

## NOTIFICATION

New Delhi, the 17<sup>th</sup> July, 2008

**G.S.R. 541(E).**---In exercise of the powers conferred by section 61 of the Petroleum and Natural Gas Regulatory Act, 2006 (19 of 2006), the Petroleum and Natural Gas Regulatory Board hereby makes the following regulations, namely:-

### 1. Short title and commencement.

- (1) These regulations may be called the Petroleum and Natural Gas Regulatory Board (Access Code for Common Carrier or Contract Carrier Natural Gas Pipelines) Regulations, 2008.
- (2) They shall come into force on the date of their publication in the Official Gazette.

### 2. Definitions.

- (1) In these regulations, unless the context otherwise require,
  - (a) “access arrangement” means a document of the transporter specifically defining terms and conditions for the access to the gas pipeline and placed on the web site of the transporter;
  - (b) “Act” means the Petroleum and Natural Gas Regulatory Board Act, 2006”;
  - (c) “a homogeneous area” (AHA) means a part of the pipeline within which the gas of similar specifications including calorific value is received or delivered over a specified time period;
  - (d) “allocated capacity” means the scheduled maximum daily quantity agreed between the shipper and the transporter;
  - (e) “appointed day” means the date of October 1, 2007 when the Central Government notified the establishment of the Petroleum and Natural Gas Regulatory Board;
  - (f) “Board” means the Petroleum and Natural Gas Regulatory Board (PNGRB) established under the Petroleum and Natural Gas Regulatory Board Act 2006;
  - (g) “booked capacity” means maximum daily quantity (MDQ) of gas on any day to be delivered at an entry point or off taken at an exit point as per the contract between the shipper and the transporter;
  - (h) “contracted capacity” means the natural gas volume contracted for transportation through a pipeline system on daily, monthly or yearly basis;
  - (i) “custody transfer meter” means a device or a set of devices which measures the quantity of natural gas (in terms of volume and energy) for transfer of custody from one entity to another;

- (j) “dispute” means any dispute or difference arising between the entities under or in connection with these regulations or the access arrangement;
- (k) “entry point” means the point at which the gas delivered by shipper is injected into the natural gas pipeline;
- (l) “exit point” means the point at which the gas is withdrawn from the natural gas pipeline for delivery to the shipper or end consumer as agreed between transporter and shipper;
- <sup>1</sup>[(1a) Imbalance Management Services” means such services that enable customers or shippers to manage their imbalances in an orderly fashion under the relevant regulations of the Board;]
- (m) “maximum daily quantity” means the maximum volume of natural gas contracted, booked or scheduled for delivery in a particular day within twenty four hours of the day;
- (n) “natural gas pipeline” means any pipeline including spur lines for transport of natural gas and includes all connected equipments and facilities, such as, compressors, storage facilities, metering units, etc. but excludes-
  - (i) dedicated pipeline laid to transport natural gas to a specific customer to meet his requirement and not for resale;
  - (ii) pipelines in a city or local natural gas distribution network which are regulated by the Petroleum and Natural Gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand City or Local Natural Gas Distribution Networks) Regulations, 2008.
- (o) “natural gas pipeline section” means a part of natural gas pipeline between an entry point and an exit point or between two exit points;
- (p) “marketeer” means an entity dealing with the marketing or trading of natural gas;
- (q) “off-spec natural gas” means the natural gas which does not conform to the parameters specified at sub- regulations (1), (4), (5) and (6) of regulations 5;
- (r) “operating pressure” means the pressure corresponding to a particular flow rate at which the natural gas pipeline is operated;
- (s) “shipper” means an entity and also includes a consumer who intends to utilize the capacity in the pipeline for transmission of gas;
- (t) “system use gas” (SUG) means the quantity of gas used by the transporter for the operation and maintenance of the pipeline system, including but not limited to, compressors, gas heaters, close cycle vapour or thermo electric gas turbines for cathodic protection and supervisory control and data acquisition (SCADA)

---

<sup>1</sup> Ins. by Cl (a) of Reg. 2, the Petroleum and Natural Gas Regulatory Board (Access Code for Common Carrier or Contract Carrier Natural Gas Pipelines) Amendment Regulations, 2014 (w.e.f. 17.02.2014).

system;

- (u) “transmission loss” (TL) means the quantity of gas which is unaccounted for whatsoever reason including blow downs, venting or releases during regular operation and maintenance of the pipeline system or due to inaccuracy of custody meter;
  - (v) “transporter” means an entity authorized by the Board or authorized by the Central Government prior to the appointed date for laying, building, operating or expanding a natural gas pipeline;
  - (w) “transmission service” means the service consisting of taking delivery of the gas made available by a shipper at one or more entry points along the pipeline system and delivering an equivalent quantity of gas in terms of energy at one or more exit points in accordance with the terms and conditions laid down in the access arrangement and contract signed between the shipper and the transporter and complying with the provisions of these regulations;
  - (x) “unit of measurement” means unit for measurement of quantity of gas and shall be in million British thermal units (MMBTU) or Kilo calories.
- (2) All other words and expressions used herein but not defined shall have the same meanings respectively assigned to them in the Act.

### **3. Application.**

- (1) These regulations shall apply to an entity operating or proposing to operate natural gas pipeline.
- (2) Any entity authorized by the Board to lay, build, operate or expand a natural gas pipeline under the Petroleum and Natural Gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand Natural Gas Pipeline) Regulations, 2008 or authorized to do so by the Central Government before the appointed day, can add new or abandon any existing entry and exit point on the pipeline on techno-economic considerations provided that the existing customers on the pipeline are not adversely affected by the decision of the entity.

### **4. Declaration of capacity.**

- (1) The capacity of a natural gas pipeline shall be as authorized by the Board for new pipelines under The Petroleum and Natural Gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand Natural Gas Pipelines) Regulations, 2008 or as determined by the Board under relevant regulations for declaring natural gas pipelines as common carrier or contract carrier or under the Petroleum and Natural Gas Regulatory Board (Determination of Natural Gas Pipeline Tariff) Regulations, 2008 or as determined by the Board under the relevant Regulations.
- (2) The transporter shall declare for each natural gas pipeline section, entry and exit point-wise design and available capacity of the pipeline and host the same on its web site on the 1st of every month in the prescribed manner and format specified at Schedule I and shall send this information to the Board and the same shall also be hosted by the Board on its website.

- (3) The available capacity declared for the transporter under sub-regulation (2) shall be available for use on common carrier or contract carrier basis or both and shall be allocated in line with the provisions under regulation 12.

## **5. Gas parameters.**

- (1) The authorized entity as referred to in sub-regulation (2) of regulation 3 shall formulate the calorific value (CV) band for the natural gas to be transported through natural gas pipeline keeping in view the following parameters, namely:-

- (a) CV of its own natural gas proposed to be transported;
- (b) CV of firming up contracted capacity of natural gas;
- (c) requirements of downstream consumers of natural gas on the pipeline;
- (d) technical requirement of the pipe line system; and
- (e) CV band of the inter-state pipelines either supplying natural gas into the pipeline system or receiving natural gas from this pipeline system.

- (2) The transporter shall publish CV band referred to in sub-regulation (1) on its website within a period of one month of authorization by the Board, as referred to in sub-regulation (2) of regulation 3, under intimation to the Board.

Provided that the entities authorized before the publication of these regulations shall publish the CV band within a period of one month of the date of publication of these regulations.

- (3) CV band referred to in sub-regulation (1) shall be applicable to all shippers on non-discriminatory basis.
- (4) The transporter may review the CV band for natural gas from time to time taking into account new major source of gas supplies or new consumers: Provided that CV band so updated shall not adversely affect any of the existing shippers:

Provided further that transporter shall immediately inform the Board as and when such up-dation is carried out by the transporter besides putting the same on its web site.

- (5) The threshold limits for other elements in natural gas like CO<sub>2</sub>, CO, H<sub>2</sub>S, N<sub>2</sub>, O<sub>2</sub>, water dew point, hydrocarbon dew point, etc. shall be as given in Schedule II.
- (6) The transporter shall define the gas parameters at entry points in terms of gas hydraulics specifying the acceptable range of pressure and temperature and the same shall be hosted on the website of the transporter.
- (7) Shipper shall supply gas conforming to all parameters specified in sub-regulations (1), (4) to (6) and the transporter shall deliver gas at exit point conforming to parameters of gas as specified in sub-regulations (1), (4) and (5):

Provided that the pressure and temperature shall be as per the contract between

shipper and the transporter.

**6. System Use Gas (SUG), Line Pack (LP) and Transmission Losses (TL).**

A shipper shall sell or provide the gas, if required by the transporter, for SUG, LP and TL at the prevailing market price in proportion to its capacity booking in the pipeline:

Provided that, the transporter shall be free to arrange this gas from any other source.

**7. Measurement of gas.**

- (1) The transporter shall ensure the provision of the entry and exit point equipments to measure gas composition, calorific value, pressure and temperature on continuous basis as specified in regulation 9.
- (2) The transporter shall divide the natural gas pipeline into a number of “a homogenous area” (AHA) and shall continuously measure the quality parameters by Gas Chromatograph (GC) in each AHA.
- (3) Measurement of CV and gas quality as provided in sub-regulations (1) and sub-regulation (2) shall be sufficient for billing and other contractual purposes for all exit points served by the AHA.
- (4) Total error limit and accuracy of the measuring equipment shall be as agreed to between the entities subject to any mandatory specifications, if any, laid down by the Board through regulations.
- (5) The transporter shall carry out verification, calibration or proving of measuring equipment as per the relevant codes and standards.
- (6) Either shipper or transporter may instal check meters at requisite points with a pre-condition so as not to interfere with the measurement equipment installed by the entity for custody transfer purpose.
- (7) Gas accounting shall be done on daily basis and the gas reconciliation, billing & other terms shall be as decided between the entities.

**Obligations at entry point and exit point.**

- (1) At the entry point when the shipper delivers natural gas that does not meet the quality requirements as specified in sub-regulation (1), (4) to (6) of regulation 5, in respect of CV band and threshold level of other elements of gas, the transporter may-
  - (a) refuse to accept it; or
  - (b) accept any gas that does not meet the requirements of gas in terms of gas parameters-
    - (i) as specified at Schedule II:

Provided that transporter may charge reasonable cost of service from

the shipper, as may be mutually agreed, for any additional facilities or treatment for cleaning up or integrity requirements of the pipeline and to upgrade gas to pipeline specifications;

Provided further that such off-spec natural gas does not adversely affect the existing customers' quality specifications committed by the transporter at the exit points;

(ii) as specified in sub regulations (1) and (4) of regulation 5:

Provided that the transporter may charge the reasonable cost of service for the capacity adjustment from the shipper for transportation of such gas and for capacity constraints in the system:

Provided further that such off-spec natural gas does not adversely affect the existing customers' quality specifications committed by the transporter at the exit points.

(2) At the exit point when the transporter delivers gas that does not meet the quality requirements as specified in sub regulation (7) of regulation 5, the shipper may -

(a) refuse to accept delivery and in such a case the transporter shall be liable to pay liquidated damages to the shipper as per their terms of contract; or

(b) accept the gas and in such case no charges shall be payable by transporter.

## **9. Facilities at entry point and exit point.**

(1) Shipper shall arrange to deliver gas at entry point on the pipeline system and shall provide all facilities, including measuring equipments, required for transfer of custody and delivery of gas to the transporter unless otherwise agreed to between shipper and transporter.

(2) Transporter shall execute hooking up facility of shipper to the entry point at the cost of shipper.

(3) Shipper or his authorized nominee shall own, operate and maintain facilities upstream of entry points at his own cost and risk unless the facilities are provided by the transporter under a separate contract.

(4) The transporter shall own and operate facilities including measuring equipments at exit point for transfer of custody and delivery of gas to the shipper unless otherwise agreed to between shipper and transporter and the exit point gas parameters shall be mutually agreed to between shipper and transporter.

(5) The transporter shall execute, at the cost of shipper, the facility of hooking up of shipper facility with that of transporter at exit point.

(6) The shipper shall provide space and cooperate with the transporter in installing, operating, maintaining and modifying any specific exit point facilities when such exit point facilities are provided in the premises of the shipper.

- (7) The shipper may provide check meter, conforming to the applicable standard and specifications, at the delivery point in natural gas pipeline:

Provided that in case of any variation in the readings in the meter of transporter and shipper, the reading of the transporter meter shall be taken as final.

- (8) In case of any dispute in metering, the meter proving or certification shall be carried out by an accredited third party as approved by the Board.
- (9) In case of any fault in the meter of transporter, the expenses on this account shall be borne by the transporter and in case no fault is found in the meter, the expenses shall be borne by the shipper.

#### **10. Pipeline capacity booking.**

- (1) More than one shipper can hold capacity at any entry or exit point.
- (2) The booked capacity shall be through a contract between shipper and transporter under "Access Arrangements" in the form of MDQ.
- (3) When a transporter receives a request for access from a shipper it shall respond within three days after receiving the request from the shipper-
  - (a) confirming that spare capacity exists to satisfy the request and specifying the charges and terms and conditions upon which it will make the service available;
  - (b) advising that spare capacity does not exist to satisfy the request;
  - (c) advising that the data provided by the shipper require technical study to accommodate his request and such study shall be completed within seven days from the date of receipt of request; or
  - (d) advising that it is not technically or operationally feasible to provide access.
- (4) shipper may release the capacity in favour of other shippers to the extent of the capacity booked.
- (5) The shipper may assign in part or full the capacity booked by him or trade in open market and the transporter shall deliver the capacity in physical terms to any person or entity which wishes to take physical delivery on the basis of a valid contract.
- (6) The nomination of natural gas for transportation shall contain the expected gas flow details of one or more days daily-nominated quantities as per the agreed schedule between the shipper and the transporter.
- (7) The accounting of the gas shall be in energy terms and shall be based on Gross calorific value as defined in ISO 6976-1:1983(E).

#### **11. Interconnection of two common carrier or contract carrier natural gas pipeline.**

- (1) The interconnection of two common carrier or contract carrier pipeline systems

may be necessitated by either a transporter or a shipper and such interconnection shall be allowed subject to capacity available in the receiving common carrier pipeline and when it is operationally and technically feasible.

- (2) The gas quality specifications for interconnecting pipelines should be compatible.
- (3) The cost of such interconnection point shall be borne by the entity that has triggered such requirement for interconnection and the cost of interconnection may include the cost of compression equipments for meeting the operational requirements for receiving natural gas in the common carrier system.
- (4) The execution of the interconnection facilities shall be carried out by the transporter who owns the system which receives the gas.
- (5) The interconnection point shall be mutually agreed between transporter and the shipper.
- (6) Interconnection of pipeline network is like adding an exit point to the existing pipeline and all such provisions shall be applicable for such interconnection.
- (7) The authorized entity for receiving common carrier pipeline shall inform the Board in case any interconnection request is denied.

## **12. Methodology for providing access.**

- (1) The contracted capacity between a shipper and a transporter shall be for a gas quantity not exceeding the own firm up capacity and aggregated volume contracted by the transporter for a period of more than a year.
- (2) The excess 33% capacity shall be allocated on common carrier principle on first come first serve basis:

<sup>1</sup>[Provided that in case any capacity out of the 33% excess capacity under sub-regulation (2) is available at any time due to non-existence of demand from any shipper, then, the same may be contracted for a period of one year or more subject to the stipulation that in case another entity seeks booking of the same for a period of less than one year, the request shall be accommodated after pro-rating, the same from the common carrier capacity already contracted to other entities for a period of one year or more.

Provided further that pro-rating the common carrier capacity shall not exceed ten per cent of the total common carrier capacity.]

## **13. System indiscipline and charges.**

- (1) If the pipeline capacity has been utilized by the shipper without permission of the transporter over 110% of the capacity allocated, then, the shipper shall be charged for such unauthorized overrun by the transporter in a transparent manner on non-

---

<sup>1</sup> Subs. by Reg. 2, the Petroleum and Natural Gas Regulatory Board (Access Code for Common Carrier or Contract Carrier Natural Gas Pipelines) Amendment Regulations, 2009, for 'Proviso of Cl. (2) of Reg. 12' (w.e.f. 21.04.2009).



discriminatory basis.

- (2) If the shipper off-takes less quantity of gas from the pipeline system than injected into it, then, the shipper is creating positive imbalance and it shall be allowed a cumulative positive imbalance of ten per cent of allocated capacity as tolerance limit.
- (3) Positive imbalance up to ten per cent of the booked capacity shall not attract any positive imbalance charges and the shipper shall be charged by the transporter for positive imbalance charges in a transparent manner on non discriminatory basis if it exceeds ten per cent.
- (4) If shipper off-takes more quantity of gas from the pipeline system than injected into it, then, the shipper is creating negative imbalance and the shipper shall be allowed a cumulative negative imbalance of five per cent of allocated capacity as a tolerance limit.
- (5) Negative imbalance of five per cent. of the allocated capacity shall not attract any negative imbalance charges and the shipper shall be charged by the transporter for negative imbalance charges in a transparent manner on non discriminatory basis if it exceeds five percent.
- (6) Charges for the system indiscipline, that is, for unauthorized overrun positive imbalance and negative imbalance shall be on daily basis in terms of maximum daily quantity.
- (7) Subject to sub-regulation (8), the transporter shall maintain the pipeline system in such a way that the allowed positive imbalance of 10% or negative imbalance of 5% does not interfere with the operations of the pipeline and shall ensure that the shippers get their allocated quantities within acceptable contractual variations, at specified gas parameters at exit points.
- (8) It shall be the responsibility of the defaulting shipper to cure imbalances beyond the permissible limit caused by it in transporter's pipeline and in case, the defaulting shipper is unable to cure such imbalances within a period of fifteen days, then, the transporter shall have the right to adjust daily-nominated quantity of such shipper to mitigate such imbalances to ensure safety and integrity of pipeline system.
- (9) In case the transporter and the shipper have entered into an agreement which recognizes an aggregated volume of natural gas on periodic basis and the shipper makes commitment to avail the capacity intermittently within a period less than one year, the imbalances and overrun charges shall be calculated on maximum daily quantity basis as scheduled by the shipper and the transporter.
- (10) There shall be established an escrow account to be maintained by the transporter which shall be credited with all charges received by the transporter on account of imbalances and overruns under this regulation and the transporter shall be eligible to withdraw from the escrow account the payment towards his contractual obligations with reference to supply or pay and extra efforts to compress gas in case of negative imbalance and system management of the pipeline system due

to such imbalances created by the shippers.

(11) The transporter shall submit audited statement of the escrow account referred to in sub-regulation (10) on an annual basis to the Board.

(12) The balance amount available in the escrow account, after the eligible withdrawal by the transporter, under sub clause (10) may be utilized in such a manner and for such purposes as may be specified by the Board.

<sup>1</sup>[(13) A transporter shall provide, under the relevant regulations of the Board, Imbalance Management Services to the extent it is technically and operationally feasible.]

#### **14. Planned maintenance.**

(1) The transporter is required to draw up and publish a maintenance plan well ahead of time for a defined period identifying those entry and exit points where gas flows may be restricted by maintenance works, the extent of the restrictions and the time of occurrence and the transporter shall plan such maintenance so as to minimize disruption to affected parties and can request information from shippers on their survival flows at entry and exit points to assist the transporter for such maintenance schedule.

(2) Dates for scheduled maintenance shall be informed well in advance which can be adjusted on thirty days advance notice to and from affected shippers.

(3) The planned maintenance period shall not exceed ten days in a year.

#### **15. Information about *force majeure*.**

(1) The affected party shall on occurrence of any *force majeure*-

(a) as soon as reasonably practicable notify each of the other parties of the occurrence and nature of the *force majeure*, the expected duration thereof insofar as the same can reasonably be assessed and the obligations of the affected party performance of which is affected thereby; and

(b) from time to time thereafter provide to each other party reasonable details of the following, namely-

(i) developments in the matters notified under clause (a);

(ii) the steps being taken by the affected party to overcome the *force majeure* occurrence or its effects and to resume performance of its relevant obligations.

(2) The entities shall be relieved of their respective obligations in the event of *force majeure* except for the obligation to pay when due.

---

<sup>1</sup> Ins. by sub-reg. (b) of Reg. 2, the Petroleum and Natural Gas Regulatory Board (Access Code for Common Carrier or Contract Carrier Natural Gas Pipelines) Amendment Regulations, 2014 (w.e.f. 17.02.2014).

**16. Operational planning.**

- (1) Shipper shall make daily, weekly or monthly nominations to the transporter for the quantities that it wishes to deliver to at a particular entry point and off-take at a particular exit point from the pipeline system on a daily basis in line with the provisions under these regulations.
- (2) (a) Transporter shall schedule the quantities of gas for transportation based on the nominations received and capacity available in the pipeline system.  
  
(b) Transporter may schedule the nomination for quantities over and above the booked capacity subject to a maximum of ten per cent of the declared pipeline capacity.
- (3) (a) Transporter shall allocate quantity of gas to various shippers as determined under clause (b) of sub-regulation (2) and as per the scheduling exercise.  
  
(b) Allocation scheduled shall be delivered to the shippers as per the destination wise (exit point wise) schedule prepared.

**17. Emergencies.**

The procedures to be followed by shipper and the transporter in the event of an emergency shall be included in the access arrangements by shipper and transporter on mutually agreed terms.

**18. Confidentiality of information.**

All documentation, information, data, submissions and comments disclosed or delivered whether in writing or otherwise by any entity to the transporter, shipper or to any other party either in connection with or in consequence of the requirements of these regulations shall be regarded and treated as confidential and shall not be disclosed either in full or part of any or all of the documentation, information, data, submissions and comments including the contents and copies thereof in any form except in connection with any proceedings in any court.

**19. Miscellaneous.**

If any dispute arises with regards to the interpretation of any of the provisions of these regulations, the decision of the Board shall be final.

.....

**Schedule – I**  
**Format for declaring capacity of Pipeline**

(see regulation 4(2) )

1. Name of entity:
2. Name of pipeline:
3. Section wise capacity on the pipeline (to be furnished for each section separately):
  - (a) Number of sections:
  - (b) Name of section with start and end point:
  - (c) Capacity – (i) Volume terms (ii) Energy terms
4. Number of AHAs:
5. Number of entry points on the pipeline route:
6. Location of entry points:
7. Number of exit points:
8. Location of exit points:
9. Entry point wise capacity (to be furnished separately for each entry point):
10. Exit pointwise capacity (to be furnished separately for each exit point):
11. Technical parameters:
  - (a) Inlet pressure at entry point:
  - (b) Calorific value band at entry point:
  - (c) Temperature:
  - (d) Other elements as per Schedule - II:
12. Status of extra capacity available in the pipeline system on common carrier basis:
13. Details of common carrier capacity being used by transporter itself or on contract carrier basis:
14. Any demand pending with the transporter for common carrier usage of the pipeline alongwith duration of such pendency:
15. Preference on entry and exit points:

## Schedule – II

(see regulations 5(5), 8(1)(b) (i))

### Gas quality specifications

Parameters	Limit
Hydrocarbons dew pt (Degree Celsius, max.)*	0
Water dew pt (Degree Celsius, max)*	0
Hydrogen Sulphide (ppm by wt. max.)	5
Total Sulphur (ppm by wt. max.)	10
Carbon dioxide (mole % max.)	6
Total inerts (mole % )	8
Temperature ( Degree Celsius, max.)	55
Oxygen( % mole vol. max.)	0.2

\* At the pipeline operating pressure

[F. No. S-Admn./II/8/2007-Vo. 1]

AJAY TYAGI, Secy.

**Foot Note:** Principal regulations were notified *vide* G.S.R. 541(E) dated 17<sup>th</sup> July, 2008 and subsequently amended *vide* G.S.R. 274(E) dated 21<sup>st</sup> April, 2009, F. No. PNGRB/M(C)/48, dated 17<sup>th</sup> February, 2014.