

Guidelines For Implementation of the Petroleum and Natural Gas Regulatory Board (Technical Standards and Specifications including Safety Standards for City or Local Natural Gas Distribution Networks) Amendment Regulations, 2026 notified on 18.09.2026 vide Gazette No. CG-DL-E-29092026-276594.

Permitting Usage of Existing Reticulated LPG Manifold Pipeline Systems for PNG Supply in Housing Societies/Residential Complexes

Petroleum and Natural Gas Regulatory Board (Technical Standards and Specifications including Safety Standards for City or Local Natural Gas Distribution Networks) Regulations dated 27th August 2008 have been amended vide PNGRB T4S Amendment Regulations, 2026 dated 18.09.2026.

2. PNGRB CGD T4S Regulations specifies that the above ground service piping shall be Galvanized Iron or copper or carbon steel protected by anti-corrosive coating.
3. Vide the said Amendment Regulations, now use of the existing reticulated LPG manifold pipeline systems is being allowed, for supply of Piped Natural Gas (PNG) in housing societies or residential complexes enabling CGD entities for faster PNG connectivity by utilizing the existing reticulated LPG pipeline system for PNG supply thereby eliminating the need of installing additional infrastructure (Galvanized Iron Pipelines). The following Guidelines further clarify the said Amendment:

Prior to converting the LPG pipelines to PNG, the concerned CGD entities shall ensure following parameters:

i. Pipeline Material Compatibility

The existing LPG pipeline system proposed for PNG usage shall be assessed for material suitability and compliance with relevant standards, including but not limited to IS 1239 (Part-1), IS 3601, IS 6044/ OISD-STD-162 or any other steel

tubes approved by the statutory authority. Pipelines found corroded (with observed thickness below retiring wall thickness), mechanically damaged, or non-compliant shall not be permitted for reuse.

ii. Pressure Suitability

As, in reticulated LPG pipeline system, cylinder manifold is subjected to full cylinder pressure at all times, all such manifolds are designed to a pressure equivalent to the maximum developed cylinder pressure (assessed at 65°C) of LPG that is 16.87 kgf/cm² (16.5 bar). Since the existing LPG manifold pipelines are generally designed for operating pressures higher than domestic PNG service pressures (typically 110 mbar), its use should be considered subject to verification of mechanical integrity and fitness for continued service.

iii. Mandatory Pre-Conversion Safety Assessment

Prior to permitting conversion, the concerned CGD entity shall carry out a comprehensive integrity and safety assessment covering:

a) Visual Inspection

Complete inspection of the entire pipeline network including Kitchen/end-point piping to verify any visual defects such as rusting, cracks etc.

b) Leakage / Tightness Testing and Integrity Verification

The entire reticulated network, including all end-user connection points, shall undergo pressure testing to identify any existing leakages or loose joints. Further, assessment of the entire network to be done for adequacy of structural support and identification of any unauthorized modifications.

c) Accessibility & Third-Party Damage Risk

The pipeline routing shall be reviewed to verify protection against any physical damage and convenient access for maintenance purposes. Where any section of the pipeline is observed to be vulnerable to physical damage, suitable protective measures (such as protective covers, sleeves, guards, casing, or other approved means) shall be provided. Further, if any section of the pipeline is found to be inaccessible for inspection or maintenance activities, the pipeline shall be rerouted, relocated, or otherwise modified to ensure adequate accessibility.

d) Ventilation Adequacy

Ventilation in shafts, kitchen areas, meter locations, and other confined spaces shall be adequately ensured to prevent hazardous accumulation of gas in the event of accidental leakage.

e) Concealed piping

Concealed piping shall be avoided as far as practicable. In cases where concealed piping already exists or its use is unavoidable, the following precautions shall be ensured:

- i) The piping shall be adequately protected against inadvertent damage (such as from nails, drilling, impact, or other mechanical knocks) through appropriate routing, suitable material selection, or protective sheathing.
- ii) No threaded, temporary, or detachable joints shall be permitted within concealed locations. Pipe Joints in concealed sections shall preferably be of permanent construction. Any joint requiring periodic inspection, maintenance, or dismantling shall be located in accessible and adequately ventilated locations.
- iii) Periodic inspection and integrity testing of the concealed portion shall be carried out on a quarterly basis to verify continued safety and detect any potential leakage or deterioration due to corrosion.
- iv) Measures shall be taken for replacement of concealed piping with open/accessible piping arrangements within one year of commissioning.
- v) In case of closed shafts/ducts, it shall be made open at the top prior to commissioning.

f) Thickness Assessment

The wall thickness and structural integrity of the existing pipeline shall be assessed through suitable inspection methods and recorded. Pipeline sections not conforming to the specified thickness or integrity requirements shall be replaced.

iv. Functional Modifications Before PNG Commissioning

Prior to commissioning PNG, the CGD entity shall ensure:

- Isolation and decommissioning of LPG manifold and cylinder bank systems
- Replacement of LPG specific accessories with PNG-compatible equipment
- Replacement of any pipe section not meeting the prescribed thickness or integrity requirements.
- Removal/isolation/replacement of defective valves / fittings, damaged flexible hoses cylinder manifold and related accessories, decommissioned and abandoned pipeline sections.

- That these pipelines shall be provided with suitable anti-corrosion coating or protective painting, along with identification colour coding (yellow)
- Additional pipe supports and clamping arrangements, if required to ensure adequate stability and structural integrity.
- Updation of piping system data/records/drawings of the said pipeline in the system of CGD entity.
- Applicable operational and safety requirements in accordance with PNGRB Regulations such as safe distances from electrical installations, isolation valves, corrosion protection measures, Rubber Hose specifications etc.

Prior to commissioning the PNG supply, a compliance certificate must be obtained from a PNGRB-approved Third Party Inspection Agency (TPIA), validating the successful inspection, testing, and integrity assessment of the available pipelines and other associated facilities to be used and also compliance of these Guidelines.

v. Post-Commissioning Obligations

Responsibility for the safety, integrity, operation and maintenance of the converted network, including the preparation and implementation of a periodic Maintenance Plan, shall rest with the concerned CGD entity and not the OMC that had laid the reticulated system. However, the CGD entity may engage or utilise the services of existing service providers, such as the OMC, its authorised distributors, or other approved vendors, who are currently responsible for the maintenance and integrity of the existing LPG pipeline network, after providing necessary technical and safety training.

Further, in addition to the minimum safety and operational requirements, the following good engineering and safety practices should also be adopted, wherever feasible, to enhance system integrity, facilitate early leak detection, and improve operational safety of the converted network:

- i) **Hydrocarbon/odorant detectors** should be installed at suitable and vulnerable locations, such as shafts, and other enclosed or confined areas, to enable early detection of gas leakage and facilitate timely alarm-based intervention.
- ii) **Solenoid valves** should be installed at each riser or other critical isolation points to enable automatic or manual isolation of individual risers/sections in the event of leakage, thereby minimizing gas release and improving emergency response capability.

iii) **Casing pipes with perforations** should be provided, wherever required, particularly in concealed or enclosed pipeline sections, to facilitate safe venting and dispersion of natural gas in the event of leakage, thereby reducing the risk of gas accumulation in confined spaces.

vi. Monitoring of Converted Societies

CGD entities shall closely monitor converted housing societies for any:

- Leakage complaints
- Pressure fluctuation issues
- Consumer safety concerns
- Service disruptions

Prompt corrective actions shall be taken wherever required.

vii. Consumer Safety & Transition Management

The CGD entity shall ensure minimal or no disruption during transition from LPG to PNG supply. Consumer awareness regarding safe PNG usage including inspection of internal last-mile connections shall be done prior to gas in.

viii. Conditions for Rejection

Existing LPG reticulated pipelines shall not be used where:

- Pipeline integrity is doubtful.
- Material is non-compliant or degraded.
- Pipeline Route poses safety risks.
- Unauthorized alterations are observed.
- Adequate ventilation is unavailable.
- Pressure suitability or safe operability cannot be established.

Reuse of existing reticulated LPG manifold pipeline systems for PNG supply in residential buildings shall be considered on a case-to-case basis, subject to satisfactory inspection, testing, rectification, and compliance with applicable PNGRB Regulations and safety standards.

ix. It is clarified that in the event of any conflict between these Guidelines and the above referred Amendment Regulations, the latter shall prevail.

Secretary