ANNEXURE - 28

IDENTIFICATION, TRACEABILITY AND MARKING OF PIPING INSTALLATIONS

Above ground station piping Numbering/ Tagging

1. Numbering/tagging of above ground piping & other installations

1.1. Line numbering for above ground piping

XXXYYY – AAAA – BB – CCC – DDD

Where,
XXX – IMS for A/G (Vendor to provide blank space for marking by Owner)
YYY – IMS number as per master list of IMS (Vendor to provide blank space for marking by Owner)
AAAA – Pipe serial number (0001 to 9999)
BB – Pipeline size (0.25" to 36")
CCC – Pipe material grade (GRB, X40, X42, X52, X60, X65, GR6)
DDD – Pressure class of piping (150, 300, 600, and 800)
(Refer Note-1)

1.2. Aboveground Piping component numbering/tagging.

XXX Y ZZZ

Where,
XXX – Code for installation type (Alphabetic)
IJ – Insulating Joint
BLV – Ball Valve
GLV – Globe Valve
PLV – Plug Valve
FCV – Flow Control Valve
PRV – Pressure Regulating Valve
SSV – Slam Shutoff Valve
NRV – Non Return Valve
CRV – Creep Relief Valve
SRV – Safety Relief Valve
SOM – Senior Orifice Meter
USM – Ultrasonic flow Meter
FLR – Filter
PG – Pressure Gauge
DPG – Differential Pressure Gauge
TG – Temperature Gauge
PT – Pressure Transmitter
TT – Temperature Transmitter

DPT – Differential Pressure Transmitter
GC – Gas Chromatograph
Y – Serial number for piping installation location (1 to 3)
1 – Terminal/SV/Tap off location
2 – CNG station
3 – DRS/CPRS/DPRC/IMS
(Refer Note 1 &2)
ZZZ – Piping component Number (001 to 999)

Notes:

1. Following methodology shall be followed for numbering/tagging of twin stream piping and piping installations:
   For line numbering
   XXXYYY – AAAA**E** – BB – CCCC – DDD
   For installation numbering/tagging

   XXX Y ZZZ**E**
   Where E = A for stream 1 and B for stream 2

2. Serial number 1 to 3 is allotted as per the present requirement. The same may be extended and allotted up to number 9 as and when required for installations other than listed above.

Above ground station piping marking

- **Lettering:**
  The recommended size of lettering for pipes of different diameter is as below

Outside diameter of pipe (mm)	Size of Legend (mm)
20 to 30	10
Above 30 to 50	20
Above 50 to 80	30
Above 80 to 150	40
Above 150	90

- **Identification of pipe:**

  The system of colour coding consists of a ground colour and colour bands superimposed on it.
  Color code for Natural Gas:

Content	Ground colour	First colour band	Second colour band
Natural Gas	Canary or Golden yellow	Signal Red	Light brown

Ground colour : The ground colour shall be applied throughout the entire length of above ground piping.

Colour Bands : The colour bands shall be superimposed on ground colour at the following locations

1) At battery limit points,
2) Intersection point and change of direction points in piping ways
3) Other points such as midway of each piping way, near valves, junction points of service appliances, either side of wall crossings
4) At long stretch piping at 50 meter interval
5) At start and terminating point.

The relative proportional width of the first colour band to second colour band shall be 4:1. As a rule minimum width of colour band shall confirm to the following table

Nominal pipe size (mm)	Width (mm)
150 NB and below	50
Over 150 NB up to 300 NB	75
Over 300 NB	100

Direction of flow: Wherever it is required to indicate the direction of flow, arrows shall be painted near valves, junctions walls etc, and at suitable interval along the piping in a manner best suited to the local condition. The colour of flow direction shall be black or white in colour.

6A For Pipes DN 200 and Below

6B For Pipes Above DN 200

FIG. 6 SIZE OF ARROWS