount resulting from the adjustment, including interest, shall if payable by the Shipper, be paid not later than 20 days after the date of receipt of said new invoice. The amount resulting from the adjustment, including interest, shall if payable by Gassled, be paid not later than 20 days after the date of submission of said new invoice.

Interest on the amount of adjustment shall be calculated at an annual rate equal to 3 months NIBOR as published by the Dagens Næringsliv, Oslo, on the first Business Day in the Month of issuance of the new invoice.

Interest shall be paid for the period starting from and including the due date of the relevant preliminary invoice and ending on but excluding the value date of payment of said adjustment.

## **6.4 Interest on amount due**

Should any Party fail to make any payment due hereunder at the time and in the manner provided for herein, the amount due shall bear interest for the period starting on and including the due date for payment and ending on, but excluding the value date for payment, calculated in accordance with the Law relating to Interest on Overdue Payments etc., of 17 December 1976 no. 100 ("Forsinkelsesrenteloven").

## **6.5 Suspension and termination**

If the Shipper's failure to pay any sum due continues for 5 Business Days or more following the due date for payment of such amount, then at any time thereafter Gassled may by 5 Business Days' notice to the Shipper, suspend the Transportation Services until the amount due has been paid by the Shipper (or by a guarantor on behalf of the Shipper).

The suspension shall not relieve the Shipper from the Capacity Fee Obligation.

If the Shipper's default continues for 60 days or more following the due date for payment, then at any time thereafter Gassled may by notice to

the Shipper, terminate the Transportation Agreement from the date specified in such notice.

## **6.6 Financial qualification**

If the Shipper is not a Financially Qualified Company, the Shipper shall provide such guarantee as required by the Operator without undue delay.

Until a required guarantee is provided, the Shipper shall be obliged to make its Tariff payments in advance. The Shipper shall be required to pre-pay an amount equal to the estimated sum of the Tariffs applicable to the Shipper's Booked Capacity for the current and the following 2 Months, and then by pre-payment on the 20th day of each Month maintain a pre-paid amount equal to the estimated sum of the Tariffs applicable to the Shipper's Booked Capacity for the current and the following 2 Months.

If the Shipper fails to provide a guarantee within a reasonable deadline determined by the Operator or make any required pre-payment, Gassled shall have the right to suspend the Transportation Services or terminate the Transportation Agreement immediately, and Article 6.5 second paragraph shall apply.

## **6.7 Change in financial circumstances**

The Shipper shall notify the Operator immediately if at any time

- a) the Shipper initiates a merger, dissolution, liquidation, winding up, reduction of share capital or a similar process, or
- b) there is a material deterioration in the financial resources of the Shipper,

that is likely to have an adverse effect on the Shipper's ability to fulfil its obligations under the Transportation Agreement and/or in case of a credit rating downgrade of the Shipper or its guarantor.

## **6.8 Audit**

The Shipper shall, upon 30 days' notice to the Operator, have the right to examine and audit the Operator's books and records for the years in which the Shipper's Gas was transported in the Transportation System and which are relevant to the allocation of Shipper's Gas and the Tariffs charged to the Shipper.

The audits shall be conducted within the 24 months period following the end of the year in question. If the audit reveals any inaccuracy in any invoice rendered, the necessary adjustments to such invoice and payments including interest in accordance with Article 6.3, shall be made promptly. No adjustment for any invoice or payments shall be made with respect to any claims filed after the expiration of the 24 months.

The Shipper shall conduct the audits at reasonable hours and in a manner, which will result in a minimum of inconvenience to Gassled and the Operator. The Shipper shall cover its own expenses for the audit.

The Shipper's right to audit shall not include Confidential Information regarding other shippers. If examination of such Confidential Information is necessary, an independent auditor shall perform such part of the audit. The independent auditor shall only confirm whether the Operator's calculations are correct and shall not reveal any Confidential Information to the Shipper.

Subject to the preceding paragraph, the Shipper shall endeavour to conduct the audit during the same period as other shippers.

### **6.9 Rounding**

All calculations in the Transportation Agreement shall be made to 7 places of decimals. A figure of 5 or more in the 8th decimal place shall cause a rounding up of the 7th decimal place.

## **7 MEASUREMENT, TEST AND ANALYSES**

### **7.1 General**

All measurement, testing, on-line analysis and sampling shall be performed in accordance with the requirements in the Operations Manual article 5.

### **7.2 Measurement audit**

The Parties may conduct such audits as provided for in the Operations Manual article 5 at each other's facilities. Such audits shall be performed during the normal office hours in effect at the facilities at the time of the audit and in a manner which shall result in a minimum of inconvenience. The Shipper shall give a notice of at least 90 Days, specifying involved facilities, scope and options for preferred audit periods.

## **8 DETERMINATION OF QUANTITIES**

### **8.1 Allocation of Gas**

The allocation to the Shipper of quantities of Gas hereunder shall be determined in accordance with the Operations Manual article 6.

### **8.2 Fuel Gas and Replacement Gas**

Fuel Gas and Replacement Gas shall be supplied by the Shipper in kind based on the Shipper's Daily Nominations in the relevant Areas.

Deliveries of Fuel Gas and Replacement Gas shall be made in accordance with the Operations Manual article 6.

## 9 GUARANTEE

### 9.1 Shipper's guarantee

The Shipper guarantees that it at the time of delivery and continuing up and until the time of redelivery has the right to dispose of all Gas delivered by it to Gassled.

The Shipper agrees to indemnify Gassled and the Operator against all suits, judgements, actions, debts, accounts, damages, costs, losses and expenses arising from or out of any legal claims of any and all persons to or against the Gas. Gassled shall, within a reasonable time after receiving notice of the assertion of any such claim, notify the Shipper of such fact and shall permit them to participate in the defence against such claim.

### 9.2 Gassled's guarantee

Gassled guarantees that the Gas redelivered to the Shipper at the Exit Point(s) shall be free from all claims of any kind and nature, except in case any such claims existed at the time of receipt by Gassled.

Gassled agrees to indemnify the Shipper against all suits, judgements, actions, debts, accounts, damages, costs, losses and expenses arising from or out of any legal claims of any and all persons to or against said Gas except to the extent such claim or defects are attributable to the Gas which the Shipper delivered or caused to be delivered to Gassled hereunder and existed at the time of such delivery. The Shipper shall, within a reasonable time after receiving notice of the assertion of any claim, notify Gassled of such fact and shall permit it to participate in the defence against such claim.

## 10 LIABILITY AND INSURANCE

### 10.1 Risk of loss of Gas

Risk of loss of and damage to the Shipper's Gas shall at all times be and remain with the Shipper.

For the purpose of determining any risk or liability under the Transportation Agreement, the Gas delivered shall be deemed to be situated in the designated Area in accordance with the Booked Exit Capacity and/or Booked Processing Capacity in such Area.

### 10.2 Shipper's indemnification right

Gassled shall indemnify and hold the Shipper and/or its Agents, and/or its Contractors and/or Subcontractors and any of the aforesaid's employees, harmless from and against any loss, damage and/or expense arising out of any claim for;

- a) injuries to or death of any employees of the Participant and/or the Operator, and/or their Contractors and/or Subcontractors, and/or
- b) loss of or damage to the property of Gassled and/or the Operator, and/or their Contractors and/or Subcontractors, and any of the aforesaid's employees, and/or
- c) all indirect losses, which include but are not limited to loss of profit, to Gassled and/or the Operator, and/or their Contractors and/or Subcontractors and any of the aforesaid's employees,

arising out of or in connection with the Transportation Agreement, including the non-performance by the Shipper of any of its obligations, except where such claim is a result of gross negligence or wilful misconduct by the managerial and/or supervisory personnel of the Shipper and/or its Agents, its Contractors and/or Subcontractors.

### **10.3 Gassled's and the Operator's indemnification right**

The Shipper shall indemnify and hold Gassled and the Operator, and/or their Contractors and/or Subcontractors and any of the aforesaid's employees, harmless from and against any loss, damage and/or expense arising out of any claim for;

- a) injuries to or death of any employees of the Shipper and/or its Agents, its Contractors and/or Subcontractors, and/or
- b) loss of or damage to the property of the Shipper and/or its Agents, its Contractors and/or Subcontractors, and any of the aforesaid's employees, and/or
- c) all indirect losses, which include but are not limited to loss of profit, to the Shipper and/or its Agents, its Contractors and/or Subcontractors, and any of the aforesaid's employees,

arising out of or in connection with the Transportation Agreement, including the non-performance by Gassled or the Operator of any of its obligations, except where such claim is a result of gross negligence or wilful misconduct by the managerial and/or supervisory personnel of the Participant or the Operator and/or their Contractors and/or Subcontractors.

### **10.4 Use of Third Party facilities**

To the extent that Gassled makes use of Third Party facilities for the Transportation Services, these Terms and Conditions shall apply to such use.

### 10.5 Liability for Off-spec Gas

Notwithstanding Article 10.2, the Shipper having delivered Off-spec Gas shall be liable for any loss of Gas and/or direct costs and liabilities incurred by Gassled and/or the Operator caused by or resulting from the deliveries of Off-spec Gas, including costs and liabilities incurred by Gassled and/or the Operator in connection with arrangements pursuant to article 4.3 (b). If the Shipper's Gas is delivered in an Off-spec Gas commingled stream, the Shipper shall be liable pro rata to its share in the Off-spec Gas commingled stream, unless;

- a) the Operator in a joint statement from all shippers delivering Gas in the commingled stream has been instructed to distribute such liability otherwise, or
- b) the Shipper, or a group of shippers, stipulates another distribution of liability within 10 Business Days after the Operator have informed about the intention to distribute the liability pro rata to the share in the Off-spec Gas commingled stream, and none of the other shippers concerned have objection to this within 10 Business Days following notice of such other distribution.

The Operator shall endeavour to minimise such costs and losses.

### 10.6 Escape of Gas

Notwithstanding Articles 10.2 and 10.3, but subject to the second and third paragraph of this Article 10.6, all expenses and damages which may be incurred by either of the Parties as a result of environmental pollution, explosion, fire or any other events arising out of the escape of Gas from the Transportation System shall be divided between all shippers of Gas in the relevant Area(s) of the Transportation System as determined in accordance with Article 10.9.

Notwithstanding Article 10.2 and the first paragraph of this Article 10.6, if such pollution, explosion, fire or other events are caused by an act or omission by the Shipper, then the Shipper shall be held liable, provided, however, that each shipper, including the Shipper, shall indemnify and hold Gassled and the Operator harmless from and against expenses and damages incurred as a result thereof as determined in accordance with Article 10.9. The Shipper hereby accepts and agrees to indemnify Gassled and the Operator in such manner.

However, if such expenses and damages are caused by gross negligence or wilful misconduct by the managerial and/or supervisory personnel of Gassled and/or the Operator, their Contractors and/or Subcontractors, then Gassled shall indemnify the Shipper.

Irrespective of the liability principles stated above, all expenses and damages which may be incurred as a result of environmental pollution, explosion, fire or any other events arising out of the escape of Gas from

the Transportation System shall be recovered under the insurances arranged by Gassled pursuant to Article 10.7 up to the maximum limits of such insurances as stipulated in the Desk Quotation.

To the extent such expenses and damages can be recovered under the insurances arranged by Gassled pursuant to Article 10.7, such recovered amounts shall be credited the shippers pro rata to each shipper's liability in respect of such expenses and damages as determined in accordance with Article 10.9.

If the total loss exceeds the maximum limits as stipulated in the Desk Quotation, then the shippers will be responsible for the excess amount as calculated in accordance with Article 10.9.

### **10.7 Insurance**

Gassled shall be responsible for arranging all insurance in respect of the Transportation System, as well as Third Party liability insurance covering liabilities arising out of or in connection with any activity or omission related to the Transportation Agreement.

All such insurance shall contain waivers of all rights of subrogation in favour of the Shipper (including its Affiliated Companies) and/or its Agents, its Contractors and/or Subcontractors, and any of the aforesaid's employees. Further, such insurance shall specify that the shippers' liabilities under Article 10.6 shall be covered under the insurance up to the respective maximum limit as stipulated in the Desk Quotation.

The Shipper shall be responsible for arranging all insurance in respect of the property of the Shipper.

All Shipper's insurances shall contain waivers of all rights of subrogation in favour of Gassled, the Participant (including their Affiliated Companies) and the Operator, and/or their Contractors and/or Subcontractors, and any of the aforesaid's employees.

Gassled and the Shipper shall upon request submit to the Operator their insurance programmes relevant to the Transportation Agreement and undertake to inform the Operator of changes made therein.

### **10.8 Gassled's liability**

The liability of each Participant related to the Transportation Agreement shall be several, according to its ownership interest in Gassled at any time, and not joint or collective.

### **10.9 Shippers' shared liability**

The liability for expenses and damages for which neither an individual shipper nor Gassled can be held liable according to the Transportation Agreement and, subject to Article 10.6 third paragraph, the liability for expenses and damages which may be incurred by either of the Parties as

a result of environmental pollution, explosion, fire or any other events arising out of the escape of Gas from the Transportation System as described in Article 10.6, shall be shared between the shippers. The Shipper's liability shall be determined according to its share of the total Booked Exit Capacity in Area A, Area B, Area D, Area F, Area G, Area H or Area I or the Booked Processing Capacity in Area C or Area E, depending on in which Area the liability is related to, for the 365 Days preceding the Day when the event causing expenses, losses and/or damages occurred.

## **11 FORCE MAJEURE**

### **11.1 Force Majeure**

Force Majeure shall mean any event beyond Gassled's and the Operator's control related to the Transportation System and the operation thereof or any event beyond the Shipper's control related to the Shipper's Facilities and the operation thereof that the Operator or the Shipper, as the case may be, could not reasonably be expected to have taken into account at the time when the relevant Booking(s) was made.

### **11.2 Relief due to Force Majeure**

As long as and to the extent a Party is rendered unable to perform any of its obligations due to Force Majeure, the Party shall be relieved from liability for failure to perform such obligations other than the obligation of payment of money.

A Party rendered unable wholly or in part to make any payment due and payable, shall not be relieved from its obligation to pay interest, according to the interest rate given in Article 6.3, for the period from the due date of payment until payment is actually made.

### **11.3 Notification and Remedies**

A Party claiming relief on account of Force Majeure shall;

- a) as soon as practical give notice to the other Party of the event said to constitute Force Majeure, such notice including information about the circumstances and a statement of the steps and time believed necessary to remedy the Force Majeure situation and afford reasonable facilities for a site inspection if desired at the expense and risk of the Party making examination, and
- b) proceed with diligence and at its own expense to take steps to remedy the failure as soon as possible in a Reasonable and Prudent manner, provided always that no Party shall be required to make more than commercially reasonable investments nor shall it be obligated to settle any labour dispute except in such manner as it shall in its own judgement think fit.

#### **11.4 Long term Force Majeure**

If a Party due to an event of Force Majeure has been rendered unable to perform any of its obligations for a period of 24 consecutive Months, either Party shall have the right, after the expiry of such period, to terminate the part of the Transportation Agreement affected by Force Majeure.

## **12 MISCELLANEOUS**

### **12.1 Notices**

Any notice or other communication required or permitted to be given pursuant to the Transportation Agreement shall be in writing and may be given by delivering the same by hand or by sending the same by prepaid first class post or electronic mail to the relevant address or electronic mail address set out in the Company Agreement or such other address or electronic mail address as any Party may give in writing, from time to time, to the other in accordance with this Article 12.1.

Any such notice, given as aforesaid, shall be deemed to have been given or received at the time of delivery if delivered by hand, at the time at which confirmation of successful delivery is received if sent by electronic mail and on the 5<sup>th</sup> Business Day next following the day of sending if sent by prepaid first class post. The use of electronic mail for transfer of documents shall at all times be in accordance with internationally recognised standards as may be adopted by the Operator. The chosen standard shall enable the use of digital signatures or similar electronic safety device, encryption, filing and retrieving.

### **12.2 Notice in case of restructuring**

If the Shipper initiate a merger, dissolution, liquidation, winding up, reduction of share capital or a similar process that is likely to have an adverse effect on the Shipper's ability to fulfil its obligations under the Transportation Agreement, or suffers a material credit rating downgrade also after the Shipper's last Booking Period has expired, the Shipper shall give notice to the Operator immediately after such process have been initiated and / or such credit rating downgrade has occurred.

### **12.3 Confidentiality**

Confidential Information shall not be disclosed by the Shipper or the Operator to any Third Party, or by the Operator to the Participant. However, the Confidential Information may be disclosed by;

- a) the Operator to;
  - (i) the Agent or Affiliated Company of the Shipper,

- (ii) the Contractors and/or Subcontractors of the Operator to the extent disclosure is required for the proper execution of their work,
- (iii) the advisers of the Operator or to arbitrators to the extent it is required for the proper execution of their assignments, or
- (iv) governmental authorities in connection with required reports.

b) the Shipper to;

- (i) the Agent or any Affiliated Company of the Shipper,
- (ii) any bona fide potential buyer of the Shipper's Gas or an interest in the sources delivering Gas under the Transportation Agreement,
- (iii) any bona fide potential assignee of the Shipper's Transportation Agreement,
- (iv) any relevant institution in connection with the borrowing of funds or issuance or sale of security,
- (v) the stock exchanges on which any securities of the Shipper are or may be quoted to the extent required by the applicable rules of such stock exchanges,
- (vi) the advisers of the Shipper or to arbitrators to the extent it is required for the proper execution of their assignments, or
- (vii) any governmental authorities in connection with required reports.

Notwithstanding the above, the Operator may;

- a) provide to the relevant field operator historical lifting data in order to maintain the gas lifting account,
- b) provide Confidential Information that has both been made anonymous and aggregated with other shippers' confidential information,
- c) at any time in connection with bona fide legal disputes arising out of the Transportation Agreement, provide the Participant with any relevant Confidential Information,
- d) make Confidential Information pertaining to planned and unplanned outages publicly available in accordance with the principles for publication as laid down in Appendix F hereto.

Where disclosure of Confidential Information is made to a Third Party or Participant, the disclosing Party shall ensure that appropriate safeguards are undertaken to prevent the Third Party or the Participant, as the case may be, from making any further disclosure of such information.

#### **12.4 Telecommunications and data transmission**

The Shipper shall, at its own cost and expense, install or ensure that necessary telecommunication equipment according to the Operator's specifications is installed.

#### **12.5 Time reference**

Any reference to time shall be to the time in force in Norway.

#### **12.6 Sanctions**

Shipper shall ensure that vessels used for lifting NGL and/or Stabilised Condensate are not in breach of or violates any applicable UN, US, UK, EU and/or Norwegian sanctions in force at any given time until the vessel has left the jetty, and to notify the Operator immediately if such breach or violation may occur.

Shipper shall indemnify and hold Gassled and the Operator, and/or their Contractors and/or Subcontractors and/or any of the aforesaid's employees harmless from and against any loss, damage and/or expense arising out of any breach or violation of any of the above mentioned sanctions.

#### **12.7 Amendments to the Terms and Conditions including the Appendices**

Amendments to the Terms and Conditions including the Appendices are subject to approval by the Ministry. Proposals for such amendments shall be developed by the Operator. Before any such proposals are submitted to the Ministry the Operator shall submit the proposals in writing for consultation in accordance with "*Forskrift 27. juni 1997 nr. 653 til lov om petroleumsvirksomhet*", section 65, second paragraph.

The Shipper shall submit its comments within 20 Business Days after receipt of such notice from the Operator. The Operator shall take due consideration of the Shipper's comments and submit them to the Ministry, along with the proposals.

The amendments shall enter into force as determined by the Ministry.

### **13 TERM OF AGREEMENT**

#### **13.1 Termination of the Transportation Agreement and/or Booked Capacity**

The Transportation Agreement shall terminate on the earlier of;

- a) the date when the Shipper's last Booking Period has expired,
- b) the date Gassled ceases to own and operate the Transportation System provided Gassled has given 24 months prior notice of said event,

- c) the date when the licence period(s) for the Transportation System expires, or
- d) the date specified in the termination notice issued according to Article 6.5 or on date of termination according to Article 6.6 or Article 11.4.

Additionally, Booked Capacity shall terminate upon decommissioning of relevant parts of the Transportation System in accordance with a decision which has been subject to shipper involvement and, if applicable, received approval from the Ministry, provided Gassled has given 24 months' written notice of said event.

### **13.2 Survival of Termination**

The termination shall be without prejudice to any payment obligation being unfulfilled or any liability incurred and not paid at the date of termination.

The Parties rights and obligations according to Articles 6.8 and 12.3 shall remain for a period of 3 years from the date of termination.

The Shipper's obligation according to Articles 5.4 and 12.2 shall survive the termination of the Transportation Agreement.

## **14 ASSIGNMENT**

The Shipper may only assign its rights and obligations under the Transportation Agreement subject to prior written consent from Gassled.

Notwithstanding the above, the Shipper may assign its rights and obligations to unused Booked Capacity provided that;

- a) the Operator has confirmed that the assignee;
  - (i) is a Financially Qualified Company,
  - (ii) has entered into a Company Agreement, and
  - (iii) fulfils the requirements in the Booking Manual for obtaining Booked Capacity in the secondary market,

and,

- b) the assignee has accepted to be bound by the Transportation Agreement.

For the avoidance of doubt, an assignment of ownership to the Transportation System entails a corresponding assignment of rights and obligations under the Transportation Agreement.

## **15 APPLICABLE LAW AND ARBITRATION**

The Transportation Agreement shall be governed and construed in accordance with Norwegian law.

Any controversy or dispute that may arise in connection with or as a result of the Transportation Agreement and which cannot be resolved by mutual agreement between the Parties shall be finally decided by arbitration in Stavanger in accordance with Norwegian Arbitration Act of 14 May 2004 No 25 ("Lov om voldgift"), as subsequently amended or replaced. Unless otherwise agreed, the arbitration proceedings, documents and correspondence in connection with the arbitration and awards delivered pursuant to this Article 15 are confidential in accordance with the confidentiality provisions herein.

Documents and statements in the Norwegian and English language shall be allowed in any procedure involving arbitration. Translation thereof shall be at the expense of the Party requesting such translation.

**APPENDIX A**

**TO**

**TERMS AND CONDITIONS FOR  
TRANSPORTATION OF GAS IN GASSLED**

**\*\*\***

**OPERATIONS MANUAL**

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# 1 APPLICABILITY, DEFINITIONS, PRIORITIES AND AMENDMENTS

## 1.1 Applicability

This Operations Manual sets out the operational regulation regarding the Shipper's and Gassled's rights and obligations given in the Terms and Conditions.

The Operator will execute Gassled's rights and obligations according to this Operations Manual.

## 1.2 Definitions

The definitions set out in the Terms and Conditions applies to this Operations Manual. In addition, the following terms shall have the meaning ascribed to them below:

1. "Accounting Period" shall mean a Month.
2. "Components" means nitrogen, carbon dioxide, methane, ethane, propane, iso-butane, normal butane, iso-pentanes, normal pentane, hexane, heptane, octanes, nonanes, decanes and heavier hydrocarbons.
3. "Entry Point Availability" shall mean the quantity of Gas that at a given point in time can be delivered from a Field at an Entry Point.
4. "Exit Point Availability" shall for any Exit Point in an Area mean the quantity of Rich Gas or Dry Gas that Gassled at a given time is able to redeliver to all shippers at that Exit Point.
5. "Field" shall mean any production facility producing Gas for deliveries to Gassled for Transportation Services.
6. "Gas Delivery Requirement" shall mean the actual quantities of Gas to be delivered from the Shipper's Field in order to meet the Shipper's nominations. The Shipper's Gas Delivery Requirement shall be calculated according to articles 2.4 and 2.5.
7. "Gross Calorific Value" or "GCV" shall mean the superior gross calorific value as defined in ISO 6976. The combustion reference temperature shall be 25 °C.
8. "Kilowatt-hour" or "kWh" shall mean 3.6 MJ.
9. "MegaJoule" or "MJ" shall mean 1,000,000 joules which shall be identical with the definition of the derived "SI unit of quantity of heat J" as defined in ISO 80000 Quantities and units.
10. "Nm<sup>3</sup>" (normal cubic metre) of Gas shall mean the quantity of Gas which at 0 Degrees Celsius and at an absolute pressure of 1.01325 bar and when free of water vapour occupies the volume of 1 cubic metre.

11. "Operational Services" shall mean Opflex, Lineflex and adjustment of Linefill quantity and shipper imbalance.
12. "Processing Capacity Availability" shall for any Processing Capacity mean the quantity of Gas that Gassled at a given time is able to process for all shippers in such Processing Capacity.
13. "Quality Compensation Procedure" shall mean the detailed procedures included in article 10 of Appendix C.
14. "Quality Service Availability" shall for any Quality Service mean the quantity of Gas that Gassled at a given time is able to handle for all shippers in such Quality Service.
15. "Shipper's Field Operator" shall mean the operator of the Shipper's Field(s).
16. "Shipper's Field" shall mean the production facilities producing Shipper's Gas for deliveries, either directly to or through transportation and/or processing facilities upstream of the Entry Point for the Shipper's Gas, to the Transportation System, whether the production facilities are owned by the Shipper or not.
17. "Significant Systematic Error" shall mean a Systematic Error that exceeds 0,02 per cent of total mass flow provided that the economic value of the error is greater than the cost of correcting such error.
18. "Systematic Error" shall mean a detected error in a measurement result that is not corrected by the measurement model and that is caused by issues such as:
  - failure of measurement equipment (equipment that does not meet performance requirements)
  - non-compliance with internal requirements and routines (management system)
  - incorrectly read values
  - errors in calculations
  - incorrectly entered parameters in computer system (incorrect parameters used in calculations)

For the avoidance of doubt, if routine recalibrations tests reveal any deviations compared to previous measurement results, such deviations shall normally not be considered a Systematic Error.

19. "Transportation Curtailment" shall mean any event affecting the Transportation System, including, but not limited to, events described in the Terms and Conditions Articles 2.5, 2.6, 2.7, or Force Majeure, that reduces the capacity in the Transportation System.

20. “Wobbe Index” or “WI” shall mean the GCV divided by the square root of the relative density.

### 1.3 Relation to the Shipper Manual

The regulations set out in the Operations Manual are supplemented by the Shipper Manual. In case of conflict between the Operations Manual and the Shipper Manual, the regulation in the Operations Manual shall unless otherwise expressly stated, always prevail.

## 2 NOMINATIONS

### 2.1 Forecasts

Forecast according to this article 2.1 shall have content and be in accordance with time limits as described in the Shipper Manual.

The Shipper shall issue, or provide Shipper’s Field Operator to issue, to the Operator:

- Long-term forecasts
- Monthly forecasts (15-month rolling)
- Weekly forecasts

of its deliveries of Gas at each Entry Point.

The Shipper shall issue to the Operator monthly forecast for the next month of the amount of ethane that should be routed from Area C to Area D.

The forecasts shall in all aspects be consistent with the relevant forecasts submitted to the Norwegian authorities.

The Operator shall submit to the Shipper forecasts for the Gross Calorific Value of the Gas to be redelivered at the Exit Point(s) in Area D and the Dry Gas Exit Points in Area C and Area E.

The Operator shall submit to the Shipper forecasts for the Unstabilised Condensate/ NGL to be redelivered at the relevant Exit Point(s).

The Shipper shall ensure that the Shipper’s Field Operator(s) informs the Operator of relevant plans for maintenance, tests, shut-down, temporary periods of decreased/increased deliveries of Gas, minimum export requirement and available processing capacity at the Shipper’s Field(s), and the time and duration for such events, as soon as such information is available.

The Operator shall inform the Shipper of programmes for planned maintenance, shut-downs, tests and any other activities related to the Transportation System and Fields which could affect the Entry Point Availability, Processing Capacity Availability, Quality Service Availability and/or the Exit Point Availability or otherwise influence delivery and/or redelivery of Shipper’s Gas.

## 2.2 Availability

The Operator shall inform the Shipper daily of its available quantities of Gas at Shipper's Field(s).

The Shipper shall ensure that the Shipper's Field Operator daily informs the Operator of the available quantities of Gas at the relevant Entry Point(s).

The Operator shall inform the Shipper daily of its available quantities of ethane that should be routed from Area C to Area D based on the Shipper's forecast. The Operator may adjust the available quantities of ethane that should be routed from Area C to Area D to meet the lifting programme in the NGL Lifting Procedure.

## 2.3 Daily Nominations and re-nominations

The Shipper shall submit to the Operator its Daily Nominations, except for Interruptible Capacity, for each Day before 14:00 hours on the preceding Day.

The Shipper shall submit to the Operator its Daily Nominations for Interruptible Capacity in accordance with the procedure described in the Shipper Manual.

The Daily Nominations shall specify deliveries and redeliveries in energy units and shall have a content as further described in the Shipper Manual.

The Operator shall accept the Shipper's Daily Nomination submitted within the deadline in the first paragraph. If the Shipper after the deadline makes a re-nomination, the Operator shall use reasonable endeavours to accept the re-nomination. If the Operator accepts the re-nomination, the re-nomination shall be deemed to be a Daily Nomination.

The Operator has a right to instruct the Shipper to re-nominate if;

- the combination of the Daily Nominations for the Entry Point(s) and the Exit Point(s) in an Area are not, in the Operator's opinion, operationally feasible,
- the Daily Nominations from all shippers for one stream, in cases where the Exit Point has more than one stream, exceed the capacity of that stream (in such case the Daily Nomination shall be adjusted pro rata according to total Daily Nomination on that stream),
- the Daily Nominations at Entry Point F1 and Entry Point F2 (due to the combined Daily Nomination for Entry Point F1 and Entry Point F2) in combination with the Daily Nominations at Entry Point F3 and Entry Point F4 respectively, are higher than actual capacity at the relevant Entry Point. In such case the Shipper will be instructed to reduce the Daily Nominations at Entry Point F1 or Entry Point F2 down towards its booking at the relevant Entry Point.
- the Daily Nomination deviates significantly from the Daily Nomination for the previous Day.

Further the Operator has a right to refuse Shipper's Daily Nominations for the Exit Point D7 (St. Fergus), Exit Point D10 (Easington), Exit Point A2 (Entry Point

to Area F) and Exit Point A3 (entry point to the 12 " Statfjord UK Gas Pipeline) if the Gas to be redelivered at such Exit Points will not comply with the relevant Specifications, unless the Shipper accepts redelivery of Off-spec Gas and such acceptance does not affect the redelivery of Gas to the other shippers at such Exit Point. The Shipper accepting redelivery of such Off-spec Gas shall be liable for any consequences resulting from acceptance of such Off-spec Gas redeliveries.

The Operator shall match the Shipper's Daily Nominations for the Exit Point(s) in Area D and/or Exit Point in Area F and/or Exit Point in Area I with the quantities nominated for transport in the downstream transportation systems.

Unless otherwise agreed with the Operator, the Shipper shall not be entitled to nominate deliveries or redeliveries of Gas as an uneven flow-rate throughout the Day.

The nomination procedure is further described in the Shipper Manual.

## **2.4 Shipper's Gas Delivery Requirement in Area A, Area B and in Area E**

The Gas Delivery Requirement into Area A shall be the Gas Delivery Requirement at the Area D Entry Point D1 (Kårstø) according to article 2.5 multiplied with the Area C rich gas factor for the respective Field(s) and/or the Gas Delivery Requirement at the Area A Exit Point A2 and/or Area A Exit Point A3.

The Gas Delivery Requirement into Area B shall be the Gas Delivery Requirement at the Area D Entry Point D1 (Kårstø) according to article 2.5 multiplied with the Area C rich gas factor for the respective Field(s) and/or the Gas Delivery Requirement at Exit Point B2.

The Area C rich gas factor is the Shipper's Field delivery into Area A, for redelivery at the Area D Entry Point D1 (Kårstø), or Area B, divided by the Shipper's Field allocated Dry Gas exit Area C.

The Gas Delivery Requirement into Area E shall be the Gas Delivery Requirement at the Area D Entry Point D2 (Kollsnes) according to article 2.5, Gas Delivery Requirement at Exit Point E2 and Gas Delivery Requirement at Exit Point E5 multiplied with the Area E rich gas factor for the respective Field(s).

The Area E rich gas factor is the Shipper's Field delivery into Area E, divided by the Shipper's Field allocated Dry Gas exit Area E.

## **2.5 Shipper's Gas Delivery Requirement in Area D**

The Gas Delivery Requirement at the Area D Entry Point(s) shall be the Shipper's Daily Nominations at the Area D Exit Point(s) adjusted for;

- any part of Fuel Gas allocated to the Shipper in Area D,
- any part of the difference between the total sum of Gas metered at the Area D Entry Point(s) adjusted for the calculated change in Gas inventory in Area D, and the total sum metered at the Exit Point(s) including Area D Fuel Gas.

## 2.6 Reporting

The Operator shall on a daily basis notify the Shipper of the Shipper's Gas delivered at the Entry Point(s) and redelivered at the Exit Point(s) (except for the NGL and Stabilised Condensate) on the previous Day, and the status of the Shipper's operational accounts.

The Operator shall on a monthly basis notify the Shipper of the Shipper's Gas redelivered each Day at the Exit Point(s) during the previous Month.

The Shipper shall ensure that the Shipper's Field Operator(s) on a daily basis notifies the Operator of the quantity of Gas delivered at the relevant Entry Point(s) on the previous Day.

The Shipper shall ensure that the Shipper's Field Operator(s) on a monthly basis notifies the Operator of the quantity of Gas delivered by the Shipper at the relevant Entry Point(s) each Day of the previous Month.

The Shipper shall notify the Operator of the date and time of any Bilateral Transactions as soon as reasonably practical. Any Bilateral Transactions that takes place within Day shall for the purpose of these Terms and Conditions take effect as from the time the appurtenant re-nomination takes effect.

## 2.7 Planned Maintenance

The Operator shall each calendar year during the period between May and December discuss with the Shipper the maintenance plan for the following two calendar years. The decision on the duration of and the reduction in Transportation Services during the Maintenance Period(s) shall be made solely by the Operator. However, when deciding upon the Maintenance Period(s) the Operator shall inter alia take into account;

- a. that the Maintenance Period(s) shall be determined with the objective to minimise disruption to the Transportation Services to the extent possible,
- b. the need for maintenance of the Fields,
- c. the need for maintenance of the Transportation System, any downstream receiving terminal(s) and/or other adjacent transportation systems,
- d. the need for maintenance of facilities used for onshore transportation of Gas.

The Operator shall before 16 December in each calendar year submit a notice to the Shipper stating the Maintenance Period(s), any possible quality implications and the transportation capacity available to the Shipper on each Day of the Maintenance Period(s) for the following two calendar years.

## 2.8 Meetings

The Operator and the Shipper shall, if requested, meet in order to discuss subjects related to the delivery and redelivery of Gas under the Transportation Agreement.

The schedules for meeting and for exchanging information may be adjusted to coincide with the Shipper's procedure(s) for reporting to the Norwegian authorities.

Furthermore, the Operator and the Shipper shall meet when requested by the Shipper.

## **2.9 Coordination**

The Operator and the Shipper shall coordinate their activities regarding necessary Gas quantities to be delivered to the Transportation System to meet the Shipper's requirements for redelivery of Gas pursuant to article 2. The Shipper shall ensure that the relevant Shipper's Field Operator(s) participate in such coordination activities.

# **3 OPERATIONS**

## **3.1 Obligations prior to commencement of Transportation Services**

Prior to the commencement of the Transportation Services:

- a. The Shipper shall at the Operator's request provide evidence to the Operator that telemetry and communication facilities for monitoring of the operating conditions and the quality of Gas to be delivered at the Entry Point are in good operational order;
- b. The Shipper shall make available to the Operator the necessary analysis and test results to verify that the Gas to be delivered at the Entry Point is within the Specifications as set forth in article 4.1. The requirements according to this article 3.1 shall also upon the Operator's request apply after any major shut-off;
- c. The Operator shall at the Shipper's request provide evidence to the Shipper that telemetry and communication facilities for monitoring of the operating conditions and the quality of Gas at the Exit Point(s) are in good operational order;
- d. The Operator shall at the Shipper's request, allow for connection of the downstream transportation system operator's telemetry systems to the Transportation System for exchange of relevant telemetry signals.

## **3.2 Capacity tests**

The Operator shall be entitled to perform capacity tests in the Transportation System. If such tests would require changes or stable conditions in Gas delivery and/or redelivery, the Shipper shall in cooperation with the Shipper's Field Operators use reasonable endeavours to comply with requests for such changes.

### 3.3 Transportation Curtailment

In the event of Transportation Curtailment, the Operator shall calculate the new Entry Point Availability, Processing Capacity Availability, Quality Service Availability and / or Exit Point Availability, for the Shipper and inform the Shipper without delay.

For Area A the Shipper's new reduced capacity at the relevant Exit Point(s) shall be calculated as its pro rata share of all shippers' Bookings at the relevant Exit Point(s) for the Day for which the total capacity is reduced.

For Area B the Shipper's new reduced capacity at the relevant Exit Point(s) shall be calculated as its pro rata share of all shippers' Bookings at the relevant Exit Points(s) for the Day for which the total capacity is reduced.

For Area C, the Shipper's new reduced Processing Capacity Availability and / or Quality Service Availability shall be calculated as its pro rata share of all shippers' Booked Processing Capacity/Booked Quality Service for the relevant service(s) for the Day for which the total capacity is reduced.

Notwithstanding the above paragraph, in case of Transportation Curtailment of the carbon dioxide service in Area C the general carbon dioxide blending ("CO<sub>2</sub> B") service shall be curtailed first, thereafter the special carbon dioxide blending ("CO<sub>2</sub> D") service and finally the carbon dioxide removal ("CO<sub>2</sub> R") service.

For Area D, the Shipper's new reduced Quality Service Availability shall be calculated as its pro rata share of all shippers' Booked Quality Service for the relevant services for the Day for which the total capacity is reduced.

For Area D, the Shipper's new Exit Point Availability shall be calculated as its pro rata share of all shippers' Bookings at the affected Exit Point for the Day for which the total Exit Point Availability is reduced.

For Area E, the Shipper's new reduced Processing Capacity Availability and / or Quality Service Availability shall be calculated as its pro rata share of all shippers' Booked Processing Capacity/Booked Quality Service for the relevant service(s) for the Day for which the total capacity is reduced.

For Area F, the Shipper's new reduced capacity shall be calculated as its pro rata share of all shippers' Bookings at the relevant Entry Point or Exit Point for the Day for which the total capacity is reduced.

For Area G, the Shipper's new reduced capacity shall be calculated as its pro rata share of all shippers' Bookings at the Exit Point for the Day for which the total capacity is reduced.

For Area H, the Shipper's new reduced capacity shall be calculated as its pro rata share of all shippers' Bookings at the Exit Point for the Day for which the total capacity is reduced.

For Area I, the Shipper's new reduced capacity shall be calculated as its pro rata share of all shippers' Bookings at the Exit Point for the Day for which the total capacity is reduced.

In case of Transportation Curtailment after the Day has started the already delivered, processed and / or redelivered quantities of Gas shall be allocated to the Shipper in accordance with its Daily Nominations, for the period prior to the point in time when the Transportation Curtailment occurred.

Notwithstanding the above, Firm 2 Capacity, as defined in the Booking Manual, has a lower curtailment priority and shall be curtailed first.

### **3.4 Interruption**

In case of interruption of Interruptible Capacity, the Operator shall calculate the Shipper's new reduced capacity at the relevant Entry Point, Processing Point and / or Exit Point as its pro rata share of all shippers' Interruptible Booking at the relevant Entry Point, Processing Point and / or Exit Point for the Day for which the Interruptible Capacity is reduced.

In case of interruption after the Day has started the already delivered, processed and / or redelivered quantities of Gas shall be allocated to the Shipper for the period prior to the point in time when the interruption occurred.

### **3.5 Minimum throughput**

If on any Day the sum of quantities of Gas nominated by all shippers does not add up to the minimum throughput capacity as required to operate the Transportation System, Gassled's Daily Transportation Commitment shall be suspended.

### **3.6 Maximum increase in throughput**

If on any Day the quantities of Gas nominated by the Shipper for the following Day increase compared to the Shipper's nomination for the current Day to the extent that the nomination, in the Operator's sole opinion, cannot be honoured by Gassled due to a physical limitation to the total increase in the Transportation System throughput from one Day to another, Gassled's Daily Transportation Commitment shall be suspended.

### **3.7 The Operator's right to refuse deliveries**

Notwithstanding note 2 of article 7.2, if the Shipper has Gas for delivery which is processed at Åsgard B, the Operator shall have the right to instruct the Shipper to reduce the carbon dioxide content down to 2.00 mole % to the extent such Gas, in the reasonable opinion of the Operator, will cause Gas at the Area C Exit Point(s) to be Off-spec Gas with regard to carbon dioxide.

## 4 OPERATING CONDITIONS AND QUALITY REQUIREMENTS

### 4.1 Requirements at the Entry Point(s)

For Gas entering Area A, the operating conditions and quality specifications in article 7.1 shall apply (the "Specifications").

For Gas entering Area B, the operating conditions and quality specifications in article 7.2 shall apply (the "Specifications").

For Unstabilised Condensate entering Area C, the operating conditions and quality specifications in article 7.3 shall apply (the "Specifications").

For Gas entering Area D, the operating conditions and quality specifications in article 7.4 shall apply (the "Specifications").

For Gas entering Area E, the operating conditions and quality specifications in article 7.5 shall apply (the "Specifications").

For Gas entering Area F, the operating conditions and quality specifications in article 7.6 shall apply (the "Specifications").

For Gas entering Area G, the operating conditions and quality specifications in article 7.7 shall apply (the "Specifications").

For Gas entering Area H, the operating conditions and quality specifications in article 7.8 shall apply (the "Specifications").

For Gas entering Area I, the operating conditions and quality specifications in article 7.9 shall apply (the "Specifications").

In addition, the Gas shall be free from objectionable odours, materials, or liquid matter, waxes, gums and gum-forming constituents and dust or other solid matter which might cause damage to or interference with the proper operation of facilities through which it flows.

### 4.2 Requirements at the Exit Point(s)

For Gas being redelivered from Area C and Area E to Area D, the operating conditions and quality specifications in article 7.4 shall apply (the "Specifications").

For Gas being redelivered at Exit Point B2 (Draugen), the operating conditions and quality specifications in article 7.11 shall apply (the "Specifications").

For NGL and Stabilised Condensate being redelivered from Area C, the operating conditions and quality specifications in article 7.12 shall apply (the "Specifications").

For Gas being redelivered from Area D, the operating conditions and quality specifications in article 0 shall apply (the "Specifications").

For Gas being redelivered at Exit Point E2 and at Exit Point E5, the operating conditions and quality specifications in article 7.14 shall apply (the “Specifications”).

For NGL being redelivered from Area E, the operating conditions and quality specifications in article 7.15 shall apply (the “Specifications”).

For Gas being redelivered from Area F, the operating conditions and quality specifications in article 7.16 shall apply (the “Specifications”).

For Gas being redelivered at Exit Point H2, the operating conditions and quality specifications in article 7.17 shall apply (the “Specifications”).

For Gas being redelivered from Area I, the operating conditions and quality specifications in article 7.18 shall apply (the “Specifications”).

If the Operator redelivers or expects to redeliver Off-spec Gas to the Shipper, the Operator shall inform the Shipper as soon as possible.

### **4.3 Combination of Gas in order to meet the quality requirements**

The Operator shall use reasonable endeavours to commingle Gas within the Transportation System and, if applicable, at the Exit Point(s) to ensure that the Specifications at the Exit Point(s) can be met.

The Operator shall advise the Shipper how to combine its sources of Gas in order to comply with the Specifications at the Entry Point(s) and the Exit Point(s). However, the responsibility to ensure such compliance stays with the Shipper.

### **4.4 Removal Service**

#### **4.4.1 Carbon dioxide removal in Area C**

Notwithstanding article 4.1, if Shipper has sufficient Quality Removal Service for carbon dioxide in Area C, the Shipper shall have the right to deliver Gas according to note 3 of article 7.1, note 3 of article 7.2 and note 1 of article 7.8.

#### **4.4.2 Hydrogen sulphide removal in Area C**

Notwithstanding article 4.1, if Shipper has sufficient Quality Removal Service for hydrogen sulphide in Area C, the Shipper shall have the right to deliver Gas according to note 2 of article 7.1, note 4 of article 7.2 and note 2 of article 7.8.

### **4.5 Blending Service**

#### **4.5.1 Carbon dioxide blending in Area C**

Notwithstanding article 4.1, if Shipper has sufficient Quality Blending Service for

carbon dioxide in Area C, the Shipper shall have the right to deliver Off-spec Gas according to note 3 of article 7.1, note 3 of article 7.2 and note 1 of article 7.8.

#### **4.5.2 Carbon dioxide blending in Area D**

Notwithstanding article 4.1, if Shipper has sufficient Quality Blending Service for carbon dioxide in Area D, the Shipper shall have the right to deliver Off-spec Gas according to note 5 of article 7.4.

#### **4.5.3 Hydrogen sulphide blending in Area D**

Notwithstanding article 4.1, if Shipper has sufficient Quality Blending Service for hydrogen sulphide in Area D, the Shipper shall have the right to deliver Off-spec Gas according to note 6 of article 7.4.

#### **4.5.4 Carbon dioxide blending in Area E**

Notwithstanding article 4.1, if Shipper has sufficient Quality Blending Service for carbon dioxide in Area E, the Shipper shall have the right to deliver Off-spec Gas according to note 2 of article 7.7.

#### **4.5.5 Hydrogen sulphide blending in Area E**

Notwithstanding article 4.1, if Shipper has sufficient Quality Blending Service for hydrogen sulphide in Area E, the Shipper shall have the right to deliver Off-spec Gas according to note 3 of article 7.7.

### **4.6 Liquid product quality compensation**

If Gassled redelivers to the Shipper NGL and Stabilised Condensate at the Exit Point(s) in Area C that are outside the Specification at the Exit Point(s), then Gassled shall compensate the Shipper in accordance with article 9 in the NGL Lifting Procedure or article 10 in the Gudrun Blend Lifting Procedure as applicable.

The costs for such product quality compensation shall be carried by all shippers in Area C, including the Shipper, by including such costs as a share of the operational costs for the applicable service in Area C.

### **4.7 Use of Third Party Facilities**

#### **4.7.1 Gas over Heimdal Facilities (Not in use)**

#### **4.7.2 Commingling Gas at Exit Point D7**

At Exit Point D7 at St. Fergus the Gas may for operational and gas quality control reasons be routed from Gassled Area D to the Frigg UK Association (FUKA) transportation system and redelivered from the FUKA transportation system into the downstream transportation system. The Gas shall nevertheless be considered to be within the Transportation System and redelivered at Exit Point D7 and Terms and Conditions shall apply accordingly.

The Shipper undertakes and agrees that Article 10.1 of the Terms and Conditions also shall apply in respect of FUKA and the operator of the FUKA transportation system when Shipper's Gas is routed in accordance with this article 4.7.2.

#### **4.7.3 Gas over Statfjord facilities**

To reach Exit Points A2 and A3 and from Entry Point F4 the Gas will be routed over the Statfjord facilities. The Gas shall nevertheless be considered to be within the Transportation System and Terms and Conditions shall apply accordingly.

The Shipper undertakes and agrees that Article 10.1 of the Terms and Conditions also shall apply in respect of Statfjord and the operator of the Statfjord facilities when Shipper's Gas is routed in accordance with this article 4.7.3.

## **5 MEASUREMENTS, TESTS AND ANALYSES**

### **5.1 General**

Subject to governmental regulations, all measurement, testing, on-line analysis and sampling facilities and procedures necessary to monitor the Gas quality and perform allocation of Shipper's Gas according to article 6, shall be in accordance with this article 5. The procedures shall be made on the basis of high and consistent accuracy between measurement, test, on-line analysis and sampling of the Gas streams.

### **5.2 Measurements, tests and analyses at the Entry Point(s)**

In order to monitor the operating conditions and the quality of the Gas to be delivered at the Entry Point(s), the Shipper shall carry out or cause to be carried out on its behalf necessary measurements, analyses and tests in the manner and frequency as requested by the Operator and shall have results from such measurements, analyses and tests transmitted to the Operator.

Relevant data and specifications for any measuring facilities required upstream the Entry Point(s) to perform such monitoring of the operating conditions and the quality of the Gas shall be subject to review by the Operator.

### **5.3 Measurements, tests and analyses at the Exit Point(s)**

In order to monitor the operating conditions and the quality of the Gas redelivered at the Exit Point(s), the Operator shall carry out or cause to be carried out the necessary measurements, analyses and tests in the manner and frequency set by the Operator and shall make the results from such measurements, analyses and tests available to the Shipper if so requested. At the Exit Point F1 (FLAGS) and Exit Point I1 (FLAGS) the operation conditions and the quality of the Gas shall be deemed to be equal to the operation conditions and the quality of the Gas measured and analysed at the Entry Point(s) to Area F and Area I respectively.

### **5.4 Facilities upstream of the Entry Point(s)**

Subject to last paragraph of this article 5.4 the Shipper shall, at its own expense, have or ensure to have measurement, testing, on-line analysis and/or sampling

facilities installed maintained and operated upstream of the Entry Point(s). The design, installation and operation of said facilities shall be subject to approval by the Operator. Such approval shall not be unreasonably withheld or delayed.

The Shipper shall ensure that the Operator have access at reasonable times to said facilities to witness the calibrations and tests and to observe the operation of the measurement, testing, on-line analysis and/or sampling facilities installed upstream the Entry Point(s). The Shipper shall furnish the Operator, at its request and for its audit, any and all metering data and other test information applicable to said facilities reasonably necessary for verification of the measurements contemplated in this article 5.4.

In the event the Shipper or the Shipper's Field Operator(s) experience a malfunction of its measurement, testing, on-line analysis and/or sampling facilities which may affect the accuracy of measurement, the Shipper shall ensure that the Shipper's Field Operator(s) as soon as practically possible advise the Operator of the same. In such a case, the Gas quantities delivered shall be estimated by the respective Shipper's Field Operator(s) and approved by the Operator. In the event that the malfunction prevents the Operator from properly allocating the received quantities to each shipper in accordance with article 6 and the malfunction cannot be corrected within a period of time acceptable to the Operator and as notified to the Shipper, then deliveries hereunder shall cease until such time as the malfunction has been corrected to the satisfaction of the Operator and the Operator has notified the Shipper that deliveries may be resumed.

Unless fiscal metering is installed upstream Entry Point E1, total mass and composition of the deliveries at Entry Point E1 will be established by calculating the difference between the sum of all Gas out of Area E, and all other Gas streams measured into Area E.

## **5.5 Facilities downstream of the Entry Point(s)**

The Operator shall arrange at its expense, with respect to all deliveries within and redeliveries from the Transportation System and/or any downstream receiving terminals, to have all measurement, testing, on-line analysis and/or sampling facilities installed, operated and maintained downstream the Entry Point(s). All tests and other procedures according to this article necessary for allocation and accounting of Shipper's Gas in accordance with article 6 shall be performed in strict compliance herewith at each point where measurement, testing, on-line analysis and/or sampling facilities are installed in the Transportation System and/or any downstream receiving terminal(s) for allocation of Shipper's Gas.

Furthermore, at the request of the Shipper, the Operator will give reasonable notice to permit representatives of the Shipper to witness calibrations and tests, and to observe the operation of the relevant measurement, testing, on-line analysis and/or sampling facilities for allocation and accounting of Shipper's Gas and the Operator shall also furnish to the Shipper at its request and for its audit, any and all metering data and other analyses and testing information applicable

to said facilities, reasonably necessary for the verification of the measurements contemplated in this article 5.5.

## 5.6 Design of measurement facilities

Subject to governmental regulations, the following principles shall apply for the metering equipment used for allocation of Shipper's Gas in the Transportation System.

The following related to the allocation of the Shipper's Gas, shall be measured fiscally;

- the mass of Gas at the Shipper's Fields for all deliveries of Rich Gas and Unstabilised Condensate into Area A , Area B and Area C except, subject to article 6.2.1, for Rich Gas at Entry Point A1,
- the mass and energy of Gas for all deliveries of Gas into and out of Area D,
- the mass of NGL delivered out of Area C,
- the mass of Stabilised Condensate delivered out of Area C to vessels,
- the mass of Gas at the Shipper's Fields for all deliveries of Gas into Area E except, subject to article 5.4 last paragraph, for Rich Gas at Entry Point E1,
- the mass of Gas for all deliveries of Gas out of Area E,
- the mass of Gas for all deliveries of Gas into Area F,
- the mass of Gas for all deliveries of Gas into Area G,
- the mass of Gas for all deliveries of Gas into Area H, and
- the mass of Gas for all deliveries of Gas into Area I.

Fiscal metering systems shall be designed according to one of the following principles;

- orifice meters in accordance with ISO 5167,
- turbine meters for gas in accordance with ISO 9951 and AGA 7,
- turbine meters for liquids in accordance with API MPMS,
- ultrasonic meters according to relevant standards, or
- any other design agreed between the Operator and the shippers.

Any metering system shall be designed and constructed to have a high and consistent accuracy.

The design of any metering system to be used for the above purposes shall be approved by the Operator.

## **5.7 Maintenance, calibration and measurement errors**

### **5.7.1 Maintenance and calibration**

To ensure that measurement accuracy is maintained within tolerance limits, all measurement equipment shall be maintained and operated in accordance with;

- governmental regulations,
- applicable codes,
- manufacturer's specifications,
- the Operator's requirements related to fiscal metering, and
- the Shipper's Field Operator's own requirements and procedures.

Tolerance limits are specified in the same regulations, codes, specifications and requirements as described above.

Calibration tests of the measurement equipment shall be performed in accordance with the above and as agreed with the relevant operator(s) of the Field(s).

Any Shipper whose interests may be affected by a measurement error may request the Operator to initiate special tests of the above measurement equipment in addition to the agreed regularly scheduled tests. The expense of any such special test shall be borne by the Shipper requesting such special test, unless such test shows that the error in the total mass flow, caused by a component being in error or out of calibration, exceeds 0.4 per cent, in which case the expense of the special test shall be included as normal operating cost in the relevant Area.

### **5.7.2 Measurement errors etc.**

If any measurement equipment is out of service and the quantity of Gas delivered is not correctly indicated by the reading thereof, the quantity delivered, during such period, shall be estimated by the operator of the measurement equipment in question on the basis of the best data available

- by using the registration of any check/backup measurement equipment, or
- by correcting the error if the percentage of error is ascertainable by calibration, test or mathematical calculations, or

- by estimating the quantity of delivery by deliveries during preceding and/or subsequent periods under similar conditions when the measurement equipment was in service.

If a measurement error is detected, the relevant measurement equipment shall be replaced, repaired or adjusted to record accurately, as determined appropriate by the Operator.

In case of Significant Systematic Errors, previous recordings shall be corrected for the relevant period. If it is not possible to document how long such error has persisted, the corrections shall be performed for half the time elapsed since the date of the last test.

## 5.8 Analysis

Analyses for allocation of Shipper's Gas shall be established by on-line chromatography, or by analysing flow proportional composite samples from the streams in question.

On-line gas chromatographs and flow proportional samplers shall be operated and maintained according to applicable standards and best practices.

Any analysis to be used in the allocation Shipper's Gas shall be representative for the stream and time in question.

The gas shall be analysed by gas chromatography according to ASTM 1945 latest version, to determine the content of;

- nitrogen,
- carbon dioxide,
- methane,
- ethane,
- propane,
- iso-butane,
- normal butane,
- iso-pentane,
- normal pentane,
- hexanes and heavier components.

Hexanes and heavier components shall be further analysed if necessary to meet requirements in the prevailing measurement regulations. In such cases, the composition shall be reported in mass % per Component to the Operator.

Due to the expected variations in flow and in gas composition, the resulting composition shall be flow weighted, either by performing flow proportional sampling, or by combining the analyses from online gas chromatographs with the flow as metered by the fiscal metering system.

When online gas chromatograph is used, a daily flow weighted analysis shall be calculated.

For streams included in monthly allocation, a monthly flow weighted analysis shall be established.

The analysis corresponding to the relevant allocation period shall be reported to the Operator.

## 5.9 Codes and standards

Codes and standards to be used for measurement, test, on-line analysis and/or sampling of the Gas are subject to governmental regulations.

Listed below are codes which are generally accepted in the oil and gas industry, any of which may be used for the purpose herein. The Operator will inform the Shipper if a change to a newer version of any standard is prepared.

- NORSOK standard I-106  
Fiscal metering systems for hydrocarbon liquid and gas.
- International Standard ISO 80000  
Quantities and units.
- International Standard ISO 3171  
Petroleum Liquids – Automatic Pipeline Sampling.
- International Standard ISO 5024  
Petroleum Liquids and Liquefied Petroleum Gases - Measurement -Standard reference conditions.
- International Standard ISO 5167  
Measurement of fluid flow by means of pressure differential devices inserted in circular cross-section conduits running full - Part I: General principles and requirements, Part 2: Orifice plates, Part 3: Nozzles and Venturi nozzles, Part 4: Venturi tubes.
- International Standard ISO 5168  
Measurement of Fluid Flow – Procedure for the Evaluation of Uncertainty.
- International Standard ISO 6974  
Natural Gas – Determination of composition with defined uncertainty by gas chromatography, Part 1: Guidelines for tailored analysis, Part 2: Measuring-system characteristics and statistics for processing of data, Part 3: Determination of hydrogen, helium, oxygen, nitrogen, carbon dioxide and hydrocarbons up to C8 using two packed columns, Part 4: Determination of nitrogen, carbon dioxide and C1 to C5 and C6+ hydrocarbons for a laboratory and on-line measuring system using two columns.

- International Standard ISO 6976  
Natural Gas - Calculation of Calorific Values, Density, Relative Density and Wobbe Index from composition.
- International Standard ISO 9951  
Measurement of gas flow in closed conduits - Turbine meters.
- International Standard ISO 10715  
Natural Gas - Sampling Guidelines.
- International Standard ISO 10790  
Measurement of fluid in closed conduits – Guidance to the selection, installation and use of Coriolis meters (mass flow, density and volume flow measurements).
- International Standard ISO 12213  
Natural Gas - Calculation of compression factor, Part 1: Introduction and guidelines, Part 2: Calculation using molar-composition analysis.
- AGA-7  
Measurement of Natural Gas by Turbine Meters – AGA Transmission Measurement Committee Report No. 7.
- AGA 8  
Compressibility Factor of Natural Gas and Related Hydrocarbon Gases – AGA Transmission Measurement Committee Report No. 8.
- AGA 9  
Measurement of Gas by Multipath Ultrasonic Meters – AGA Transmission Measurement Committee Report No. 9.
- AGA 10  
Speed of Sound in Natural Gas and Other Related Hydrocarbon Gases – AGA Transmission Measurement Committee Report No. 10.
- AGA 11  
Measurement of Natural Gas by Coriolis Meter – AGA Transmission Measurement Committee Report No. 11.
- ASTM D- 1945  
Analysis of Natural Gas by Gas Chromatography.
- ASTM D-3700  
Standard Test Method for Obtaining Hydrocarbon Fluid Samples Using a Floating Piston Cylinder.
- GPA Publication 2166  
Methods for Obtaining Natural Gas Samples for Analysis by Gas Chromatography.
- API Manual of Petroleum Measurement Standards  
Chapter 14 - Natural Gas Fluids Measurement.

- ISO 17089-1  
Measurement of fluid flow in closed conduits - Ultrasonic meters for gas -  
Part 1: Meters for custody transfer and allocation measurement.

## 6 ALLOCATION OF SHIPPER'S GAS

### 6.1 General

#### 6.1.1 Preliminary reporting

The Operator shall report the metered quantities and the calculations of the Shipper's Gas to the Shipper within the 7<sup>th</sup> Business Day of the succeeding Month. The report may be postponed if the mass and analysis result as described in article 6.2.7 seventh paragraph second sentence is issued later than the 1<sup>st</sup> Business Day of the Month succeeding the Month in which the analysis was taken. The standards and practices applicable to the metering and analysis in article 5 shall apply for the allocation calculations.

#### 6.1.2 Final reporting

The Operator shall report the final metered quantities and the calculations of the Shipper's Gas to the Shipper within the 7<sup>th</sup> Business Day of the next succeeding Month. The standards and practices applicable to the metering and analysis in article 5 shall apply for the allocation calculations.

#### 6.1.3 Reallocation

In case of Significant Systematic Errors or in case of other errors in the Operator's system that affect the Shipper, reallocation shall normally be performed by adjustments to the actual Month.

In case of any of the abovementioned errors having occurred more than 24 Months before the start of the current calendar year, the Operator shall decide how reallocation shall be performed, preferably by adjustments to the last 24 Months.

The Operator may, in its sole opinion, decide not to perform reallocation for errors, if the cost for such reallocation exceeds the value of the error or otherwise is unreasonable.

Operator's decisions according to this article 6.1.3 are final.

#### 6.1.4 Yearly reallocation

The Operator will report adjustments to the final metered quantities during the first half of the succeeding year taking into account any reporting from the Shippers after the final reporting as described in article 6.1.2. In case of significant errors the Operator may perform a reallocation during the year.

## 6.2 Gas allocation

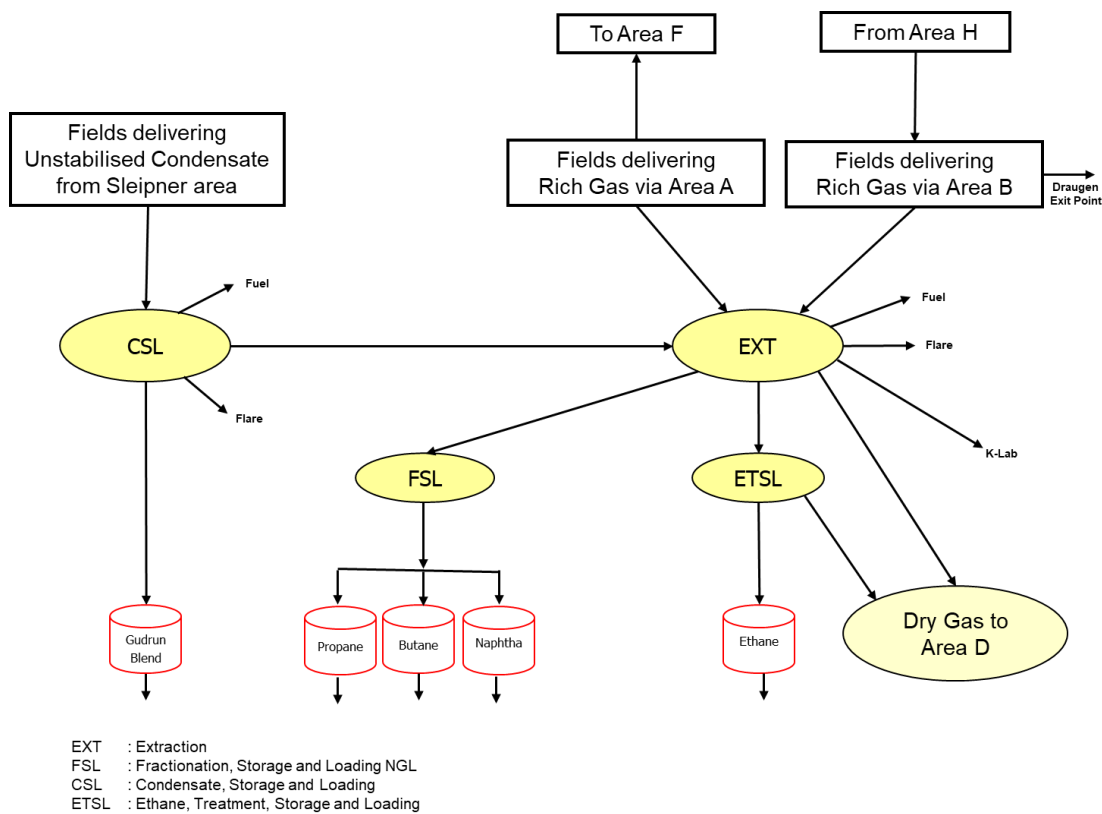
### 6.2.1 Measurement scheme Area A, Area B, Area C and Area H

The measurement scheme for Area A, Area B and Area C comprises measurement facilities at each of the Fields delivering Gas into Area A, Area B or Area C, except for Entry Point A1 and Entry Point B2. In addition there are measurement facilities for Gas leaving Area A to Area F and to the 12 " Statfjord UK Gas Pipeline. Gas delivered at Entry Point A1 is calculated based on production upstream this Entry Point and Gas delivered to Area F and the 12 " Statfjord UK Gas Pipeline. Gas delivered at Entry Point B2 is calculated based on production upstream this Entry Point and Gas redelivered at Exit Point H2. Gas leaving Area H at Exit Point H2 is calculated based on Daily Nomination for such Exit Point. Gas leaving Area H at Exit Point H1 is calculated based on production in to Area H and Gas leaving Area H at Exit Point H2.

In Area C, facilities are provided to measure the:

- Dry Gas export stream(s)
- Delivery streams of NGL and Stabilised Condensate
- NGL and Stabilised Condensate present in storage tanks
- Fuel Gas consumption
- Gas stream to flare
- Other streams or storage used in connection with allocation of Shipper's Gas.

A principles sketch of the allocation scheme is shown in figure 1.

**Figure 1. : Measurement Scheme Areas A, B, C, F and H**

### 6.2.2 Measurement Area F

The measurement for Area F comprises measurement facilities at each of the Entry Points where Gas is delivered into Area F.

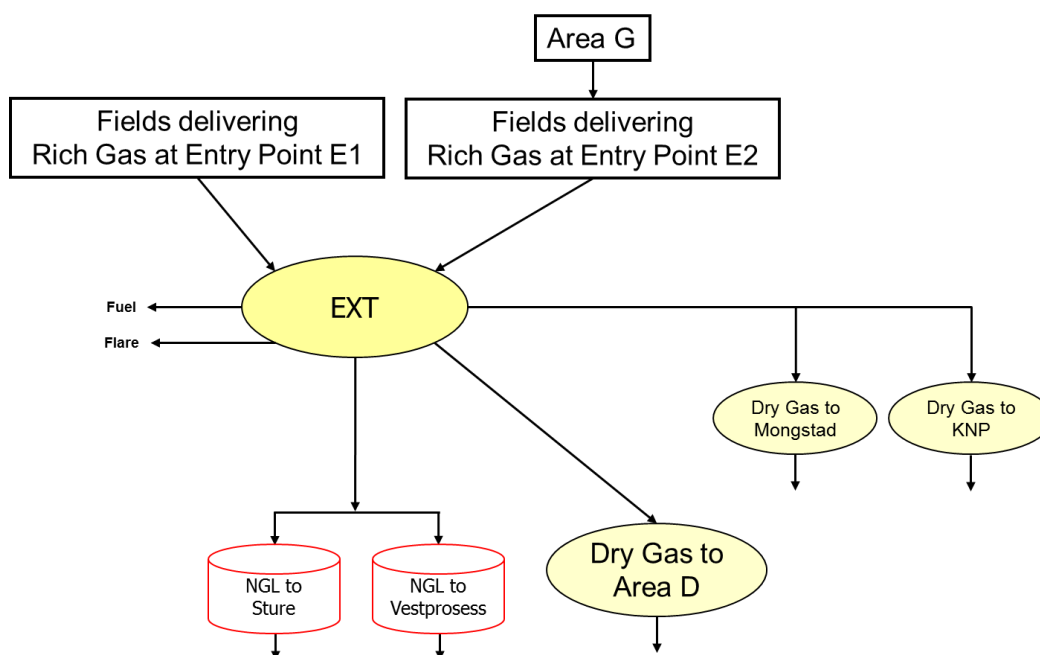
### 6.2.3 Measurement scheme Area E

The measurement scheme for Area E comprises measurement facilities at each of the Fields delivering Gas into Area G.

In Area E, facilities are provided to measure the:

- Dry Gas export streams
- Delivery streams of NGL to Vestprosess and Sture
- Fuel Gas consumption
- Gas stream to flare
- Other streams or storage used in connection with allocation of Shipper's Gas.

A principles sketch of the allocation scheme is shown in figure 2.

**Figure 2. : Measurement Scheme Areas E and G****6.2.4 Measuring Area G**

The measurement for Area G comprises measurement facilities at each of the Entry Points where Gas is delivered into Area G.

**6.2.5 Measuring Area H**

The measurement for Area H comprises measurement facilities at each of the Entry Points where Gas is delivered into Area H.

**6.2.6 Measuring Area I**

The measurement for Area I comprises measurement facilities at each of the Entry Points where Gas is delivered into Area I.

**6.2.7 Measuring, sampling and analysis**

The Operator shall determine the total mass of each separate Gas stream mentioned in article 6.2.1. The total mass of each stream of NGL and Stabilised Condensate shipped from Area C shall be determined by the Operator by metering the mass during loading of vessels.

The Operator shall determine the total mass of each separate Gas stream mentioned in article 6.2.2.

The Operator shall determine the total mass of each separate Gas stream mentioned in article 6.2.3. The total mass of Gas delivered at Entry Point E1 shall be determined by the Operator by differential metering subject to article 5.4.

The Operator shall determine the total mass of each separate Gas stream mentioned in article 6.2.4.

The Operator shall determine the total mass of each separate Gas stream mentioned in article 6.2.5.

The Operator shall determine the total mass of each separate Gas stream mentioned in article 6.2.6.

The Shipper shall, if requested by the Operator, ensure that a verified mass and a representative analysis is obtained from each of the streams from the Shipper's Field(s) to determine the Components and any other substances as may be required for purposes of allocation of Shipper's Gas. Such mass and analysis results shall be issued to the Operator within the 1<sup>st</sup> Business Day of the Month succeeding the Month in which the analysis was undertaken. For Fields delivering into Areas with daily allocation, such mass and analysis results shall instead be issued to the Operator every day within 09:00 for the previous Day.

The Shipper shall ensure that the result of sample analysis at the Shipper Field(s) is reported to the Operator for each Component as described in article 5. The Operator shall use the result of such analysis for accounting and allocation purposes.

The Operator shall for all calculations herein set the properties of combined hexanes and heavier hydrocarbons equal to normal hexane.

#### **6.2.8 Special consideration for Entry Point A1**

The total mass of the Shipper's Gas delivered at Entry Point A1 shall be its share of the total mass delivered from all shippers calculated as described in article 6.2.1 using the Shipper's Daily Nomination. The Shipper's share of the Components shall be adjusted for Components in the Daily Nomination of shippers Gas from Area A to Area F and from Area A to the 12 " Statfjord UK Gas Pipeline.

#### **6.2.9 Allocation of Components**

The streams from the Shipper's Field(s), except for Gas delivered at Entry Point E1, subject to article 6.2.4, shall be metered and analysed in accordance with article 6.2.3 during each Accounting Period. The mass of each of the individual Components in a stream shall be equal to the total mass of such stream multiplied by the mass fraction of each Component.

The Shipper's fractional share of a Component for each Shipper's Field(s) in a commingled stream shall be the mass of that Component in the input stream from the Shipper's Field(s), divided by the total mass of that Component for all input streams entering and becoming a part of the commingled streams.

When a commingled stream is split into two or more separate streams, the Shipper's fractional share of a Component for each Shipper's Field(s) shall remain the same in each such separate stream.

The Shipper's fractional share for each Shipper's Field(s) shall also apply to the output streams from Area C, including NGL and Stabilised Condensate.

The Shipper's fractional share for each Shipper's Field(s) shall also apply to the output streams from Area E, including NGL.

The Shipper's allocation percentage of the Shipper's fractional share for each Shipper's Field(s) shall be based on the Daily Nominations provided by the Shipper for the Shipper's Field(s).

In cases where there are no shipper nomination in respect of a Field the Operator will use an allocation key provided by the field operator.

#### **6.2.10 Fuel Gas, Gas to flare and Replacement Gas**

The Shipper shall ensure that Fuel Gas requirements at the Shipper's Field(s) shall be withdrawn upstream of the Gas metering facilities. In the event Gas is withdrawn or vented downstream of the metering facilities, it shall be appropriately accounted for by procedures approved by the Operator.

Fuel Gas and Gas to flare withdrawn in Area C shall be divided between specific services, and shall be accounted for and debited the Shipper in accordance with article 6.2.9.

Fuel Gas and Gas to flare withdrawn in Area E shall be accounted for and debited the Shipper in accordance with article 6.2.9.

Where determinable losses occur, Replacement Gas shall be accounted for and debited the Shipper in accordance with article 6.2.9.

#### **6.2.11 Shipper failing to lift NGL in Area C**

Product flaring in connection with the Shipper failing to lift NGL in Area C shall be treated as a "lifting" for the Shipper.

#### **6.2.12 Special consideration for ethane reinjection**

In case of reinjection of ethane to Area D according to Shipper's nomination, the allocation of such components deviates from article 6.2.9. Nominated re-injection of ethane will be allocated pro-rata between nominated Shippers. Operationally re-injected ethane to Area D, labelled "common", will be allocated in accordance with ownership of remaining ethane.

#### **6.2.13 Special consideration for Entry Point F1 and Entry Point F2**

The Shipper's Gas delivered at Entry Point F1 and F2 shall be the total deliveries at the Entry Points allocated in accordance with instructions from all shippers at such Entry Points.

#### **6.2.14 Reporting of Area F and Area I Gas**

The mass of each of the individual Components in the Shipper's Gas shall each Day be reported to the Shipper.

#### **6.2.15 Special consideration for Exit Point H2**

The Shipper's Gas at Exit Point H2 shall be equal to the sum of the Shipper's Daily Nomination and the mass of the individual Components in the Shipper's Gas shall be proportional to the mass in the Gas from the Shipper's Field such Gas is nominated.

Shippers' Gas in Area H may be delivered to Exit Point H1 (Entry Point B2) and/or Exit Point H2. Deliveries to Exit Point H1 are calculated by difference between Entry Point H1 and Exit Point H2.

#### **6.2.16 Special consideration for Exit Point B2 (Draugen)**

In case of Shipper's nominations to Exit Point B2, the allocation of such Components deviates from the principles in article 6.2.9. Shipper's nominations to Exit Point B2 shall reduce such Shipper's ownership of Components to Exit Point B1 using the composition of the nominating Shipper's Field(s).

### **6.3 Dry Gas accounting**

#### **6.3.1 Accounting principle**

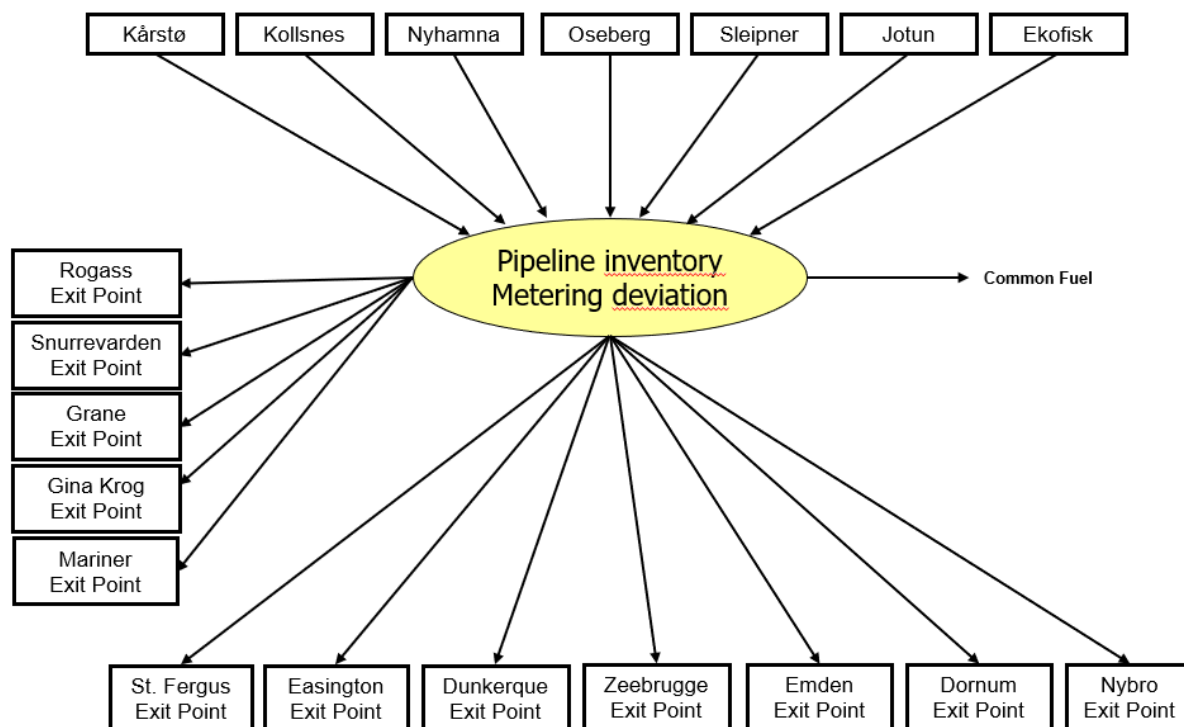
All calculations in the Dry Gas accounting are performed in energy.

#### **6.3.2 Measurement Dry Gas**

The measurement facilities for Area D are at the following locations;

- at each of the Fields delivering Gas into Area D, upstream Area D Entry Points;
- at the outlet of Area C, Area E and Area P for deliveries into Area D;
- at each of the Area D Exit Points where the Gas is redelivered from Area D;
- where Fuel Gas is consumed;
- where other streams or storage are used in connection with the accounting of Shipper's Gas.

Allocation of Dry Gas from Area C and Area E is based on the allocation principles described in article 6.2.

**Figure 3. : Measurement Scheme Area D**

### 6.3.3 Shipper's Fuel Gas

The Shipper shall ensure that Fuel Gas requirements at the Shipper's Field shall be withdrawn upstream of the Gas metering facilities. In the event Gas is withdrawn or vented downstream of the metering facilities, it shall be appropriately accounted for by procedures approved by the Operator.

The Area D Fuel Gas is allocated pro rata to shippers according to the respective shippers allocated share of the total Gas at the Area D Exit Points.

## 7 TABLES

### 7.1 Entry specifications for Gas entering Area A

| Designation and unit                                         | Specification | Notes |
|--------------------------------------------------------------|---------------|-------|
| Maximum operating pressure (barg)                            | 167           | 1     |
| Minimum operating pressure (barg)                            | 120           |       |
| Maximum operating temperature (°C)                           | 50            | 4     |
| Maximum cricondenbar pressure (barg)                         | 110           |       |
| Maximum cricondentherm temperature (°C)                      | 40            |       |
| Maximum water content (ppm vol)                              | 53            |       |
| Maximum carbon dioxide (mole %)                              | 2.00          | 3     |
| Maximum hydrogen sulphide and COS (ppm vol)                  | 2.5           | 2     |
| Maximum O <sub>2</sub> (ppm vol)                             | 2.0           |       |
| Max. daily average methanol content (ppm vol)                | 2.5           |       |
| Max. daily average glycol content (litres/MSm <sup>3</sup> ) | 8             |       |

- (1) Based on maximum operating pressure at Statfjord B  
 (2) Subject to article 4.4.2 the maximum sum of hydrogen sulphide and COS is 17.3 ppm (vol).  
 (3) Subject to articles 4.4.1 and 4.5.1 the maximum carbon dioxide is 6.00 mole %  
 (4) At Entry Point A4 maximum operating temperature is 45°C

## 7.2 Entry specifications for Gas entering Area B

| Designation and unit                                         | Specification | Notes |
|--------------------------------------------------------------|---------------|-------|
| Maximum operating pressure (barg)                            | 210           | 1     |
| Minimum operating pressure (barg)                            | 112           |       |
| Maximum operating temperature (°C)                           | 60            |       |
| Minimum operating temperature (°C)                           | -10           |       |
| Maximum cricondenbar pressure (barg)                         | 105           |       |
| Maximum cricondentherm temperature (°C)                      | 40            |       |
| Maximum water content (ppm vol)                              | 36            |       |
| Maximum carbon dioxide (mole %)                              | 2.00          | 2, 3  |
| Maximum hydrogen sulphide and COS (ppm vol)                  | 2.0           | 4, 5  |
| Maximum O <sub>2</sub> (ppm vol)                             | 2.0           |       |
| Max. daily average methanol content (ppm vol)                | 2.5           |       |
| Max. peak methanol content (ppm vol)                         | 20            |       |
| Max. daily average glycol content (litres/MSm <sup>3</sup> ) | 8             |       |

- (1) Calculated at the Entry Point B1.
- (2) For Gas processed at Åsgard B maximum carbon dioxide is 2.30 mole %.
- (3) Subject to articles 4.4.1 and 4.5.1 the maximum carbon dioxide is 8.00 mole %
- (4) Subject to article 4.4.2 the maximum sum of hydrogen sulphide and COS is 50 ppm (vol).
- (5) For Gas processed at Åsgard B maximum hydrogen sulphide including COS is 2.5 ppm (vol).

### 7.3 Entry specifications for Unstabilised Condensate entering Area C

| Designation and unit                              | Specification |
|---------------------------------------------------|---------------|
| Maximum operating pressure (barg)                 | 18            |
| Minimum operating pressure (barg)                 | 10            |
| Maximum operating temperature (°C)                | 20            |
| Minimum operating temperature (°C)                | -5            |
| Maximum Salt (ppm weight)                         | 7             |
| Maximum hydrogen sulphide (ppm mole/mole% ethane) | 0.22          |
| Maximum carbonyl sulphide (ppm weight)            | 1.8           |
| Maximum methyl mercaptans (ppm weight)            | 2.2           |
| Maximum ethyl mercaptans (ppm weight)             | 2.2           |
| Maximum carbon dioxide (mole %)                   | 1.50          |
| Maximum basic sediment and water (volume %)       | 0.2           |
| Maximum sediments (weight %)                      | 0.05          |
| TVP (at 37.8 °C) bara                             | 13            |
| Maximum silicon (ppb)                             | 4000          |
| Maximum Total Acid Number (TAN) - (mg KOH)/g      | 0.5           |

## 7.4 Entry specifications for Gas entering Area D

| Entry Point                                  | Maximum operating pressure [barg] | Maximum operating temperature [°C] | Minimum operating temperature [°C] | Notes |
|----------------------------------------------|-----------------------------------|------------------------------------|------------------------------------|-------|
| D3 (Oseberg)                                 | 148.9                             | 60                                 | -20                                |       |
| D4A (Heimdal)                                | 151.8                             | 50                                 | -10                                | 7     |
| D4B (Heimdal)                                | 149                               | 50                                 | -20                                | 7     |
| D6 (Jotun)                                   | 148.9                             | 50                                 | -10                                |       |
| D7A (Sleipner)                               | 149                               | 60                                 | -10                                | 1     |
| D7B (Sleipner)                               | 149                               | 60                                 | -10                                | 1     |
| D8 (Ekofisk)                                 | 120                               | 49                                 | -5                                 |       |
| D9 (Nyhamna)                                 | 248                               | 50                                 | -10                                |       |
| <b>Designation and unit</b>                  |                                   |                                    | <b>Specification</b>               |       |
| Hydrocarbon dewpoint (°C at 50 barg)         |                                   |                                    | < - 10                             |       |
| Water dew point (°C at 69 barg)              |                                   |                                    | -18                                |       |
| Maximum carbon dioxide (mole %)              |                                   |                                    | 2.50                               | 2,5   |
| Maximum oxygen (ppm vol)                     |                                   |                                    | 2                                  |       |
| Maximum hydrogen sulphide incl. COS (mg/Nm³) |                                   |                                    | 5                                  | 3,6   |
| Maximum mercaptans (mg/Nm³)                  |                                   |                                    | 6.0                                |       |
| Maximum sulphur (mg/Nm³)                     |                                   |                                    | 30                                 | 4     |
| Gross Calorific Value (MJ/Sm³)               |                                   |                                    | 38.1 – 43.7                        |       |
| Gross Calorific Value (MJ/Nm³)               |                                   |                                    | 40.2 – 46.0                        |       |
| Gross Calorific Value (kWh/Nm³)              |                                   |                                    | 11.17 – 12.78                      |       |
| Wobbe Index (MJ/Sm³)                         |                                   |                                    | 48.3 – 52.8                        |       |
| Wobbe Index (MJ/Nm³)                         |                                   |                                    | 51.0 – 55.7                        |       |
| Wobbe Index (kWh/Nm³)                        |                                   |                                    | 14.17 – 15.47                      |       |

- (1) Current maximum operating pressure at Entry Point D7A/B (Sleipner) limited to 149 barg due to maximum operating pressure at Sleipner A. Maximum pipeline operating pressure is 151.8 barg.
- (2) For the commingled stream of PL018 Gas, PL006 Gas and PL033 Gas at the Entry Point D8 (Ekofisk) the maximum carbon dioxide is 2.60 mole %.
- (3) For the comingled stream of PL 018 Gas, PL 006 Gas and PL 033 Gas at the Entry Point D8 (Ekofisk) the maximum hydrogen sulphide excluding COS is 15 mg/Nm³.
- (4) For the Entry Point D8 (Ekofisk) the maximum total sulphur is 150 mg/Nm³ (120 mg/Nm³ annual average).
- (5) Subject to article 4.5.2 the maximum carbon dioxide is 6.00 mol %.
- (6) Subject to article 4.5.3 the maximum hydrogen sulphide is 36 mg/Nm³ for the commingled stream at the Entry Point D8 (Ekofisk) and 15 mg/Nm³ for all other Entry Points.
- (7) Not in use.

## 7.5 Entry specifications for Gas entering Area E at Entry Point E1

| Designation and unit                                                      | Specification | Notes |
|---------------------------------------------------------------------------|---------------|-------|
| Maximum operating pressure (barg)                                         | 94            | 1     |
| Minimum operating pressure (barg)                                         | 75            | 1     |
| Maximum operating temperature (°C)                                        | 10            |       |
| Minimum operating temperature (°C)                                        | -3            |       |
| Maximum water content (g/Sm <sup>3</sup> )                                | 2.10          | 2     |
| Maximum carbon dioxide (mole %)                                           | 2.50          |       |
| Maximum hydrogen sulphide and COS (ppm vol)                               | 3.3           |       |
| Maximum total sulphur in vapour phase (mg/Nm <sup>3</sup> )               | 120           |       |
| Maximum total sulphur in condensate phase (mole %)                        | 0.40          |       |
| Maximum mercaptane sulphur in vapour phase (mg/Nm <sup>3</sup> )          | 6             |       |
| Maximum mercaptane as sulphur in condensate phase (ppm weight)            | 0.90          |       |
| Maximum oxygen (ppm vol)                                                  | None          |       |
| Maximum methanol content (ppm vol)                                        | None          |       |
| Minimum Mono Ethylene Glycole (MEG) in aqueous phase (weight %)           | 45            |       |
| Maximum Mono Ethylene Glycole (MEG) (m <sup>3</sup> /d)                   | 950           | 3     |
| Maximum salt (mg/litre)                                                   | None          |       |
| Maximum metal content (ppm weight)                                        | None          |       |
| Maximum corrosion products: Suspended Solid particles (ppm weight) in MEG | 55            | 4     |

- (1) Total capacity in Area E will be pending on the actual pressure.
- (2) Water from MEG injected at 90 per cent included.
- (3) MEG at 75 per cent weight for regeneration.
- (4) Including dissolved iron 6 ppm and iron as solid compounds 10 ppm.

## 7.6 Entry specifications for Gas entering Area F

| Designation and unit                          | Specification | Notes |
|-----------------------------------------------|---------------|-------|
| Maximum operating pressure (barg)             | 154           |       |
| Minimum operating pressure (barg)             | 115           |       |
| Maximum operating temperature (°C)            | 50            |       |
| Maximum cricondenbar pressure (bara)          | 110           |       |
| Maximum water content (ppm vol)               | 55            |       |
| Maximum carbon dioxide (mole %)               | 1.60          | 1     |
| Maximum hydrogen sulphide (ppm vol)           | 2.50          |       |
| Maximum O <sub>2</sub> (ppm vol)              | 10.0          |       |
| Max. daily average methanol content (ppm vol) | 100           |       |
| Max. daily average glycol content (ppm vol)   | 0.6           |       |
| Maximum Mercury (µg/Sm <sup>3</sup> )         | 0.01          |       |
| Maximum Non-hydrocarbon content (mole %)      | 5.5           |       |

(1) May exceed 1.60 mole % subject to acceptance from the SEGAL operator.

## 7.7 Entry specifications for Gas entering Area G

| Designation and unit                                                      | Specification | Notes |
|---------------------------------------------------------------------------|---------------|-------|
| Maximum operating pressure (barg)                                         | 148           | 7     |
| Minimum operating pressure (barg)                                         | 91            |       |
| Maximum operating temperature (°C)                                        | 50            |       |
| Minimum operating temperature (°C)                                        | -10           |       |
| Maximum water content (g/Sm <sup>3</sup> )                                | 0.65          | 1     |
| Maximum carbon dioxide (mole %)                                           | 2.20          | 2     |
| Maximum hydrogen sulphide and COS (ppm vol)                               | 3.3           | 3     |
| Maximum total sulphur in vapour phase (mg/Nm <sup>3</sup> )               | 120           |       |
| Maximum total sulphur in condensate phase (mole %)                        | 0.40          |       |
| Maximum mercaptane sulphur in vapour phase (mg/Nm <sup>3</sup> )          | 6             |       |
| Maximum mercaptane as sulphur in condensate phase (ppm weight)            | 0.90          |       |
| Maximum oxygen (ppm vol)                                                  | None          |       |
| Maximum methanol content (ppm vol)                                        | None          |       |
| Minimum Mono Ethylene Glycole (MEG) in aqueous phase (weight %)           | 45            | 4     |
| Maximum Mono Ethylene Glycole (MEG) (m <sup>3</sup> /d)                   | 28.5          | 5     |
| Maximum salt (mg/litre)                                                   | None          |       |
| Maximum metal content (ppm weight)                                        | None          |       |
| Maximum corrosion products: Suspended Solid particles (ppm weight) in MEG | 55            | 6     |

- (1) Water from MEG injected at 90 per cent included.
- (2) Subject to article 4.5.4 the maximum CO<sub>2</sub> is 4.00 mole %.
- (3) Subject to article 4.5.5 the maximum sum of hydrogen sulphide and COS is 10 ppm (vol).
- (4) Maximum bicarbonate in lean MEG (90 per cent MEG) is 360 mmol/l (total alkalinity).
- (5) Rich MEG.
- (6) Including dissolved iron 6 ppm and iron as solid compounds 10 ppm.
- (7) At Entry Point G1

## 7.8 Entry specifications for Gas entering Area H

| Designation and unit                                         | Specification | Notes |
|--------------------------------------------------------------|---------------|-------|
| Maximum operating pressure (barg)                            | 278           |       |
| Minimum operating pressure (barg)                            | 112           |       |
| Maximum operating temperature (°C)                           | 60            |       |
| Minimum operating temperature (°C)                           | -10           |       |
| Maximum cricondenbar pressure (barg)                         | 105           |       |
| Maximum cricondentherm temperature (°C)                      | 40            |       |
| Maximum water dewpoint (°C at 69 barg)                       | -18           |       |
| Maximum carbon dioxide (mole %)                              | 2.00          | 1     |
| Maximum hydrogen sulphide and COS (ppm vol)                  | 2.0           | 2     |
| Maximum O <sub>2</sub> (ppm vol)                             | 2.0           |       |
| Max. daily average methanol content (ppm vol)                | 2.5           |       |
| Max. peak methanol content (ppm vol)                         | 20            |       |
| Max. daily average glycol content (litres/MSm <sup>3</sup> ) | 8             |       |

- (1) Subject to article 4.4.1 and 4.5.1 the maximum CO<sub>2</sub> is 6.00 mole %  
 (2) Subject to article 4.4.2 the maximum sum of hydrogen sulphide and COS is 50 ppm (vol).

## 7.9 Entry specifications for Gas entering Area I

| Designation and unit                          | Specification | Notes |
|-----------------------------------------------|---------------|-------|
| Maximum operating pressure (barg)             | 154.2         |       |
| Minimum operating pressure (barg)             | 115           |       |
| Maximum operating temperature (°C)            | 55            |       |
| Maximum cricondenbar pressure (bara)          | 105           | 1     |
| Maximum water content (ppm vol)               | 35            |       |
| Maximum carbon dioxide (mole %)               | 1.60          | 2     |
| Maximum hydrogen sulphide and COS (ppm vol)   | 2.50          |       |
| Maximum O <sub>2</sub> (ppm vol)              | 10.0          |       |
| Max. daily average methanol content (ppm vol) | 100           |       |
| Max. daily average glycol content (ppm vol)   | 0.6           |       |
| Maximum Mercury (µg/Sm <sup>3</sup> )         | 0.01          |       |
| Maximum Non-hydrocarbon content (mole %)      | 5.5           |       |

- (1) Agreed dispensation for Shipper's Gas: Maximum cricondenbar pressure of 115 bara provided that the hydrocarbon dewpoint at 5.6 °C is maximum of 103.8 barg.
- (2) May exceed 1.60 mole % subject to acceptance from the SEGAL operator.

### 7.10 Exit specification for Gas being redelivered at Exit Point A3

| Designation and unit                        | Specification | Notes |
|---------------------------------------------|---------------|-------|
| Maximum operating pressure (barg)           | 149           |       |
| Minimum operating pressure (barg)           | 115           |       |
| Maximum cricondenbar pressure (barg)        | 110           |       |
| Maximum water content (mg/Sm <sup>3</sup> ) | 35            |       |
| Maximum carbon dioxide (mole %)             | 2.50          | 1     |
| Maximum hydrogen sulphide and COS (ppm vol) | 3.3           |       |
| Maximum O <sub>2</sub> (ppm vol)            | 10            |       |

(1) Shipper to be notified if CO<sub>2</sub> content is above 1.15 mole %.

**7.11 Exit specifications for Gas being redelivered at Exit Point B2**

| Designation and unit                        | Specification | Notes |
|---------------------------------------------|---------------|-------|
| Maximum operating pressure (barg)           | 210           | 1     |
| Minimum operating pressure (barg)           | 112           |       |
| Maximum cricondenbar pressure (barg)        | 105           |       |
| Maximum water dewpoint (°C at 69 barg)      | -18           |       |
| Maximum carbon dioxide (mole %)             | 6.00          |       |
| Maximum hydrogen sulphide and COS (ppm vol) | 50.0          |       |
| Maximum O <sub>2</sub> (ppm vol)            | 2.0           |       |

(1) Calculated at the Exit Point B2.

### 7.12 Exit specifications for NGL and Stabilised Condensate being redelivered from Area C

| Component weight %               | Ethane   | Propane  | Butane   | Straight-run Paraffinic Naphta | Stabilised Condensate |
|----------------------------------|----------|----------|----------|--------------------------------|-----------------------|
| Nitrogen                         | -        | trace    | trace    | -                              | -                     |
| Carbon dioxide                   |          | 0.1 max  | trace    |                                |                       |
| Carbon dioxide (ppm wt)          | 100 max  |          |          | -                              | -                     |
| Methane                          | 1.5 max  | 0.05 max | trace    | -                              | -                     |
| Ethane                           | 95.0 min | 2.5 max  | 0.1 max  | -                              | -                     |
| Propane                          | 4.5 max  | 95.0 min | 1.5 max  | -                              | -                     |
| Iso-butane                       | -        | 2.5 max  | 25.0 min | -                              | -                     |
| Normal butane                    | -        | 0.5 max  | 51.0 min | -                              | -                     |
| Butane                           | 1.0 max  | -        | -        | -                              | -                     |
| Pentanes and heavier             | -        | trace    | 2.0 max  | -                              | -                     |
| Carbonyl sulphide (ppm vol)      | -        | 5.0 max  | -        | -                              | -                     |
| COS (ppb wt)                     | 400 max  | -        | -        | -                              | -                     |
| Unsaturated hydrocarbons         | -        | -        | 0.05 max | -                              | -                     |
| Sulphur (ppm wt)                 | 50 max   | 25 max   | 25 max   | -                              | -                     |
| Hg (ppb wt)                      | 20 max   | -        | -        | -                              | -                     |
| Methanol (ppm vol) (liquid)      | -        | 100 max  | 50 max   | -                              | -                     |
| Methanol (ppm wt)                | 100 max  | -        | -        | -                              | -                     |
| Water content                    | No free  | No free  | No free  | No free                        | -                     |
| TVP at 37.8 °C                   | -        | -        | -        | 0.965 bara max                 | -                     |
| RVP at 37.8 °C                   | -        | -        | -        | -                              | 0.76 bara max         |
| Basic Sediment and Water (vol %) |          |          |          |                                | 0.5 max               |
| Salt (mg/l)                      |          |          |          |                                | 200 max               |

### 7.13 Exit specifications for Gas being redelivered from Area D

| Exit Point                                               | Minimum contractual pressure [barg] | Maximum operating temperature [°C] | Minimum operating temperature [°C] | Notes |
|----------------------------------------------------------|-------------------------------------|------------------------------------|------------------------------------|-------|
| D1 (Snurrevarden)                                        |                                     |                                    |                                    |       |
| D2 (Dornum)                                              | 84                                  | 30                                 | 2                                  |       |
| D3 (Emden)                                               | 45-49                               | 30                                 | 2                                  |       |
| D4 (Norsea)                                              | 45-49                               | 18                                 | 4                                  | 7     |
| D5 (Zeebrugge)                                           | 80                                  | 32                                 | 1                                  |       |
| D6 (Dunkerque)                                           | 60                                  | 32                                 | 2                                  |       |
| D7 (St. Fergus)                                          | 41                                  |                                    | 1                                  |       |
| D8 (Grane)                                               | 130                                 | 50                                 | -20                                |       |
| D9 (Rogass)                                              |                                     | 50                                 | -10                                |       |
| D10 (Easington)                                          | 70                                  | 38                                 | 1                                  |       |
| D11 (Naturkraft)                                         |                                     | 50                                 | -10                                | 7     |
| D12 (Gina Krog)                                          |                                     | 50                                 | -10                                |       |
| D13 (Mariner)                                            |                                     | 50                                 | -10                                |       |
| D14 (Nybro)                                              | 85                                  | 20                                 | -10                                | 3     |
| <b>Designation and unit for all Exit Points</b>          |                                     |                                    | <b>Specification</b>               |       |
| Hydrocarbon dewpoint (°C at 1 - 69 barg)                 |                                     |                                    | < -2                               |       |
| Maximum water dew point (°C at 69 barg)                  |                                     |                                    | -12                                | 8     |
| Maximum carbon dioxide (mole %)                          |                                     |                                    | 2.50                               | 1, 2  |
| Maximum oxygen (ppm vol)                                 |                                     |                                    | 2                                  | 3     |
| Maximum H <sub>2</sub> S incl. COS (mg/Nm <sup>3</sup> ) |                                     |                                    | 5                                  | 6, 9  |
| Maximum mercaptans (mg/Nm <sup>3</sup> )                 |                                     |                                    | 6.0                                |       |
| Maximum sulphur (mg/Nm <sup>3</sup> )                    |                                     |                                    | 30                                 |       |
| Gross Calorific Value (MJ/Sm <sup>3</sup> )              |                                     |                                    | 38.1 - 43.7                        |       |
| Gross Calorific Value (MJ/Nm <sup>3</sup> )              |                                     |                                    | 40.2 - 46.0                        |       |
| Gross Calorific Value (kWh/Nm <sup>3</sup> )             |                                     |                                    | 11.17 - 12.78                      |       |
| Wobbe Index (MJ/Sm <sup>3</sup> )                        |                                     |                                    | 48.3 - 52.8                        | 4     |
| Wobbe Index (MJ/Nm <sup>3</sup> )                        |                                     |                                    | 51.0 - 55.7                        | 4     |
| Wobbe Index (kWh/Nm <sup>3</sup> )                       |                                     |                                    | 14.17 - 15.47                      | 4     |
| Relative density (-)                                     |                                     |                                    | ≤ 0.70                             | 5     |

- (1) For the Exit Point D7 (St. Fergus) and Exit Point D13 (Mariner) the maximum carbon dioxide is 4.00 mole %.
- (2) Maximum carbon dioxide at the Exit Point D3 (Emden) for PL018 Gas, PL006 Gas and PL033 Gas is 2.60 mole %.
- (3) O<sub>2</sub> specification Exit Points D7, D10 and D14 (St. Fergus, Easington and Nybro) is 10.0 ppm.
- (4) Wobbe Index specification the Exit Points D7 and D10 (St. Fergus and Easington) is max. 51.41 MJ/Sm<sup>3</sup>, 54.23 MJ/Nm<sup>3</sup>, 15.06 kWh/Nm<sup>3</sup>.
- (5) Only applicable for Exit Points D7 and D10 St. Fergus and Easington.
- (6) Maximum H<sub>2</sub>S excl. COS at the Exit Point D10 (Easington) is 5 mg/Nm<sup>3</sup>.
- (7) Not in use.
- (8) Specification Maximum water dew point (°C at 69 barg) at Exit Point D14 (Nybro) is -8 °C.
- (9) For the Exit Point D2 (Dornum) and Exit Point D6 (Dunkerque) the maximum H<sub>2</sub>S incl. COS is 5.3 mg/Nm<sup>3</sup>.

### 7.14 Exit specifications for Gas being redelivered at Exit Point E2 (Kollsnes Næringspark) and at Exit Point E5 (Mongstad Gas Pipeline)

| Designation and unit                                     | Specification | Note |
|----------------------------------------------------------|---------------|------|
| Maximum operating pressure (barg)                        | 80            |      |
| Minimum operating pressure (barg)                        | 60            |      |
| Maximum operating temperature (°C)                       | 5             |      |
| Minimum operating temperature (°C)                       | -5            |      |
| Hydrocarbon dewpoint (°C at 51,7 bara)                   | < -10.7       |      |
| Water dew point (°C at 70 bara)                          | -18           |      |
| Maximum carbon dioxide (mole %)                          | 2.50          |      |
| Maximum oxygen (mole %)                                  | 0.1           |      |
| Maximum H <sub>2</sub> S incl. COS (mg/Nm <sup>3</sup> ) | 5.0           |      |
| Maximum mercaptans (mg/Nm <sup>3</sup> )                 | 6.0           |      |
| Maximum sulphur (mg/Nm <sup>3</sup> )                    | 30            |      |
| Gross Calorific Value (MJ/Sm <sup>3</sup> )              | 38.1 – 43.7   |      |
| Gross Calorific Value (MJ/Nm <sup>3</sup> )              | 40.2 – 46.0   |      |
| Gross Calorific Value (kWh/Nm <sup>3</sup> )             | 11.17 – 12.78 |      |
| Wobbe Index (MJ/Sm <sup>3</sup> )                        | 48.3 – 52.8   |      |
| Wobbe Index (MJ/Nm <sup>3</sup> )                        | 51.0 – 55.7   |      |
| Wobbe Index (kWh/Nm <sup>3</sup> )                       | 14.17 – 15.47 |      |

### 7.15 Exit specification for NGL being redelivered from Area E

| Designation and unit                                               | Specification | Notes |
|--------------------------------------------------------------------|---------------|-------|
| Maximum operating pressure (barg at sea level)                     | 50            |       |
| Minimum operating pressure (barg at sea level)                     | 20            |       |
| Maximum operating temperature (°C)                                 | 55            |       |
| Minimum operating temperature (°C)                                 | 0             |       |
| Maximum water content (ppm weight)                                 | 40            |       |
| Maximum carbon dioxide (mole %)                                    | 1.00          |       |
| Maximum hydrogen sulphide and COS (ppm weight)                     | 2.00          |       |
| Maximum mercaptans as sulphur C <sub>4</sub> fraction (ppm weight) | 6             |       |
| Maximum sulphur C <sub>5+</sub> fraction (weight %)                | 0.5           |       |
| Maximum true vapour pressure at 100 °F (37.8 °C) (psi)             | 13            | 1     |
| Maximum residue (375+ °C) (weight %)                               | 5             |       |
| Maximum methanol content (ppm weight)                              | 20            |       |
| Maximum stable emulsions                                           | None          |       |
| Maximum additives                                                  | None          | 2     |
| Maximum salt as NaCl (ppm weight)                                  | None          |       |
| Maximum metal content (ppm weight)                                 | 0.01          |       |
| Maximum Glycol (MEG or TEG) (ppm weight)                           | 10            |       |

- (1) RVP = 2.0 bara at 37.8 °C for normal operation.  
 (2) No additives without prior acceptance by Gassled.

## 7.16 Exit specifications for Gas being redelivered from Area F

| Designation and unit                          | Specification | Notes |
|-----------------------------------------------|---------------|-------|
| Maximum operating pressure (barg)             | 140.2         |       |
| Minimum operating pressure (barg)             | 110           |       |
| Maximum operating temperature (°C)            | 50            |       |
| Maximum cricondenbar pressure (bara)          | 110           |       |
| Maximum water content (ppm vol)               | 55            |       |
| Maximum carbon dioxide (mole %)               | 1.60          | 1     |
| Maximum hydrogen sulphide (ppm vol)           | 2.50          |       |
| Maximum O <sub>2</sub> (ppm vol)              | 10.0          |       |
| Max. daily average methanol content (ppm vol) | 100           |       |
| Max. daily average glycol content (ppm vol)   | 0.6           |       |
| Maximum Mercury (µg/Sm <sup>3</sup> )         | 0.01          |       |
| Maximum Non-hydrocarbon content (mole %)      | 5.5           |       |

(1) May exceed 1.60 mole % subject to acceptance from the SEGAL operator.

### 7.17 Exit specifications for Gas being redelivered from Exit Point H2

| Designation and unit                                         | Specification | Notes |
|--------------------------------------------------------------|---------------|-------|
| Maximum operating pressure (barg)                            | 278           |       |
| Minimum operating pressure (barg)                            | 112           |       |
| Maximum operating temperature (°C)                           | 60            |       |
| Minimum operating temperature (°C)                           | -10           |       |
| Maximum cricondenbar pressure (barg)                         | 105           |       |
| Maximum cricondenthem temperature (°C)                       | 40            |       |
| Maximum water dewpoint (°C at 69 barg)                       | -18           |       |
| Maximum carbon dioxide (mole %)                              | 2.00          |       |
| Maximum hydrogen sulphide and COS (ppm vol)                  | 2.0           |       |
| Maximum O <sub>2</sub> (ppm vol)                             | 2.0           |       |
| Max. daily average methanol content (ppm vol)                | 2.5           |       |
| Max. peak methanol content (ppm vol)                         | 20            |       |
| Max. daily average glycol content (litres/MSm <sup>3</sup> ) | 8             |       |

### 7.18 Exit specifications for Gas being redelivered from Area I

| Designation and unit                          | Specification | Notes |
|-----------------------------------------------|---------------|-------|
| Maximum operating pressure (barg)             | 140.2         |       |
| Minimum operating pressure (barg)             | 110           |       |
| Maximum operating temperature (°C)            | 57            |       |
| Minimum operating temperature (°C)            | 0             |       |
| Maximum cricondenbar pressure (bara)          | 105           | 1     |
| Maximum water content (ppm vol)               | 35            |       |
| Maximum carbon dioxide (mole %)               | 1.60          | 2     |
| Maximum hydrogen sulphide and COS (ppm vol)   | 2.50          |       |
| Maximum O <sub>2</sub> (ppm vol)              | 10.0          |       |
| Max. daily average methanol content (ppm vol) | 100           |       |
| Max. daily average glycol content (ppm vol)   | 0.6           |       |
| Maximum Mercury (µg/Sm <sup>3</sup> )         | 0.01          |       |
| Maximum Non-hydrocarbon content (mole %)      | 5.5           |       |

- (2) Agreed dispensation for Shipper's Gas: Maximum cricondenbar of 115 bara provided that the hydrocarbon dewpoint at 5.6 °C is maximum of 103.8 barg.
- (3) May exceed 1.60 mole % subject to acceptance from the SEGAL operator.

**APPENDIX B**

**TO**

**TERMS AND CONDITIONS FOR  
TRANSPORTATION OF GAS IN GASSLED**

**\*\*\***

**TRANSPORTATION SYSTEM DESCRIPTION**

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| 3.13     | Exit Points in Area C.....                | 41       |
| 3.14     | Exit Points in Area D.....                | 44       |
| 3.15     | Exit Points in Area E .....               | 57       |
| 3.16     | Exit Points in Area F .....               | 61       |
| 3.17     | Exit Points in Area G.....                | 62       |
| 3.18     | Exit Points in Area H.....                | 63       |
| 3.19     | Exit Points in Area I .....               | 64       |

# 1 Gassled Area Description

## 1.1 Area A

Area A comprises the 30 inch pipeline for carrying rich gas between the Statfjord B platform and the Kårstø gas plant including the 16 inch Gullfaks satellite T-connection, the 12 inch Veslefrikk T-connection, the 8 inch Brage T-connection, the 12 inch Yggdrasil T-connection and the 12 inch Johan Sverdrup T-connection. Area A also comprises capacity rights for Gas from Area A over the Statfjord B platform.

## 1.2 Area B

Area B comprises the pipeline (28 inch upstream/42 inch downstream of an expansion joint) for carrying rich gas from the Åsgard B platform to the Kårstø gas plant commencing at the flexible riser connector at the Åsgard export riser base, including the Åsgard export riser base, the 16 inch U-loop T-connection, the 16 inch Draugen T-connection, the 16 inch Haltenbanken West T-connection, the 12 inch Njord T-connection and the 16 inch Skarv T-connection.

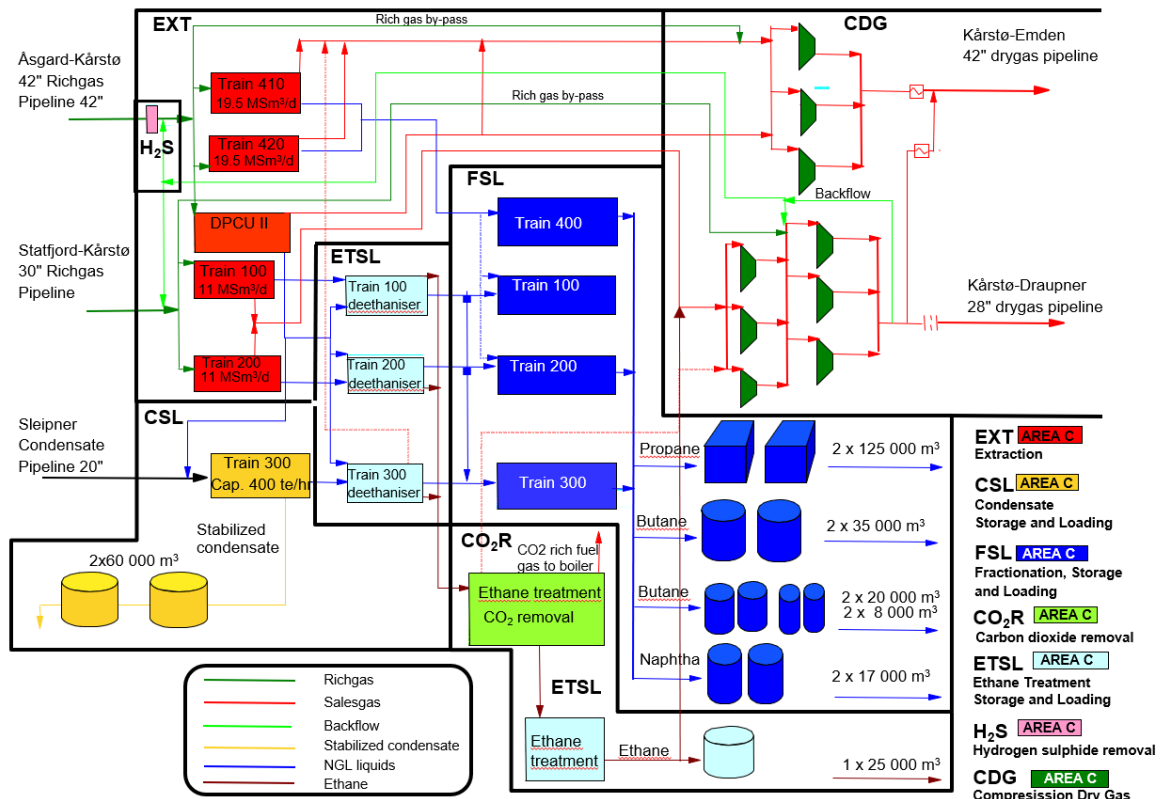
## 1.3 Area C

Area C comprises the Kårstø gas plant for processing and handling of Rich Gas, NGL, Unstabilised Condensate and storage/redelivery of the products. The services included in Area C are:

- Extraction (“EXT”) which extracts Rich Gas in the trains 100, 200, 410 and 420, and delivers Dry Gas into Area D and NGL liquid fractions to the ETSL and FSL service.
- Condensate Storage and Loading (“CSL”) which stabilise the Unstabilised Condensate including storage and loading facilities for redelivering of Stabilised Condensate, and delivers NGL liquid fractions into the ETSL and FSL service.
- Fractionation Storage and Loading (“FSL”) which fractionate propane, butane and naphtha in the trains 100, 200, 300 and 400 for routing to storage and loading facilities.
- Ethane Treatment, Storage and Loading (“ETSL”) which fractionate the raw ethane in the de-ethanisers in the trains 100, 200 and 300 and refine the ethane for routing to storage and loading facilities or to Area D.
- Carbon Dioxide Removal (“CO<sub>2</sub> R”) which removes carbon dioxide from the Gas.
- Carbon Dioxide Blending (“CO<sub>2</sub> B” and “CO<sub>2</sub> D”) which blends Off-Spec Gas, related to carbon dioxide, with other Gas.

- Hydrogen Sulphide Removal (“H<sub>2</sub>S R”) which removes hydrogen sulphide from the Gas.

A flow diagram with the different services in Area C is shown below.



## 1.4 Area D

Area D comprises the following systems:

- The 42 inch pipeline for carrying dry gas from the terminal at Kårstø to facilities in Germany.
- The 28 inch pipeline for carrying dry gas between the terminal at Kårstø and the Draupner S riser platform.
- The 36 inch pipeline for carrying dry gas between the Heimskringla and the Draupner S riser platform including the 16 inch Jotun T-connection.
- The 40 inch pipeline for carrying dry gas from the terminal at Kollsnes to the Sleipner riser platform.
- The 40 inch pipeline for carrying dry gas from the terminal at Kollsnes to the Draupner E riser platform.
- The Draupner E riser platform.
- The Draupner S riser platform.
- The 30 inch pipeline for carrying dry gas between the Sleipner platform and the Draupner S riser platform.

- i. The 40 inch pipeline for carrying dry gas from the Sleipner riser platform to the terminal in Zeebrugge.
- j. The terminal in Zeebrugge.
- k. The 40 inch pipeline for carrying dry gas from the Draupner S riser platform, via the Draupner E riser platform to facilities in Germany.
- l. Facilities in Germany consisting of the facilities for receiving dry gas established in Dornum, metering facilities established in Dornum, and the 42 inch pipeline for carrying dry gas between these facilities to the terminal in Emden.
- m. The 36 inch pipeline for carrying dry gas from the Draupner S riser platform to the terminal in Emden, including the Y-connection Ekofisk tie-in.
- n. The terminal Norse Gas in Emden.
- o. The 42 inch pipeline for carrying dry gas from the Draupner E riser platform to the terminal in Dunkerque.
- p. The terminal in Dunkerque.
- q. The 36 inch pipeline for carrying dry gas from the Oseberg D platform to Heimskringla.
- r. The 32 inch pipeline for carrying dry gas from the Heimdal riser platform to and including metering instrument at the terminal in St. Fergus, and associated installations as defined as "Norwegian Pipeline" in Art. 30, sixth paragraph in the Agreement between the Government of the United Kingdom of Great Britain and Northern Ireland and the Government of the Kingdom of Norway relating to the Amendment of the Agreement of 10 May 1976 relating to the Exploitation of the Frigg Field Reservoir and the transmission of Gas there from to the United Kingdom.
- s. The 32 inch pipeline that carried dry gas from the Frigg TCP2 platform which is connected to the pipeline from the Heimdal riser platform to St. Fergus.
- t. The 42 inch pipeline for carrying gas from Nyhamna to the Sleipner riser platform.
- u. The 44 inch pipeline (first 500 meters is 42 inch) for carrying gas from the Sleipner riser platform to the terminal in Easington.
- v. The terminal in Easington.
- w. The terminal in Emden
- x. Heimskringla, the subsea bypass replacing the Heimdal riser platform consisting of a 36" spool arrangement connecting the 36" pipeline from Oseberg D and the 36" pipeline to Draupner S, including the 32" Vesterled PLEM and the 18" Grane PLEM, as shown in figure 3.14.8

## 1.5 Area E

Area E comprises the Kollsnes gas plant for processing and handling of Gas, and redelivery of the NGL and Dry Gas. The gas plant consists of dew point control facilities and NGL extraction facilities. Gas from Area G will be routed to the NGL facilities within the at any time available capacity of such facilities.

## **1.6 Area F**

Area F comprises the 32 inch pipeline for carrying rich gas from the Statfjord B platform to the Flags transportation system including capacity rights over Statfjord C and through the Statfjord Intrafield Pipeline System.

## **1.7 Area G**

Area G comprises the 30 inch pipeline for carrying rich gas from the Kvitebjørn platform to the Kollsnes gas plant commencing at the flexible riser connector at the Kvitebjørn platform, including the 12 inch Visund T-connection.

## **1.8 Area H**

Area H comprises the 16 inch pipeline for carrying rich gas from the Norne platform to Area B or to the entry point of the pipeline to the Heidrun platform.

## **1.9 Area I**

Area I comprises the 28 inch pipeline for carrying rich gas from the Gjøl platform to the Flags transportation system.

# **2 Quality Services Description**

## **2.1 Quality Removal Service**

Quality Removal Service shall mean the services where Gassled takes on an obligation to remove CO<sub>2</sub> and / or H<sub>2</sub>S from the Gas in order to meet the Specification at the Exit Point. Quality Removal Service is provided in Area C for CO<sub>2</sub> removal and H<sub>2</sub>S removal.

## **2.2 Quality Blending Service**

Quality Blending Service shall mean the services where Gassled takes on an reasonable endeavour obligation to blend the Gas in order to meet the Specification at the Exit Point. Quality Blending Service is provided in Area C for CO<sub>2</sub> blending and in Area D and Area E for CO<sub>2</sub> blending and H<sub>2</sub>S blending.

# **3 Entry Points and Exit Points**

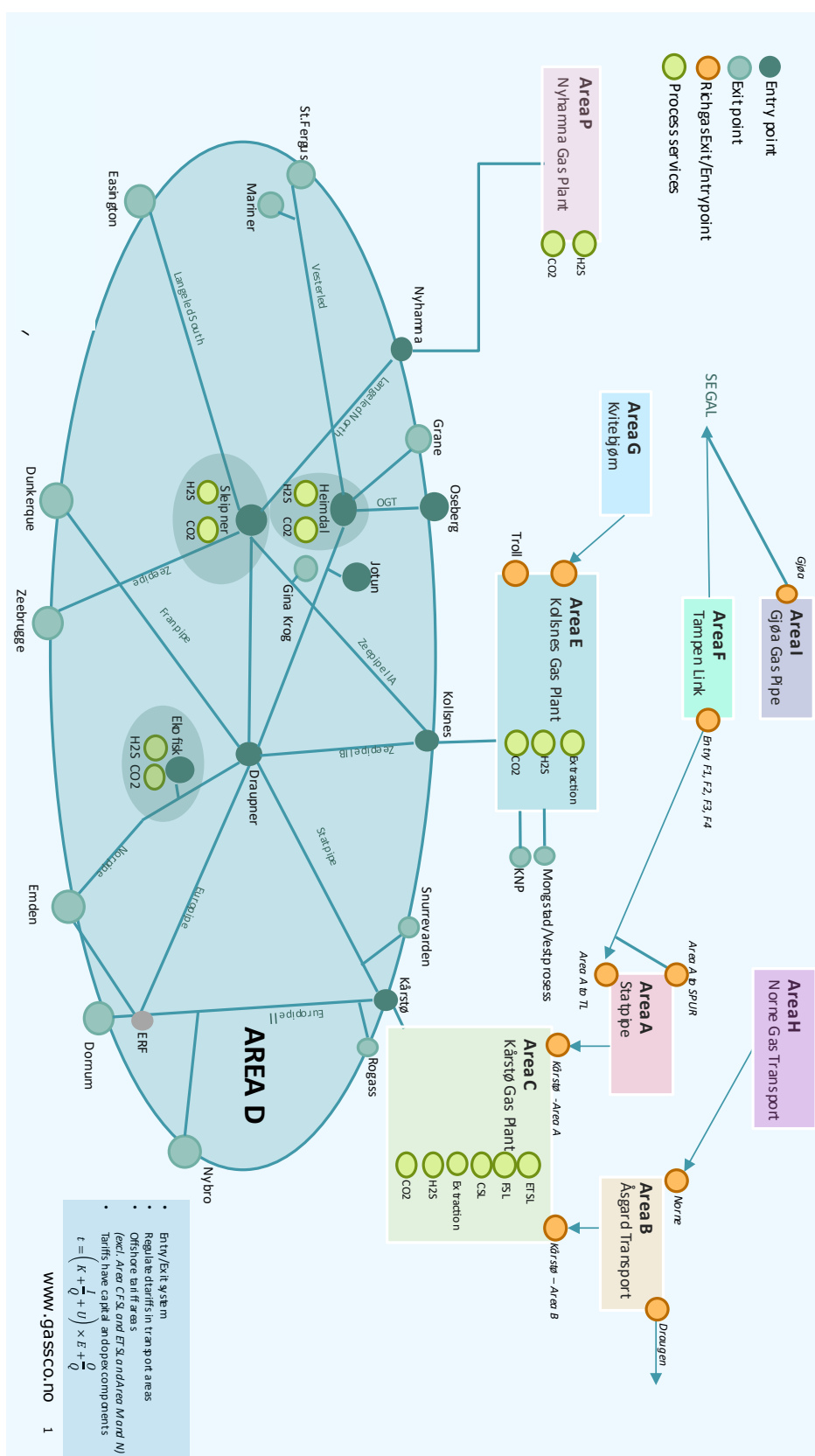
## **3.1 Entry and Exit Points**

The Entry Points at which the Shipper shall deliver Gas to Gassled for transportation are as defined in articles 3.2 to 3.10.

The Exit Points at which Gassled shall redeliver Gas to the Shipper are as defined in articles 3.11 to 3.19.

Some of the Entry Points and/or Exit Points are area connection points which is described in order to clarify the battery limits between the different Areas. There will not be any formal delivery or redelivery of Gas at such Entry Points and/or Exit Points.

Figure 3.1

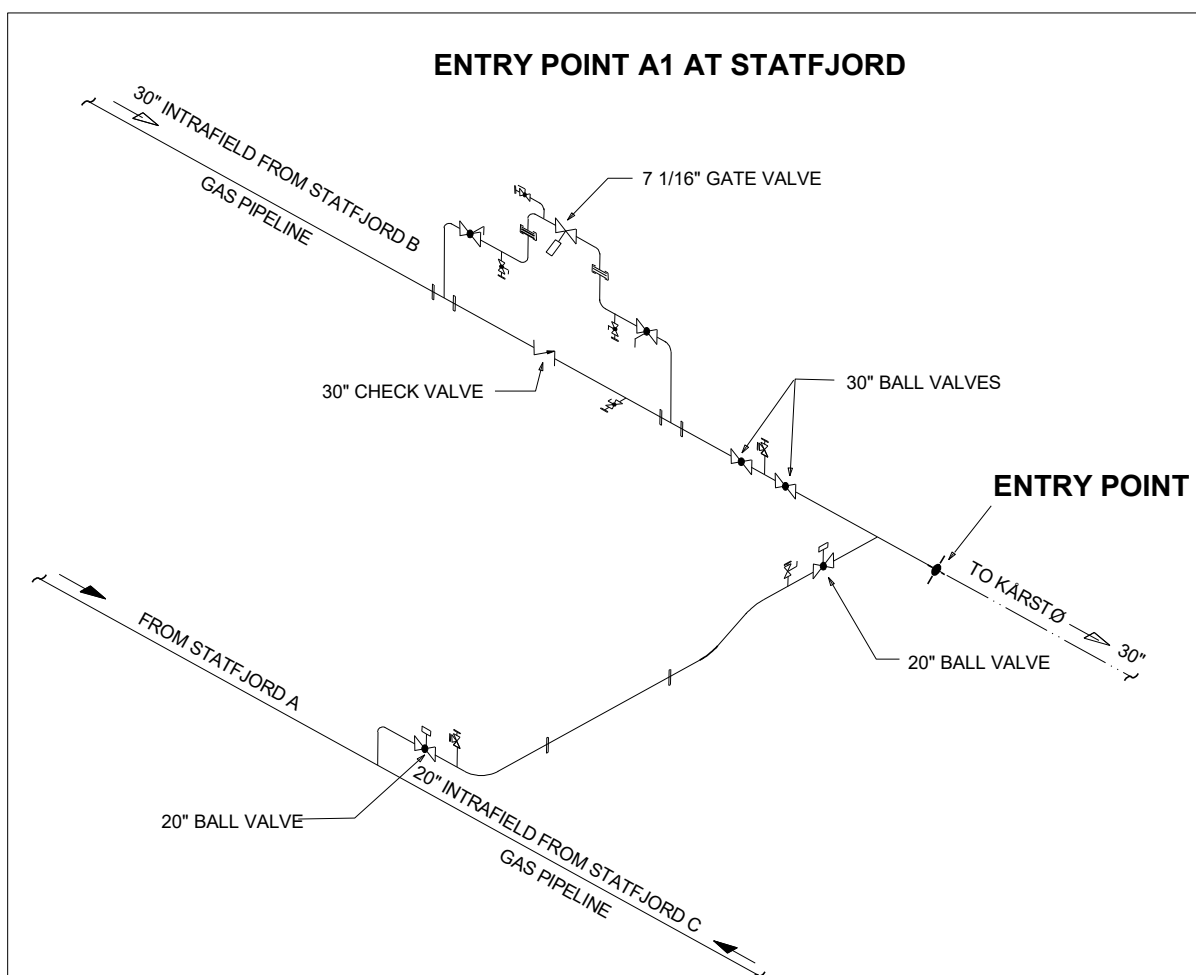


## 3.2 Entry Points in Area A

### 3.2.1 Entry Point A1 at Statfjord

The Entry Point A1 is at the hyperbarically-welded connection between the 30-inch pipeline from Statfjord B and the Statfjord - Kårstø pipeline as shown in figure 3.2.1.

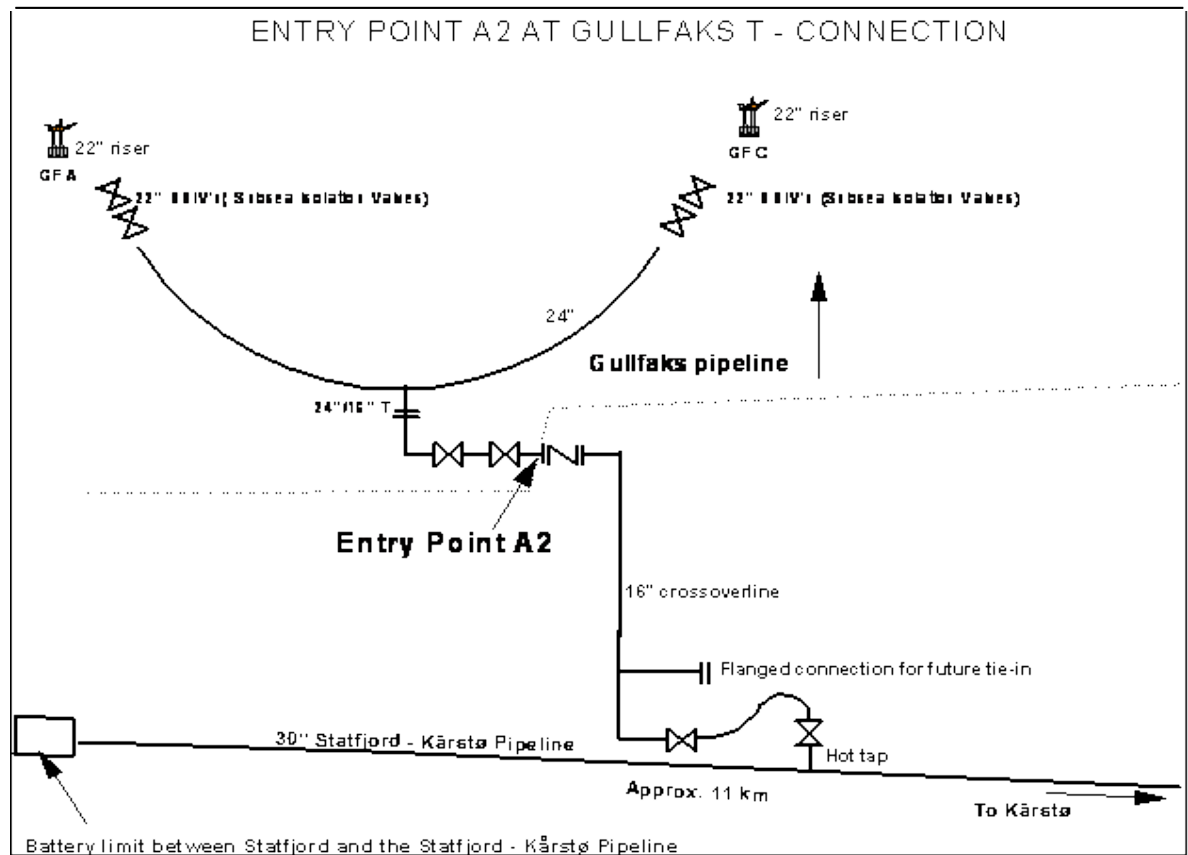
Figure 3.2.1



### 3.2.2 Entry Point A2 at Gullfaks T-connection

The Entry Point A2 is at the 16-inch check valve as shown in figure 3.2.2.

Figure 3.2.2

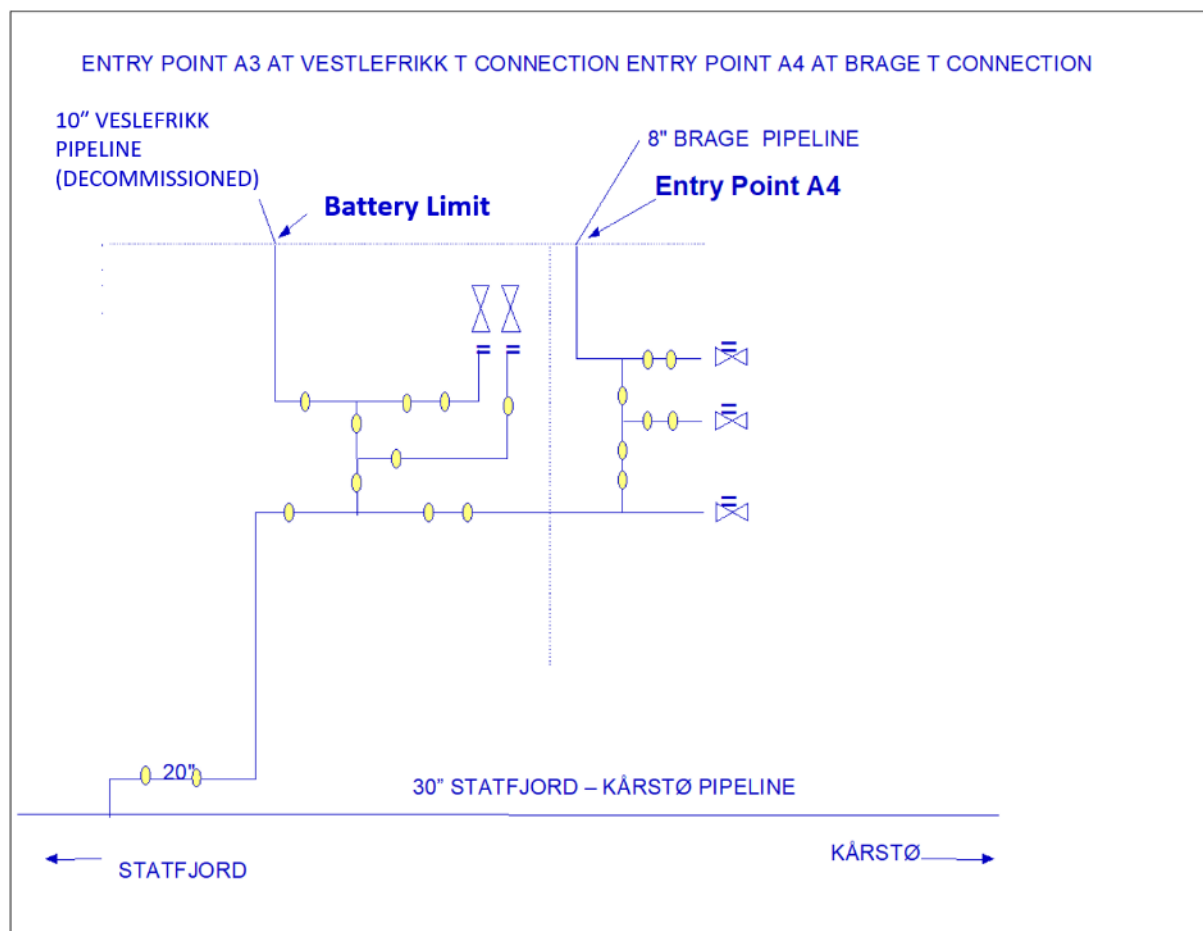


### 3.2.3 Entry Point A3 at Veslefrikk T-connection and A4 at Brage T-connection

The Entry Points A3 and A4 are at the following points as shown in figure 3.2.3:

- A3 at Veslefrikk T-connection. (Not in use<sup>1</sup>)
- A4 at the hyperbarically-welded connection between the Brage pipeline and the tie-in point facilities.

Figure 3.2.3.

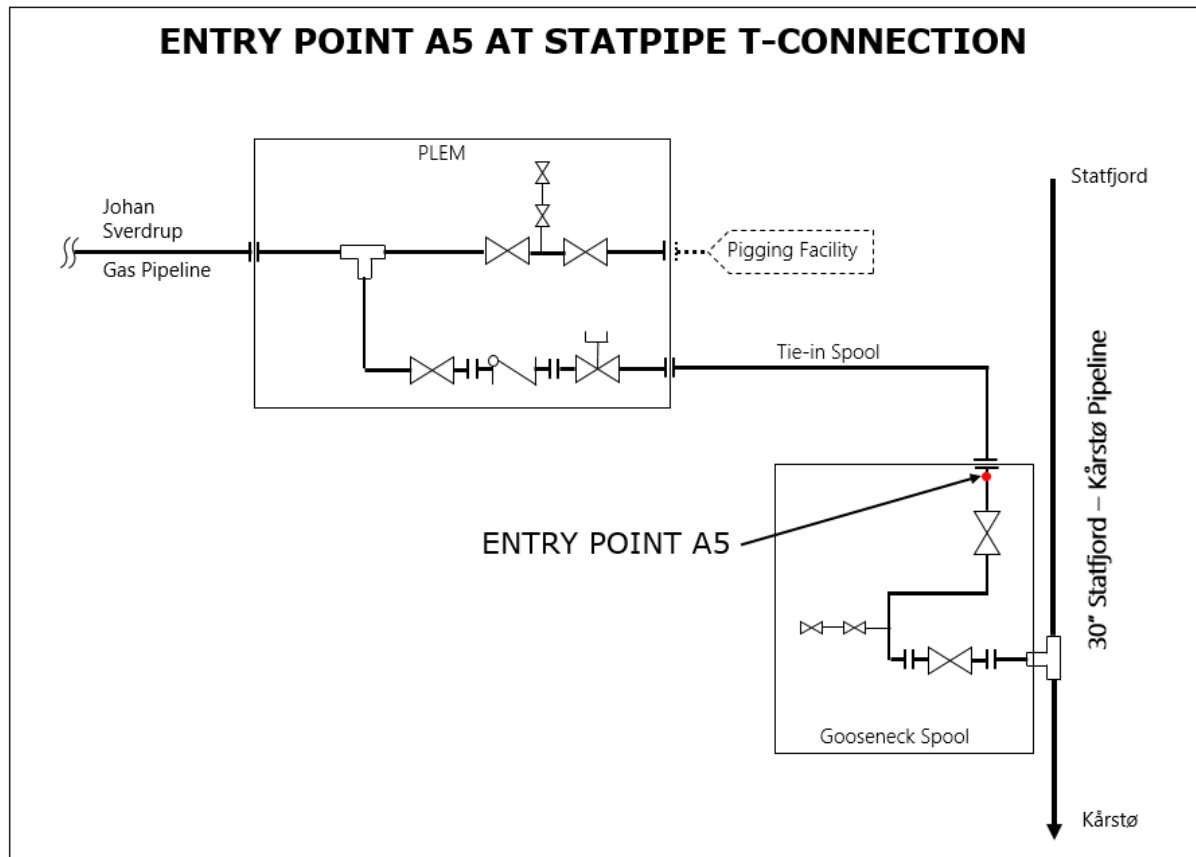


<sup>1</sup> The Veslefrikk Pipeline has been decommissioned. However, 200 meters of the pipeline is still connected to Gassled.

### 3.2.4 Entry Point A5 at Johan Sverdrup T-connection

The Entry Point A5 is at the first weld immediately downstream of the tie-in flange on the goose neck spool as shown in Figure 3.2.4.

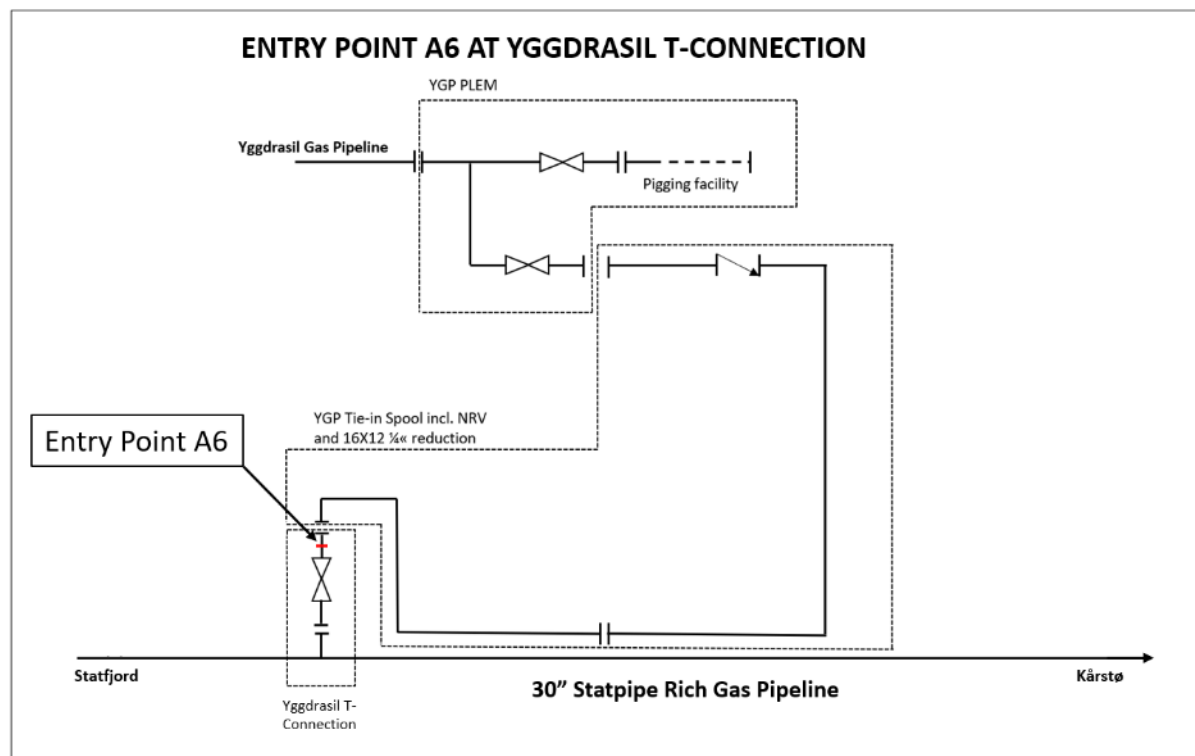
Figure 3.2.4



### 3.2.5 Entry Point A6 at Yggdrasil T-connection

The Entry Point A6 is at the first weld that connects the flange to the Yggdrasil T-connection as shown in Figure 3.2.5.

Figure 3.2.5

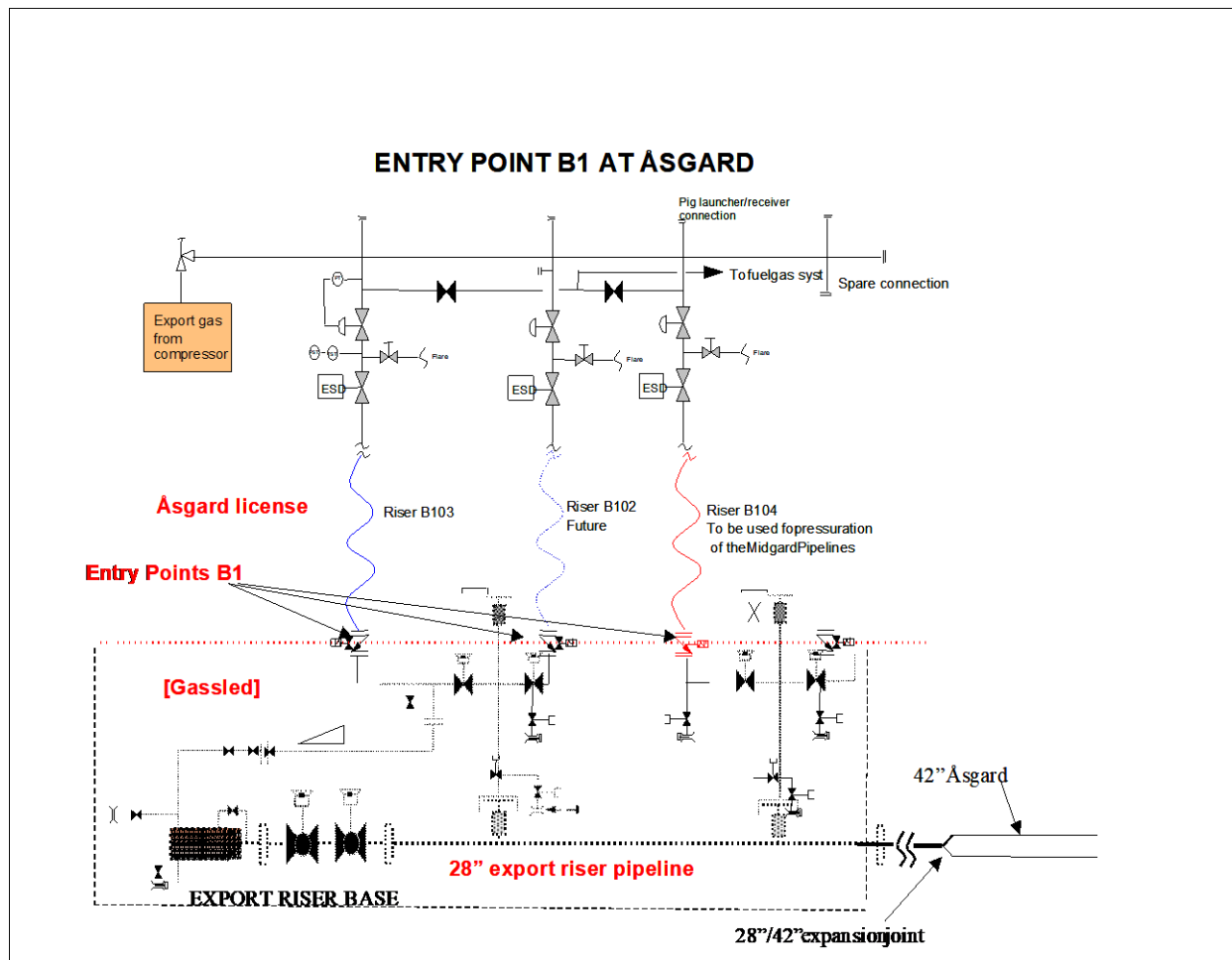


### 3.3 Entry Points in Area B

#### 3.3.1 Entry Point B1 at Åsgard

The Entry Point B1 are the points where the hub of the flexible export risers from the Åsgard B is connected, via the Kværner connectors, to the hub at the export riser base as shown in figure 3.3.1.

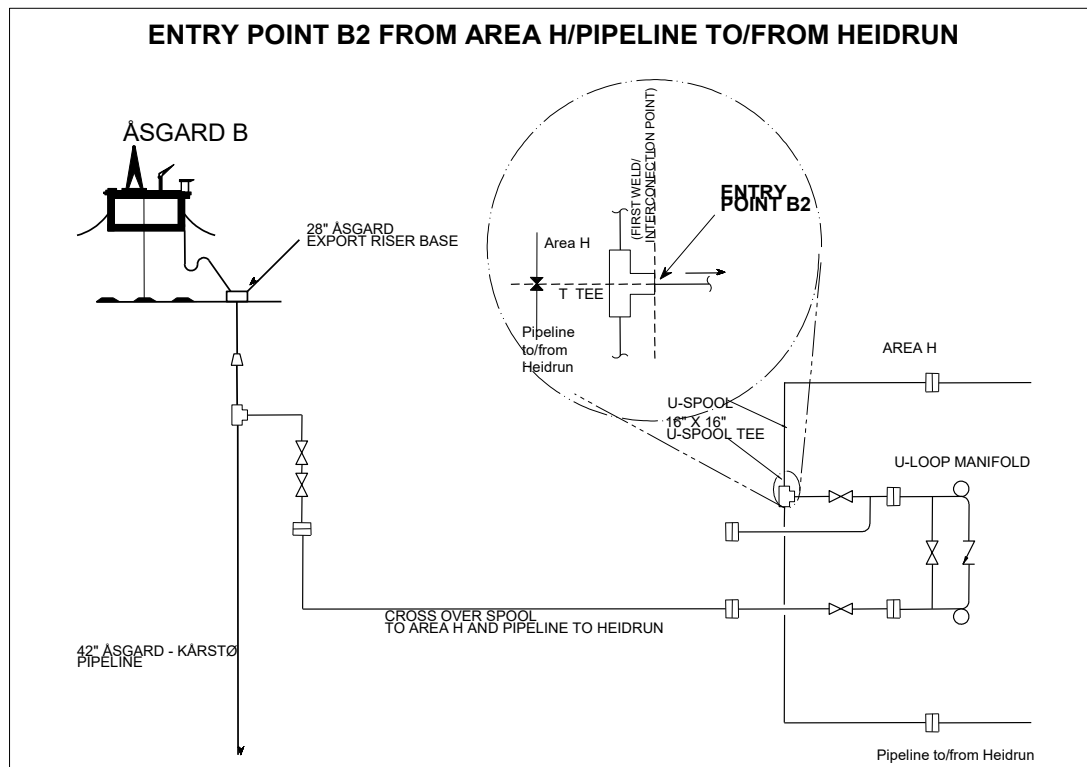
Figure 3.3.1.



### 3.3.2 Entry Point B2 from Area H/ Pipeline to/from Heidrun

The Entry Point B2 is at the point where the Åsgard U-loop manifold and crossover spool is connected to the U-spool T-connection of the Area H/Pipeline to/from Heidrun, as shown in the figure 3.3.2. Exit Point H2 is equal to Entry Point B2 at the pipeline from Heidrun.

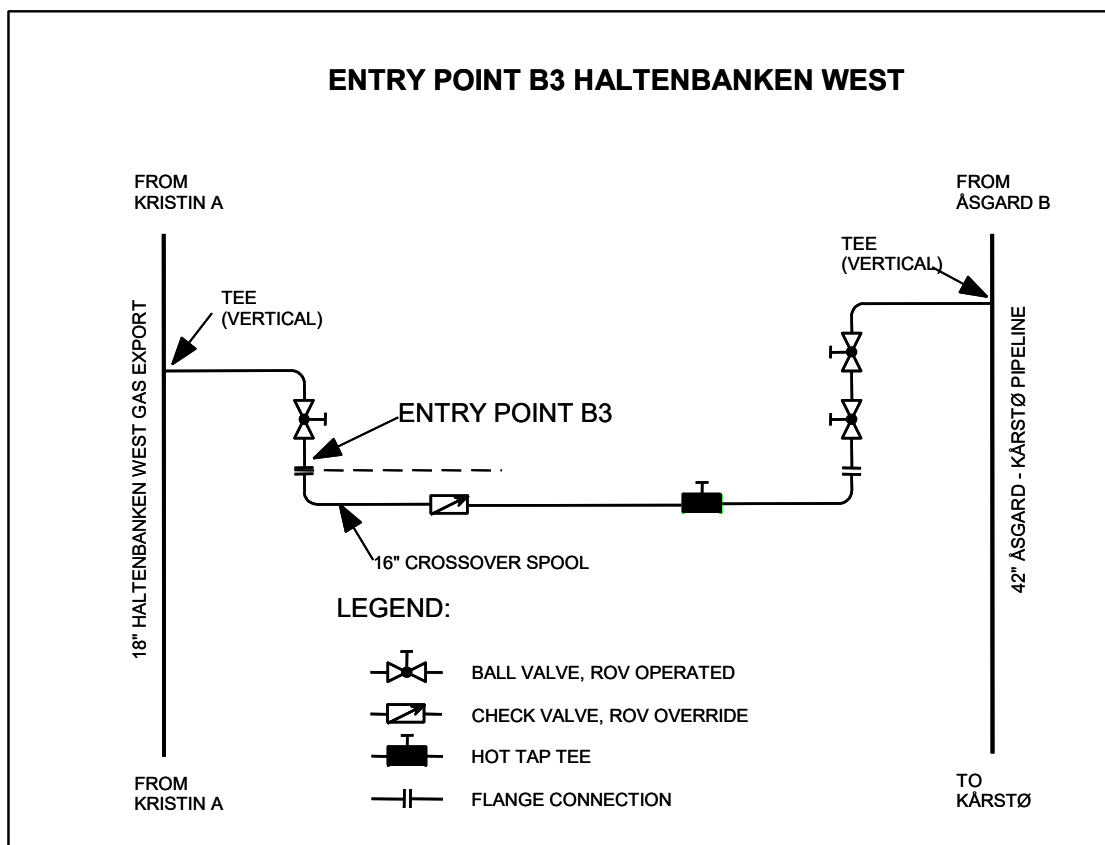
Figure 3.3.2



### 3.3.3 Entry Point B3 at Haltenbanken West T-connection

The Entry Point B3 is at the Haltenbanken West T-connection located at the flange connection after the ball valve after the tee on the Haltenbanken West gas export pipeline, illustrated as Entry Point B3 in figure 3.3.3.

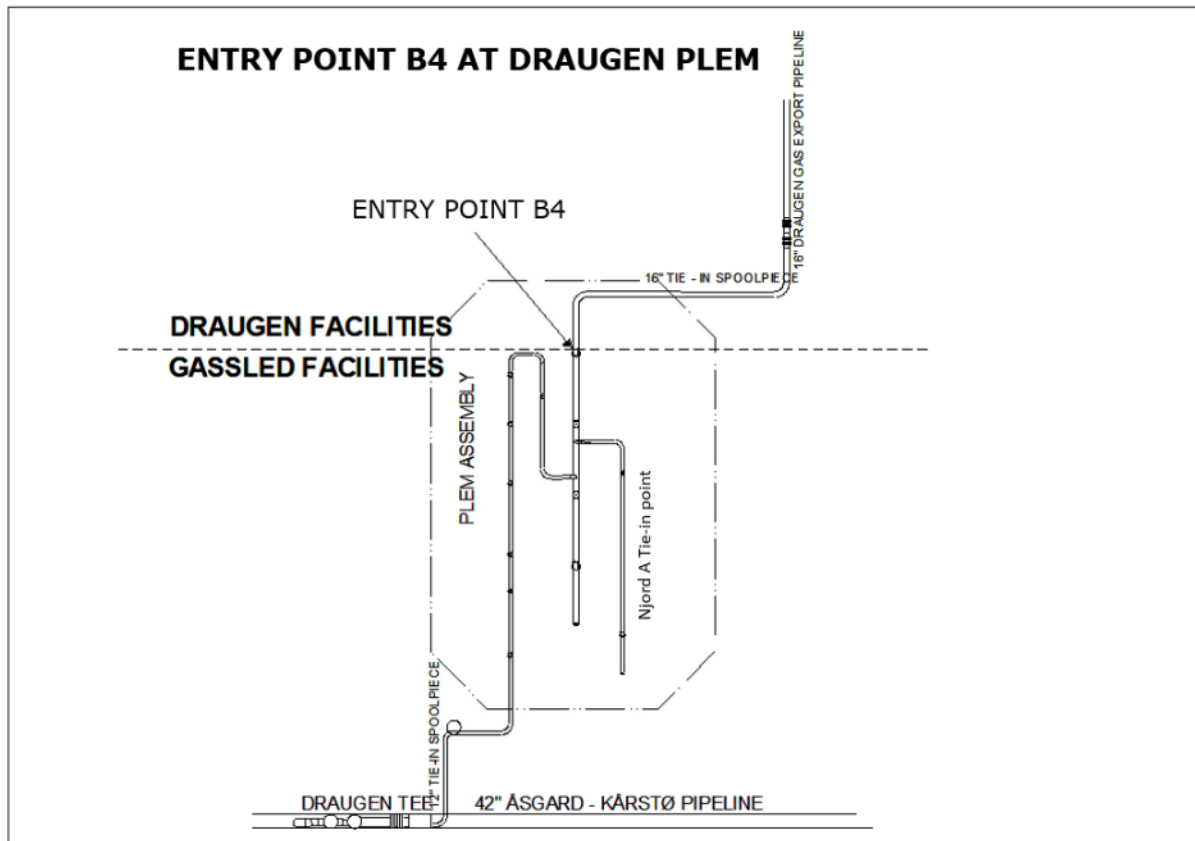
Figure 3.3.3



### 3.3.4 Entry Point B4 at Draugen T-connection

Entry Point B4 is at the Draugen PLEM, connected to KP 105,5 on the Åsgard – Kårstø pipeline. The PLEM assembly is connected to the Draugen gas export pipeline by use of the 16 inch tie-in spool piece through a hub clamp as shown in Figure 3.3.4.

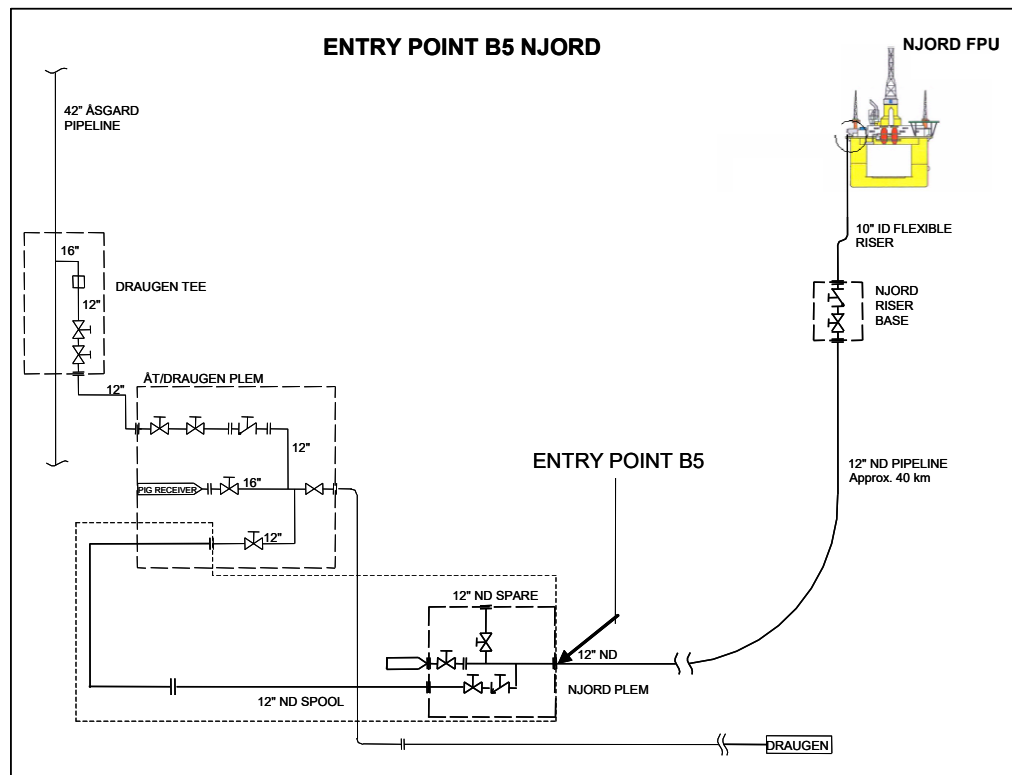
Figure 3.3.4



### 3.3.5 Entry Point B5 at Njord T-connection

The Entry Point B5 is at the connection between the Njord gas export pipeline and the PLEM installed by Njord as shown in figure 3.3.5.

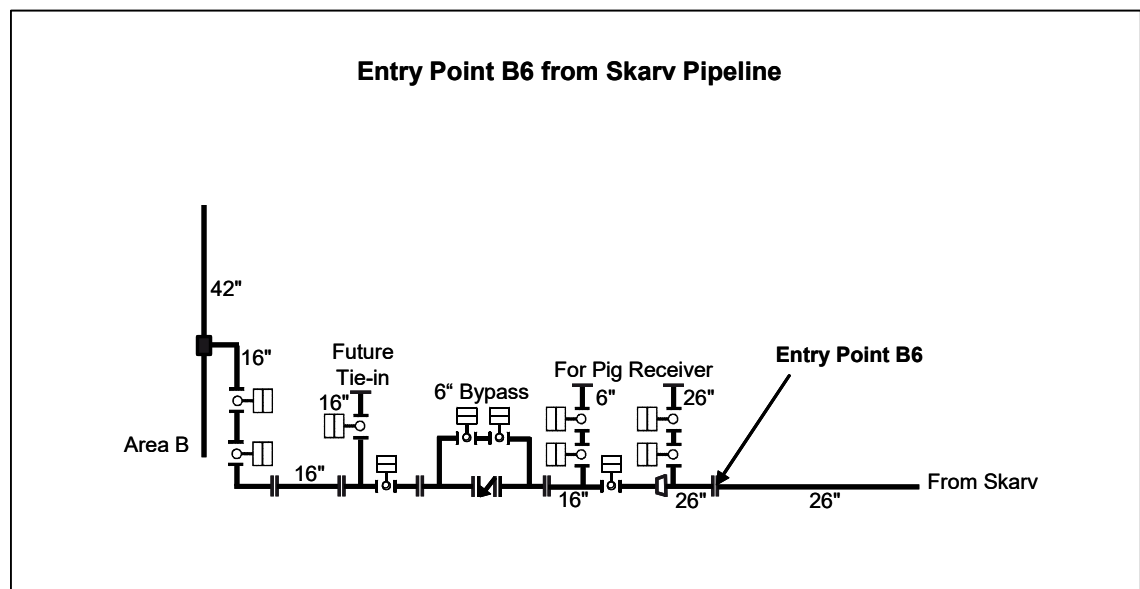
Figure 3.3.5



### 3.3.6 Entry Point B6 at Skarv T-connection

The Entry Point B6 is at the connection flange between the Skarv pipeline and the PLEM installed by Skarv as shown in figure 3.3.6

Figure 3.3.6

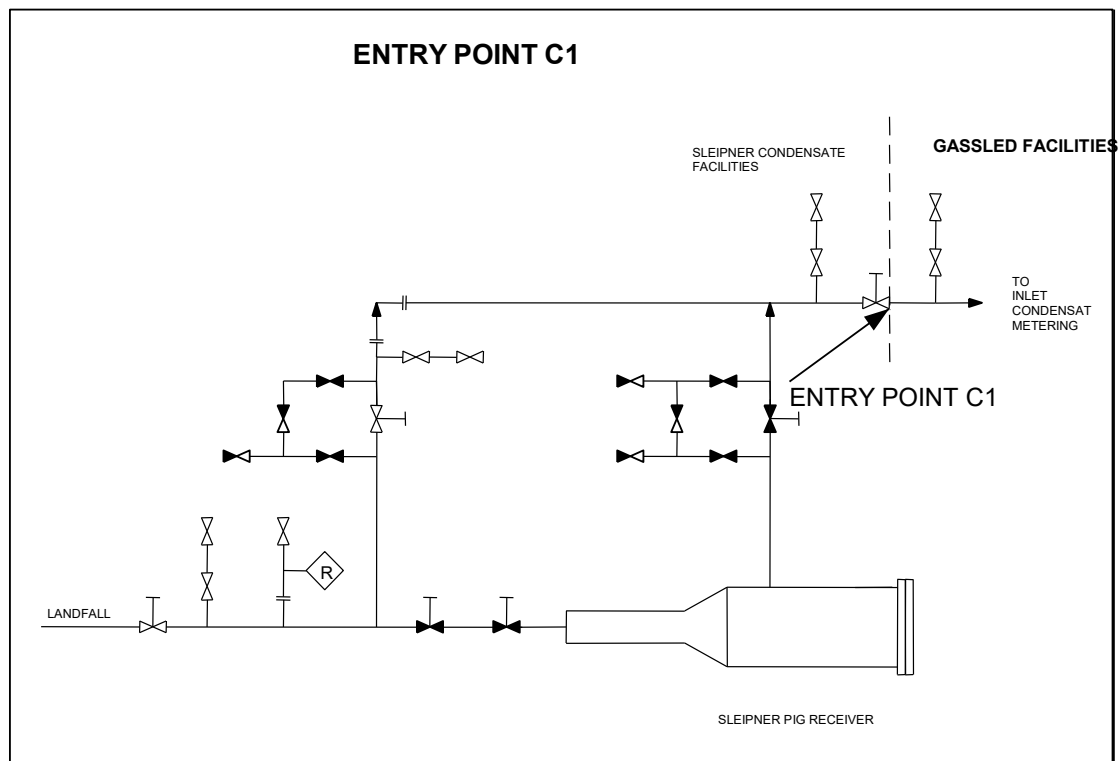


### 3.4 Entry Points in Area C

#### 3.4.1 Entry Point C1 at Sleipner Condensate

The Entry Point C1 is immediately downstream of the Sleipner pig-receiver as shown in figure 3.4.1.

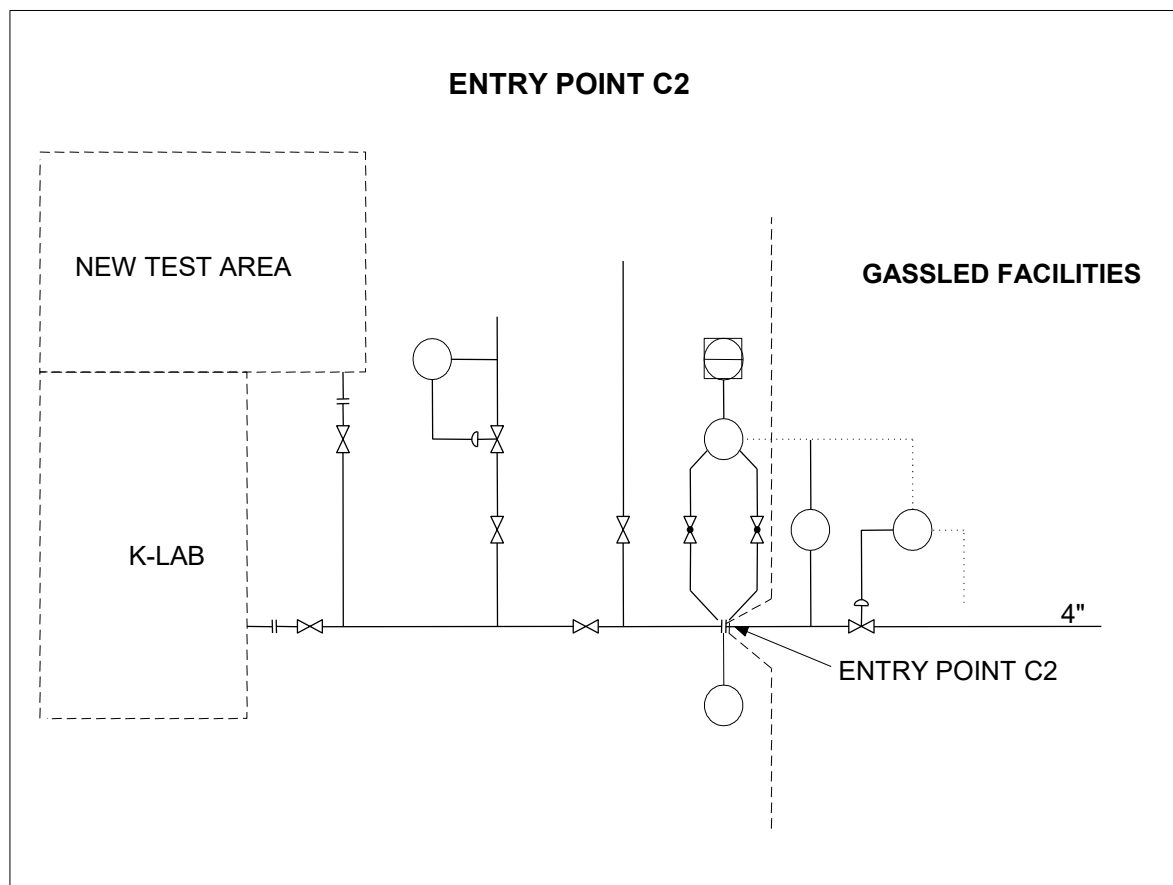
Figure 3.4.1



### 3.4.2 Entry Point C2 at K-lab

The Entry Point C2 for delivery of Natural Gas return from K-lab, is immediately downstream of the flow element as shown in figure 3.4.2.

Figure 3.4.2



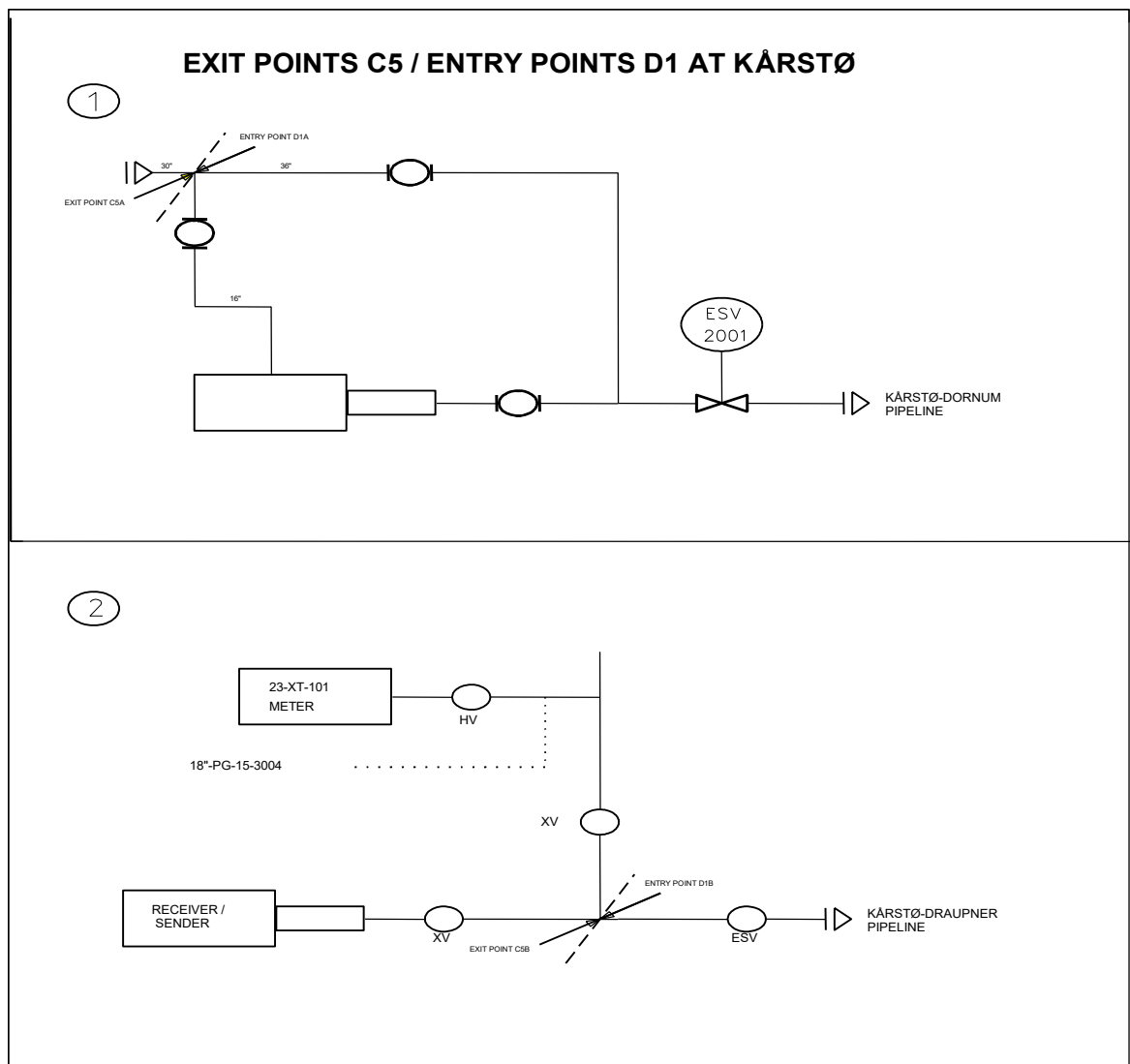
### 3.5 Entry Points in Area D

#### 3.5.1 Entry Point D1 at Kårstø

The Entry Point(s) D1 is at the following points:

- Entry Point D1A at the 30 inch export compressor discharge line located upstream the 12 inch pig launcher kicker line upstream the Kårstø – Dornum pipeline, shown as (1) in figure 3.5.1.
- Entry Point D1B at the T-connection where the 20 inch pipeline (PV-34001) is connected to the 28 inch Kårstø – Draupner pipeline, shown as (2) in figure 3.5.1

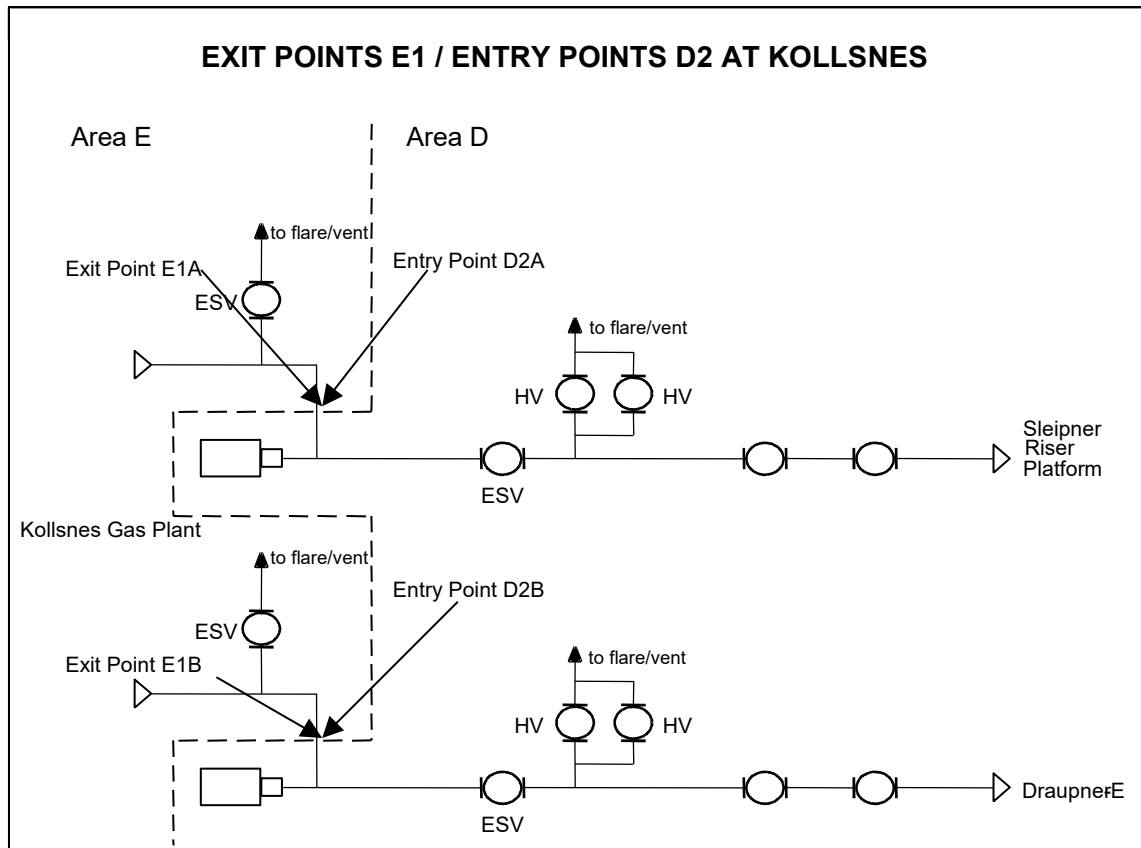
Figure 3.5.1



### 3.5.2 Entry Point D2 at Kollsnes

The Entry Points D2A and D2B are at the Kollsnes Gas Plant at the inlet of the T-connection upstream of the pig trap kicker line, on each of the two export pipelines as shown in figure 3.5.2

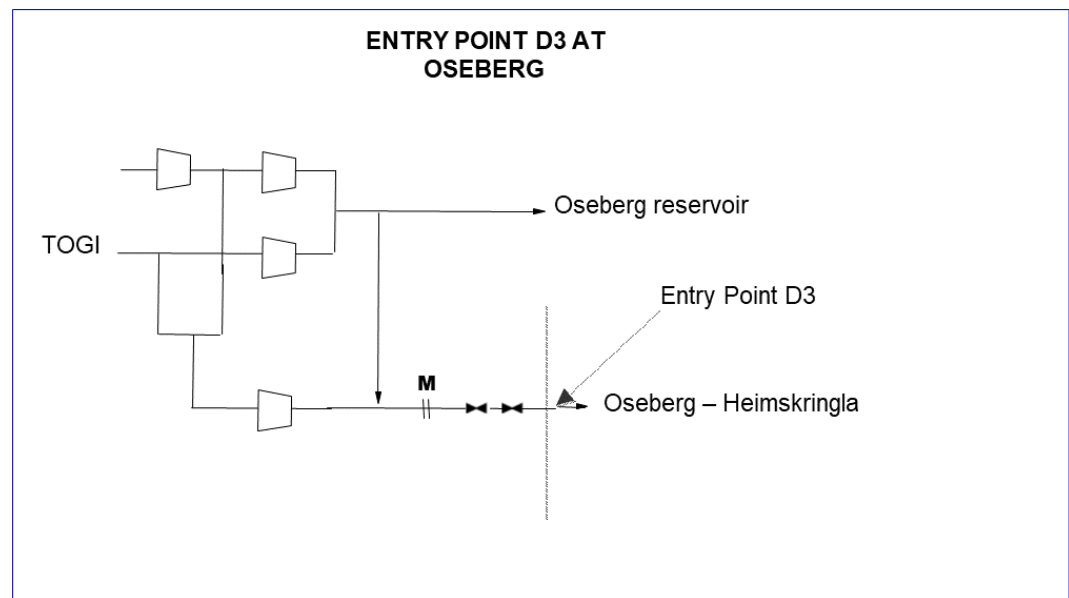
Figure 3.5.2



### 3.5.3 Entry Point D3 at Oseberg

The Entry Point D3 is at the hyperbarically welded connection between Gassled and the 36-inch riser on the Oseberg D Platform, as shown in figure 3.5.3.

Figure 3.5.3

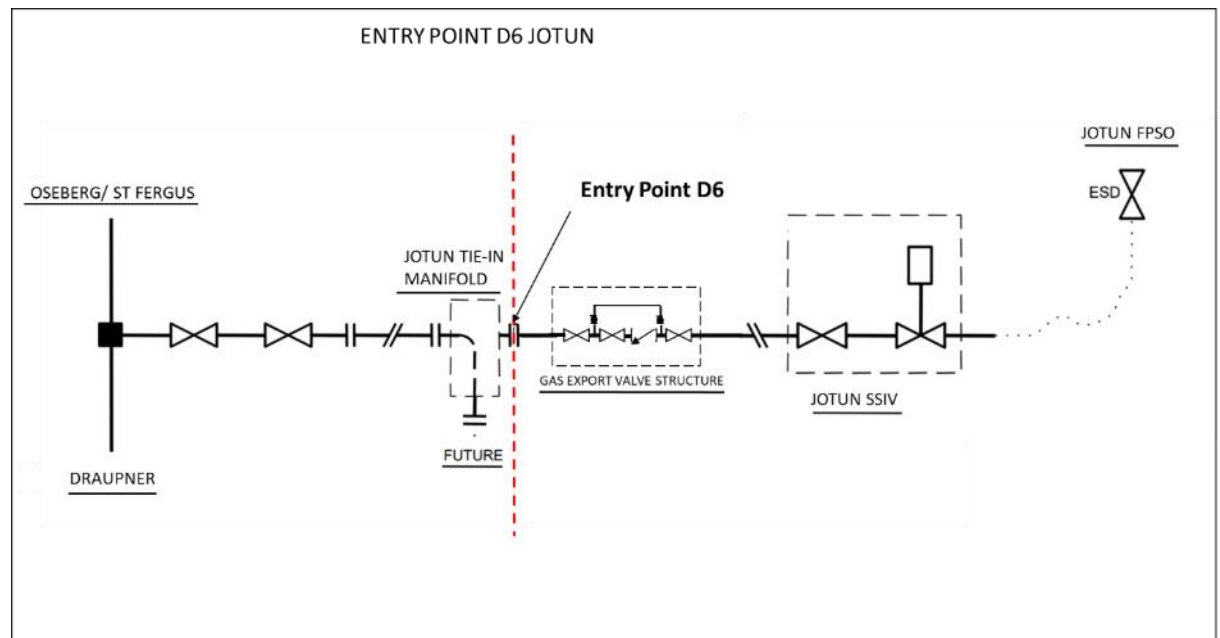


#### 3.5.4 Entry Points D4 at Heimdal (Not in use)

### 3.5.5 Entry Point D6 at Jotun

Entry Point D6 is at the physical flanged connection at the Jotun Tie-in Manifold where the Jotun Gas Pipeline is connected to Gassled as shown in Figure 3.5.5

Figure 3.5.5

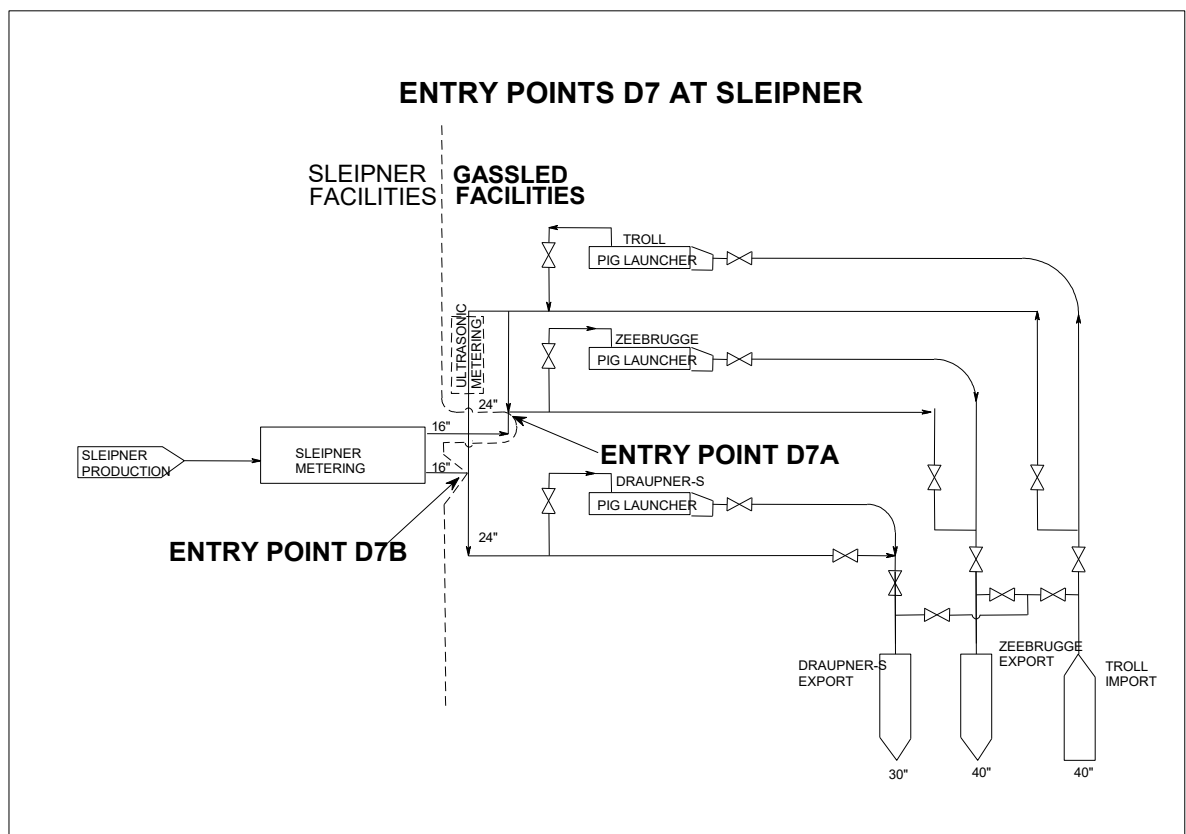


### 3.5.6 Entry Points D7 at Sleipner

The Entry Points D7 are at the following points as shown in figure 3.5.6:

- Entry Point D7A immediately downstream of the first shutdown-valve, on each of the two Natural Gas export pipelines, downstream of the bridge from Sleipner A platform to Sleipner riser platform.
- Entry Point D7B immediately downstream of the T-connection where the bypass pipeline systems are connected to the pipeline between Sleipner riser platform and Draupner-S, at Sleipner riser platform.

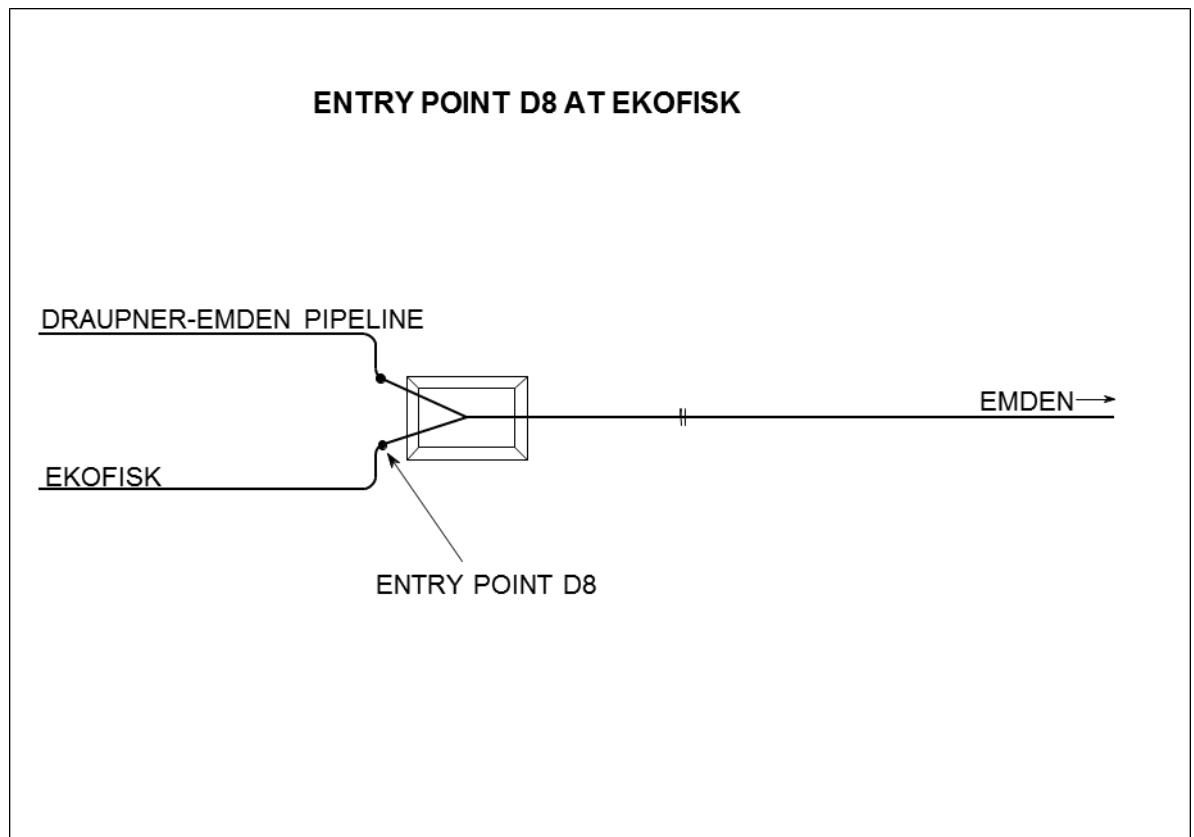
Figure 3.5.6



### 3.5.7 Entry Point D8 at Ekofisk

The Entry Point D8 is at the flange connection of the gas pipeline from Ekofisk to one of the upstream arms of the 36 inch Y piece installed on the gas pipeline as shown in figure 3.5.7.

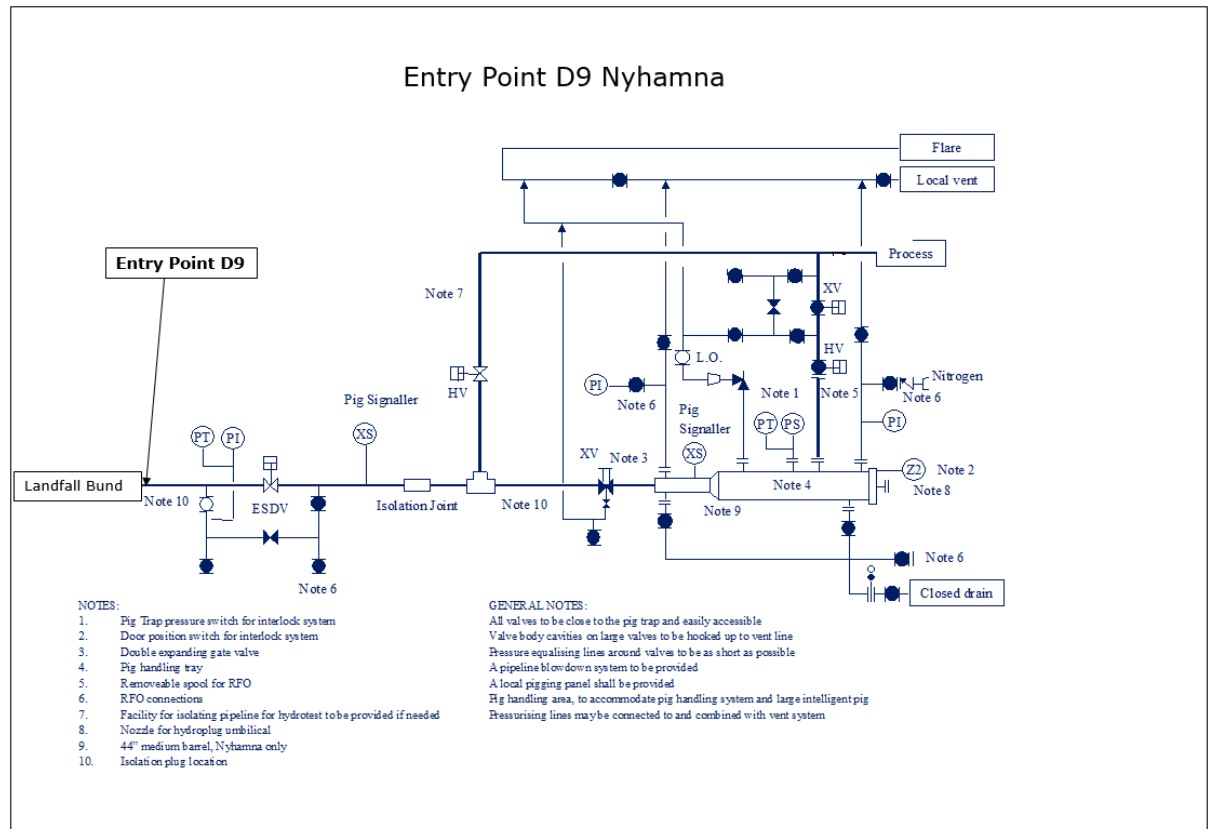
Figure 3.5.7



### 3.5.8 Entry Point D9 at Nyhamna

The Entry Point D9 is immediately before the Landfall Bund downstream of the ESD valve (EV-27-4912) as shown in figure 3.5.8.

Figure 3.5.8

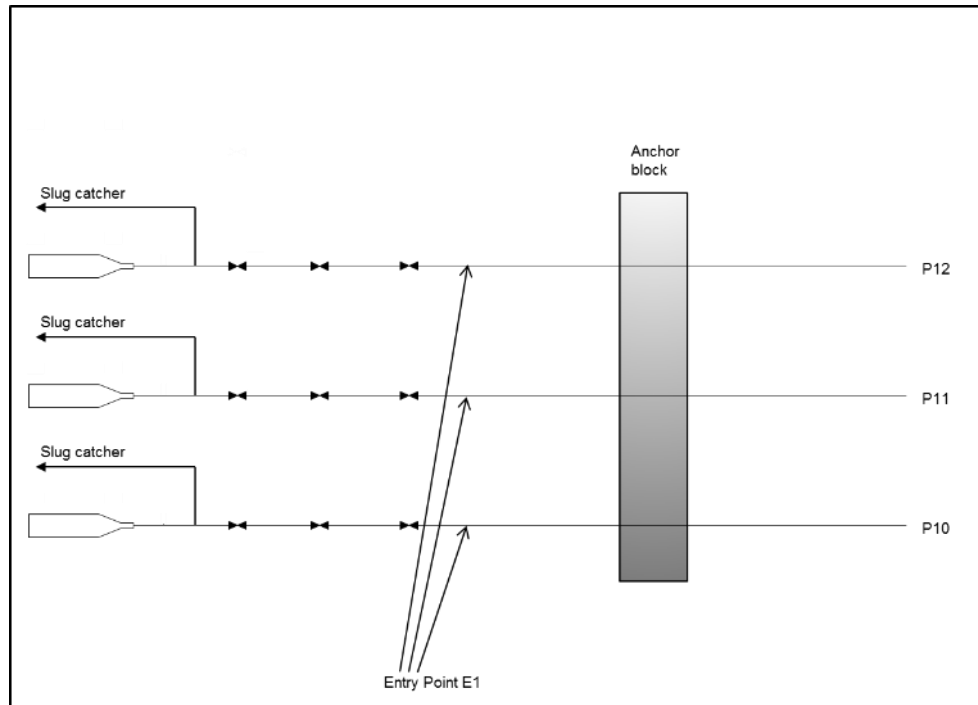


### 3.6 Entry Points in Area E

#### 3.6.1 Entry Points E1 from Troll gas pipelines

The Entry Points E1 is at the first welding upstream the valve at the anchor block as shown in figure 3.6.1.

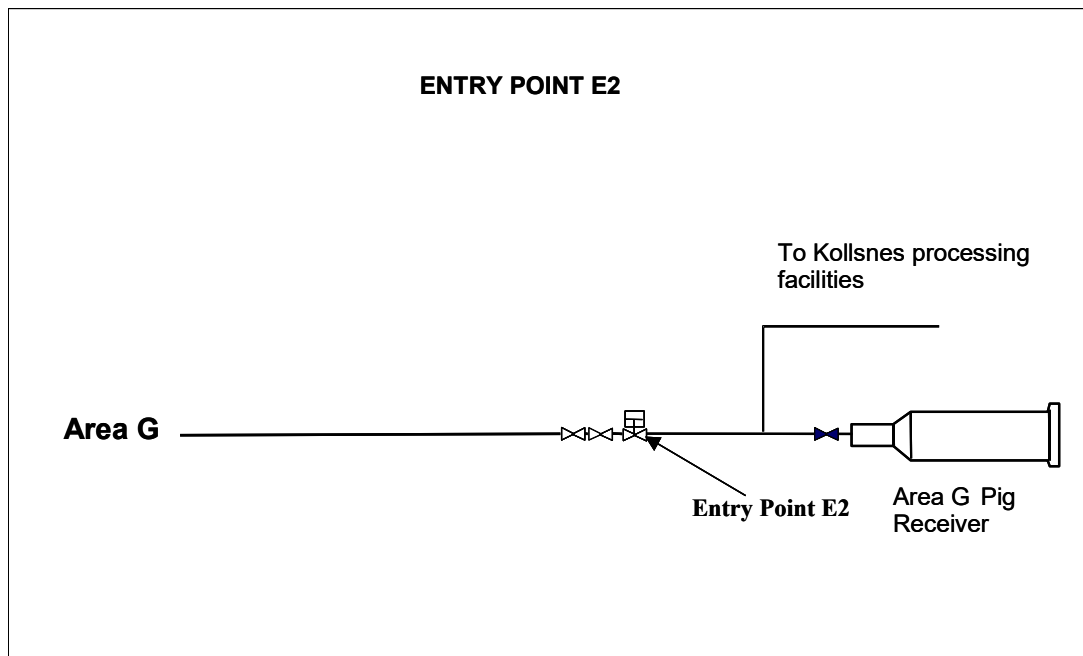
Figure 3.6.1



### 3.6.2 Entry Point E2 from Area G

The Entry Point E2 from Area G is immediately downstream the emergency shutdown valve at Kollsnes Gas Plant as shown in figure 3.6.2.

Figure 3.6.2

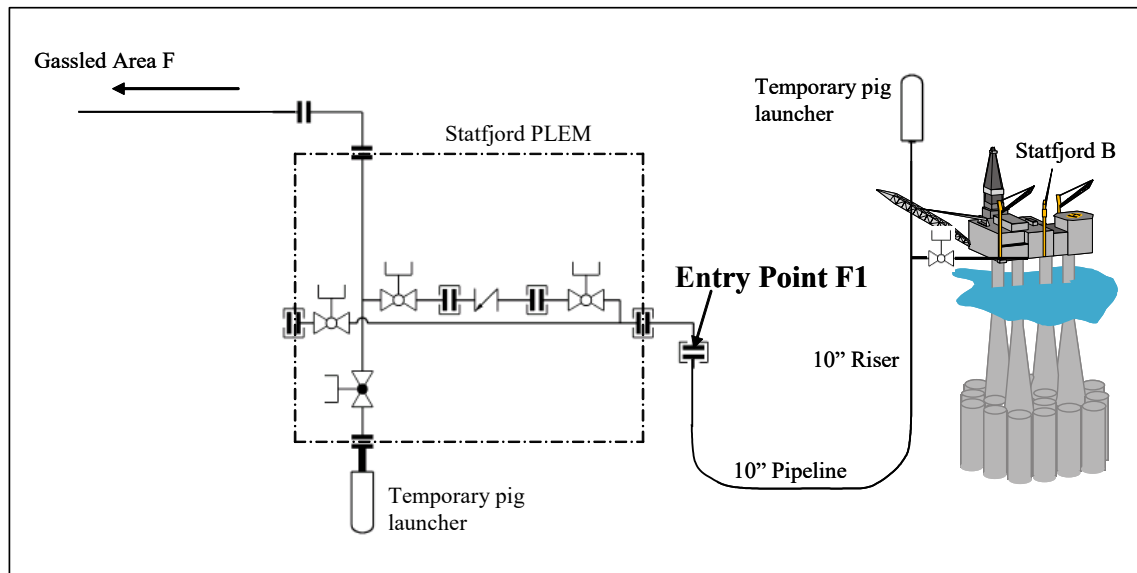


### 3.7 Entry Points in Area F

#### 3.7.1 Entry Points F1 at Statfjord B

The Entry Point F1 is at the connection point between the 10 inch riser spool line and the tie-in spool to the 32 inch pipeline as shown in figure 3.7.1. The Entry Point F1 is for Gas produced and/or processed at the Statfjord B platform.

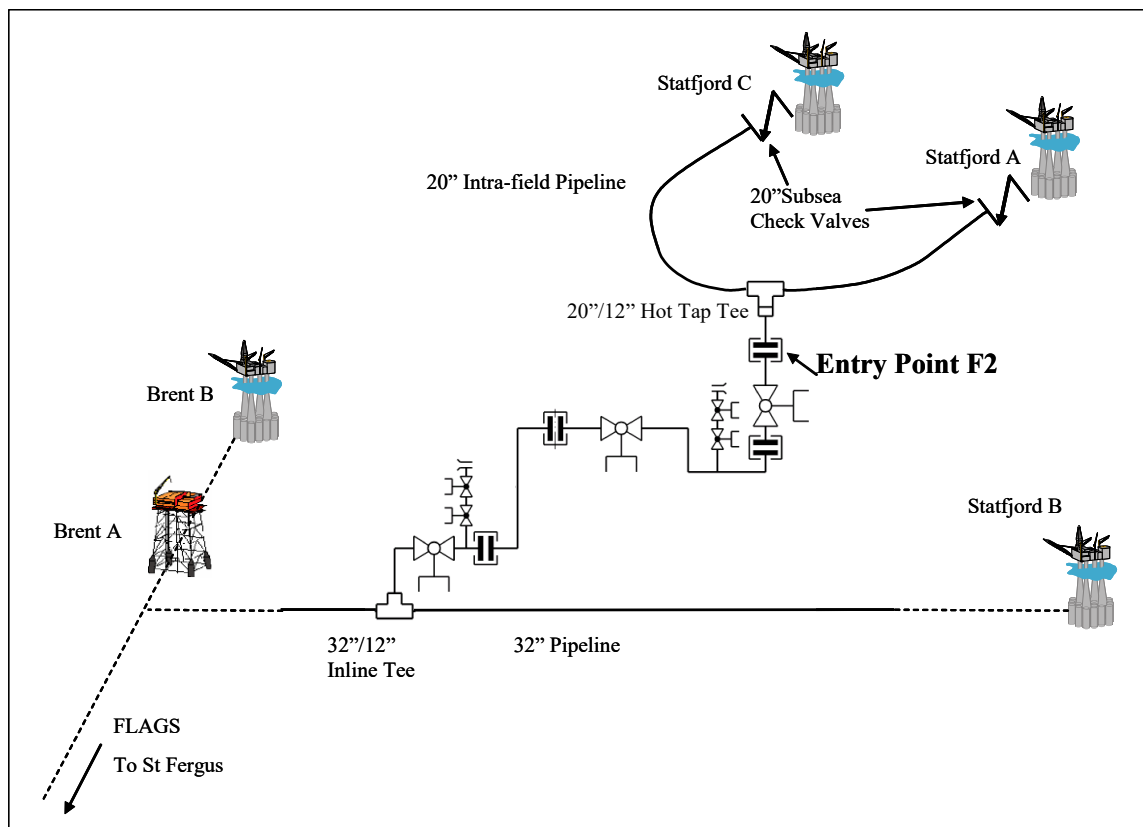
Figure 3.7.1



### 3.7.2 Entry Points F2 at Statfjord Intrafield Pipeline System

The Entry Point F2 is at the flange between the retrofit T on the Statfjord Intrafield Pipeline System and the tie-in spool to the pipeline as shown in figure 3.7.2. The Entry Point F2 is for Gas produced and/or processed at the Statfjord A and/or the Statfjord C platforms.

Figure 3.7.2



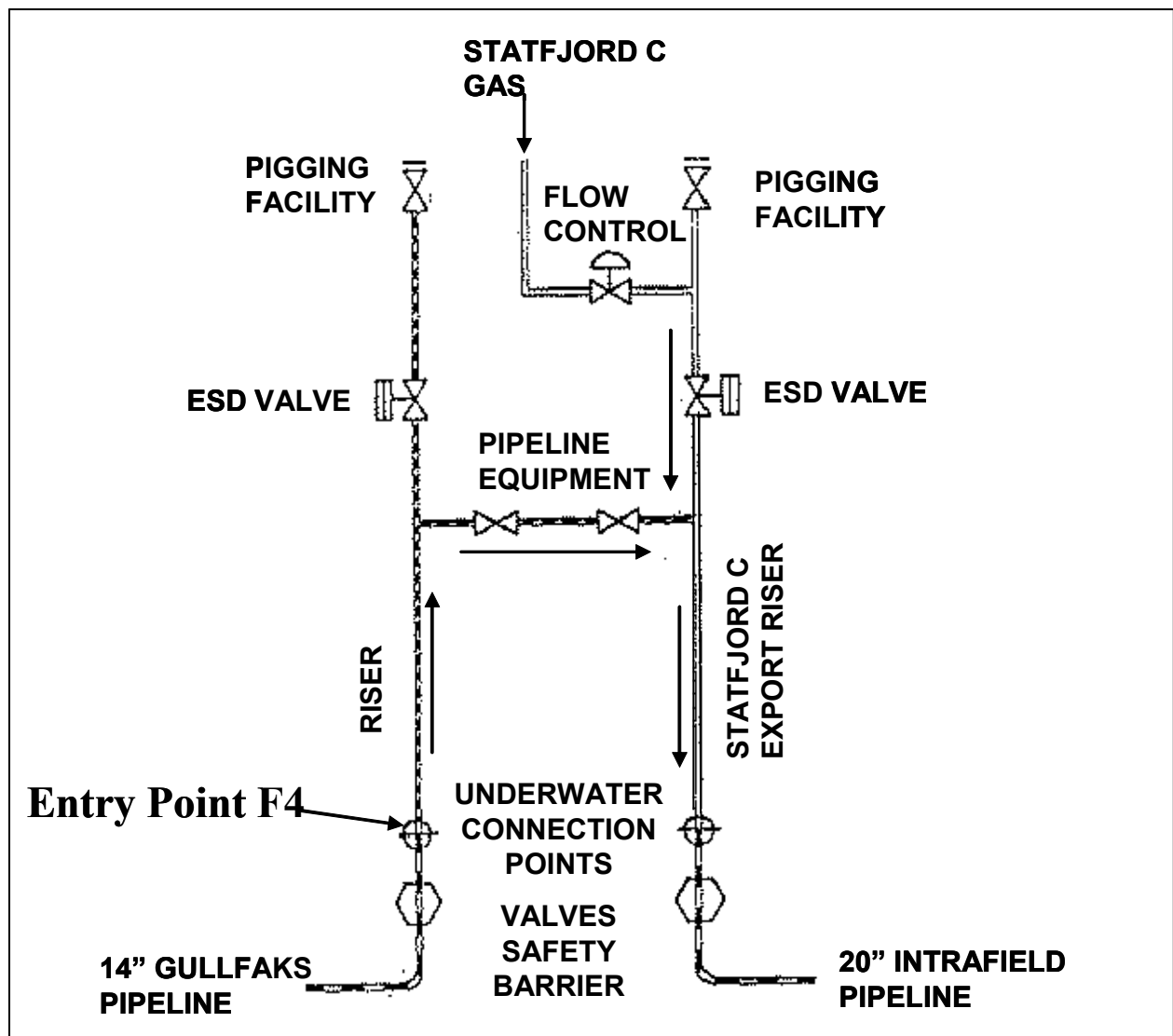
### 3.7.3 Entry Point F3 for Gas from Area A

The Entry Point F3 is equal to the Entry Point F1 as described in article 3.7.1. The Entry Point F3 is for Gas from Area A.

### 3.7.4 Entry Point F4 for Gas from Gullfaks

The Entry Point F4 is at the base of the retained wall on the gravity base structure of the Statfjord C platform where the 14 inch Gullfaks gas pipeline is connected to the pipeline riser as shown in figure 3.7.4.

Figure 3.7.4

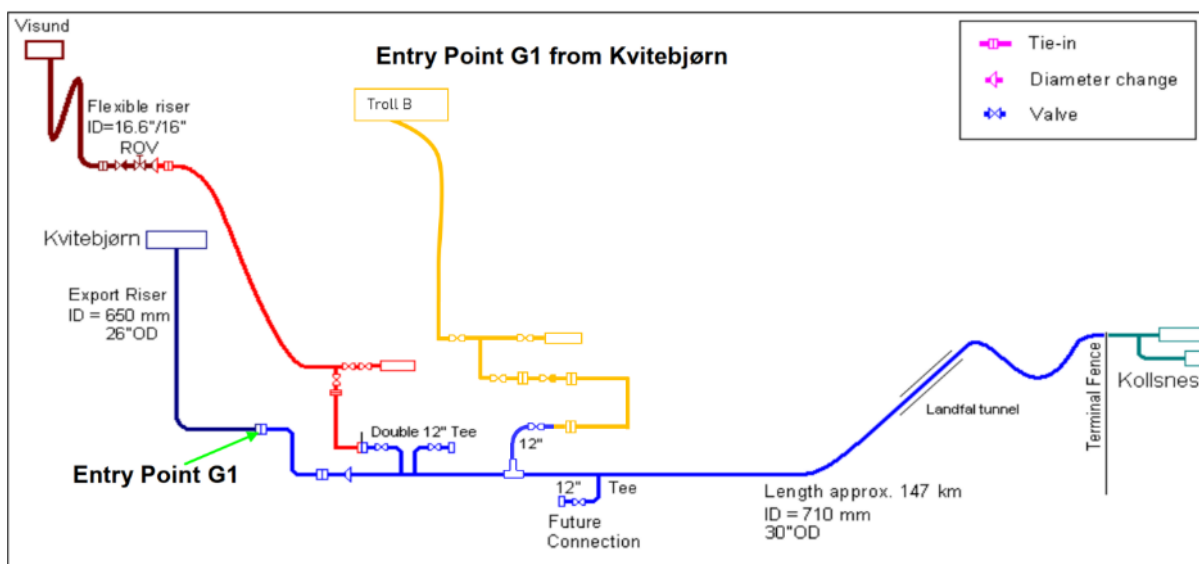


### 3.8 Entry Points in Area G

#### 3.8.1 Entry Point G1 for Gas from Kvitebjørn

The Entry Point G1 is at the flange connection of the gas pipeline from Kvitebjørn platform to the riser as shown in figure 3.8.1

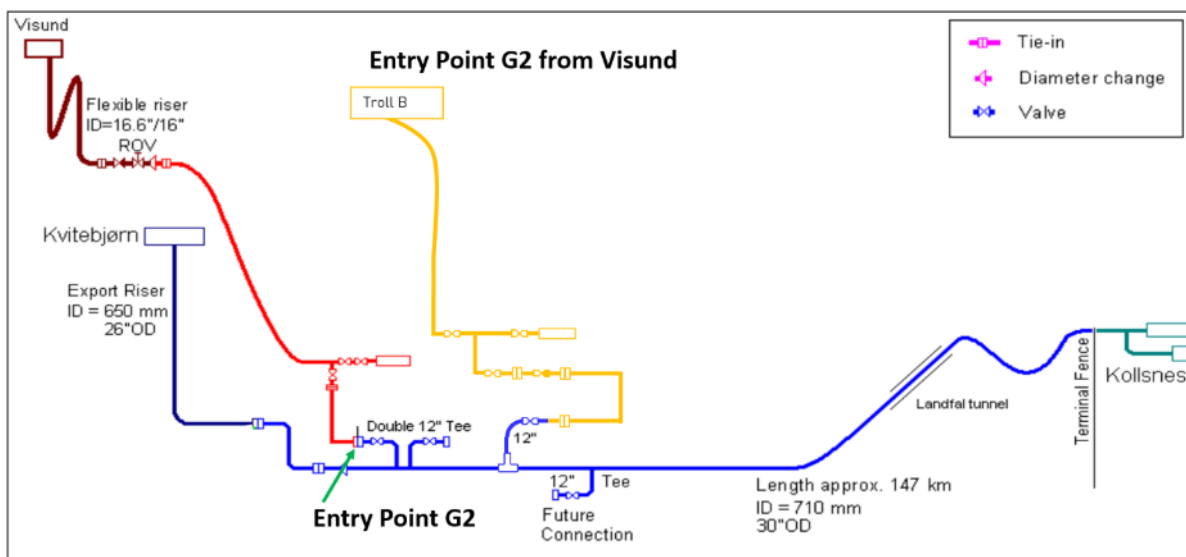
Figure 3.8.1



#### 3.8.2 Entry Point G2 for Gas from Visund

The Entry Point G2 is at the flange connection of the gas pipeline from Visund where it connects to the 12 inch tee as shown in figure 3.8.2.

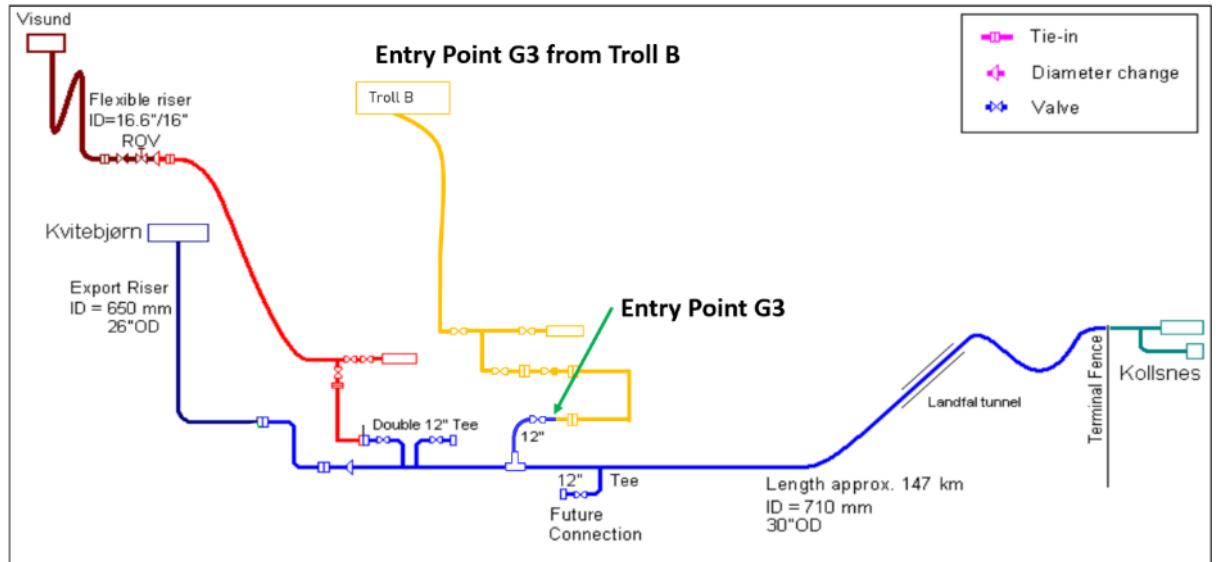
Figure 3.8.2



### 3.8.3 Entry Point G3 at Troll B T-connection

The Entry Point G3 is at the first weld immediately downstream of the tie-in flange on the goose neck spool as shown in figure 3.8.3.

Figure 3.8.3

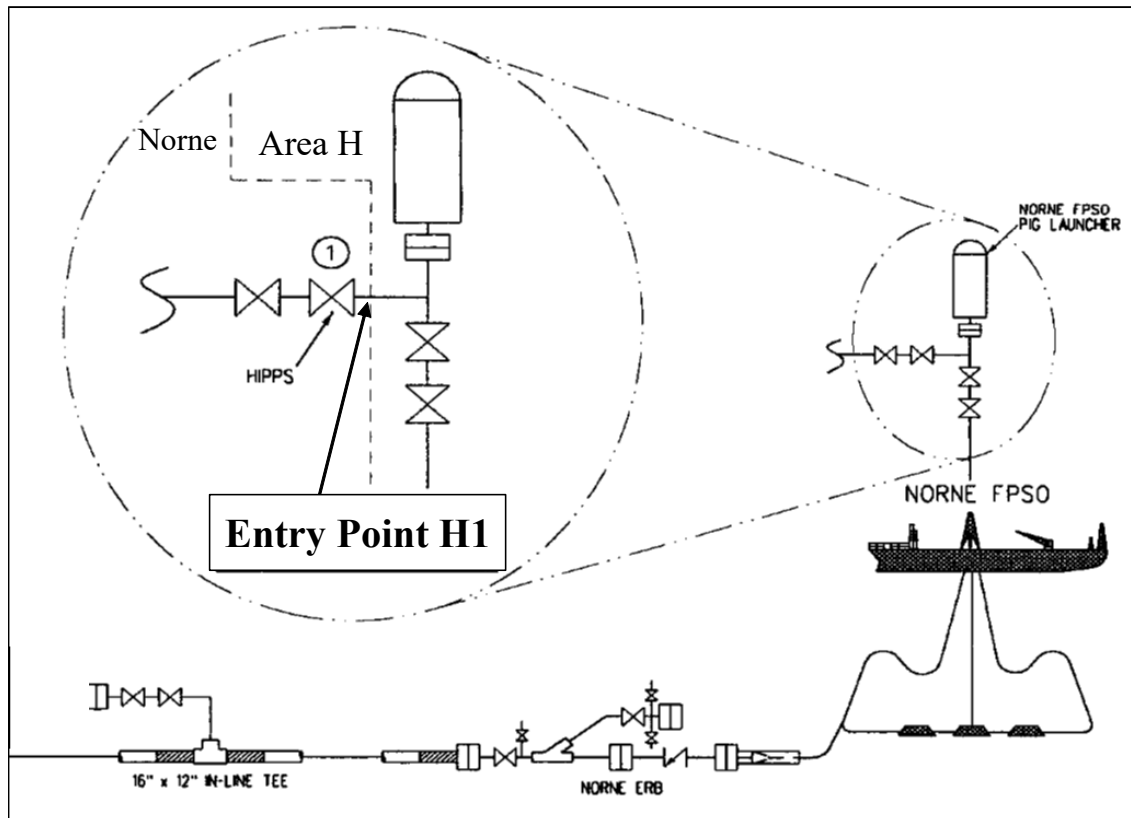


### 3.9 Entry Points in Area H

#### 3.9.1 Entry Point H1 for Gas from Norne

The Entry Point H1 is immediately downstream the HIPPS-valve at Norne as shown in figure 3.9.1.

Figure 3.9.1

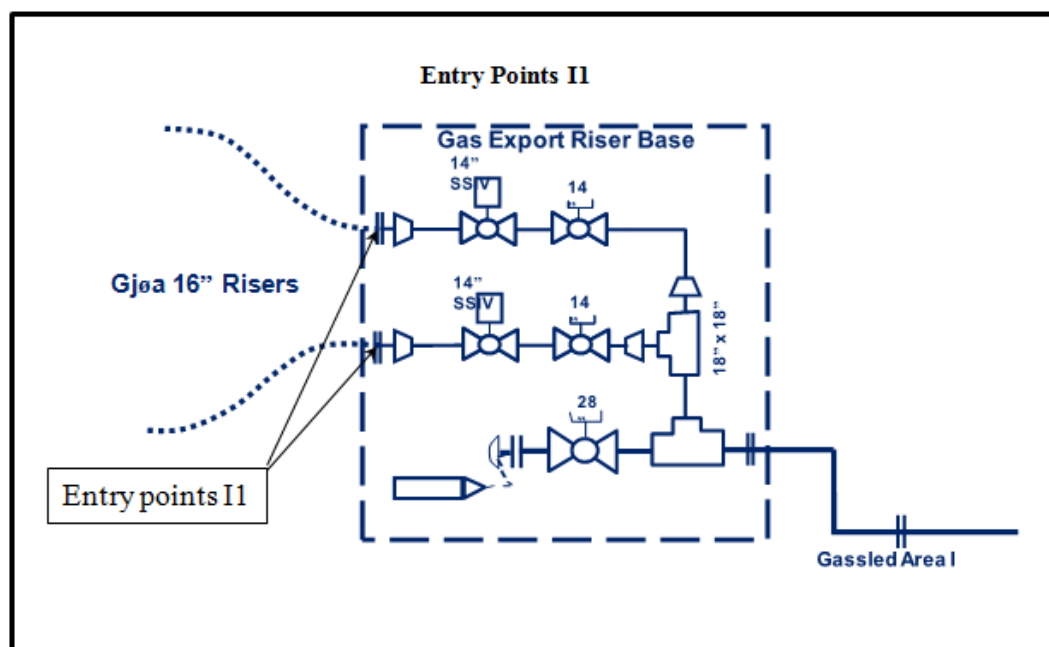


### 3.10 Entry Points in Area I

#### 3.10.1 Entry Point I1 for Gas from Gjøa

The Entry Point I1 is at the flange connections where the Gjøa gas export risers are connected to the gas export riser base as shown in figure 3.10.1

Figure 3.10.1



### 3.11 Exit Points in Area A

#### 3.11.1 Exit Point A1 to Area C

For delivery of Rich Gas to Area C the Exit Point A1 is immediately upstream the receiving facilities in Area C.

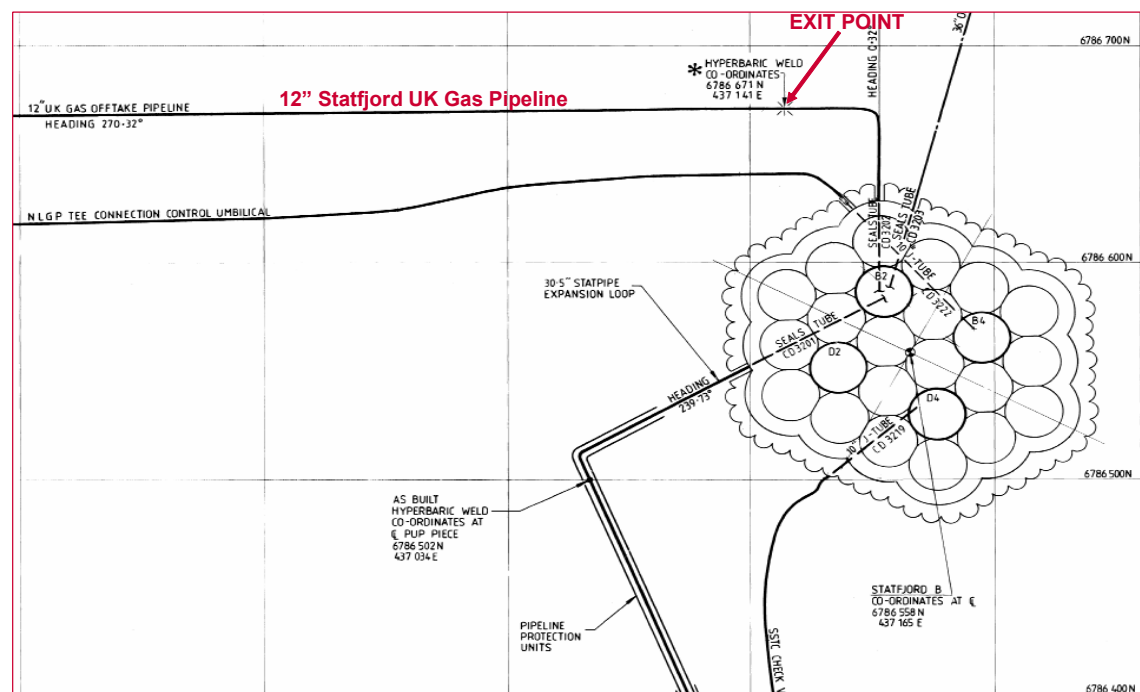
#### 3.11.2 Exit Point A2 to Area F

For delivery of Rich Gas to Area F the Exit Point A2 is at the Entry Point F3 as described in article 3.7.3.

#### 3.11.3 Exit Point A3 to the 12" Statfjord UK Gas Pipeline

For delivery of Rich Gas to the 12" Statfjord UK Gas Pipeline the Exit Point A3 is at the point (from the base) of the UK gas offtake riser on the Statfjord B platform as shown in figure 3.11.3.

Figure 3.11.3



### 3.12 Exit Point in Area B

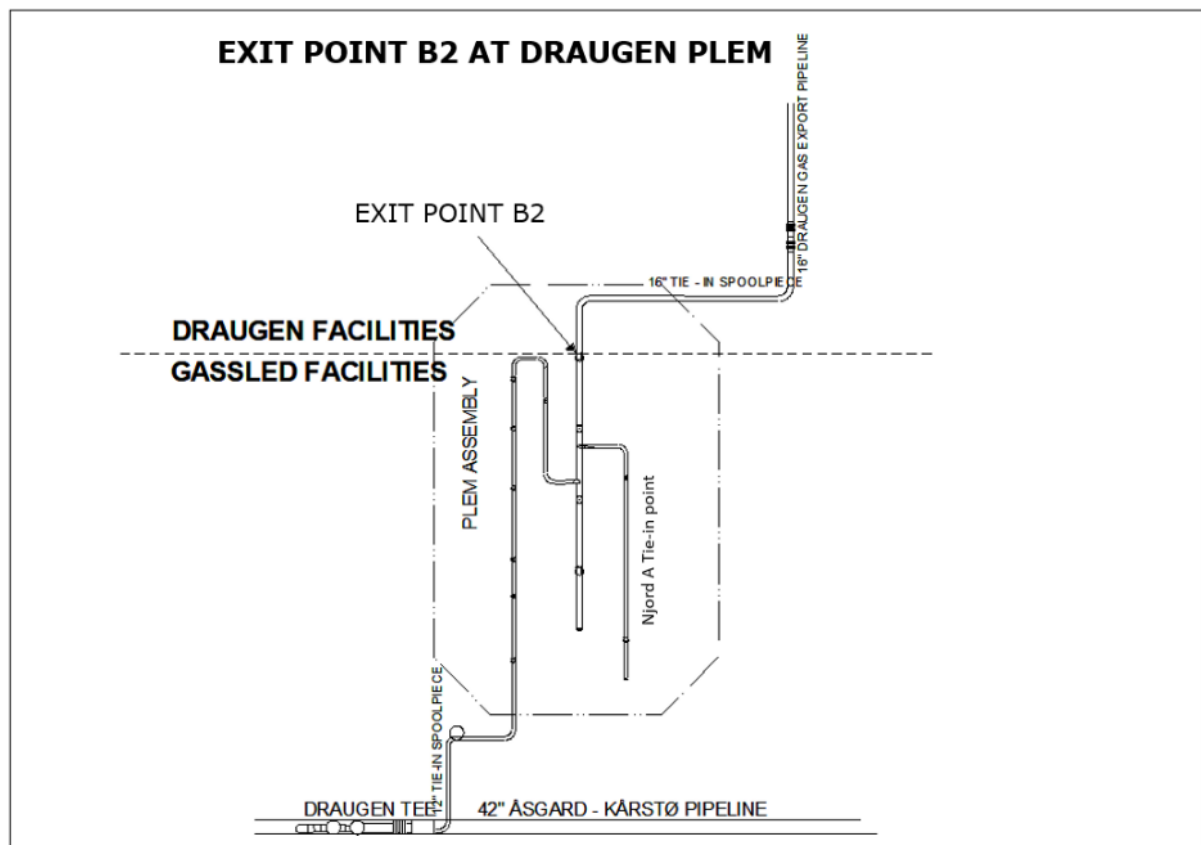
#### 3.12.1 Exit Point B1 to Area C

For delivery of Rich Gas to Area C the Exit Point B1 is immediately upstream the receiving facilities in Area C.

#### 3.12.2 Exit Point B2 to Draugen

Exit Point B2 is at the Draugen PLEM, connected to Draugen-T at KP 105,5 on the Åsgard – Kårstø pipeline. The PLEM assembly is connected to the Draugen gas export pipeline by use of the 16 inch tie-in spool piece through a hub clamp as shown in Figure 3.12.2

Figure 3.12.2

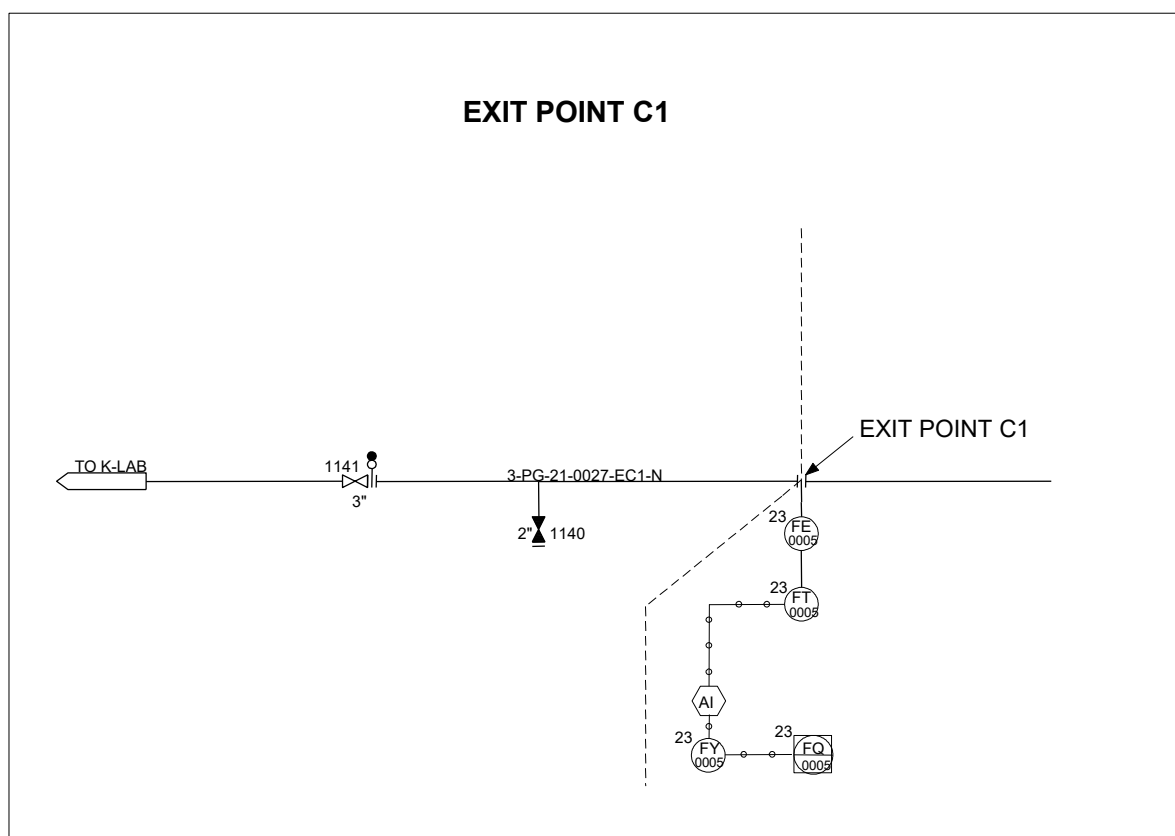


### 3.13 Exit Points in Area C

#### 3.13.1 Exit Point C1 at K-lab

For delivery of Dry Gas to K-lab, the Exit Point C1 at Kårstø Gas Plant is immediately downstream of the Kårstø dry gas measurement facilities (at flow element 23-FE-0005) as shown in figure 3.13.1.

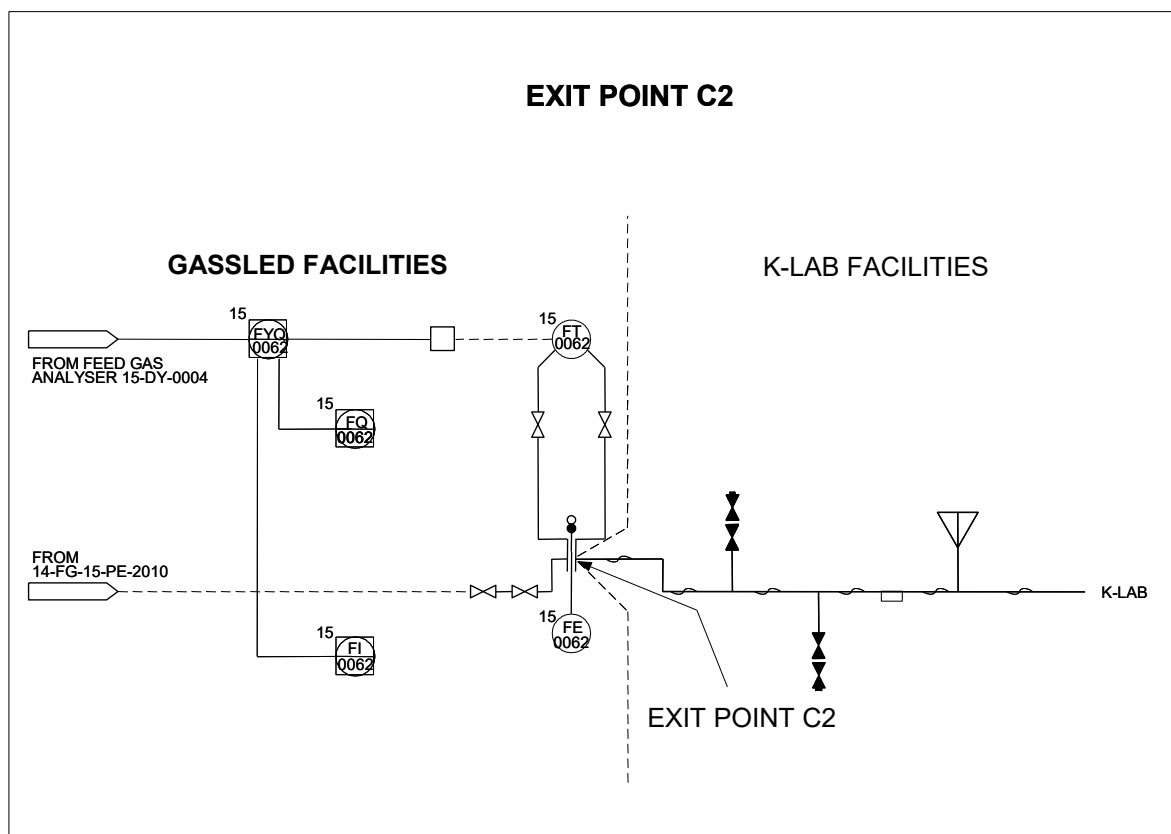
Figure 3.13.1



### 3.13.2 Exit Point C2 at K-lab

The Exit Point C2 for delivery of rich Gas to K-lab, immediately downstream of the measurement facilities (at flow element 15-FE-0062) as shown in figure 3.13.2.

Figure 3.13.2



### 3.13.3 Exit Point C3 for NGL

The Exit Point C3 for redelivery of NGL are at the flange/coupling connections between the permanent loading arm at the loading berths at jetty I, II and III at the Kårstø Gas Plant, and the permanent loading facilities of the loading vessel.

The Exit Point C3b for redelivery of propane to road tanker is immediately downstream the propane degassing drum 47-VD-112.

### 3.13.4 Exit Point C4 for Stabilised Condensate

The Exit Point C4 for redelivery of Stabilised Condensate are at the flange/coupling connections between the permanent loading arm at the loading berths at jetty I and II at the Kårstø Gas Plant, and the permanent loading facilities of the loading vessel.

### 3.13.5 Exit Point C5 for Dry Gas

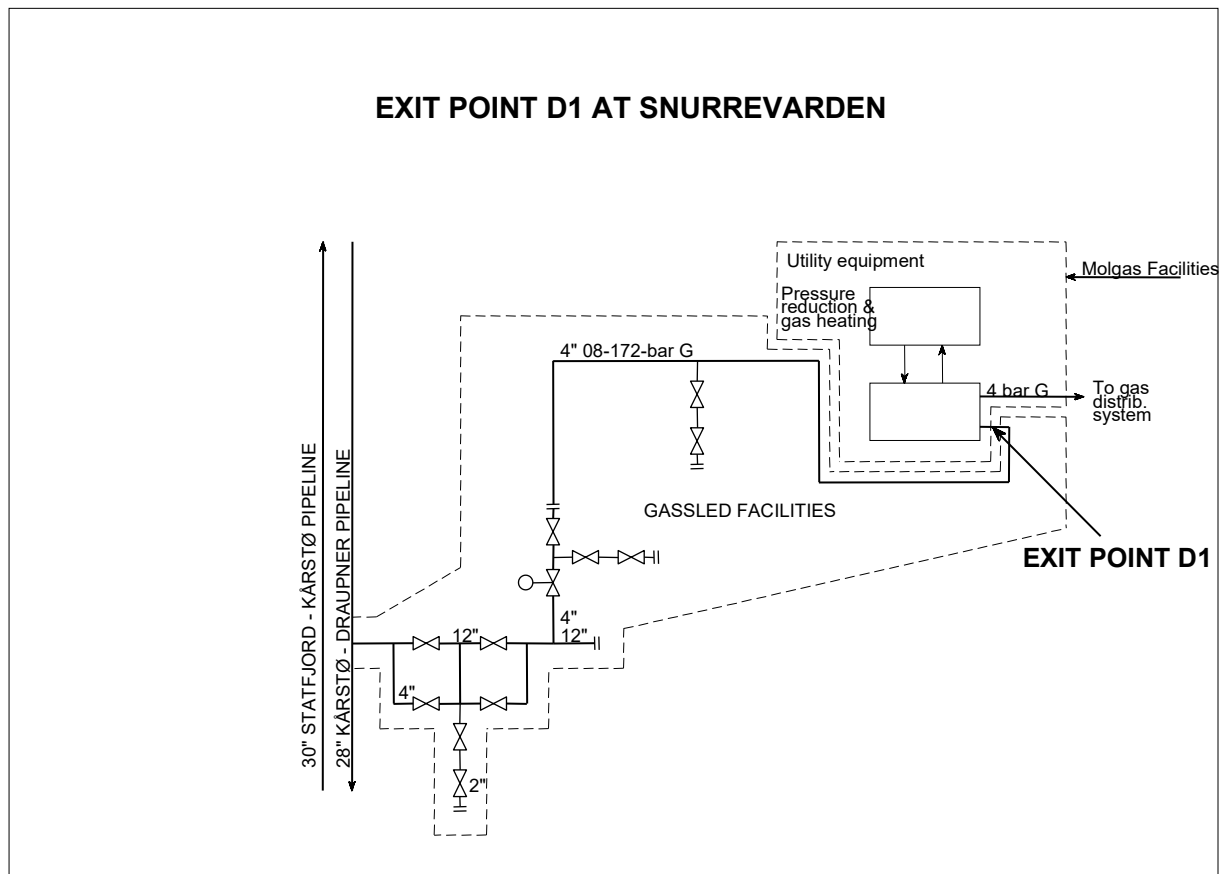
The Exit Points C5 for Dry Gas are equal to the Entry Points D1 at Kårstø as described in article 3.5.1.

### 3.14 Exit Points in Area D

#### 3.14.1 Exit Point D1 at Snurrevarden

The Exit Point D1 at Snurrevarden is at the point immediately before the 4 inch pipeline owned by Gassled connects to the utility equipment owned by Molgas Norway AS as shown in figure 3.14.1.

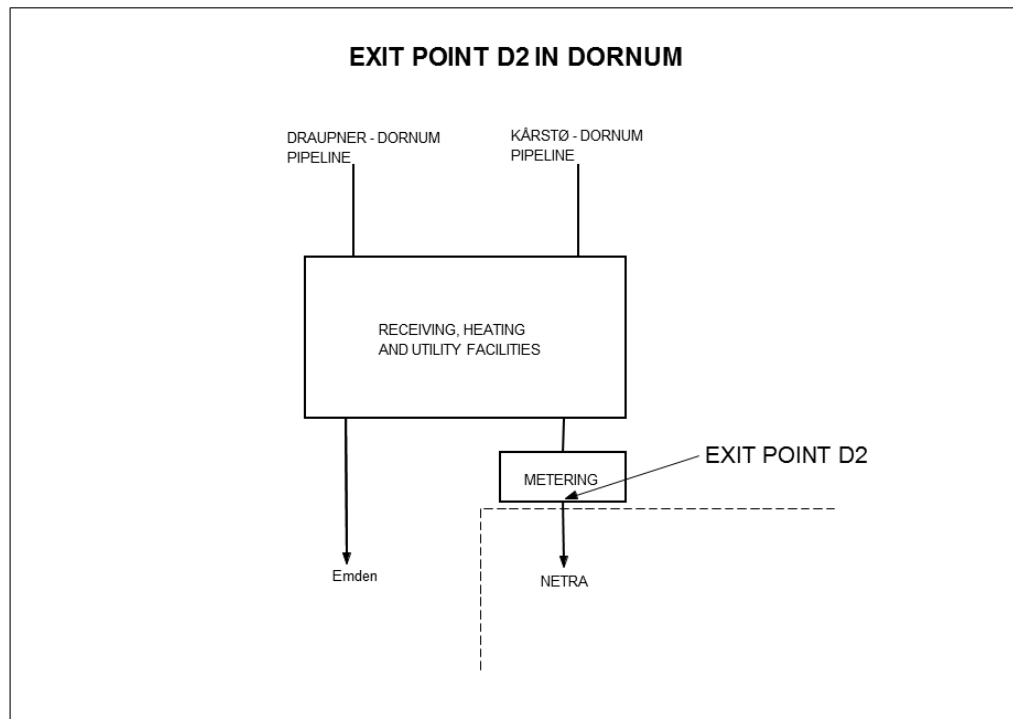
Figure 3.14.1



### 3.14.2 Exit Point D2 in Dornum

The Exit Point D2 is at the Europipe Receiving Facilities immediately downstream of the measurement and testing equipment at the first welded connection after the metering station as shown in figure 3.14.2.

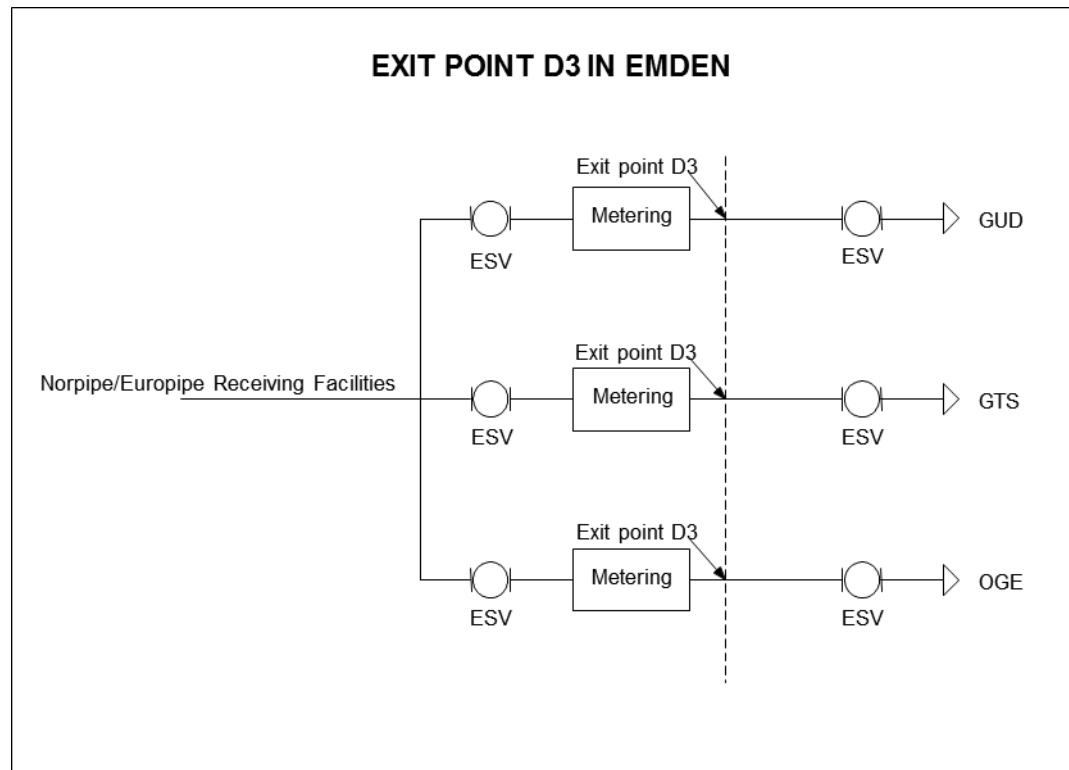
Figure 3.14.2



### 3.14.3 Exit Point D3 in Emden

The Exit Point D3 in Emden is at the first welded connection on the downstream pipelines after the metering stations as shown in figure 3.14.3.

Figure 3.14.3

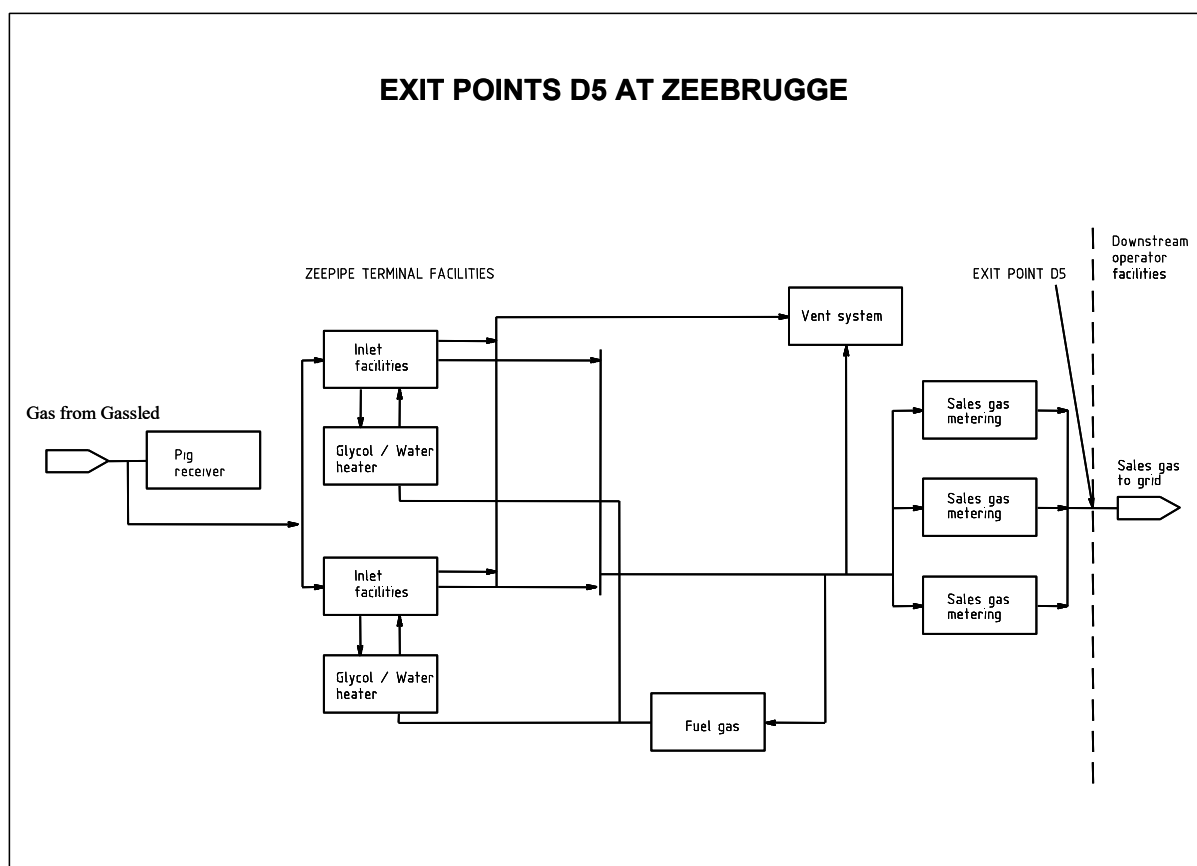


#### 3.14.4 Exit Point D4 at the Norsea Gas Terminal (Not in use)

### 3.14.5 Exit Point D5 at Zeebrugge

The Exit Point D5 is at the Zeepipe Terminal immediately downstream of the measurement and testing equipment at the first welded connection after the metering station as shown in figure 3.14.5.

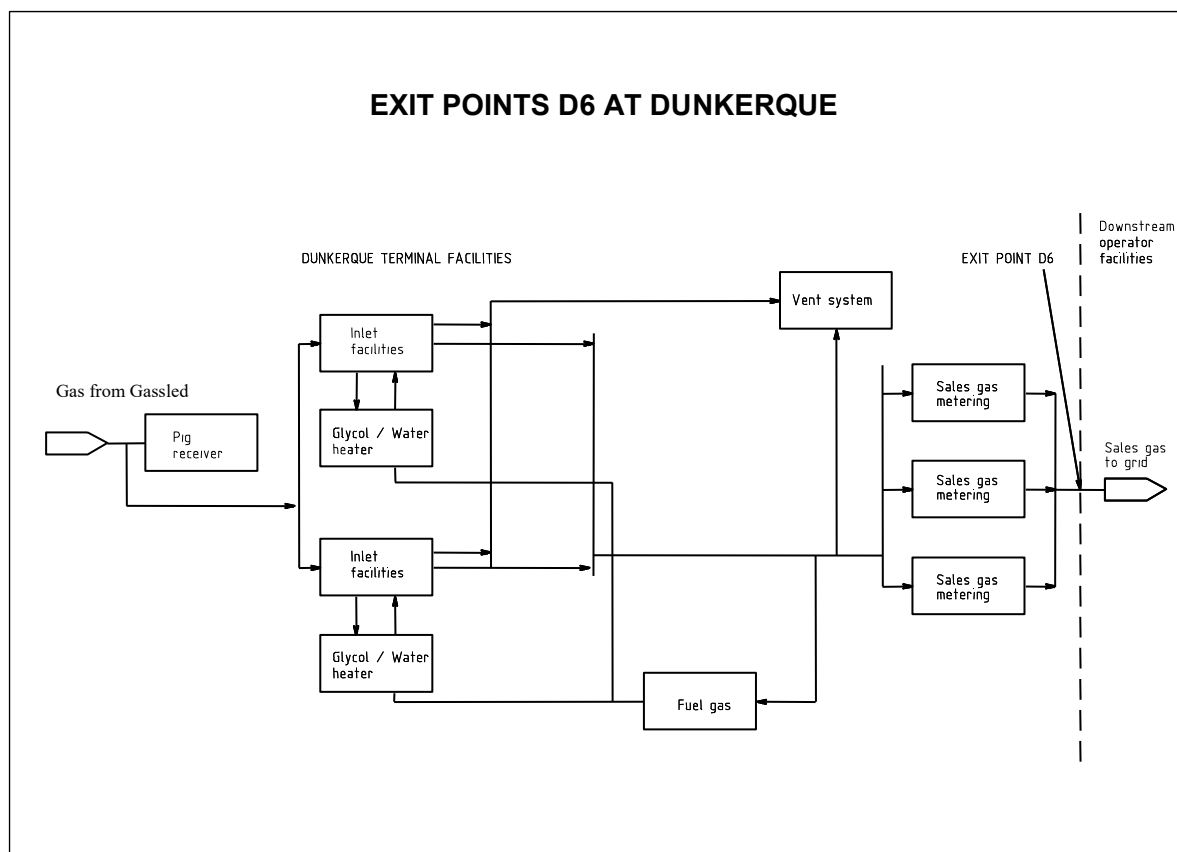
Figure 3.14.5



### 3.14.6 Exit Point D6 at Dunkerque

The Exit Point D6 is at Dunkerque Terminal immediately downstream of the measurement and testing equipment at the first welded connection after the metering station as shown in figure 3.14.6.

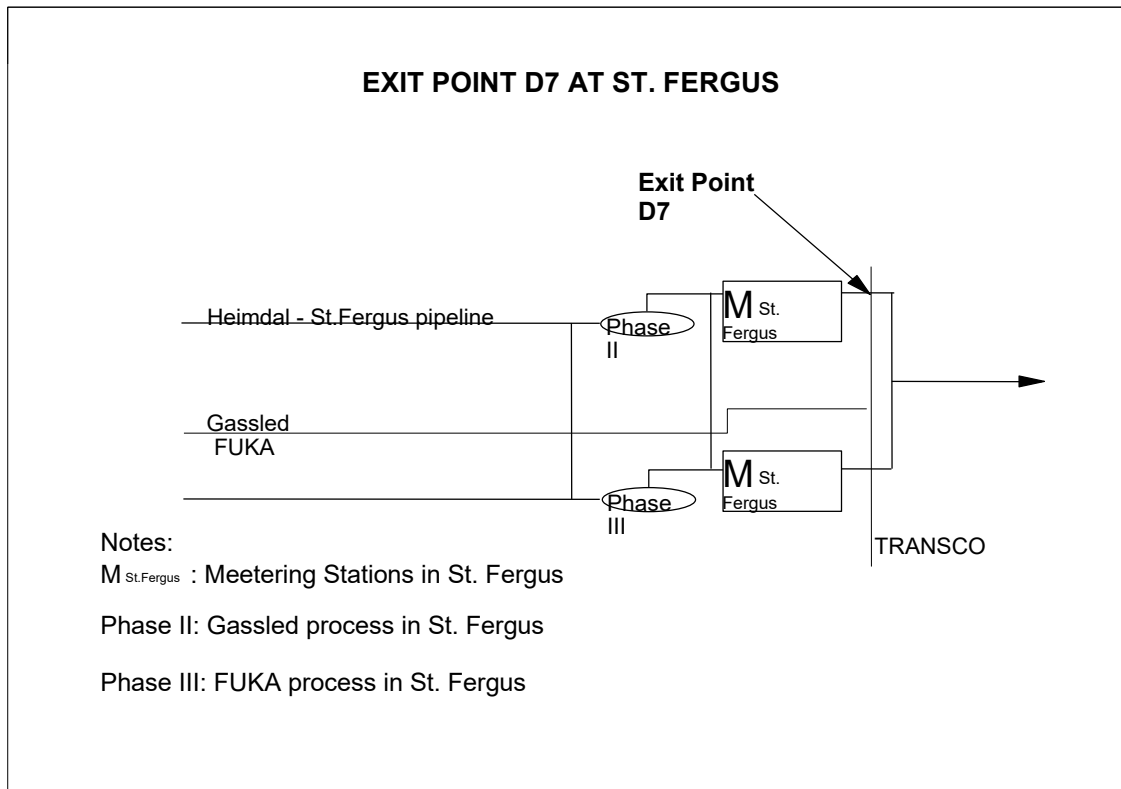
Figure 3.14.6



### 3.14.7 Exit Point D7 at St. Fergus

The Exit Point D7 is at the point where the flange connects the St. Fergus Terminal with the receiving facilities of Transco PLC shown as Exit Point D7 in figure 3.14.7.

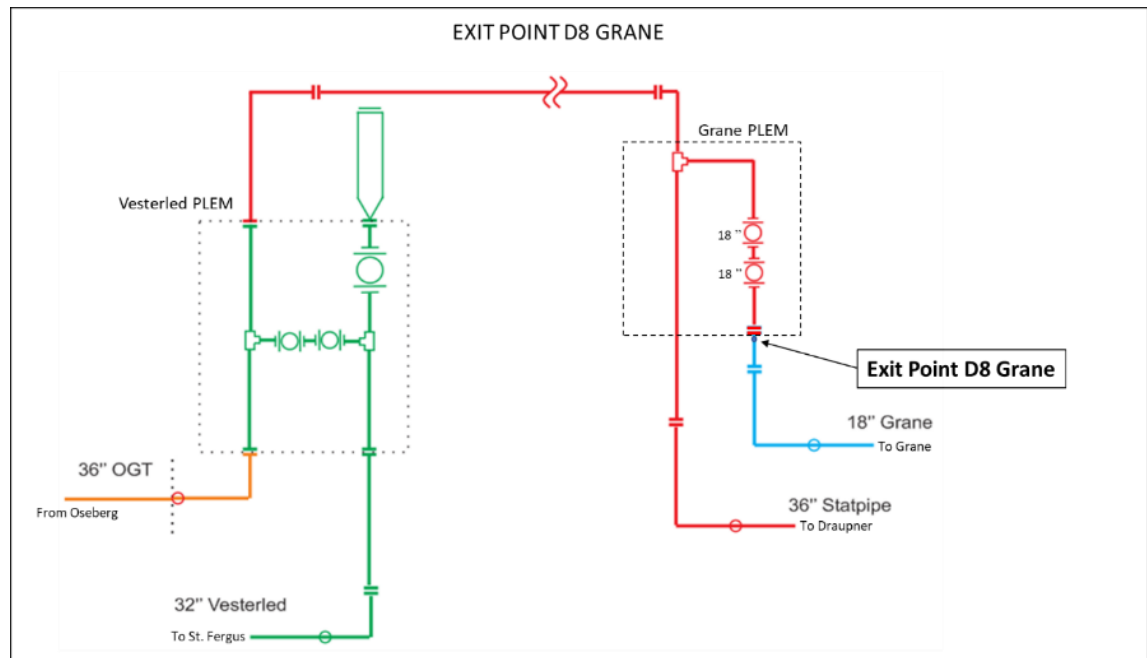
Figure 3.14.7



### 3.14.8 Exit Point D8 to Grane

Exit Point D8 is at the weld upstream the flanged connection upstream of the two 18" valves and DBB arrangement as indicated in Figure 3.14.8.

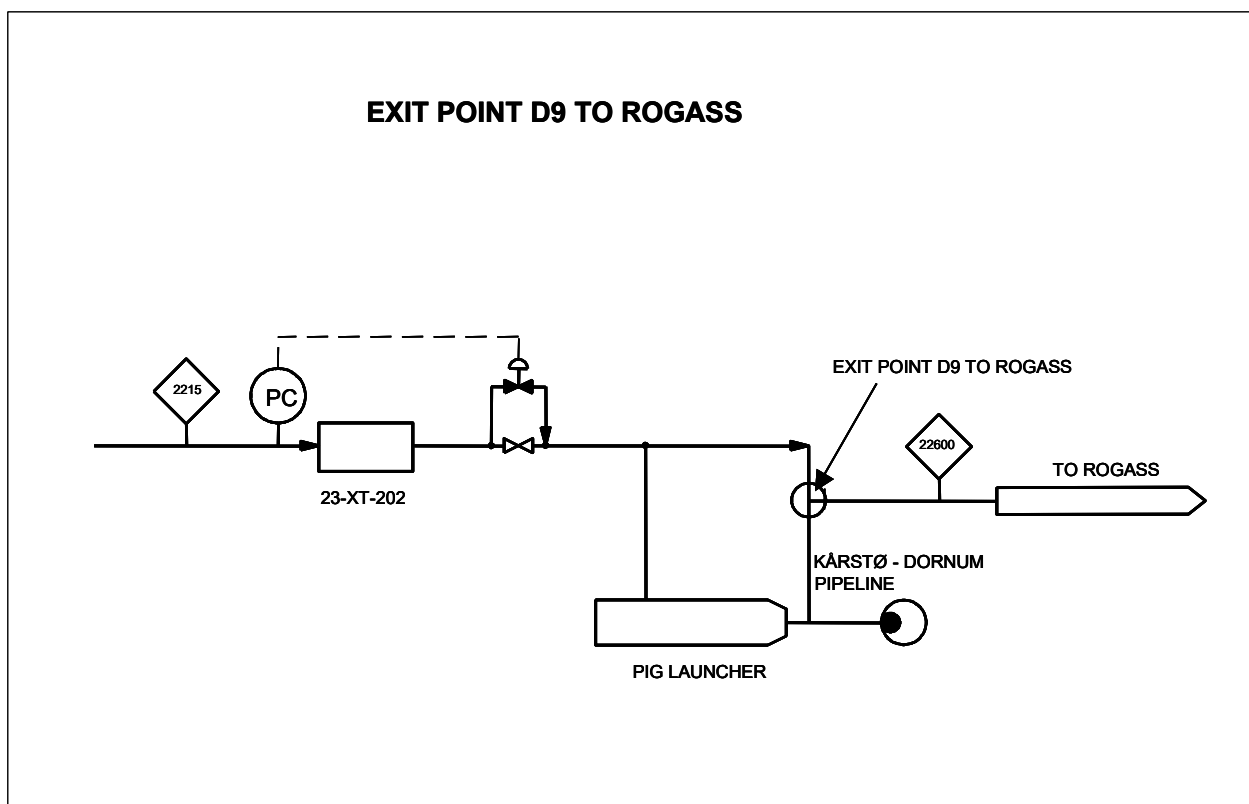
Figure 3.14.8



### 3.14.9 Exit Point D 9 to Rogass

The Exit Point D9 to Rogass is at the first pipeline weld downstream the by-pass piping at the emergency shutdown valve as shown in figure 3.14.9

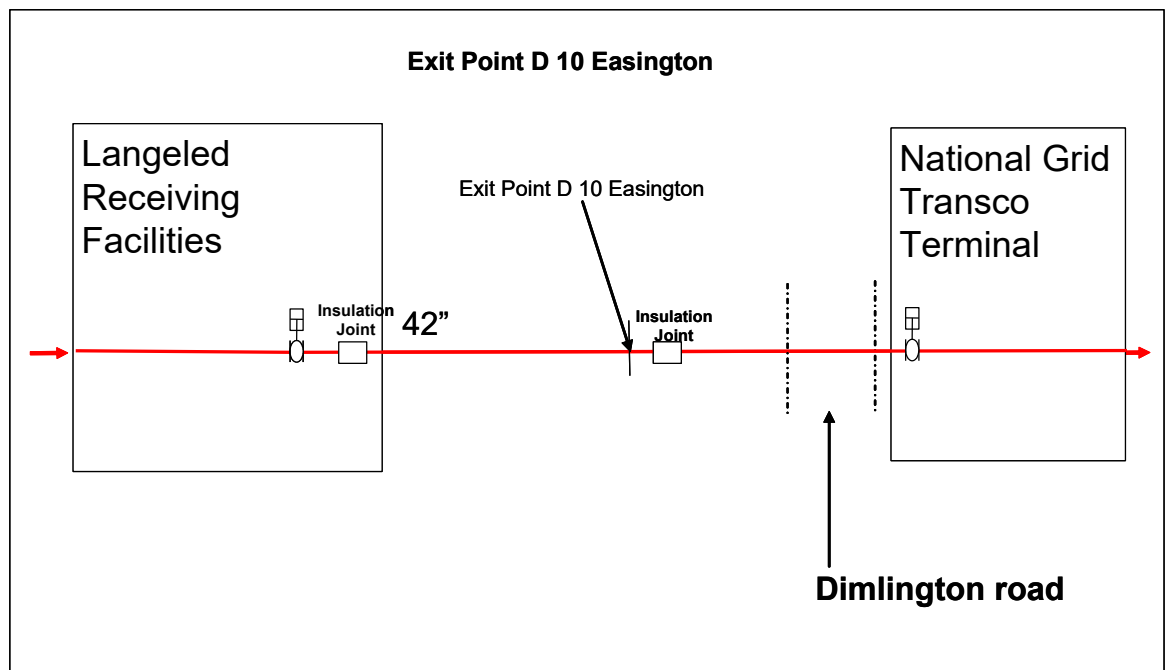
Figure 3.14.9



### 3.14.10 Exit Point D10 at Easington

The Exit Point D10 is at the tie-in weld immediately upstream of the insulation joint on the west side of Dimlington road, as shown in figure 3.14.10

Figure 3.14.10

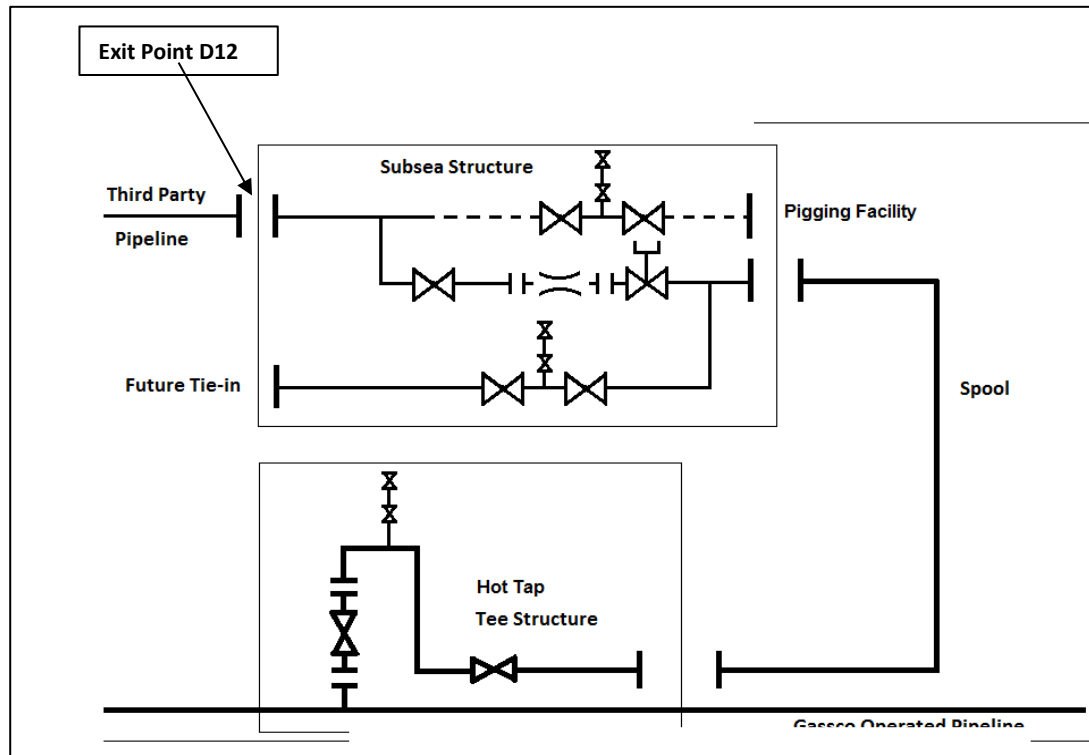


#### 3.14.11 Exit Point D111 at Naturkraft (Not in use)

### 3.14.12 Exit Point D12 to Gina Krog

The Exit Point D12 is at the end of the first weld upstream of the tie-in flange between the subsea structure and the tie-in party pipeline as shown in figure 3.14.12.

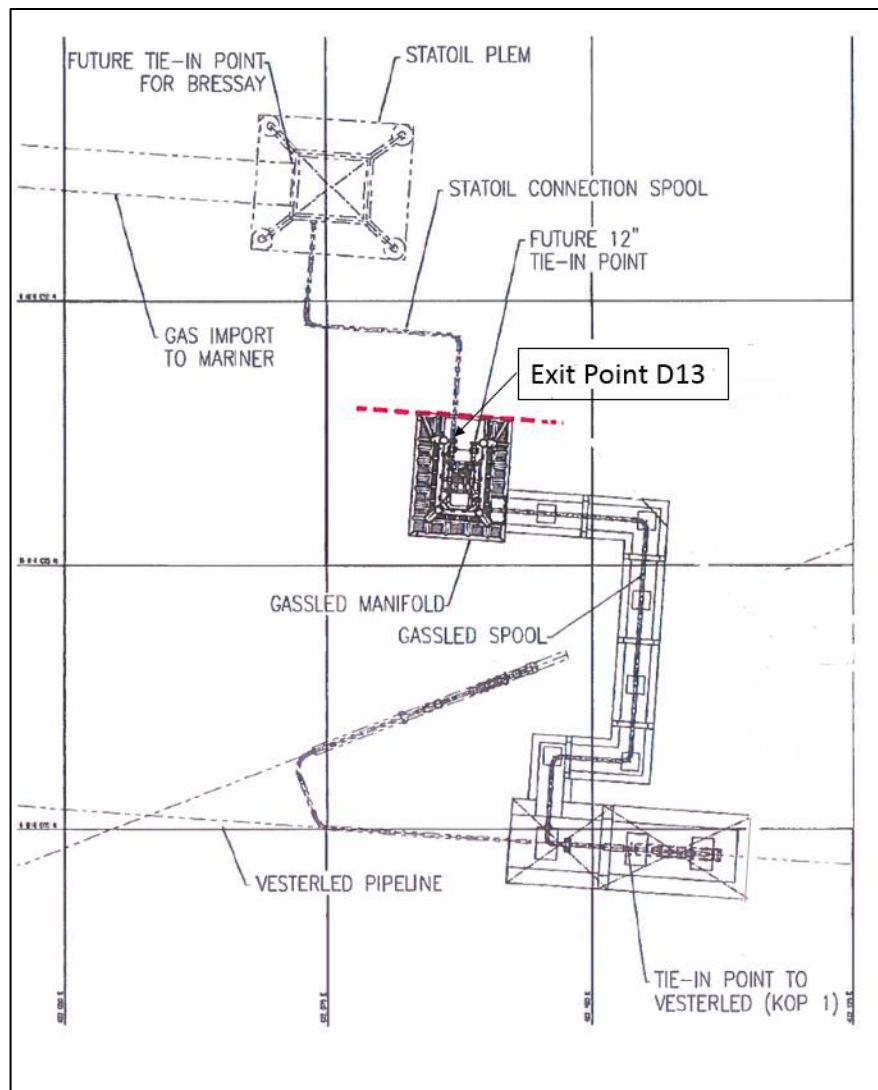
Figure 3.14.12



### 3.14.13 Exit Point D13 to Mariner

The Exit Point D13 is at the flange connecting the Statoil connection spool to the Gassled manifold as shown in figure 3.14.13.

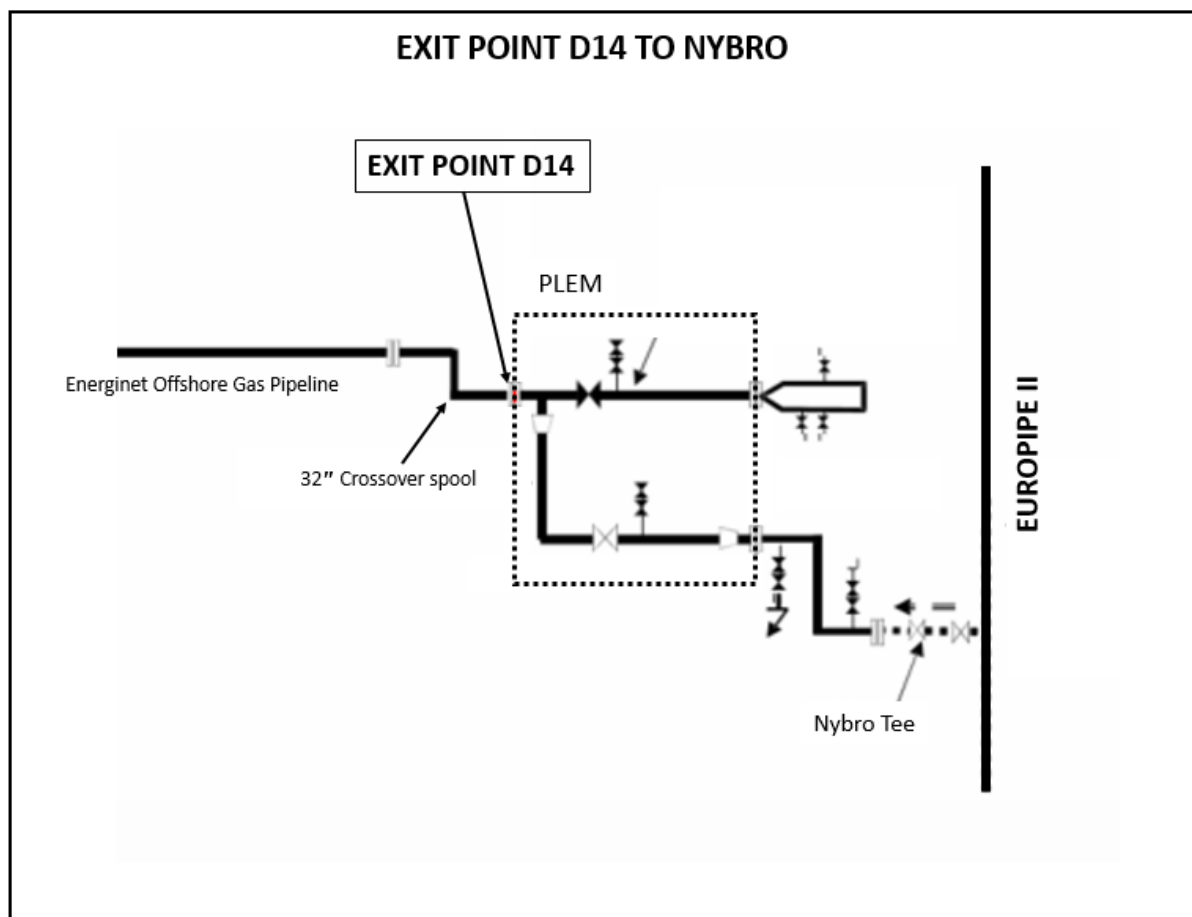
Figure 3.14.13



### 3.14.14 Exit Point D14 to Nybro

Exit Point D14 is at the flanged connection where the Energinet Offshore Gas Pipeline 32" crossover spool is connected to the Gassled PLEM as shown in Figure 3.14.14.

Figure 3.14.14



## 3.15 Exit Points in Area E

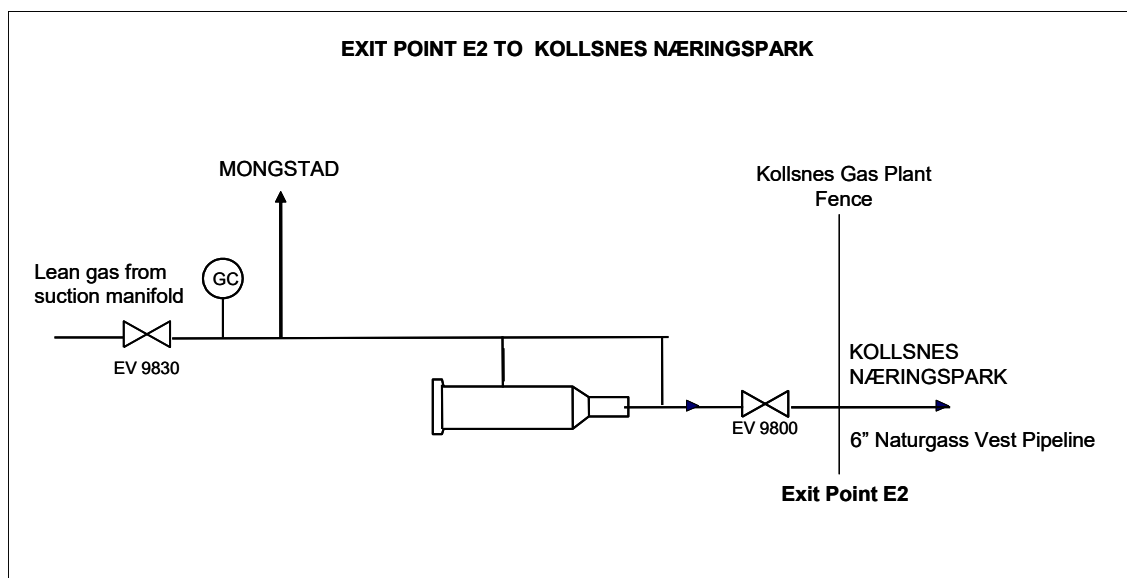
### 3.15.1 Exit Point E1 to Area D

The Exit Points E1 for Dry Gas to Area D are equal to the Entry Point D2 at Kollsnes as described in article 3.5.2.

### 3.15.2 Exit Point E2 to Kollsnes Næringspark

The Exit Point E2 for Dry Gas to Kollsnes Næringspark is at the boundary fence at Kollsnes Gas Plant as shown in figure 3.15.2.

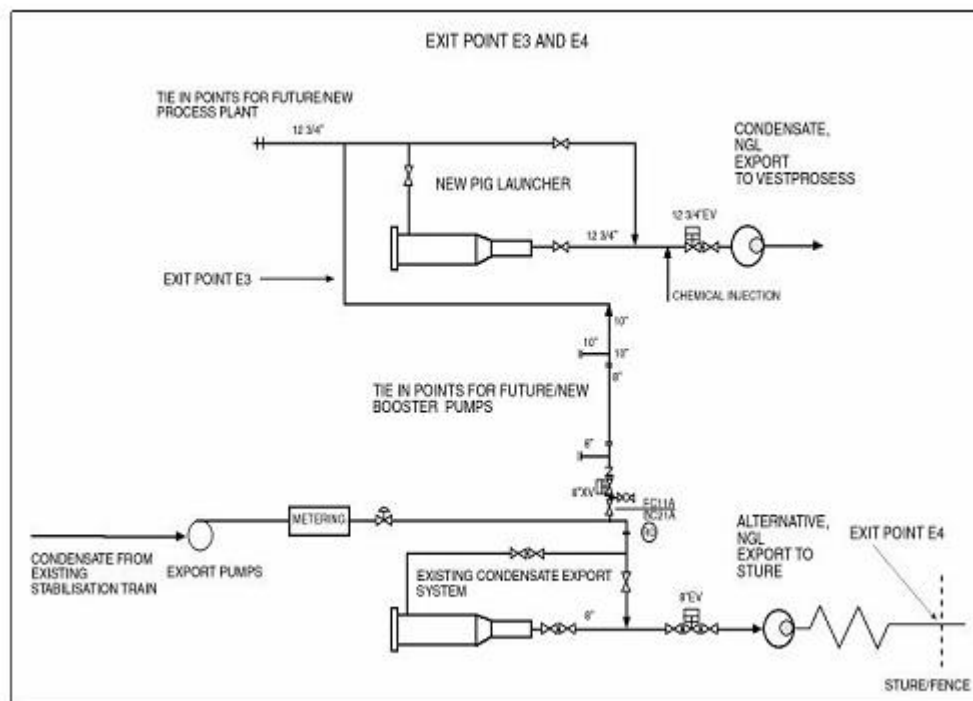
Figure 3.15.2



### 3.15.3 Exit Point E3 to Vestprosess

The Exit Point E3 for liquid to Vestprosess is downstream the metering facilities against the 10 inch pipe as shown in figure 3.15.3.

Figure 3.15.3



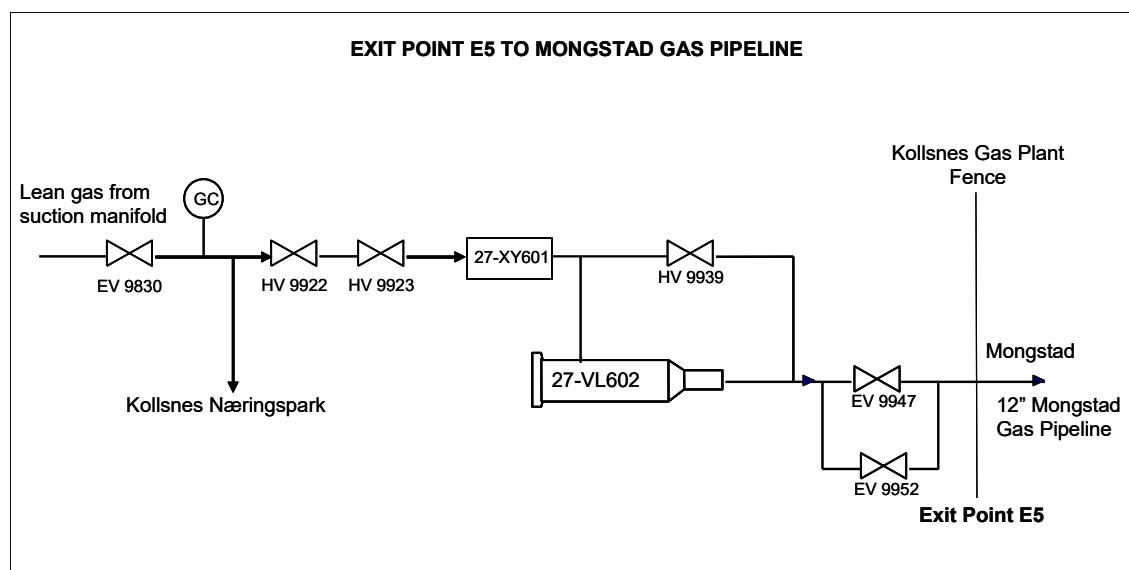
### 3.15.4 Exit Point E4 to Sture

The Exit Point E4 for liquid to Sture is at the Sture boundary fence as shown in figure 3.15.3.

### 3.15.5 Exit Point E5 to Mongstad Gas Pipeline

The Exit Point E5 for Dry Gas to Mongstad Gas Pipeline is at the boundary fence at Kollsnes Gas Plant as shown in figure 3.15.5.

Figure 3.15.5

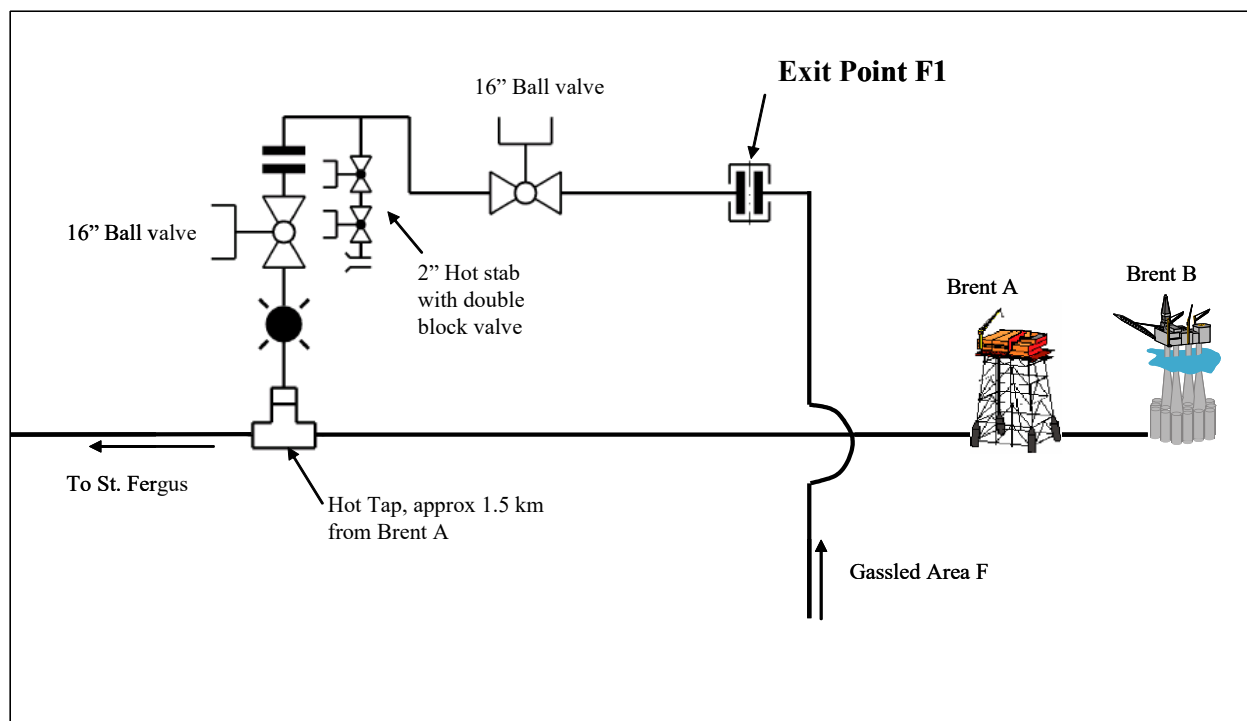


### 3.16 Exit Points in Area F

#### 3.16.1 Exit Point F1 to Flags transportation system

The Exit Points F1 is at the first flange upstream of the pipeline end manifold as shown in figure 3.16.1.

Figure 3.16.1



### **3.17 Exit Points in Area G**

#### **3.17.1 Exit Point G1 to Area E**

The Exit Point G1 is equal to the Entry Point E2 as described in article 3.6.2.

### **3.18 Exit Points in Area H**

#### **3.18.1 Exit Point H1 to Area B**

The Exit Point H1 is equal to the Entry Point B2 as described in article 3.3.2.

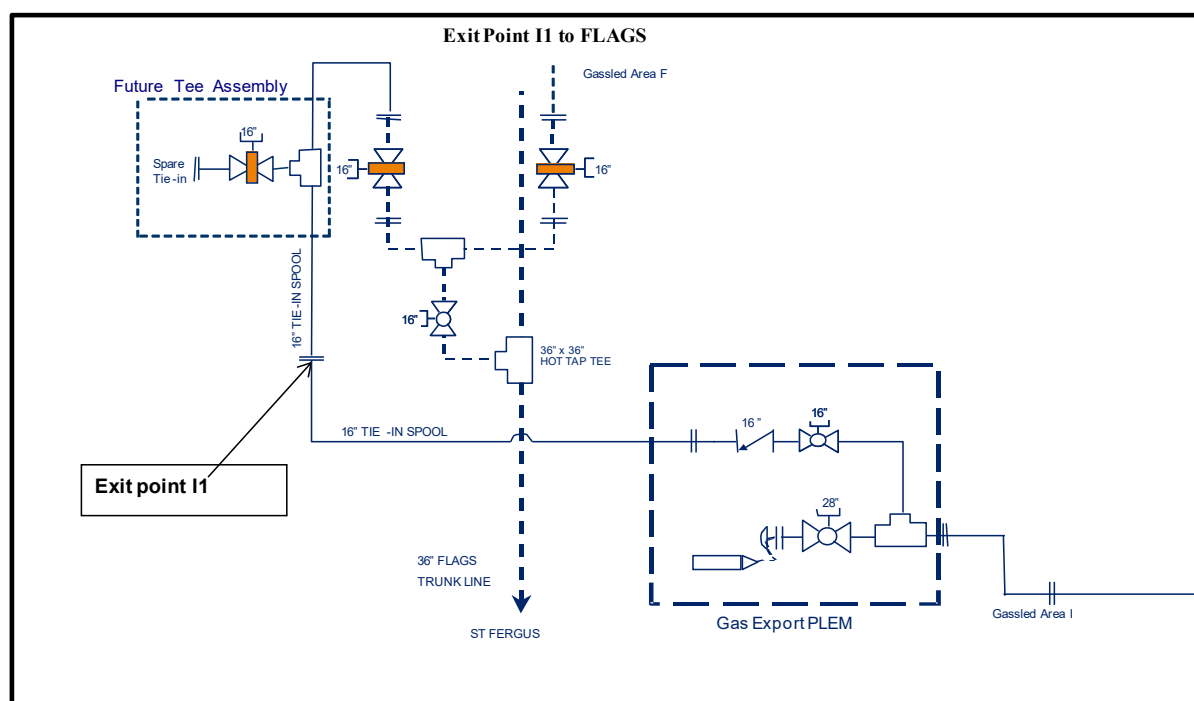
#### **3.18.2 Exit Point H2 to the pipeline to the Heidrun platform**

The Exit Point H2 is as described in article 3.3.2.

### 3.19 Exit Points in Area I

3.19.1 Exit Point I1 is at the second flange of the 16 inch tie-in spool after the gas export PLEM as shown in figure 3.19.1

Figure 3.19.1



**APPENDIX C**

**TO**

**TERMS AND CONDITIONS FOR  
TRANSPORTATION OF GAS IN GASSLED**

**\*\*\***

**NGL LIFTING PROCEDURE  
KÅRSTØ GAS PLANT**

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# 1 APPLICABILITY AND DEFINITIONS

## 1.1 Applicability

This NGL Lifting Procedure sets out the operational regulation regarding the Shipper's and Gassled's rights and obligations given in the Terms and Conditions.

The Operator will execute Gassled's rights and obligations according to this NGL Lifting Procedure.

## 1.2 Definitions

The definitions set out in the Terms and Conditions applies to this NGL Lifting Procedure. In addition, the following terms shall have the meaning ascribed to them below:

1. "Bill Of Lading" shall mean the receipt for the Cargo(es) or Part Cargo(es), and contains among other the quantity loaded for the Shipper.
2. "Cargo" shall mean the quantity of NGL nominated by the shipper/shippers to be loaded on to a vessel and given a single Cargo Reference Number. A Cargo may include two or more Part Cargoes.
3. "Cargo Documents" shall mean the documents described in article 8.2.
4. "Cargo Reference Number" shall mean a sequential number determined by the Operator for each Cargo nominated.
5. "Date Of Loading" shall mean the date of loading given by the Operator in the Lifting Programme as a single date, to be understood as the date with a 24 hours range on each side of the date (3 day period). When the procedure refers to Date Of Loading as meaning one single date this shall mean the date given by the Operator in the Lifting Programme.
6. "Effective Valve Closing Time" shall mean the time required to close the valve if the maximum rate of closure is applied to cover the full stroke.
7. "ETA" shall mean Estimated Time of Arrival for a vessel.
8. "Harbour Regulations" shall mean the "Kårstø Harbour Regulations and Information Handbook" dated 15 December 2014 as amended from time to time.
9. "Kårstø Gas Plant" shall have the meaning set forth in article 1.3 in the Transportation System Description.
10. "Lifting Programme" shall mean the lifting schedule determined by the Operator in accordance with article 3.3.
11. "Master" shall mean the captain on Shipper's vessel.

12. "Maximum Allowed Underlift" shall mean the maximum Underlift the Shipper is allowed to have as determined by the Operator from time to time taking into account the Shipper's share of Working Storage Capacity and having due regard to all shippers' planned production and forecasted liftings.
13. "Metric Ton" shall mean Metric Ton in vacuum.
14. "Month A" shall mean any of the years 12 months. Month B, C etc. is the following months.
15. "NGL Availability" shall have the meaning as described in article 3.1.
16. "NGL" shall mean the NGL products ethane, propane, butane and straight run paraffinic naphtha. Specifications for the NGL are given in the Operation Manual.
17. "Notice of Readiness" shall have the meaning as described in article 6.1.
18. "Overlift" shall mean the quantities the Shipper has lifted more than its NGL in storage.
19. "Part Cargo" shall mean a quantity of NGL nominated by the Shipper to be loaded on a vessel together with other Part Cargoes nominated by the Shipper or by another shipper. Part Cargoes will always have the same Cargo Reference Number.
20. "Underlift" shall mean the quantities the Shipper has lifted less than its NGL in storage.
21. "Working Storage Capacity" shall for each NGL product mean the total storage capacity, less cushion gas and safety margins, all as determined by the Operator.

## **2 NGL/CONDENSATE FORECASTS**

### **2.1 Long term forecasts of NGL redeliveries**

Based on information provided by the Shipper pursuant to the Operation Manual article 2.1, the Operator shall twice a year give to the Shipper the estimated quantities of NGL to be redelivered from the Kårstø Gas Plant in each Month for the current and the next Year, in each quarter for the next succeeding three Years, and in each year for the remaining Years.

### **2.2 Shipper's NGL Availability and lifting**

In the manner provided in article 3, the Operator will notify the Shipper of the NGL Availability and the Shipper will nominate and lift such quantities of NGL as may be required to keep its product account in balance as closely as feasible, giving due regard to the practical necessity of making available parcel sizes consistent with any vessel size within the ranges as defined in the Harbour Regulation. Such nominations and lifting's should be made on an evenly spread basis at all times, but the Shipper will nevertheless be permitted to lift more or less of its estimated NGL Availability within reasonable limits as long as the Overlift or Underlift otherwise meet the requirements of this NGL Lifting Procedure and is in no way detrimental to the operation of the Kårstø Gas Plant and / or the requirements of the other shippers. Any Overlift or Underlift shall be brought into balance within a reasonable period of time.

### **2.3 Separate product account**

The Operator shall maintain a separate product account for the Shipper showing the quantity of each NGL allocated or transferred for the account of the Shipper, and debited with the quantity of each NGL lifted, transferred from or otherwise disposed of, on behalf of the Shipper.

The Shipper may transfer a product in storage to another shipper and the product account will be updated accordingly. If both shippers confirm the transaction within the 8<sup>th</sup> Business Day of Month A in the Origo Shipment Planning it will be included in the NGL Availability for Month C. The Operator will not maintain accounts of loan or exchange between the shippers.

### **2.4 Shipper's responsibility**

The Shipper shall ensure that this NGL Lifting Procedure is followed in every respect for its Cargoes loaded, regardless of whether that Cargo is loaded by the Shipper itself or by a Third Party.

### **3 NOMINATION PROCEDURE**

#### **3.1 NGL Availability**

No later than the 10<sup>th</sup> Business Day of Month A, the Operator will advise the Shipper of its estimated NGL Availability - by product - for Month C, taking into account all relevant factors, including the forecasted production for Month A, B and C for the Shipper and the estimated Underlift or Overlift position of the Shipper at the end of Month B. At the same time, the Operator will advise the Shipper of its NGL Availability for Months D and E, such quantities will be based on the assumption that there are no Overlift or Underlift at the end of Month C.

#### **3.2 Lifting nominations**

##### **3.2.1**

No later than the 3<sup>rd</sup> Business Day of Month B, the Shipper shall advise the Operator of its lifting requirements for Month C; and provide to the Operator the following information - by product, for each Cargo:

- A. Quantity to be loaded in Metric Tons.
- B. Preferred Date Of Loading.
- C. If more than one Part Cargo is intended to be lifted by one vessel.

If the Shipper does not intend to make a nomination for its NGL Availability for a particular product – the Shipper shall so advise the Operator.

##### **3.2.2**

The Shipper has the option to nominate ethane for reinjection into the dry gas. No later than the 3<sup>rd</sup> Business Day of Month B, the Shipper shall advise the Operator of its quantity of ethane that should be routed from Area C to Area D for Month C.

##### **3.2.3**

If the Shipper fails to notify in accordance with article 3.2.1 the Shipper shall be deemed to have declined to make any nomination for its NGL Availability, however always subject to article 3.2.4.

##### **3.2.4**

If in the Operator's opinion, the storage situation may affect the operation of the Kårstø Gas Plant and the Shipper has declined, to make any nomination for its NGL Availability in accordance with article 3.2.1, then the Shipper may be deemed to have nominated all or part of such NGL Availability. The Operator shall decide when such NGL Availability shall be lifted and will advise the Shipper accordingly. The Operator's decision will be final.

### **3.3 Lifting Programme**

#### **3.3.1**

The Shipper's lifting nominations in accordance with article 3.2, will be balanced against the Lifting Programme and the Operator will, not later than the 12<sup>th</sup> Day of Month B, or if the 12<sup>th</sup> Day is not a Business Day on the first Business Day thereafter, confirm to the Shipper whether or not its lifting requirement is acceptable.

In case the lifting nomination is not acceptable, the Shipper will be informed of the necessary modifications. Such modifications may be required for technical or operational reasons or in the event of conflict with other shippers' nominations. Any lifting decided by the Operator in accordance with article 3.2.4 shall be included in the Lifting Programme.

The Operator will advise the Shipper of the Date Of Loading, the quantity of each product and the Cargo Reference Number allocated to each Cargo.

#### **3.3.2**

If requested by the Shipper the Operator may deviate from the Lifting Programme if practicable and it is not considered detrimental to the operation of the Kårstø Gas Plant or the nominations of other shippers. When assessing a request for deviation from the Lifting Programme, the Operator will among other consider operational issues such as for example jetty and storage availability and the Shipper's status with respect to Overlift or Underlift.

If the Operator, upon the Shipper's request accepts to deviate from the Lifting Programme, Gassled shall not be liable for any cost incurred as a result of the deviation from the Lifting Programme in connection with such lifting.

To the extent two (or more) shippers' nominated liftings for any reason are expected to interfere, a shipper which lifts in accordance with its Lifting Programme shall be given priority before a shipper which deviates from its Lifting Programme.

#### **3.3.3**

The Operator may, at its discretion due to technical or operational reasons, revise the Lifting Programme. The Operator will keep the Shipper informed about any subsequent changes to the Lifting Programme.

### **3.4 Final Nomination**

#### **3.4.1**

Not less than 10 days before Date Of Loading, the Shipper shall for each Cargo and/or Part Cargo confirm with a final nomination notice to the Operator the following details:

A. The Cargo Reference Number.

- B. The NGL product to be loaded.
- C. Date Of Loading as per the Lifting Programme.
- D. The quantity to be loaded in Metric Tons. The Cargo quantity must not vary by more than plus or minus 5 per cent from the quantity confirmed in the Lifting Programme.
- E. The name of the vessel and the cubic Cargo capacity (in cubic metres), if available. However, the Operator must receive the name of the vessel and the cubic Cargo capacity not less than 5 days before the Date Of Loading. The vessel must be properly cleared and accepted by the Operator in accordance with article 5 within the same date.  
The vessel's tank conditions on arrival and the details of the three last cargoes, if available. However, the Operator must receive the vessels tank conditions and the last three cargoes not less than 5 days before the Date Of Loading.
- F. Final documentation instruction, including consignee and destination, if available. However, the Operator must receive the documentation instruction, including consignee and destination, at least 2 Business Days before Date Of Loading.

#### 3.4.2

If a Shipper fails to conform to the final nomination requirements in accordance with article 3.4.1, any cost and consequences will be for the Shipper's account. The previous sentence shall apply for all Part Cargos on the vessel if other shippers on the same vessel have not complied with the final nomination requirements in respect of their Part Cargos.

### 3.5 Vessel's ETA

After the final nomination has been made in accordance with article 3.4, if it becomes apparent that the ETA is expected to be outside the Date Of Loading the Shipper shall immediately advise the Operator. In the same manner, the Operator will immediately advise the Shipper of any events at the Kårstø Gas Plant which might prevent or delay vessels loading NGL products on the Date Of Loading.

The Shipper shall advise of the vessel's ETA 72, 48, 24 and 12 hours prior to the arrival along with all other information required in the Harbour Regulations. After the initial notification has been made, any change in ETA of more than 12 hours must immediately be advised to the Operator.

If a vessel arrives at the Kårstø Gas Plant and the Shipper wants to start loading before the Date Of Loading, a request of this must be issued. The Operator will decide from case to case whether the above mentioned request can be effectuated or not.

All notices required according to this article shall conform with the applicable regulations in the Harbour Regulations and must be addressed by the vessel to the vessel's agent, who shall forward this information to the Operator in writing.

### **3.6 Conflicting nominations handling**

In the event that the Operator is unable to accommodate conflicting nominations of two or more shippers, the shipper with the storage account for the NGL in question most in excess of its share of the Working Storage Capacity, at the anticipated date of loading will be allocated such disputed Cargo. The Operator's decision will be final.

### **3.7 Correspondence and Contact Personnel**

#### **3.7.1**

All nominations described in this NGL Lifting Procedure shall be done by using the Origo Shipment Planning.

Where a particular day or date is specified in this NGL Lifting Procedure for receipt of nominations (article 3.4), and this day or date falls on a day that is not a Business Day, such nominations must be received by the Operator by the last Business Day prior to the day or date specified.

In the event that electronic transfer of data is impossible, then nominations may be made by telephone or by e-mail to the person(s) indicated in article 3.7.2. Verbal nominations shall be confirmed electronically at the first practical opportunity.

#### **3.7.2**

All nominations, other correspondence and general queries concerning any aspect of this NGL Lifting Procedure shall be addressed to the Operator with the following contact details:

|                  |                    |
|------------------|--------------------|
| Telephone number | + 47 52 81 25 80   |
| E-mail           | shipplan@gassco.no |

Outside normal office hours (08:00 to 15:45 hours CET), or on a day that is not a Business Day all urgent matters which must be dealt with before the next available Business Day, should be handled with the Transport Control Centre at Bygnes with the following contact details:

|                  |                  |
|------------------|------------------|
| Telephone number | + 47 52 81 28 95 |
|------------------|------------------|

This should be followed up by written communication.

Similarly, the Shipper shall keep the Operator regularly advised of those persons within the Shipper's organisation who can be contacted outside normal office hours.

### **3.8 Independent surveyors**

Shipper shall have the right to appoint an independent surveyor at its own cost and expense to verify the quantity and quality of NGL lifted by the Shipper. Such surveyor shall be appointed for ethane Cargos at the Shipper's cost and expense, unless otherwise agreed with the Operator. □

## **4 LIFTING OBLIGATIONS**

### **4.1 Working Storage Capacity**

The NGL production at the Kårstø Gas Plant is dependent on the production from offshore fields and production at the offshore fields is dependent on the at any time available storage capacity at the Kårstø Gas Plant. All shipments of NGL from the Kårstø Gas Plant must therefore be scheduled to control storage capacity within the Working Storage Capacity.

Each shipper's share of the Working Storage Capacity for each NGL product represents such Shipper's percentage share of the NGL product, actual or planned, to be delivered to storage at the Kårstø Gas Plant for the relevant Month.

### **4.2 Disposal of excess NGL in case of higher production than forecasted**

If at any time, in the opinion of the Operator, circumstances indicate a potential shutdown of NGL production due to storage above the Working Storage Capacity caused by higher production than forecasted, the following shall apply:

- i) The Operator shall notify all shippers of the situation as early as possible and request those shippers (including the Shipper, if applicable) having product accounts in excess of their Maximum Allowed Underlift for the NGL product concerned - to lift the approximate quantities of such NGL product as may be required.
- ii) In event the Shipper if requested according to i) above, fails to relieve the excess storage situation within a reasonable time period, taking into account the prevailing circumstances, the Operator shall take whatever steps may be necessary to reduce the storage situation down to the Working Storage Capacity prevailing at the time. The remedies available to the Operator includes the right to sell, flare or otherwise dispose of the excess NGL. In the event that it becomes necessary to dispose of excess NGL in accordance with the foregoing, shippers will - whenever time permits - be given prior notice of such action and in any event, the Operator will keep the Shipper advised of any action taken to relieve the excess storage situation.
- iii) The excess NGL disposed of by the Operator in the manner provided in ii) above shall be debited to the product accounts of those shippers which, at the end of that Month, would have been in excess of their respective Maximum Allowed Underlift position in the proportion that each shipper's excess product account balance bears to the sum of all

shippers' excess product account balances.

- iv) The Operator shall charge in the same proportions, any direct documented costs incurred as a result of actions under ii) above to those shippers who are debited the NGL in iii) above. Any revenue resulting from such disposal shall be credited in the same manner.

#### **4.3 Disposal of excess NGL due to late arrival of vessel or Shipper's failure to lift**

If at any time, in the opinion of the Operator, circumstances indicate a potential shutdown of production caused by an anticipated late arrival of Shipper's vessel or Shipper's failure to lift, the following shall apply:

- i) The Operator shall notify the Shipper of the situation and the consequences thereof and ask the Shipper what remedies the Shipper will use to relive the situation.
- ii) In the event the Shipper fails to relive the excess storage situation within a reasonable time period taking into account the prevailing circumstances, the Operator shall take whatever steps may be necessary to reduce the high storage situation down to the Working Storage Capacity prevailing at the time. The remedies available to the Operator includes the right to sell or otherwise dispose of the excess NGL. In the event that it becomes necessary to dispose of excess NGL in accordance with the foregoing, the Shipper will - whenever time permits - be given prior notice of such action and in any event, the Operator will keep the Shipper advised of any action taken to relieve the excess storage situation.
- iii) All quantity disposed of in accordance with ii) above shall be debited to the product account of the Shipper, but not greater than the quantity nominated by the Shipper in accordance with article 3.4.1.
- iv) Any documented cost incurred as a result of actions under ii) above shall be charged to the Shipper. Any revenue resulting from such disposal shall be credited to the Shipper.

#### **4.4 Disposal of excess NGL due to other reasons**

If at any time, in the opinion of the Operator, circumstances indicate a potential shutdown of production due to other causes than mentioned in articles 4.2 and 4.3, provisions of article 4.2 shall apply as relevant.

## **5 VESSEL/CARGO SIZE**

### **5.1 Kårstø Gas Plant regulations**

The Shipper must comply with the provisions of the Harbour Regulations.

For vessels nominated to lift NGL the Shipper shall ensure that the vessels arrive in fully refrigerated condition, if applicable, and in every respect ready to load as specified in the Harbour Regulations.

The Operator will use its reasonable endeavours to accept a vessel that is not in a fully refrigerated condition provided that such acceptance will not be detrimental to the Lifting Programme.

### **5.2 Vessel acceptance and clearance**

Vessels intended to be used for lifting at the Kårstø Gas Plant shall be accepted by the Operator. The Operator shall confirm acceptance or rejection as soon as practicable possible but no later than within 1 Business Day. The Shipper must thereafter clear the vessel through the system designated by the Operator.

### **5.3 Replacement of nominated vessel**

Notwithstanding article 3.4.2, the Shipper shall have the right to replace a properly nominated vessel with another vessel, provided that Date Of Loading and Cargo quantity to be loaded conforms with the information given in accordance with article 3.4 and the substituted vessel is properly cleared and accepted in accordance with article 5.2. Such replacement should be notified to the Operator at least 1 Business Day prior to ETA. The Operator may under special circumstances allow substitution of a vessel on shorter notice.

### **5.4 Nomination outside limitations**

In the event the Shipper wishes to nominate a vessel outside the limitations listed in the Harbour Regulations, then the Shipper must contact the person(s) indicated in article 3.7.2 to determine whether or not the vessel might be accepted for loading at the Kårstø Gas Plant.

## **6           LOADING CONDITIONS AND REGULATIONS**

### **6.1       Notice of Readiness**

#### **6.1.1**

Upon arrival of the vessel at the Kårstø Gas Plant, or at the anchorage in the Kårstø Gas Plant area, the Master or vessel's agent will notify the Operator or its representative, by radio or other electronic communication as approved by the Operator, that the vessel is ready in all respects, to receive the Cargo. Laytime shall begin to run from 6 hours after such Notice of Readiness has been tendered, or upon the vessel being all fast ("completed mooring"), alongside the berth, whichever first occurs, provided that the vessel arrives and tenders Notice of Readiness within the Date Of Loading. The Operator's signature on the Notice of Readiness only indicate receipt of the document and not an acceptance of the vessel as ready to load.

The vessel will not be considered to have tendered Notice of Readiness, unless such vessel is completely ready, in all aspects, and in accordance with the provisions of the Harbour Regulations to receive the Cargo for which the vessel has been properly nominated.

In the event that the vessel is delayed in berthing after tendering Notice of Readiness as above due to restrictions at the Kårstø Gas Plant, the vessel shall maintain its status as ready to load throughout the period of delay and used laytime or time on demurrage will be counted as described in article 6.3.

#### **6.1.2**

If the vessel arrives at the Kårstø Gas Plant before the Date Of Loading the Operator shall not be considered to have received the Notice of Readiness tendered by the vessel until 00:01 hours on the first day of the date range within the Dated Of Loading, and start of laytime shall not commence before 06:00 hours on that day. However, if the Operator actually commences loading prior to such time, laytime will begin to run from commencement of loading.

#### **6.1.3**

If the vessel arrives in port after 24:00 hours on the last day of the date range within the Dated Of Loading, laytime shall begin to run upon commencement of loading.

## 6.2 Laytime allowances

### ETHANE/LPG VESSELS

| CARGO SIZE<br>(Sm <sup>3</sup> ) | LAYTIME ALLOWANCE<br>(HOURS) |
|----------------------------------|------------------------------|
| Up to 10 000                     | 24                           |
| 10 000 - 39 999                  | 36                           |
| Above 40 000                     | 48                           |

Cargo size in this article means the actual total loaded product volume as stated on the Bill Of Lading(s).

### PRODUCT TANKERS

| VESSEL SIZE<br>(TONS D.W.) | LAYTIME ALLOWANCE<br>(HOURS) |
|----------------------------|------------------------------|
| Up to 15 000               | 24                           |
| 15 000 - 29 999            | 30                           |
| 30 000 - 49 999            | 36                           |
| Above 50 000               | 48                           |

## 6.3 Adjustment of laytime allowances, used laytime and time on demurrage

### 6.3.1

Except as provided in articles 6.3.2 and 6.3.3, the total laytime allowed for loading shall be as stipulated in article 6.2. In the event that two or more products are loaded simultaneously onto the same vessel, then the laytime allowances applicable for each product loaded shall run concurrently. In the event that two or more products are loaded consecutively on to the same vessel, the total laytime allowed for the loading of such vessel will be determined by taking the sum of the respective laytime allowances for each product loaded and deducting from this total the amount of 15 hours.

### 6.3.2

Notwithstanding the above, failure to give 12 hours notice of vessel's ETA as required in article 3.5 will increase the laytime allowance by 12 hours.

### 6.3.3

Notwithstanding the above, and in order to avoid unacceptable surge pressures within the Kårstø Gas Plant facilities, it may be necessary to restrict the loading rate to a vessel if such vessel's Effective Valve Closing Time is not compatible with the shore system. Should it be necessary to restrict the loading rate to a rate lower than the applicable "minimum loading rate" stated in the Harbour

Regulations, then the additional time taken to load the Cargo will not count as used laytime or time on demurrage.

The additional time taken to load will be the difference between the loading time calculated at the aforementioned "minimum loading rate" - increased by 10 percent to allow for starting/topping off -, and the actual loading time - i.e. commenced loading to completed loading.

#### **6.3.4**

Notwithstanding the above, any delay due to the vessel's condition or breakdown or inability of the vessel's facilities to maintain its tanks in a suitable condition to load, or to load the Cargo within the time allowed or when loading is delayed or suspended for vessel's purpose, shall not count as used laytime or time on demurrage.

#### **6.3.5**

All time consumed by the vessel in moving from the anchorage (anchor aweigh), or if the vessel is not at anchorage, from pilot on board to the loading berth (completed mooring), and in discharging ballast water - when not simultaneously with loading Cargo - shall not count as used laytime or time on demurrage except where the allowed laytime is exceeded prior to the commencement of the berthing and/or de-ballasting operations, in which event such operations will count as used laytime or time on demurrage.

#### **6.3.6**

All time spent alongside the loading berth for the purpose of preparing the vessel's Cargo tanks to a suitable condition for the reception of the Cargo to be loaded shall not count as used laytime or time on demurrage.

#### **6.3.7**

Where a vessel is delayed in berthing after Notice of Readiness has been correctly tendered in accordance with article 6.1.1, and such delay is caused by circumstances related to the vessel then such delay shall not count as used laytime or time on demurrage.

#### **6.3.8**

In case two or more Part Cargoes originally planned to be lifted on the same vessel, and given different loading dates, all given loading dates shall be applicable for the purpose of this procedure, except that only the loading date which in time comes last shall apply for calculation of used laytime or time on demurrage.

If requested by the Shipper, the vessel may be berthed more than once.

#### **6.3.9**

Each vessel shall load Cargo at any safe berth which shall be designated by the Operator. The Operator shall have the right of shifting the vessel from one safe berth to another or anchorage upon payment by Gassled of all towage and pilotage shifting to next berth, charges for running lines on arrival at and on leaving that berth, additional agency charges and expense, customs overtime and fees, and any other extra port charges or port expenses incurred by reason of

using more than one berth. Time consumed on account of shifting shall count as used laytime or time on demurrage.

If the Operator requires that a vessel be shifted to another safe berth or anchorage due to the vessel not being ready in all respects to receive Cargo and/or due to poor vessel performance and/or for other reasons attributable to the vessel, then all relevant expenses shall be for the account of the Shipper, and all the time consumed as a result of such shifting shall not count as used laytime or time on demurrage. Supporting documentation will be made available, if required, for the purpose of substantiating the expenses referred to herein.

#### **6.4 Cessation of laytime or time on demurrage**

Laytime or time on demurrage shall cease when the loading arms are disconnected.

#### **6.5 Demurrage**

In the event that the allowed laytime or time on demurrage, as described in article 6.3, is exceeded, Gassled shall pay demurrage per running hour, and pro rata for part thereof - for all such excess time, provided that laytime or time on demurrage shall not be counted for such time period(s) where the operations at the Kårstø Gas Plant are delayed due to weather conditions.

The demurrage rate applicable for the Kårstø Gas Plant shall be as per the actual demurrage rate of the charter party for the lifting in question. If there is no demurrage rate in the charter party, the demurrage rate shall be as per the "Braefoot Bay Assessment" rate for the size of the vessel on the date of completion of loading. If, however, demurrage is incurred as a result of fire, explosion, strike, lockout, stoppage or restraint of labour in or about the loading facilities, or of breakdown of machinery or equipment at the Kårstø Gas Plant, the rate of demurrage mentioned above shall be reduced by one-half per running hour, or pro rata for part thereof, for demurrage thus incurred.

Gassled shall not be liable for any demurrage resulting from delay caused by strike, lockout, stoppage or restraint of labour for Master, officers and crew of the vessel or tugboats or pilots or boatmen.

If the Operator, upon the Shipper's request accepts to deviate from the Lifting Programme in accordance with article 3.3.2, Gassled shall not be liable for any demurrage cost for all Part Cargoes on the vessel.

If a shipper fails to conform to final nomination requirements in accordance with article 3.4.1 item F for any Part Cargo on a vessel, Gassled shall not be liable for any demurrage cost for all Part Cargoes on the vessel.

Gassled shall not be liable for any demurrage resulting from delay caused by field outages.

## **6.6 Demurrage claims**

The demurrage rate shall be properly documented when the claim is filed with Gassled. Any such claim must be submitted within 90 Days after the Bill Of Lading date or otherwise be regarded as a non-valid claim. The claim must be submitted on a format as requested by the Operator.

Demurrage claims shall be confirmed or rejected by the Operator within 2 Months from receipt of the claim.

The term of payment for demurrage claims shall be minimum 14 calendar days from Operator's receipt of invoice.

The cost for demurrage shall be included in the operational cost for Area C.

## **6.7 Harbour fees and expenses**

The Shipper is obligated to pay harbour fees and expenses as charged by the Operator.

## **6.8 Inspection of vessel**

Before loading commences of any vessel at the Kårstø Gas Plant, the Operator shall have the right to inspect such vessel to determine whether or not the vessel complies with the Harbour Regulations. Time for inspection shall not count as used laytime or time on demurrage.

The Operator shall have the right to reject such vessel if it determines that there is a safety risk involved in loading the vessel and/or unacceptable risk of contaminating Kårstø Gas Plant facilities.

# **7 BERTHING PRIORITY**

## **7.1 Arrival within set range**

Vessels which have been nominated in accordance with article 3 and arrive within Date Of Loading will be berthed in order of arrival as evidenced by the time Notice of Readiness has been presented.

## **7.2 Arrival before set range**

When the arrival of one or both of two accepted vessels occurs before commencement of Date Of Loading and when the order of arrival of the two vessels concerned is in reverse order to the order of their properly nominated dates, then if the prior berthing and loading of the vessel first to arrive would in the view of the Operator be detrimental to the loading of the second vessel, their berthing priorities will be established by applying the following rules:

- i) If one vessel arrives before its Date Of Loading and if the Date Of Loading of such vessel commences after the arrival of the second vessel which is within its Date Of Loading, then priority will be given to the second vessel.

- ii) If two vessels arrive before their respective Date of Loading and if the required product is available for both vessels, then they will be berthed in order of arrival.
- iii) If two vessels arrive before their respective Date Of Loading and if the required product is not available for both vessels, then they will be berthed in the order of their respective Date Of Loading.

### **7.3 Arrival after Date Of Loading**

When a vessel arrives after the expiry of its Date Of Loading, it will be berthed at the earliest possible time which will not be detrimental to the Lifting Programme at the Kårstø Gas Plant.

### **7.4 The Operator's Right**

The Operator has the right to override the procedures in articles 7.1, 7.2 and 7.3, if necessary due to technical or operational reasons at the Kårstø Gas Plant, keeping the Shipper advised if time permit.

## **8 DOCUMENTATION PROCEDURE**

### **8.1 Introduction**

The documents listed in article 8.2 will be prepared and distributed by the Operator provided that the Shipper has supplied sufficient information, including document instruction, in the Origo Shipment Planning in order for the Operator to produce the applicable documents.

In the event that electronic transfer of data is impossible, then information may be given by telephone or e-mail to the person(s) indicated in article 3.7.2. Verbal information must be confirmed electronically at the first practical opportunity.

### **8.2 Standard set of documents**

A standard set of documents will consist of:

- Bill Of Lading
- Cargo Certificates, which covers:
  - A) "Quantity Certificate "
  - B) " Quality Certificate - Analysis "
  - C) "Origin Certificate"
- "Statement of Facts"
- "Document Transmittal Letter"
- "Document Enclosure and Receipt Form"
- "Vessel's Sailing Advice"

If the Shipper requires additional documents this must be ordered through the Shipper's agent for the Shipper's cost.

Complete sets of documents will be distributed for every shipment of NGL from the Kårstø Gas Plant. A brief description of the documents follows:

The Bill Of Lading is a receipt for the Cargo(es), and contains a description of the product (quantity) loaded, i.e.:

- Cubic Meters at 15°C
- Metric Tons
- Metric tons in air
- Barrels in respect of naphtha

The Bill Of Lading figures will be based on metered mass or vessel loading report. (Ref. also article 3.8). An original Bill Of Lading is also a title of ownership of the Cargo(es) that are referred to therein. The Operator will issue one original Bill Of Lading. If additional original Bills Of Lading are required, then they will be issued in accordance with the Shipper's instructions.

The Bill(s) of Lading for each NGL product will be dated when the total quantity of such product has been loaded.

The "Quantity Certificate" is the basis for the Bill Of Lading quantity and states the total volume and weight loaded together with the product density and the basis of measurement used for custody transfer, i.e.;

- calculated on basis of shore quantity measurements, or
- calculated on basis of surveyors ullage report, or
- calculated on basis of vessel's ullage report

Quantity measurements will be based on computerized loading control and automatic recording of metered quantities together with associated data. ("Shore Metering").

If the Shore Metering system is unavailable the quantity shall be calculated based on surveyor data, if available.

If surveyor data is unavailable the quantity shall be calculated based on the vessel's ullage report, and the volume of product loaded will be calculated by measurements taken on the vessel before and after loading according to API CHAPTER 17 SECTION 1 GUIDELINE FOR MARINE CARGO INSPECTION.

For the surveyor data or when using the vessel's ullage report, the vessel's experience factor and method 2 in Figure - PROCEDURE FOR CALCULATING VESSEL EXPERIENCE FACTOR in the API Guideline for Marine Inspection shall be used. The density to be determined by the laboratory at Kårstø Gas Plant.

The "Quality Certificate - Analysis" will state the compositions and properties of the loaded product by analysis either;

- by flow proportional automatic sampling,

or in case of malfunction of the automatic sampling

- by spot samples taken from the jetty loading line at approx. 25 %, 50 % and 75 % of loading, and certificate figures are calculated as an average of the sample results.

The "Origin Certificate" describes the sources of the product and the document is prepared and signed by the Operator.

The "Statement of Facts" is compiled by the Operator from the arrival and departure log maintained at the jetty and in conjunction with the vessel's Master or the Master's representative.

The "Document Transmittal Letter" is the covering letter for a standard set of documents.

The "Document Enclosure and Receipt Form" is a listing of the standard documents issued and the receivers of the respective standard documents.

The "Vessel's Sailing Advice" is a notice issued electronically listing the following details:

1. Cargo Reference Number
2. Vessel name
3. Time/date departure Kårstø Gas Plant.
4. Product, and loaded temperature
5. Bill Of Lading quantities
6. Density
7. ETA (if known) at destination

This notice will be transmitted by the Operator, according to the document instruction, as soon as possible after the vessel has departed.

Other documents issued by the Shipper's agent may be included based on request from the Shipper.

### **8.3 Early Departure**

If requested by the Operator the Shipper shall instruct the vessel to leave the jetty prior to receiving the Cargo Documents as further described in the Harbour Regulations. Any additional cost related to issue or re-issue of Cargo Documents due to early departure shall be for the Shipper's cost, unless the Cargo Documents are delayed caused by the Operator's IT systems.

### **8.4 Other Documents**

Other documents required for a shipment of NGL from the Kårstø Gas Plant include the following:

- Notice of Readiness
- Ship/Shore safety checklist

- Cargo Data Sheet
- Agent's Statement of Facts
- Letter of Protest
- Ullage Reports

A brief description of the documents follows:

Notice of Readiness - This document is prepared by the Master of the vessel and states the time the vessel is ready to start loading.

Ship/Shore safety checklist - This document is signed by the Operator and the Master and states requirements for the vessel for being ready to start loading.

Cargo Data Sheet - This is a document stating details of the product.

Agent's Statement of Facts - This is a document issued by the Shipper's agent stating the arrival and departure log and will be signed by the Operator's representative, the Master and the Shipper's agent.

Letter of Protest - This is a document issued by the vessel and/or the Operator's representative stating any disagreement.

Ullage Reports - This is a document issued by the surveyor or vessel stating quantity loaded onboard the vessel.

## **8.5 Documentation related to Part Cargoes**

Separate documentation is required for each Part Cargo.

# **9 QUALITY COMPENSATION PROCEDURE**

## **9.1 Introduction**

Notwithstanding Terms and Conditions Article 10.1 and 10.3, in case the NGL delivered hereunder does not meet the Specifications as described in Operations Manual, article 7.11, the Shipper may claim compensation in accordance with the provisions of this article 9.

## **9.2 Documentation and information**

All quality compensations shall be subject to verified product quality specifications as documented in the Quality Certificate provided by the authorised laboratory at the Kårstø Gas Plant.

If a result is disputed, the Shipper may initialise a re-evaluation of the sample at the laboratory at the Kårstø Gas Plant. Such re-evaluation will be at the sole costs and expenses of the Shipper.

Product quality compensation shall not be subject to test figures arising from the discharging of the vessel in question, nor from any other terminal or external body nominated by the Shipper or by the receivers.

### **9.3 Compensation and claims handling**

Compensation for NGL according to this procedure shall be limited to direct losses incurred by the Shipper and shall not exceed a total amount of 1 million USD.

Claims, including full documentation, shall be submitted within 90 Days after the Bill of Lading date or otherwise be regarded as a non-valid claim.

The Shipper shall verify its actual losses from price discounts and / or additional freight costs prior to receiving compensation.

The Shipper shall verify that attempts have been made to minimise the losses.

### **9.4 Payment and accounting**

Compensation shall be confirmed or rejected by the Operator within 1 Month from receipt of claim.

The costs for quality compensation shall be included in the operational cost for Area C.

**APPENDIX D**

**TO**

**TERMS AND CONDITIONS FOR  
TRANSPORTATION OF GAS IN GASSLED**

**\*\*\***

**ALLOCATION OF REMOVAL AND  
ABANDONMENT COSTS**

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# 1 APPLICABILITY, DEFINITIONS, PRIORITIES AND AMENDMENTS

## 1.1 Applicability

This Appendix sets out the principles for allocation of removal and abandonment costs related to the Transportation System between the shippers.

## 1.2 Definitions

The definitions set out in the Terms and Conditions applies to this Appendix. In addition, the following terms shall have the meaning ascribed to them below:

1. "Continental Exit Points" shall mean the Exit Points in Germany, Belgium, Denmark and France.
2. "Cumulative Reserved Capacity" shall mean the Booked Capacity less capacity initially reserved as Interruptible Booking at the relevant booking point. Cumulative Reserved Capacity at Entry Point Area D shall, for the period after 1 October 2016, mean the highest of Booked Capacity and Daily Nomination at such Entry Point.
3. "Extension of the Europipe Metering Station" shall mean the terminal in Emden, replacing the Norse Gas Terminal, and being operational as from 1 October 2015.
4. "Gassled Period" shall for Area A, Area B, Area C and Area D mean the period starting 1 January 2003, for Area E the period starting 1 February 2004, for Area G the period starting 1 July 2009 and for Area H the period starting 1 January 2009.
5. "Pre Gassled Period" shall for Area A, Area B, Area C and Area D mean prior to 1 January 2003, for Area E prior to 1 February 2004, for Area G prior to 1 July 2009 and for Area H prior to 1 January 2009.
6. "Removal Object" shall mean a part of the Transportation System as further described in article 3.
7. "Terminal in Emden" shall mean the Europipe Metering Station and the Extension of the Europipe Metering Station.

# 2 BACKGROUND AND REPORTING

## 2.1 Background

According to Article 5.4, the Shipper is responsible for its share of removal and abandonment costs. This Appendix describes the principles for allocation of costs between the Pre Gassled Period and the Gassled Period and between the shippers in the Gassled Period.

Costs for removal and abandonment of a Removal Object shall be shared between the Pre Gassled Period and the Gassled Period according to metered

Gas in the Pre Gassled Period and Cumulative Reserved Capacity in the Gassled Period for the period the Removal Object is in operation. Costs for removal and abandonment of a Removal Object allocated to the Gassled Period shall be shared among the shippers for the period the Removal Object was in operation.

## **2.2 Reporting**

The estimated shares and amounts of each Shipper's removal and abandonment costs for each Removal Object is reported in the Gassco Booking System. Such reporting shall be based on the latest removal cost estimates and allocation of costs between the shippers in accordance with this Appendix D.

# **3 ALLOCATION OF REMOVAL AND ABANDONMENT COSTS BETWEEN THE PRE GASSLED PERIOD AND THE GASSLED PERIOD**

## **3.1 Area A**

Removal and abandonment costs for Area A shall be shared between the Pre Gassled Period and the Gassled Period based on total metered Rich Gas into Area A in the Pre Gassled Period and Cumulative Reserved Capacity at the Exit Points in Area A for the Gassled Period.

The total metered Rich Gas for Area A in the Pre Gassled Period equals 100 944 MSm<sup>3</sup>.

## **3.2 Area B**

Removal and abandonment costs for Area B shall be shared between the Pre Gassled Period and the Gassled Period based on metered Rich Gas into Area B in the Pre Gassled Period and Cumulative Reserved Capacity at the Exit Points in Area B for the Gassled Period.

The total metered Rich Gas for Area B in the Pre Gassled Period equals 17 052 MSm<sup>3</sup>.

## **3.3 Area C**

Removal and abandonment costs for Area C shall be shared between the Pre Gassled Period and the Gassled Period based on cumulative throughput in Area A, Area B and CSL service in the Pre Gassled Period and Cumulative Reserved Capacity at the Exit Points A1, Exit Point B1 and Processing Service CSL for the Gassled Period.

The Cumulative Reserved Capacity for Processing Service CSL shall be converted from mass to volume with a factor of 0,650 tonne/Sm<sup>3</sup> and where 1 Sm<sup>3</sup> condensate equals 1 000 Sm<sup>3</sup> Rich Gas.

The total metered Rich Gas for Area C in the Pre Gassled Period equals 184 840 MSm<sup>3</sup>.

### 3.4 Area D

For the purpose of allocation of removal and abandonment costs between the Pre Gassled Period and the Gassled Period, Area D is divided into Removal Objects as further described below.

#### 3.4.1 Draupner – Norpipe Pipeline

Removal and abandonment costs for Draupner – Norpipe Pipeline shall be shared between the Pre Gassled Period and the Gassled Period based on the sum of total metered Dry Gas at the Exit Point Norsesea Gas Terminal excluding Dry Gas from the Ekofisk area in the Pre Gassled Period and Cumulative Reserved Capacity at the Exit Point Norsesea Gas Terminal, less sum of Cumulative Reserved Capacity at Entry Point Ekofisk for the Gassled Period.

As from 1 October 2015, 36 per cent of Cumulative Reserved Capacity at the Exit Point Emden, less sum of Cumulative Reserved Capacity at the Entry Point Ekofisk shall be included for calculation of removal and abandonment costs for Draupner – Norpipe Pipeline in the Gassled Period.

The total metered Dry Gas for Draupner – Norpipe Pipeline in the Pre Gassled Period equals 102 883 MSm<sup>3</sup>.

The Cumulative Reserved Capacity at the Exit Point Norsesea Gas Terminal, less sum of Cumulative Reserved Capacity at the Entry Point Ekofisk for the period from 1 January 2003 to 30 September 2015 equals 57 765 MSm<sup>3</sup>.

#### 3.4.2 Draupner E

Removal and abandonment costs for Draupner E shall be shared between the Pre Gassled Period and the Gassled Period based on the sum of total metered Dry Gas at the Continental Exit Points, excluding Dry Gas from the Ekofisk area, in the Pre Gassled Period and Cumulative Reserved Capacity at the Continental Exit Points less Cumulative Reserved Capacity at Entry Point Ekofisk for the Gassled Period.

The total metered Dry Gas for Draupner E in the Pre Gassled Period equals 276 290 MSm<sup>3</sup>.

#### 3.4.3 Draupner S

Removal and abandonment costs for Draupner S shall be shared between the Pre Gassled Period and the Gassled Period based on the sum of total metered Dry Gas at the Continental Exit Points, excluding Dry Gas from the Ekofisk area, in the Pre Gassled Period and Cumulative Reserved Capacity at the Continental Exit Points less Cumulative Reserved Capacity at Entry Point Ekofisk for the Gassled Period.

The total metered Dry Gas for Draupner S in the Pre Gassled Period equals 357 939 MSm<sup>3</sup>.

#### 3.4.4 Europipe

Removal and abandonment costs for Europipe shall be shared between the Pre Gassled Period and the Gassled Period based on the sum of total metered Dry

Gas at Europipe Metering Station in the Pre Gassled Period and Cumulative Reserved Capacity at the Exit Point Europipe Metering Station for the Gassled Period.

As from 1 October 2015, 64 per cent of Cumulative Reserved Capacity at the Exit Point Emden shall be included for calculation of removal and abandonment costs for Europipe in the Gassled Period.

The total metered Dry Gas for Europipe in the Pre Gassled Period equals 82 801 MSm<sup>3</sup>.

The Cumulative Reserved Capacity at the Exit Point Europipe Metering Station for the period from 1 January 2003 to 30 September 2015 equals 264 138 MSm<sup>3</sup>.

### **3.4.5 Europipe Metering Station**

Removal and abandonment cost for Europipe Metering Station shall be deemed to be 30 per cent of the removal and abandonment cost for the Terminal in Emden. The split between the Europipe Metering Station and the Extension of the Europipe Metering Station is based on total weight of the installations.

Removal and abandonment costs for Europipe Metering Station shall be shared between the Pre Gassled Period and the Gassled Period based on the sum of total metered Dry Gas at Europipe Metering Station in the Pre Gassled Period and Cumulative Reserved Capacity at the Exit Point Europipe Metering Station for the Gassled Period.

As from 1 October 2015, 64 per cent of Cumulative Reserved Capacity at the Exit Point Emden shall be included for calculation of removal and abandonment costs for Europipe Metering Station in the Gassled Period.

The total metered Dry Gas for Europipe Metering Station in the Pre Gassled Period equals 82 801 MSm<sup>3</sup>.

The Cumulative Reserved Capacity at the Exit Point Europipe Metering Station for the period from 1 January 2003 to 30 September 2015 equals 264 138 MSm<sup>3</sup>.

### **3.4.6 Europipe II**

Removal and abandonment costs for Europipe II shall be shared between the Pre Gassled Period and the Gassled Period based on the sum of total metered Dry Gas in Dornum in the Pre Gassled Period and Cumulative Reserved Capacity at the Exit Point Dornum and the Exit Point Nybro for the Gassled Period.

The total metered Dry Gas for Europipe II in the Pre Gassled Period equals 40 816 MSm<sup>3</sup>.

### **3.4.7 Europipe Receiving Facilities**

Removal and abandonment costs for Europipe Receiving Facilities shall be shared between the Pre Gassled Period and the Gassled Period based on the sum of total metered Dry Gas at Europipe Metering Station and the total metered Dry Gas in Dornum in the Pre Gassled Period and Cumulative Reserved Capacity at

the Exit Point Europipe Metering Station and the Exit Point Dornum for the Gassled Period.

As from 1 October 2015, 64 per cent of Cumulative Reserved Capacity at the Exit Point Emden and Cumulative Reserved Capacity at the Exit Point Dornum shall be included for calculation of removal and abandonment costs for Europipe Receiving Facilities in the Gassled Period.

The total metered Dry Gas for Europipe Receiving Facilities in the Pre Gassled Period equals 123 617 MSm<sup>3</sup>.

The Cumulative Reserved Capacity at the Exit Point Europipe Metering Station for the period from 1 January 2003 to 30 September 2015 equals 264 138 MSm<sup>3</sup>.

### **3.4.8 Franpipe**

Removal and abandonment costs for Franpipe shall be shared between the Pre Gassled Period and the Gassled Period based on the sum of total metered Dry Gas in Dunkerque in the Pre Gassled Period and Cumulative Reserved Capacity at the Exit Point Dunkerque for the Gassled Period.

The total metered Dry Gas for Franpipe in the Pre Gassled Period equals 36 823 MSm<sup>3</sup>.

### **3.4.9 Heimdal – Draupner Pipeline**

Removal and abandonment costs for Heimdal – Draupner Pipeline shall be shared between the Pre Gassled Period and the Gassled Period based on the total metered Dry Gas from all fields tied into the Heimdal platform and the Heimdal Riser Platform (including, for the avoidance of doubt, fields tied into the Jotun entry point) and total metered Dry Gas from all fields tied into the Oseberg platform less total metered Dry Gas at Exit Point St. Fergus in the Pre Gassled Period and Cumulative Reserved Capacity at the Entry Point Heimdal, Entry Point Oseberg and Entry Point Jotun less sum of Cumulative Reserved Capacity at Exit Point St. Fergus, Exit Point Grane and Exit Point Mariner for the Gassled Period.

The total metered Dry Gas for Heimdal - Draupner pipeline in the Pre Gassled Period equals 52 193 MSm<sup>3</sup>.

The Cumulative Reserved Capacity at the Entry Point Heimdal for the period from 1 January 2003 to 6 September 2023 equals 69 410 MSm<sup>3</sup>.

### **3.4.10 Heimdal Riser Platform**

Removal and abandonment costs for Heimdal Riser Platform shall be shared between the Pre Gassled Period and the Gassled Period based on the sum of total metered Dry Gas on all fields tied into the Heimdal platform and the Heimdal Riser Platform and total metered Dry Gas on all fields tied into the Oseberg Platform in the Pre Gassled Period and Cumulative Reserved Capacity at the Entry Point Heimdal and Entry Point Oseberg for the Gassled Period until 6 September 2023.

The total metered Dry Gas for Heimdal Riser Platform in the Pre Gassled Period equals 11 879 MSm<sup>3</sup>.

The Cumulative Reserved Capacity at the Entry Point Heimdal and Entry Point Oseberg equals 225 922 MSm<sup>3</sup>.

#### **3.4.11 Kollsnes – Draupner Pipeline**

Removal and abandonment costs for Kollsnes – Draupner Pipeline shall be shared between the Pre Gassled Period and the Gassled Period based on 50 per cent of the sum of the total metered Dry Gas out of Kollsnes Gas Plant into Area D in the Pre Gassled Period and 50 per cent of Cumulative Reserved Capacity at the Entry Point Kollsnes into Area D for the Gassled Period.

The total metered Dry Gas for Kollsnes – Draupner Pipeline in the Pre Gassled Period equals 61 531 MSm<sup>3</sup>.

#### **3.4.12 Kollsnes – Sleipner Pipeline**

Removal and abandonment costs for Kollsnes – Sleipner Pipeline shall be shared between the Pre Gassled Period and the Gassled Period based on 50 per cent of the sum of the total metered Dry Gas out of Kollsnes Gas Plant into Area D in the Pre Gassled Period and 50 per cent of Cumulative Reserved Capacity at the Entry Point Kollsnes into Area D for the Gassled Period.

The total metered Dry Gas for Kollsnes – Sleipner Pipeline in the Pre Gassled Period equals 66 064 MSm<sup>3</sup>.

#### **3.4.13 Kårstø – Draupner Pipeline**

Removal and abandonment costs for Kårstø – Draupner Pipeline shall be shared between the Pre Gassled Period and the Gassled Period based on the sum of total metered Dry Gas at Kårstø Gas Plant into the Kårstø – Draupner Pipeline and Dry Gas transported from Draupner to Kårstø in the Kårstø – Draupner Pipeline in the Pre Gassled Period and Cumulative Reserved Capacity at the Entry Point Kårstø less Cumulative Reserved Capacity at the Exit Point Dornum for the Gassled Period.

The total metered Dry Gas for Kårstø – Draupner Pipeline in the Pre Gassled Period equals 85 257 MSm<sup>3</sup>.

#### **3.4.14 Norpipe Pipeline**

Removal and abandonment costs for Norpipe Pipeline shall be shared between the Pre Gassled Period and the Gassled Period based on the sum of the total metered Dry Gas at Exit Point Norsea Gas terminal in the Pre Gassled Period and Cumulative Reserved Capacity at the Exit Point Norsea Gas Terminal for the Gassled Period.

As from 1 October 2015, 36 per cent of Cumulative Reserved Capacity at Exit Point Emden shall be included for calculation of removal and abandonment costs for Norpipe Pipeline in the Gassled Period.

The total metered Dry Gas for Norpipe Pipeline in the Pre Gassled Period equals 369 065 MSm<sup>3</sup>.

The Cumulative Reserved Capacity at the Exit Point Norsea Gas Terminal for the period from 1 January 2003 to 30 September 2015 equals 114 235 MSm<sup>3</sup>.

#### **3.4.15 Norsea Gas Terminal**

Removal and abandonment costs for Norsea Gas Terminal shall be shared between Pre Gassled Period and Gassled Period based on the sum of the total metered Dry Gas at Exit Point Norsea Gas terminal in the Pre Gassled Period and Cumulative Reserved Capacity at the Exit Point Norsea Gas Terminal for the Gassled Period.

The total metered Dry Gas for Norsea Gas Terminal in the Pre Gassled Period equals 369 065 MSm<sup>3</sup>.

The Cumulative Reserved Capacity at the Exit Point Norsea Gas Terminal for the period from 1 January 2003 to 30 September 2015 equals 114 235 MSm<sup>3</sup>.

#### **3.4.16 Norsea Gas – Europipe Metering Station**

Removal and abandonment costs for Norsea Gas – Europipe Metering Station shall be shared between Pre Gassled Period and Gassled Period based on the sum of the total metered Dry Gas at the Continental Exit Points in Germany in the Pre Gassled Period and Cumulative Reserved Capacity at the Continental Exit Points in Germany for the Gassled Period.

The total metered Dry Gas for Norsea Gas – Europipe Metering Station in the Pre Gassled Period equals 214 278 MSm<sup>3</sup>.

#### **3.4.17 Oseberg Gas Transport**

Removal and abandonment costs for Oseberg Gas Transport shall be shared between the Pre Gassled Period and the Gassled Period based on the sum of the total metered Dry Gas at Entry Point Oseberg in the Pre Gassled Period and Cumulative Reserved Capacity at the Entry Points Oseberg for the Gassled Period.

The total metered Dry Gas for Oseberg Gas Transport in the Pre Gassled Period equals 7 991 MSm<sup>3</sup>.

#### **3.4.18 Sleipner – Draupner Pipeline**

Removal and abandonment costs for Sleipner – Draupner Pipeline shall be shared between the Pre Gassled Period and the Gassled Period based on the sum of the total metered Dry Gas at the Continental Exit Points, excluding Dry Gas from the Ekofisk area, in the Pre Gassled Period and Cumulative Reserved Capacity at the Continental Exit Points less Cumulative Reserved Capacity at Entry Point Ekofisk for the Gassled Period.

The total metered Dry Gas for Sleipner – Draupner Pipeline in the Pre Gassled Period equals 276 290 MSm<sup>3</sup>.

#### **3.4.19 Vesterled**

Removal and abandonment costs for Vesterled, including relevant part of the St. Fergus terminal, shall be shared between the Pre Gassled Period and the Gassled

Period based on the sum of total metered Dry Gas at the Exit Point St. Fergus in the Pre Gassled Period and Cumulative Reserved Capacity at the Exit Point St. Fergus and the Exit Point Mariner for the Gassled Period.

The total metered Dry Gas for Vesterled in the Pre Gassled Period equals 135 011 MSm<sup>3</sup>.

#### **3.4.20 Zeepipe**

Removal and abandonment costs for Zeepipe shall be shared between the Pre Gassled Period and the Gassled Period based on the sum of total metered Dry Gas at the Exit Point Zeebrugge in the Pre Gassled Period and Cumulative Reserved Capacity at the Exit Point Zeebrugge for the Gassled Period.

The total metered Dry Gas for Zeepipe in the Pre Gassled Period equals 94 616 MSm<sup>3</sup>.

#### **3.4.21 Dunkerque Terminal**

Removal and abandonment costs for Dunkerque Terminal shall be shared between the Pre Gassled Period and the Gassled Period based on the sum of the total metered Dry Gas at Dunkerque Terminal in the Pre Gassled Period and Cumulative Reserved Capacity at the Exit Point Dunkerque for the Gassled Period.

The total metered Dry Gas for Dunkerque Terminal in the Pre Gassled Period equals 36 823 MSm<sup>3</sup>.

#### **3.4.22 Zeepipe Terminal**

Removal and abandonment costs for Zeepipe Terminal shall be shared between the Pre Gassled Period and the Gassled Period based on the sum of the total metered Dry Gas at the Exit Point Zeebrugge in the Pre Gassled Period and Cumulative Reserved Capacity at the Exit Point Zeebrugge for the Gassled Period.

The total metered Dry Gas for Zeepipe Terminal in the Pre Gassled Period equals 94 616 MSm<sup>3</sup>.

#### **3.4.23 Langeled**

Removal and abandonment costs for Langeled shall be allocated to the Gassled Period.

#### **3.4.24 Easington Terminal**

Removal and abandonment costs for Easington Terminal shall be allocated to the Gassled Period.

#### **3.4.25 Extension of the Europeipe Metering Station**

Removal and abandonment cost for Extension of the Europeipe Metering Station shall be deemed to be 70 per cent of the actual removal and abandonment cost for the Terminal in Emden. The split between the Europeipe Metering Station and the Extension of the Europeipe Metering Station is based on total weight of the installations.

Removal and abandonment costs for the Extension of the Europipe Metering Station shall be allocated to the Gassled Period.

### **3.5 Area E**

Removal and abandonment costs for Area E shall be shared between the Pre Gassled Period and the Gassled Period based on total metered Rich Gas in to Kollsnes Gas Plant in the Pre Gassled Period and Cumulative Reserved Capacity in Area E for the Gassled Period.

The total metered Rich Gas for Area E in the Pre Gassled Period equals 162 249 MSm<sup>3</sup>.

### **3.6 Area F**

Removal and abandonment costs for Area F shall be allocated to the Gassled Period.

### **3.7 Area G**

Removal and abandonment costs for Area G shall be shared between the Pre Gassled Period and the Gassled Period based on the sum of total metered Rich Gas into Area G in the Pre Gassled Period and Cumulative Reserved Capacity at the Exit Point in Area G for the Gassled Period.

The total metered Rich Gas for Area G in the Pre Gassled Period equals 21 103 MSm<sup>3</sup>.

### **3.8 Area H**

Removal and abandonment costs for Area H shall be shared between the Pre Gassled Period and the Gassled Period based on the sum of the total metered Rich Gas into Area H in the Pre Gassled Period and Cumulative Reserved Capacity at the Exit Point in Area H for the Gassled Period.

The total metered Rich Gas for Area H in the Pre Gassled Period equals 6 443 MSm<sup>3</sup>.

### **3.9 Area I**

Removal and abandonment costs for Area I shall be allocated to the Gassled Period.

## **4 ALLOCATION OF REMOVAL AND ABANDONMENT COSTS BETWEEN THE SHIPPERS IN THE GASSLED PERIOD**

### **4.1 Area A**

The Shipper's share of removal and abandonment costs related to Area A is based on the Shipper's Cumulative Reserved Capacity at the Exit Points in Area A in proportion to all shippers' Cumulative Reserved Capacity at the Exit Points in Area A.

#### **4.2 Area B**

The Shipper's share of removal and abandonment costs related to Area B is based on the Shipper's Cumulative Reserved Capacity at the Exit Point in Area B in proportion to all shippers' Cumulative Reserved Capacity at the Exit Points in Area B.

#### **4.3 Area C**

The Shipper's share of removal and abandonment costs related to Area C is based on the Shipper's sum of mass for Cumulative Reserved Capacity for the extraction (EXT) service, fractionation, storage and loading (FSL) service, condensate stabilisation and loading (CSL) service, carbon dioxide removal (CO<sub>2</sub> R) service, hydrogen sulphide removal (H<sub>2</sub>S R) service and ethane treatment storage and loading (ETSL) service in proportion to all shipper's sum of mass for Cumulative Reserved Capacity for the extraction (EXT) service, fractionation, storage and loading (FSL) service, condensate stabilisation and loading (CSL) service, carbon dioxide removal (CO<sub>2</sub> R) service, hydrogen sulphide removal (H<sub>2</sub>S R) service and ethane treatment storage and loading (ETSL) service. Volume used in EXT service shall be converted to mass based on an average gas composition in Area C. Cumulative Reserved Capacity for ETSL service shall be calculated as a per cent add on to the FSL service calculated as recovered ethane in proportion to Cumulative Reserved Capacity in the FSL service.

#### **4.4 Area D**

The Shipper's share of removal and abandonment costs related to Area D based is on the Shipper's Cumulative Reserved Capacity at the Exit Points in Area D in proportion to all shippers' Cumulative Reserved Capacity at the Exit Points in Area D.

#### **4.5 Area E**

The Shipper's share of removal and abandonment costs related to Area E is based on the Shipper's Cumulative Reserved Capacity in Area E in proportion to all shippers' Cumulative Reserved Capacity in Area E.

#### **4.6 Area F**

The Shipper's share of removal and abandonment costs related to Area F is based on the Shipper's Cumulative Reserved Capacity at the Exit Points in Area F in proportion to all shippers' Cumulative Reserved Capacity at the Exit Points in Area F.

#### **4.7 Area G**

The Shipper's share of removal and abandonment costs related to Area G is based on the Shipper's Cumulative Reserved Capacity at the Exit Point in Area G in proportion to all shippers' Cumulative Reserved Capacity at the Exit Point in Area G.

#### **4.8 Area H**

The Shipper's share of removal and abandonment costs related to Area H is based on the Shipper's Cumulative Reserved Capacity at the Exit Point in Area H in proportion to all shippers' Cumulative Reserved Capacity at the Exit Point in Area H.

#### **4.9 Area I**

The Shipper's share of removal and abandonment costs related to Area I is based on the Shipper's Cumulative Reserved Capacity at the Exit Point in Area I in proportion to all shippers' Cumulative Reserved Capacity at the Exit Point in Area I.

**APPENDIX E**

**TO**

**TERMS AND CONDITIONS FOR  
TRANSPORTATION OF GAS IN GASSLED**

**\*\*\***

**GUDRUN BLEND LIFTING PROCEDURE  
KÅRSTØ GAS PLANT**

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# 1 APPLICABILITY AND DEFINITIONS

## 1.1 Applicability

This Gudrun Blend Lifting Procedure sets out the operational regulation regarding the Shipper's and Gassled's rights and obligations given in the Terms and Conditions.

The Operator will execute Gassled's rights and obligations according to this Gudrun Blend Lifting Procedure.

## 1.2 Definitions

The definitions set out in the Terms and Conditions applies to this Gudrun Blend Lifting Procedure. In addition, the following terms shall have the meaning ascribed to them below:

1. "Barrel" shall mean 42 U.S standard gallons corrected to 60 Degrees Fahrenheit.
2. "Bill Of Lading" shall mean the receipt for the Cargo(es) or Part Cargo(es), and contains among other the quantity loaded for the Shipper.
3. "Cargo" shall mean the quantity of Gudrun Blend nominated by the shipper/shippers to be loaded on to a vessel and given a single Cargo Reference Number. A Cargo may include two or more Part Cargoes.
4. "Cargo Documents" shall mean the documents described in article 8.2.
5. "Cargo Reference Number" shall mean a sequential number determined by the Operator for each Cargo nominated.
6. "Date Of Loading" shall mean the date of loading given by the Operator in the Lifting Programme as a single date, to be understood as the date with a 24 hours range on each side of the date (3 day period). When the procedure refers to Date Of Loading as one single date this shall mean the date given by the Operator in the Lifting Programme.
7. "Effective Valve Closing Time" shall mean the time required to close the valve if the maximum rate of closure is applied to cover the full stroke.
8. "ETA" shall mean Estimated Time of Arrival for a vessel.
9. "Gudrun Blend" shall mean Stabilised Condensate. Specifications for the Stabilised Condensate are given in the Operation Manual.
10. "Gudrun Blend Availability" shall have the meaning as described in article 3.1.

11. "Harbour Regulations" shall mean the "Kårstø Harbour Regulations and Information Handbook" dated 15 December 2014 as amended from time to time.
12. "Kårstø Gas Plant" shall have the meaning set forth in article 1.3 in the Transportation System Description.
13. "Lifting Programme" shall mean the lifting schedule determined by the Operator in accordance with article 3.3.
14. "Master" shall mean the captain on Shipper's vessel.
15. "Metric Ton" shall mean Metric Ton in vacuum.
16. "Month A" shall mean any of the years 12 months. Month B, C etc. is the following months.
17. "Notice of Readiness" shall have the meaning as described in article 6.1.
18. "Overlift" shall mean the quantities the Shipper has lifted more than its Gudrun Blend in storage.
19. "Part Cargo" shall mean a quantity of Gudrun Blend nominated by the Shipper to be loaded on a vessel together with other Part Cargoes nominated by the Shipper or by another shipper. Part Cargoes will always have the same Cargo Reference Number.
20. "Standard Cargo Size" shall mean a Cargo of 600 000 gross Barrels.
21. "Underlift" shall mean the quantities the Shipper has lifted less than its Gudrun Blend in storage.
22. "Working Storage Capacity" shall mean the total storage capacity for Gudrun Blend, less bottoms and safety margins as determined by the Operator.

## **2 GUDRUN BLEND FORECASTS**

### **2.1 Long term forecasts of Gudrun Blend redeliveries**

Based on information provided by the Shipper pursuant to the Operation Manual article 2.1, the Operator shall twice a year give to the Shipper the estimated quantities of Gudrun Blend to be redelivered from the Kårstø Gas Plant in each Month for the current and the next Year, in each quarter for the next succeeding three Years, and in each year for the remaining Years.

### **2.2 Shipper's Gudrun Blend Availability and lifting**

In the manner provided in article 3, the Operator will notify the Shipper of the Gudrun Blend Availability and the Shipper will nominate and lift such quantities of Gudrun Blend as may be required to keep its product account in balance as closely as feasible, giving due regard to the practical necessity of making available parcel sizes consistent with any vessel size within the ranges as defined in the Harbour Regulation. The Shipper will be permitted to lift more or less of its estimated Gudrun Blend Availability within reasonable limits as long as the Overlift or Underlift otherwise meet the requirements of this Gudrun Blend Lifting Procedure and is in no way detrimental to the operation of the Kårstø Gas Plant and / or the requirements of the other shippers.

### **2.3 Gudrun Blend account**

The Operator shall maintain a separate Gudrun Blend account for the Shipper showing the quantity of Gudrun Blend allocated or transferred for the account of the Shipper, and debited with the quantity of Gudrun Blend lifted, transferred from, or otherwise disposed of, on behalf of the Shipper. Adjustments in accordance with article 9 shall also be reflected in the account.

The Shipper may transfer a product in storage to another shipper and the product account will be updated accordingly. If both shippers confirm the transaction within the 8<sup>th</sup> Business Day of Month A in the Origo Shipment Planning it will be included in the Gudrun Blend Availability for Month C. The Operator will not maintain accounts of loan or exchange between the shippers.

### **2.4 Shipper's responsibility**

The Shipper shall ensure that this Gudrun Blend Lifting Procedure is followed in every respect for its Cargoes loaded, regardless of whether that Cargo is loaded by the Shipper itself or by a Third Party.

## **3 NOMINATION PROCEDURE**

### **3.1 Gudrun Blend Availability**

No later than the 10<sup>th</sup> Business Day of Month A, the Operator will advise the Shipper of its estimated Gudrun Blend Availability for Month C, taking into account all relevant factors, including the forecasted production for Month A, B and C for the Shipper and the estimated Underlift or Overlift position of the

Shipper at the end of Month B. At the same time, the Operator will advise the Shipper of its Gudrun Blend Availability for Months D and E, such quantities will be based on the assumption that there are no Overlift or Underlift at the end of Month C.

No later than the 25<sup>th</sup> day of Month A the Operator will give an updated estimate of Gudrun Blend Availability for Month C. At the same time, the Operator will also indicate Date Of Loading for Month C based on latest production forecast and Standard Cargo Size.

## **3.2 Lifting nominations**

### **3.2.1**

No later than the 27<sup>th</sup> day of Month A, the Shipper shall advise the Operator of its lifting nomination for Month C; and provide to the Operator the following information for each Cargo:

- A. Quantity to be loaded in Barrels.
- B. Preferred Date Of Loading.
- C. Information about Part Cargo

If the Shipper does not intend to make a nomination for its Gudrun Blend Availability, the Shipper shall so advise the Operator.

### **3.2.2**

If the Shipper fails to notify in accordance with article 3.2.1 the Shipper shall be deemed to have declined to make any nomination for its Gudrun Blend Availability, however always subject to article 3.2.3.

### **3.2.3**

If in the Operator's opinion, the storage situation may affect the operation of the Kårstø Gas Plant and the Shipper has declined, to make any nomination for its Gudrun Blend Availability in accordance with article 3.2.1, then the Shipper may be deemed to have nominated all or part of such Gudrun Blend Availability. The Operator shall decide when such Gudrun Blend Availability shall be lifted and will advise the Shipper accordingly. The Operator's decision will be final.

## **3.3 Lifting Programme**

### **3.3.1**

The Shipper's lifting nominations in accordance with article 3.2, will be balanced against the lifting programme and the Operator will, not later than the first Business Day after the Shipper has nominated in accordance with article 3.2.1, confirm to the Shipper whether or not its lifting nomination is acceptable.

In case the lifting nomination is not acceptable, the Shipper will be informed of the necessary modifications. Such modifications may be required for technical or operational reasons or in the event of conflict with other shippers' nominations. Any lifting decided by the Operator in accordance with article 3.2.3 shall be included in the Lifting Programme.

The Operator will advise the Shipper of the Date Of Loading, the quantity and the Cargo Reference Number allocated to each Cargo.

### 3.3.2

If requested by the Shipper the Operator may deviate from the Lifting Programme if practicable and it is not considered detrimental to the operation of the Kårstø Gas Plant or the nominations of other shippers. When assessing a request for deviation from the Lifting Programme, the Operator will among other consider operational issues such as for example jetty and storage availability and the Shipper's status with respect to Overlift or Underlift.

If the Operator, upon the Shipper's request accepts to deviate from the Lifting Programme, Gassled shall not be liable for any cost incurred as a result of the deviation from the Lifting Programme in connection with such lifting.

To the extent two (or more) shippers' nominated liftings for any reason are expected to conflict, a shipper which lifts in accordance with its Lifting Programme shall be given priority before a shipper which deviates from its Lifting Programme.

### 3.3.3

The Operator may, at its discretion due to technical or operational reasons, revise the Lifting Programme. The Operator will keep the Shipper informed about any subsequent changes to the Lifting Programme.

## 3.4 Final Nomination

### 3.4.1

Not less than 10 days before Date Of Loading, the Shipper shall for each Cargo and/or Part Cargo confirm its final nomination to the Operator advising the following details:

- A. The Cargo Reference Number.
- B. Date Of Loading as per the Lifting Programme.
- C. The quantity to be loaded in Barrels. The Cargo quantity must not vary by more than plus or minus 5 per cent from the quantity confirmed in the Lifting Programme.
- D. The name of the vessel if available. However, the Operator must receive the name of the vessel not less than 5 days before the Date Of Loading. The vessel must be properly cleared and accepted by the Operator in accordance with article 5 within the same date.
- E. Final documentation instruction, including consignee and destination, if available. However, the Operator must receive the documentation instruction, including consignee and destination, at least 2 Business Days before Date Of Loading.

### 3.4.2

If a Shipper fails to conform to the final nomination requirements in accordance with article 3.4.1, any costs and consequences will be for the Shipper's account. The previous sentence shall apply for all Part Cargos on the vessel if other shippers on the same vessel have not complied with the final nomination requirements in respect of their Part Cargos.

## 3.5 Vessel's ETA

After the final nomination has been made in accordance with article 3.4, if it becomes apparent that the vessel's ETA is expected to be outside the Date Of Loading the Shipper shall immediately advise the Operator. In the same manner, the Operator will immediately advise the Shipper of any events at the Kårstø Gas Plant which might prevent or delay vessels loading on the Date Of Loading.

The Shipper shall advise of the vessel's ETA 72, 48, 24 and 12 hours prior to the arrival along with all other information required in the Harbour Regulations. After the initial notification has been made, any change in ETA of more than 12 hours must immediately be advised to the Operator.

If a vessel arrives at the Kårstø Gas Plant and the Shipper wants to start loading before the Date Of Loading, a request of this must be issued. The Operator will decide from case to case whether the above mentioned request can be effectuated or not.

All notices required according to this article shall conform with the applicable regulations in the Harbour Regulations and must be addressed by the vessel to the vessel's agent, who shall forward this information to the Operator in writing.

## 3.6 Conflicting nominations handling

In the event that the Operator is unable to accommodate conflicting nominations of two or more shippers, the shipper with highest Underlift at the anticipated date of loading shall be allocated such Cargo. The Operator's decision will be final.

## 3.7 Correspondence and Contact Personnel

### 3.7.1

All nominations described in this Gudrun Blend Lifting Procedure shall be done by using the Origo Shipment Planning.

Where a particular day or date is specified in this Gudrun Blend Lifting Procedure for receipt of nominations (article 3.4), and this day or date falls on a day that is not a Business Day, such nominations must be received by the Operator by the last Business Day prior to the day or date specified.

In the event that electronic transfer of data is impossible, then nominations may be made by telephone or by e-mail to the person(s) indicated in article 3.7.2.

Verbal nominations shall be confirmed electronically at the first practical opportunity.

### 3.7.2

All nominations, other correspondence and general queries concerning any aspect of this Gudrun Blend Lifting Procedure shall be addressed to the Operator with the following contact details:

|                  |                    |
|------------------|--------------------|
| Telephone number | + 47 52 81 25 80   |
| E-mail           | shipplan@gassco.no |

Outside normal office hours (08:00 to 15:45 hours CET), or on a day that is not a Business Day all urgent matters which must be dealt with before the next available Business Day, should be handled with the Transport Control Centre at Bygnes with the following contact details:

|                  |                  |
|------------------|------------------|
| Telephone number | + 47 52 81 28 95 |
|------------------|------------------|

This should be followed up by written communication.

Similarly, the Shipper shall keep the Operator regularly advised of those persons within the Shipper's organisation who can be contacted outside normal office hours.

## 3.8 Independent surveyors

Shipper shall have the right to appoint an independent surveyor at its own cost and expense to verify the quantity and quality of Gudrun Blend lifted by the Shipper.

## 3.9 Combined lifting arrangements

The Shipper must inform the Operator about establishing or termination of combined lifting arrangements with other shipper(s) within the 1<sup>st</sup> Business Day of Month A in order to have it included in the Lifting Programme for Month C and onwards. Such information shall include information related to the shipper authorised to act on behalf of the shippers with regards to notices in accordance with this Gudrun Blend Lifting Procedure.

The Operator shall consider the combined Underlift/Overlift for the involved shippers also when handling conflicting nomination in accordance with article 3.6.

# 4 LIFTING OBLIGATIONS

## 4.1 Working Storage Capacity

The Gudrun Blend production at the Kårstø Gas Plant is dependent on the production from offshore fields and production at the offshore fields is dependent on the at any time available storage capacity at the Kårstø Gas Plant. All shipments of Gudrun Blend from the Kårstø Gas Plant must therefore be scheduled to control storage within the Working Storage Capacity.

## **4.2 Disposal of excess Gudrun Blend in case of higher production than forecasted**

If at any time, in the opinion of the Operator, circumstances indicate a potential shutdown of Gudrun Blend production due to storage above the Working Storage Capacity caused by higher production than forecasted, the following shall apply:

- i) The Operator shall notify all shippers of the situation as early as possible and request the shipper with the highest Underlift to lift the approximate quantities of Gudrun Blend as may be required.
- ii) In event the Shipper if requested according to i) above, fails to relieve the excess storage situation within a reasonable time period, taking into account the prevailing circumstances, the Operator shall take whatever steps may be necessary to reduce the storage situation down to the Working Storage Capacity prevailing at the time. The remedies available to the Operator includes the right to adjust the Lifting Programme, to sell or otherwise dispose of the excess Gudrun Blend. In the event that it becomes necessary to dispose of excess Gudrun Blend in accordance with the foregoing, the shippers will - whenever time permits - be given prior notice of such action and in any event, the Operator will keep the Shipper advised of any action taken to relieve the excess storage situation.
- iii) The excess Gudrun Blend disposed of by the Operator in the manner provided in ii) above shall be debited to the product accounts of those shippers which, at the end of that Month, would have been in Underlift position in the proportion that each shipper's excess product account balance bears to the sum of all shippers' excess product account balances.
- iv) The Operator shall charge in the same proportions, any direct documented costs incurred as a result of actions under ii) above to those shippers who are debited the Gudrun Blend in iii) above. Any revenue resulting from such disposal shall be credited in the same manner.

## **4.3 Disposal of excess Gudrun Blend due to late arrival of vessel or Shipper's failure to lift**

If at any time, in the opinion of the Operator, circumstances indicate a potential shutdown of production caused by an anticipated late arrival of Shipper's vessel or Shipper's failure to lift, the following shall apply:

- i) The Operator shall notify the Shipper of the situation and the consequences thereof and ask the Shipper what remedies the Shipper will use to relieve the situation.
- ii) In the event the Shipper fails to relieve the excess storage situation within a reasonable time period taking into account the prevailing circumstances, the Operator shall take whatever steps may be necessary

to reduce the high storage situation down to the Working Storage Capacity prevailing at the time. The remedies available to the Operator includes the right to sell or otherwise dispose of the excess Gudrun Blend. In the event that it becomes necessary to dispose of excess Gudrun Blend in accordance with the foregoing, the Shipper will - whenever time permits - be given prior notice of such action and in any event, the Operator will keep the Shipper advised of any action taken to relieve the excess storage situation.

- iii) All quantity disposed of in accordance with ii) above shall be debited to the product account of the Shipper, but not greater than the quantity nominated by the Shipper in accordance with article 3.4.1.
- iv) Any documented cost incurred as a result of actions under ii) above shall be charged to the Shipper. Any revenue resulting from such disposal shall be credited to the Shipper.

#### **4.4 Disposal of excess Gudrun Blend due to other reasons**

If at any time, in the opinion of the Operator, circumstances indicate a potential shutdown of production due to other causes than mentioned in articles 4.2 and 4.3, provisions of article 4.2 shall apply as relevant.

## **5 VESSEL**

### **5.1 Kårstø Gas Plant regulations**

The Shipper must comply with the provisions of the Harbour Regulations.

For vessels nominated to lift Gudrun Blend the Shipper shall ensure that the vessels arrive in fully inerted condition and in every respect ready to load as specified in the Harbour Regulations.

### **5.2 Vessel acceptance and clearance**

Vessels intended to be used for lifting at the Kårstø Gas Plant shall be accepted by the Operator. The Operator shall confirm acceptance or rejection as soon as practicable possible but no later than within 1 Business Day. The Shipper must thereafter clear the vessel through the system designated by the Operator.

### **5.3 Replacement of nominated vessel**

Notwithstanding article 3.4.2, the Shipper shall have the right to replace a properly nominated vessel with another vessel, provided that Date Of Loading and Cargo quantity to be loaded conforms with the information given in accordance with article 3.4 and the substituted vessel is properly cleared and accepted in accordance with article 5.2. Such replacement should be notified to the Operator at least 1 Business Day prior to ETA. The Operator may under special circumstances allow substitution of a vessel on shorter notice.

### **5.4 Nomination outside limitations**

In the event the Shipper wishes to nominate a vessel outside the limitations listed in the Harbour Regulations, then the Shipper must contact the person(s) indicated in article 3.7.2 to determine whether or not the vessel might be accepted for loading at the Kårstø Gas Plant.

## **6           LOADING CONDITIONS AND REGULATIONS**

### **6.1       Notice of Readiness**

#### **6.1.1**

Upon arrival of the vessel at the Kårstø Gas Plant, or at the anchorage in the Kårstø Gas Plant area, the Master or vessel's agent will notify the Operator or its representative, by radio or other electronic communication as approved by the Operator, that the vessel is ready in all respects to receive the Cargo. Laytime shall begin to run from 6 hours after such Notice of Readiness has been tendered, or upon the vessel being all fast ("completed mooring"), alongside the berth, whichever first occurs, provided that the vessel arrives and tenders Notice of Readiness within the Date Of Loading. The Operator's signature on the Notice of Readiness only indicate receipt of the document and not an acceptance of the vessel as ready to load.

The vessel will not be considered to have tendered Notice of Readiness, unless such vessel is completely ready, in all aspects, and in accordance with the provisions of the Harbour Regulations to receive the Cargo for which the vessel has been properly nominated.

In the event that the vessel is delayed in berthing after tendering Notice of Readiness as above due to restrictions at the Kårstø Gas Plant, the vessel shall maintain its status as ready to load throughout the period of delay and used laytime or time on demurrage will be counted as described in article 6.3.

#### **6.1.2**

If the vessel arrives at the Kårstø Gas Plant before the Date Of Loading, the Operator shall not be considered to have received the Notice of Readiness tendered by the vessel until 00:01 hours on the first day of the date range within the Date Of Loading, and start of laytime shall not commence before 06:00 hours on that day. However, if the Operator actually commences loading prior to such time, laytime will begin to run from commencement of loading.

#### **6.1.3**

If the vessel arrives in port after 24:00 hours on the last day of the date range within the Date Of Loading, laytime shall begin to run upon commencement of loading.

## 6.2 Laytime allowances

| CARGO SIZE<br>(Barrels) | LAYTIME ALLOWANCE<br>(HOURS) |
|-------------------------|------------------------------|
| Up to 315 000           | 36                           |
| 315 001 – 633 000       | 42                           |
| Above 633 000           | No demurrage                 |

The cargo size of 633 000 is set based on storage capacity at the Kårstø Gas Plant and Standard Cargo Size of 600 000 Barrels with an addition for operational margins.

Cargo size in this article means the actual total loaded product volume as stated on the Bill Of Lading(s).

## 6.3 Adjustment of laytime allowances, used laytime and time on demurrage

### 6.3.1

Except as provided in articles 6.3.2 and 6.3.3, the total laytime allowed for loading shall be as stipulated in article 6.2.

### 6.3.2

Notwithstanding the above, failure to give 12 hours notice of vessel's ETA as required in article 3.5 will increase the laytime allowance by 12 hours.

### 6.3.3

Notwithstanding the above, and in order to avoid unacceptable surge pressures within the Kårstø Gas Plant facilities, it may be necessary to restrict the loading rate to a vessel if such vessel's Effective Valve Closing Time is not compatible with the shore system. Should it be necessary to restrict the loading rate to a rate lower than the applicable "minimum loading rate" stated in the Harbour Regulations, then the additional time taken to load the Cargo will not count as used laytime or time on demurrage.

The additional time taken to load will be the difference between the loading time calculated at the aforementioned "minimum loading rate" - increased by 10 percent to allow for starting/topping off -, and the actual loading time - i.e. commenced loading to completed loading.

### 6.3.4

Notwithstanding the above, any delay due to the vessel's condition or breakdown or inability of the vessel's facilities to maintain its tanks in a suitable condition to load, or to load the Cargo within the time allowed, or when loading is delayed or suspended for vessel's purpose, shall not count as used laytime or time on demurrage.

**6.3.5**

All time consumed by the vessel in moving from the anchorage (anchor aweigh), or if the vessel is not at anchorage, from pilot on board to the loading berth (completed mooring), and in discharging ballast water - when not simultaneously with loading Cargo - shall not count as used laytime or time on demurrage except where the allowed laytime is exceeded prior to the commencement of the berthing and/or de-ballasting operations, in which event such operations will count as used laytime or time on demurrage.

**6.3.6**

All time spent alongside the loading berth for the purpose of preparing the vessel's Cargo tanks to a suitable condition for the reception of the Cargo to be loaded shall not count as used laytime or time on demurrage.

**6.3.7**

Where a vessel is delayed in berthing after Notice of Readiness has been correctly tendered in accordance with article 6.1.1, and such delay is caused by circumstances related to the vessel then such delay shall not count as used laytime or time on demurrage.

**6.3.8**

If requested by the Shipper, the vessel may be berthed more than once. The cost will be for Shipper's account.

**6.3.9**

Each vessel shall load Cargo at any safe berth which shall be designated by the Operator. The Operator shall have the right of shifting the vessel from one safe berth to another or anchorage upon payment by Gassled of all towage and pilotage shifting to next berth, charges for running lines on arrival at and on leaving that berth, additional agency charges and expense, customs overtime and fees, and any other extra port charges or port expenses incurred by reason of using more than one berth. Time consumed on account of shifting shall count as used laytime or time on demurrage.

If the Operator requires that a vessel be shifted to another safe berth or anchorage due to the vessel not being ready in all respects to receive Cargo and/or due to poor vessel performance and/or for other reasons attributable to the vessel, then all relevant expenses shall be for the account of the Shipper, and all the time consumed as a result of such shifting shall not count as used laytime or time on demurrage. Supporting documentation will be made available, if required, for the purpose of substantiating the expenses referred to herein.

**6.4 Cessation of laytime or time on demurrage**

Laytime or time on demurrage shall cease when the loading arms are disconnected.

**6.5 Demurrage**

In the event that the allowed laytime or time on demurrage, as described in article 6.3, is exceeded, Gassled shall pay demurrage per running hour, and pro

rata for part thereof - for all such excess time, provided that laytime or time on demurrage shall not be counted for such time period(s) where the operations at the Kårstø Gas Plant are delayed due to weather conditions.

The demurrage rate applicable for the Kårstø Gas Plant shall be as per the actual demurrage rate of the charter party for the lifting in question, or, if the vessel is on time charter, at the Average Freight Rate Assessment (AFRA) of Worldscale, applicable to the size of vessel as published by the London Tanker Brokers Panel and current on the date of commencement of loading. If, however, demurrage is incurred as a result of fire, explosion, strike, lockout, stoppage or restraint of labour in or about the loading facilities, or of breakdown of machinery or equipment at the Kårstø Gas Plant, the rate of demurrage mentioned above shall be reduced by one-half per running hour, or pro rata for part thereof, for demurrage thus incurred.

Gassled shall not be liable for any demurrage resulting from delay caused by strike, lockout, stoppage or restraint of labour for Master, officers and crew of the vessel or tugboats or pilots or boatmen.

If a shipper fails to conform to final nomination requirements in accordance with article 3.4.1 item E for any Part Cargo on a vessel, Gassled shall not be liable for any demurrage cost for all Part Cargoes on the vessel.

Gassled shall not be liable for any demurrage cost resulting from delay caused by field outages.

## **6.6 Demurrage claims**

The demurrage rate shall be properly documented when the claim is filed with Gassled. Any such claim must be submitted within 90 Days after the Bill Of Lading date or otherwise be regarded as a non-valid claim. The claim must be submitted on a format as requested by the Operator.

Demurrage claims shall be confirmed or rejected by the Operator within 2 Months from receipt of the claim.

The term of payment for demurrage claims shall be minimum 14 calender days from receipt of invoice.

The costs for demurrage shall be included in the operational cost for Area C.

## **6.7 Harbour fees and expenses**

The Shipper is obligated to pay harbour fees and expenses as charged by the Operator.

## **6.8 Inspection of vessel**

Before loading commences of any vessel at the Kårstø Gas Plant, the Operator shall have the right to inspect such vessel to determine whether or not the vessel complies with the Harbour Regulations. Time for inspection shall not count as used laytime or time on demurrage.

The Operator shall have the right to reject such vessel if it determines that there is a safety risk involved in loading the vessel and/or unacceptable risk of contaminating Kårstø Gas Plant facilities.

## **7 BERTHING PRIORITY**

### **7.1 Arrival within set range**

Vessels which have been nominated in accordance with article 3 and arrive within Date Of Loading will be berthed in order of arrival as evidenced by the time Notice of Readiness has been presented.

### **7.2 Arrival before set range**

When the arrival of one or both of two accepted vessels occurs before commencement of Date Of Loading and when the order of arrival of the two vessels concerned is in reverse order to the order of their properly nominated dates, then if the prior berthing and loading of the vessel first to arrive would in the view of the Operator be detrimental to the loading of the second vessel, their berthing priorities will be established by applying the following rules:

- i) If one vessel arrives before its Date Of Loading and if the Date Of Loading of such vessel commences after the arrival of the second vessel which is within its Date Of Loading, then priority will be given to the second vessel.
- ii) If two vessels arrive before their respective Date Of Loading and if the required product is available for both vessels, then they will be berthed in order of arrival.
- iii) If two vessels arrive before their respective Date Of Loading and if the required product is not available for both vessels, then they will be berthed in the order of their respective Date Of Loading.

### **7.3 Arrival after Date Of Loading**

When a vessel arrives after the expiry of its Date Of Loading, it will be berthed at the earliest possible time which will not be detrimental to the lifting programme at the Kårstø Gas Plant.

### **7.4 The Operator's right**

The Operator has the right to override the procedures in articles 7.1, 7.2 and 7.3, if necessary due to technical or operational reasons at the Kårstø Gas Plant, keeping the Shipper advised if time permit.

## 8 DOCUMENTATION PROCEDURE

### 8.1 Introduction

The documents listed in article 8.2 will be prepared and distributed by the Operator provided that the Shipper has supplied sufficient information, including document instruction, in the Origo Shipment Planning in order for the Operator to produce the applicable documents.

In the event that electronic transfer of data is impossible, then information may be given by telephone or e-mail to the person(s) indicated in article 3.7.2. Verbal information must be confirmed electronically at the first practical opportunity.

### 8.2 Standard set of documents

A standard set of documents will consist of:

- Bill Of Lading
- Cargo Certificates, which covers:
  - A) "Quantity Certificate"
  - B) "Quality Certificate - Analysis"
  - C) "Origin Certificate"
- "Statement of Facts"
- "Document Transmittal Letter"
- "Document Enclosure and Receipt Form"
- "Vessel's Sailing Advice"

If the Shipper requires additional documents this must be ordered through the Shipper's agent for the Shipper's cost.

Complete sets of documents will be distributed for every shipment of Gudrun Blend from the Kårstø Gas Plant. A brief description of the documents follows:

The Bill Of Lading is a receipt for the Cargo(es), and contains a description of the product (gross and net quantity) loaded, i.e.:

- Cubic Meters at 15°C
- Metric Tons
- Metric tons in air
- Barrels

The Bill Of Lading figures will be based on metered mass or vessel loading report. (Ref. also article 3.8). An original Bill Of Lading is also a title of ownership of the Cargo(es) that are referred to therein. The Operator will issue one original Bill Of Lading. If additional original Bills Of Lading are required, then they will be issued in accordance with the Shipper's instructions.

The Bill(s) Of Lading will be dated when the total quantity of such Cargo has been loaded.

The "Quantity Certificate" is the basis for the Bill Of Lading quantity and states the total volume and weight loaded together with the product density and the basis of measurement used for custody transfer, i.e.;

- calculated based on shore quantity measurements, or
- calculated based on surveyors ullage report, or
- calculated based on vessel's ullage report

Quantity measurements will be based on computerized loading control and automatic recording of metered quantities together with associated data adjusted for registered documented quantity of Gudrun Blend lost between the measurement facilities at Kårstø Gas Plant and the vessel's manifold ("Shore Metering").

If the Shore Metering system is unavailable the quantity shall be calculated based on surveyor data, if available.

If surveyor data is unavailable the quantity shall be calculated based on the vessel's ullage report, and the volume of product loaded will be calculated by measurements taken on the vessel before and after loading according to API CHAPTER 17 SECTION 1 GUIDELINE FOR MARINE CARGO INSPECTION.

For the surveyor data or when using the vessel's ullage report the vessel's experience factor and Method 2 in Figure - PROCEDURE FOR CALCULATING VESSEL EXPERIENCE FACTOR in the API Guideline for Marine Inspection shall be used. The density to be determined by the laboratory at Kårstø Gas Plant.

The "Quality Certificate - Analysis" will state the compositions and properties of the loaded product by analysis either;

- by flow proportional automatic sampling,

or in case of malfunction of the automatic sampling

- by spot samples taken from the jetty loading line at approx. 25 %, 50 % and 75 % of loading, and certificate figures are calculated as an average of the sample results.

The "Origin Certificate" describes the sources of the product and the document is prepared and signed by the Operator.

The "Statement of Facts" is compiled by the Operator from the arrival and departure log maintained at the jetty and in conjunction with the vessel's Master or the Master's representative.

The "Document Transmittal Letter" is the covering letter for a standard set of documents.

The "Document Enclosure and Receipt Form" is a listing of the standard documents issued and the receivers of the respective standard documents.

The “Vessel’s Sailing Advice” is a notice issued electronically listing the following details:

1. Cargo Reference Number
2. Vessel name
3. Time/date departure Kårstø Gas Plant.
4. Product, and loaded temperature
5. Bill Of Lading quantities
6. Density
7. ETA (if known) at destination

This notice will be transmitted by the Operator, according to the document instruction, as soon as possible after the vessel has departed.

Other documents issued by the Shipper’s agent may be included based on request from the Shipper.

### **8.3 Early departure**

If requested by the Operator the Shipper shall instruct the vessel to leave the jetty prior to receiving the Cargo Documents as further described in the Harbour Regulations. Any additional cost related to issue or re-issue of Cargo Documents due to early departure shall be for the Shipper’s cost, unless the Cargo documents are delayed caused by the Operator's IT systems.

### **8.4 Other documents**

Other documents required for a shipment of Gudrun Blend from the Kårstø Gas Plant include the following:

- Notice of Readiness
- Ship/Shore safety checklist
- Cargo Data Sheet
- Agent’s Statement of Facts
- Letter of Protest
- Ullage Reports

A brief description of the documents follows:

Notice of Readiness - This document is prepared by the Master of the vessel and states the time the vessel is ready to start loading.

Ship/Shore safety checklist - This document is signed by the Operator and the Master and states requirements for the vessel for being ready to start loading.

Cargo Data Sheet - This is a document stating details of the product.

Agent’s Statement of Facts - This is a document issued by the Shipper’s agent stating the arrival and departure log and will be signed by the Operator’s representative, the Master and the Shipper’s agent.

Letter of Protest – This is a document issued by the vessel and/or the Operator's representative stating any disagreement.

Ullage Reports – This is a document issued by the surveyor or vessel stating quantity loaded onboard the vessel.

## **8.5 Documentation related to Part Cargoes**

Separate documentation is required for each Part Cargo.

# **9 QUANTITY CORRECTION PROCEDURE**

## **9.1 Quantities and Vessel Experience Factor**

"Bill Of Lading Quantity" shall mean the quantity in Cubic Meters at 15°C on the Bill Of Lading in accordance with the Quantity Certificate as described in article 8.2.

"Ship Figure After Loading" shall mean the total quantity in Cubic Meters at 15°C of liquid measured to be contained in the vessel's cargo tanks after loading.

"Ships Figures Prior To Discharge" shall mean the total quantity in Cubic Meters at 15°C of liquid measured to be contained in the vessel's cargo tanks. The quantity shall be determined at discharge port or near discharge port by an approved method and by a certified agency.

"Shore Figure At Discharge Port" shall mean the total quantity in Cubic Meters at 15°C of liquid delivered through the vessel's discharge hose connection flanges and measured by certified transfer meters or other approved means of measurement.

"Vessel Experience Factor" shall mean gross Ship Figure After Loading divided by gross Bill Of Lading Quantity. Vessel Experience Factor is to be determined for each vessel as the average of the last 5 or more fully loaded shipments for the vessel. If the vessel has just come out of dry dock, the next voyage shall not be used in determining the Vessel Experience Factor. Vessel Experience Factor shall be determined by a certified independent inspector and reported by the Shipper to the Operator.

## **9.2 Variance between quantities**

In the event of a variance between the net Bill Of Lading Quantity and the closest of either:

- a) - gross Ship Figure After Loading divided by the Vessel Experience Factor
  - less quantity onboard the vessel before loading
  - less unsuspended water in the Gudrun Blend
  - less basic sediment and water
  - plus registered documented quantity of Gudrun Blend lost between the

measurement facilities at Kårstø Gas Plant and the vessel's manifold not adjusted for in the Bill Of Lading Quantities equals Q I

- b) - gross Ship Figure Prior To Discharge divided by the Vessel Experience Factor
- less quantity onboard the vessel before loading
  - less unsuspended water in the Gudrun Blend
  - less basic sediment and water
  - plus registered documented quantity of Gudrun Blend lost between Kårstø Gas Plant and discharge ports, excluding evaporation
- equals Q II
- c) - gross Shore Figure At Discharge Port
- plus remaining on board after discharge
  - less quantity onboard the vessel before loading
  - plus registered documented quantity of Gudrun Blend lost between the vessel's manifold at discharge port and the shore measurement tanks and lines at the discharge port
  - less unsuspended water in the Gudrun Blend
  - less basic sediment and water
- equals QIII

being in excess of 0.30 per cent of the net Bill Of Lading Quantity the Shipper may file a claim to the Operator.

If either one or more of the QI, QII or QIII are higher than the net Bill Of Lading Quantity and one or more of the other(s) is lower the Shipper will not have a valid claim.

If the Shipper file a claim the Operator shall investigate the Kårstø Gas Plant measurement facilities for failure or faulty operation during the loading. If the investigation provides evidence of error in the Kårstø Gas Plant measurement facilities and the Shipper can provide evidence that the difference between net Bill Of Lading Quantity and the closest of QI, QII or QIII are in excess of 0.30 per cent of the Bill Of Lading Quantity the Operator shall adjust the Bill Of Lading Quantity to the quantity closest of the QI, QII or QIII.

In the event of a calculation error in the Bill Of Lading Quantity (also in the basic sediment and water and density) resulting in a variance in excess of +/- 0.02 per cent, the Shipper shall issue a claim to the Operator and the relevant Cargo documents shall be amended.

A claim must be issued to the Operator prior to 90 Days following the Bill Of Lading date. The Operator will not consider any claims received after this date.

Adjustment in accordance with this article 9 is subject to that the Shipper can provide full and complete supporting documentation including:

- the vessels ullage reports,
- Vessel Experience Factor details,

- water balance reports,
- outturn reports,
- sampling and analyses reports,
- independent inspector's reports and
- voyage details.

All supporting documentation must certify that the information is obtained using approved equipment and the Shipper must demonstrate that the equipment used was suitably maintained and functioning correctly during the discharge of the Cargo.

The Norwegian Petroleum Directorate shall be notified and is to accept the quantity adjustment prior to any adjustment of the Bill Of Lading Quantity by the Operator. If no comments from the Norwegian Petroleum Directorate is received within 3 weeks from notification the adjustment is regarded accepted by the authority.

## **10 QUALITY COMPENSATION PROCEDURE**

### **10.1 Introduction**

Notwithstanding Terms and Conditions Article 10.1 and 10.3, in case the Gudrun Blend delivered hereunder does not meet the Specifications as described in Operations Manual, article 7.11, the Shipper may claim compensation in accordance with the provisions of this article 10.

### **10.2 Documentation and information**

All quality compensations shall be subject to verified product quality specifications as documented in the Quality Certificate provided by the authorised laboratory at the Kårstø Gas Plant.

If a result is disputed, the Shipper may initialise a re-evaluation of the sample at the laboratory at the Kårstø Gas Plant. Such re-evaluation will be at the sole costs and expenses of the Shipper.

Product quality compensation shall not be subject to test figures arising from the discharging of the vessel in question, nor from any other terminal or external body nominated by the Shipper or by the receivers.

### **10.3 Compensation and claims handling**

Compensation according to this procedure shall be limited to direct losses incurred by the Shipper and shall not exceed a total amount of 1 million USD.

Claims, including full documentation, shall be submitted within 90 Days after the Bill Of Lading date or otherwise be regarded as a non-valid claim.

The Shipper shall verify its actual losses from price discounts and / or additional freight costs prior to receiving compensation.

The Shipper shall verify that attempts have been made to minimise the losses.

#### **10.4 Payment and accounting**

Compensation shall be confirmed or rejected by the Operator within 1 Month from receipt of claim.

The costs for quality compensation shall be included in the operational cost for Area C.

**APPENDIX F**

**TO**

**TERMS AND CONDITIONS FOR  
TRANSPORTATION OF GAS IN GASSLED**

**\*\*\***

**PRINCIPLES FOR OPERATOR'S PUBLICATION OF  
OPERATIONAL INFORMATION**

## 1 AGGREGATED DAILY NOMINATIONS

Publication of aggregated daily nominations, updated every 5 minutes, will be done for the following points:

- Exit Point D2 in Dornum
- Exit Point D3 in Emden
- Exit Point D5 at Zeebrugge
- Exit Point D6 at Dunkerque
- Exit Point D7 at St. Fergus
- Exit Point D10 at Easington
- Aggregated Exit Points F1 and I1
- Aggregated other Exit Points (D8, D12, D13, D1, D9, E2, E5)
- Aggregated nominations at Exit Points

## 2 HISTORICAL DATA

Publication of historical aggregated nominations is graphically presented as final daily aggregated nomination for up to two years back in time for:

- Exit Point D2 in Dornum
- Exit Point D3 in Emden
- Exit Point D5 at Zeebrugge
- Exit Point D6 at Dunkerque
- Exit Point D7 at St. Fergus
- Exit Point D10 at Easington
- Aggregated Exit Points F1 and I1
- Aggregated other Exit Points (D8, D12, D13, D1, D9, E2, E5)
- Aggregated nominations at Exit Points

## 3 EVENTS - ENTRY

For unplanned and planned events affecting fields and/or processing plants entering the system, outages that may affect the daily capacity above 5 MSm<sup>3</sup> will be published. The following information will be provided:

Event ID / Asset affected / Type of Unavailability / Revision / Time of Publication / Event Start / Event stop / Technical capacity / Available capacity / Unavailable capacity / Type of event / Reason for the unavailability / Remarks

When referring to a producing field, “Asset affected” refers to the field where gas enters the transportation system as a node, and the outage may be at any one or more fields/licenses delivering through the node. Unavailability impact is aggregated impact at the node.

The term “Technical capacity” in this respect refers to the maximum capacity/availability that the affected asset can flow for a long period of operation in normal conditions.

The term “Available capacity” refers to the remaining available daily capacity/availability of the affected asset.

The term “Unavailable capacity” refers to the unavailable capacity/availability of the affected asset.

Information of planned events (maintenance) will be published simultaneously with information provided to the shippers of such planned maintenance. Available capacity for planned maintenance may be uncertain depending on actual operational conditions. These events will be commented with “uncertain capacity”, and may have an uncertainty of up to  $\pm 5 \text{ MSm}^3/\text{d}$ .

If an unplanned event has a duration above one day, an uncertainty of up to  $\pm 2 \text{ MSm}^3/\text{d}$  may occur in the reporting due to variation in operational conditions.

Information of unplanned events will be performed as soon as practically possible, but not later than one hour after the shippers have been informed about the curtailment.

## 4 EVENTS – EXIT POINTS

For unplanned and planned events affecting Exit Points as listed above under 2, outages that may affect the daily capacity above  $5 \text{ MSm}^3$  will be published. The following information will be provided:

Event ID / Asset affected / Type of Unavailability / Revision / Time of Publication / Event Start / Event stop / Technical capacity / Available capacity / Unavailable capacity / Type of event / Reason for the unavailability / Remarks

The term “Technical capacity” in this respect refers to the maximum capacity that the affected exit point can flow for a long period of operation in normal conditions.

The term “Available capacity” refers to the remaining available daily capacity of the affected exit point affected by the event.

The term “Unavailable capacity” refers to the unavailable capacity of the affected exit point affected by the event.

Information of unplanned events will be given as soon as practically possible, and prior to informing the shippers about the curtailment.

Information of planned events (maintenance) will be published simultaneously with information provided to the shippers of such planned maintenance. Available capacity for planned maintenance may be uncertain depending on actual operational conditions. These events will be commented with “uncertain capacity”, and may have an uncertainty of up to  $\pm 5 \text{ MSm}^3/\text{d}$ .

## **5 OTHER EVENTS**

The Operator will in addition cater for publication of other planned and unplanned events such as: LNG related publication, production permit information on flexible fields, information regarding changes in minimum availability on flexible fields.

The following information will be provided:

Event ID / Asset affected / Type of Unavailability / Revision / Time of Publication / Event Start / Event stop / Technical capacity / Available capacity / Unavailable capacity / Type of event / Reason for the unavailability / Remarks

Publication of other events is done based on a request by the Shipper or a shipper, or based on the Operator's assessment of the need for publication.

## **6 PUBLICATION**

The above information will be published by the Operator on [umm.gassco.no](http://umm.gassco.no).