

**Sub-committee views on Proposed Amendments in PNGRB T4S CGD Regulations**

S. No	Clause No.	Amendment Proposal	Sub-Committee Recommendations <i>(Proposed Amendments)</i>
1	Schedule - 1A (MATERIALS AND EQUIPMENT)	Inclusion of reinforced thermoplastic pipes as per API 15S : Spoolable Reinforced Plastic Line Pipe.	Add the following in Schedule-1A, under the heading "Steel Pipe", "Reinforced Thermoplastic Pipes (RTP)"  "Reinforced Thermoplastic Pipes (RTP), if used shall conform to API RP 15S. All Pipe and fitting shall meet the requirements as per standards and testing methods prescribed in API 15S. "
2	Schedule 1C, Fittings other than Valves and Flanges,  (a) Polyethylene resin used for manufacture of thermoplastic fittings shall be virgin, cadmium free pigmented compound. Anti-oxidant and UV stabilizers used in PE resin shall not exceed 0.3 and 0.5 percent respectively. Reprocessed material shall not be used.	Review of the requirement of anti-oxidant & UV stabilizers in PE resins.	Modify the sub-clause (a) in Schedule 1C, under the heading "Fittings other than Valves and Flanges", as under:  <b>Original Clause</b>  "Polyethylene resin used for manufacture of thermoplastic fittings shall be virgin, cadmium free pigmented compound. Anti-oxidant and UV stabilizers used in PE resin shall not exceed 0.3 and 0.5 percent respectively. Reprocessed material shall not be used"  <b>Proposed clause</b> <i>"Polyethylene resin used for manufacture of thermoplastic fittings shall be virgin, cadmium free pigmented compound. Anti-oxidant and UV stabilizers used in PE resin shall meet the requirements as per EN1555-1, and ISO 4437-1. Reprocessed material shall not be used"</i>
3	Annexure- II (3) Metering Equipment Metering Equipment:	To Add in metering Equipment List  1. BS EN 14236: Ultrasonic domestic gas meters  2. ISO 17089-2: Measurement of fluid flow in closed conduits – Ultrasonic meters for gas – Part 2 – Meters for industrial applications.	Add in Annexure-II, under the heading "Metering Equipment", after the letters and numbers beginning with "EN 12261..." and words ending with "... Turbine gas meters", the following shall be added, namely: -  "a. BS EN 14236: Ultrasonic domestic gas meters  b. ISO 17089-2: Measurement of fluid flow in closed Conduits-Ultrasonic meters for gas – Part 2 – Meters for industrial applications."
4	Annexure- II (3) Metering Equipment	Inclusion of OIML R137: 1&2-Thermal Mass Flow Gas Meters conforming to ISO:14511 (Measurement of fluid flow in closed conduits — Thermal mass flowmeters)	Modify the following in Annexure-II, Metering Equipment :  OIML R137: 1&2- Thermal Mass Flow Gas Meters conforming to ISO 14511
5	PNGRB (Gas Supplies to High Rise Multi Occupancy Buildings) Guidelines, 2020  Clause 10 (c)	Addition:  Issue of guidelines for gas supplies to High Rise Multi Occupancy Buildings.	Guidelines attached as <b>Annexure-I</b>

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6	PNGRB (Providing Gas Connections in Completely Enclosed Buildings i.e. AC Malls, Basements, Multi-tier Building etc.) Guidelines, 2019  11.0 "Safety Measures"	Addition:  Issue of guidelines for providing connections in completely enclosed buildings i.e. AC Malls, Basements, Multi-tier Building etc.	Guidelines attached as <b>Annexure-II</b>
7	<b>Schedule - 1D VALVES</b>	Use of Sectionalising Valves as per PNGRB T4S NGPL Regulations in place of 3 km required as per PNGRB T4S CGD Regulations for its 24" and 18" pipelines downstream of CGS considering the larger length of pipelines required to connect its customers.	Add after "- In steel distribution mains valve spacing should normally not be more than 3 km", in the Schedule-1D, under the heading Valves, (a) High Pressure Distribution System: Based on operation and maintenance flexibility requirements, valves may be provided on:  "The inter-distance between the Sectionalising Valves in steel pipes in CGD networks can be maintained as per the PNGRB (Technical Standards and Specifications including Safety Standards for Natural Gas Pipelines) Regulations, 2009 considering the location class after complying with the following:  i. The steel pipelines in the CGD networks shall be designed considering location Class-4. ii. The gas in the network is odourised and filtered. iii. Additional number of SVs shall be provided to meet the requirements as per location class in case of, the change in population density. The assessment of location class shall be undertaken every year. "
8	<b>Schedule-1D CGD network Description, Clause (ii)</b>  ii) Secondary Network: A low Pressure Distribution System comprising of Gas Mains or Distribution Mains usually constructed using thermoplastic piping (MDPE) and connects DPRS to various service regulators at commercial, industrial, and domestic consumers.  The network shall be sized for maximum flow velocity of 100 ft / sec (30 m/sec).	To replace the word "MDPE" with "PE" for more clarity as the regulations primarily uses PE while MDPE is used only in definition of secondary and tertiary networks in the regulations.	In schedule-1D, under the heading "CGD network Description", clause ii) beginning with "Secondary Network...", and ending with "...100 ft / sec (30 m/sec).", the following shall be substituted, namely: -  "ii) Secondary Network: A low Pressure Distribution System comprising of Gas Mains or Distribution Mains usually constructed using thermoplastic (PE) piping and connects DPRS to various service regulators at commercial, industrial, and domestic consumers. The network shall be sized for maximum flow velocity of 100 ft / sec (30 m/sec).",
9	<b>Schedule-1D CGD network Description, Clause (iii)</b>  iii) Tertiary Network: A service Pressure Distribution System comprising of Service Lines, Service Regulators and customer/ consumer Meter Set Assemblies constructed using a combination of thermoplastic (MDPE) piping and GI/ copper tubing components.	To replace the word "MDPE" with "PE" for more clarity as the regulations primarily uses PE while MDPE is used only in definition of secondary and tertiary networks in the regulations.	In schedule-1D, under the heading "CGD network Description", clause iii) beginning with "Tertiary Network...", and ending with "... tubing components.", the following shall be substituted, namely: -  "iii) Tertiary Network: A service Pressure Distribution System comprising of Service Lines, Service Regulators and customer/ consumer Meter Set Assemblies constructed using a combination of thermoplastic (PE) piping and GI/ copper tubing components.",

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10	<p><b>Schedule-1E</b>  <b>PIPELINE SERVICE CONVERSIONS</b></p> <p>Steel pipelines and mains used in CGD Network shall not be used for dual service. Conversion of existing steel pipelines, previously used for service other than natural gas, for use in CGD Networks is not permitted.</p>	<p>Proposal w.r.t. utilisation of the existing LPG reticulated piping network to provide PNG supply in existing societies after making necessary modification in existing piping system as per latest T4S for CGD regulations.</p>	<p>(i) in schedule-1E, under the heading "PIPELINE SERVICE CONVERSIONS", the clause beginning with "Steel pipelines and mains...", and ending with "...Networks is not permitted.", the following shall be substituted, namely: -</p> <p>"Steel pipelines and mains used in CGD Network shall not be used for dual service. Conversion of existing steel pipelines, previously used for service other than natural gas, for use in CGD Networks is not permitted, unless it meets the requirements of these regulations."</p>

