

3rd CGD O&M Conference, New Delhi

Challenges in CGD

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Presented By: Mr. S Murali (Sr. Vice President – O&M)





3rd CGD O&M Workshop

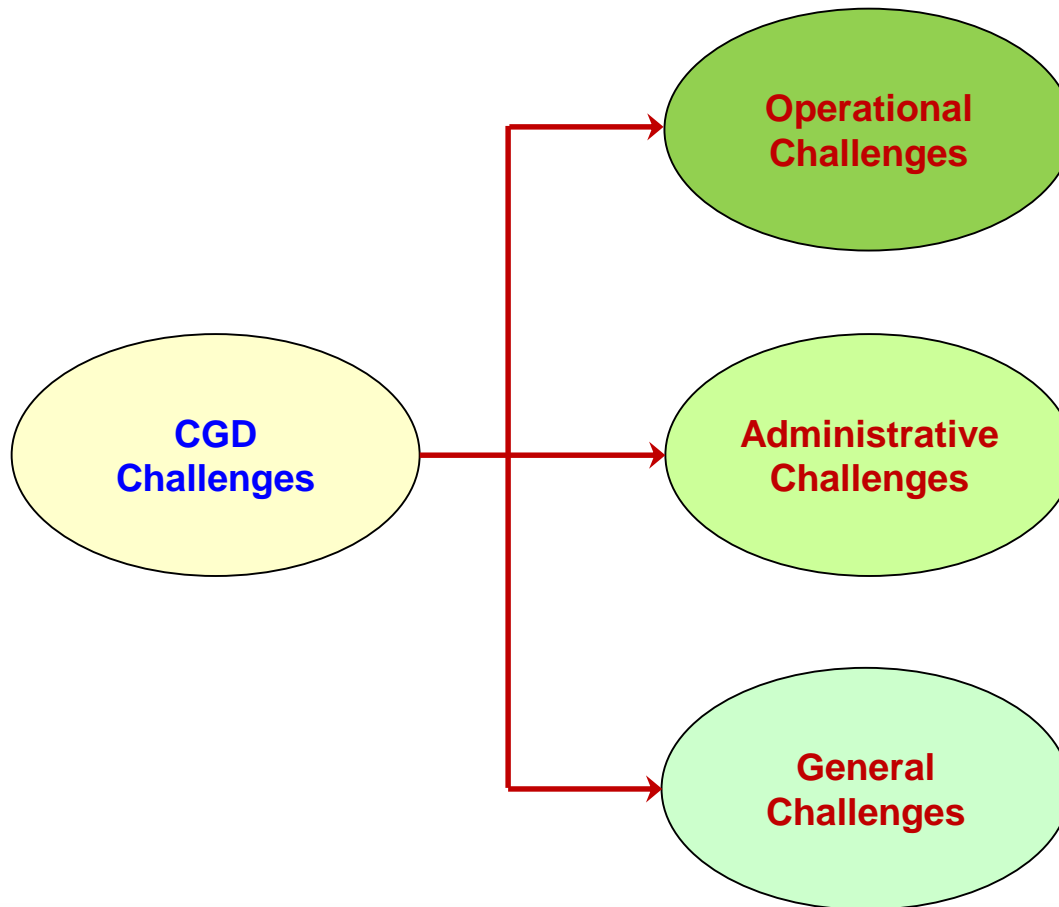
Panel Discussion



Various Challenges

All CGD constantly face various challenges regularly

Broadly these challenges can be categorized as below;



Operational Challenges

- Challenges of Safety in CGD
- Challenges for Pipeline Network
- Encroachments
- Challenges during laying of pipeline
- Lack of awareness of Safety Culture among stakeholder
- Seasonal/Temporary Workforce
- Road Safety for CNG Transport Vehicles
- How to check Authenticity / Validity of CNG cylinders



Challenges of safety in CGD

- ❖ **Natural gas business demands special focus on Safety**
- ❖ During gas delivery to customers and transportation, CGDs face many challenges in complying safety guidelines.
- ❖ Onus of all gas related incident dumped on CGD e.g.
 - Rupture of CNG Cylinder
 - Fire in CNG vehicles
 - Burn injuries due to gas usage
 - Fire due to Third party damage to pipeline
 - Fire in commercial installations due to non-compliances at downstream
- ❖ CGD has no shortcut/alternate for survival but to make and follow stringent Safety guidelines



Challenges of Widespread Network and Operational Area

Business model of City gas distribution companies is not confined but widespread

- ❖ Gas Pipeline runs through in remote locations
- ❖ CNG transport vehicles ply on far away places
- ❖ Traffic conditions act as an deterrent during emergency response
- ❖ In contrast to cross country pipeline, city gas pipeline network is complicated and has lot of branches (Non-piggable)
- ❖ No direct control on wide spread network/asset due to lack of automation
- ❖ Pipelines are prone to third party damages due to excavation by other utilities
- ❖ Timely Response to far away emergency sites



Encroachments

Encroachment drives for removal of encroachments. Regular correspondence with Authorities helps in removing encroachment upto certain extent

Hutments above the laid pipeline



Pipeline inside private premises



Hutments above the laid pipeline



Encroachment above underground DRS



Challenges during laying pipeline network

- ❖ Municipal corporations impose strict timelines and conditions for excavation permission.
- ❖ Due to stringent clauses by municipal corporations excavation pit can not be kept open for longer durations
- ❖ Excavation during night has its own hazards because artificial illumination has to be maintained.
- ❖ Presence of other utilities impose various safety hazards
- ❖ Congestion on road cause lesser work area and tougher site conditions
- ❖ Construction of under warranty RCC Road / Asphalt Road



Lack of Awareness of Safety culture among Stakeholders

- ❖ Many Utilities including Municipal Authorities are working in city areas where gas pipelines are present. These Utilities/Authorities normally do not follow Safety Guideline
- ❖ More often these Utilities/Authorities are not aware about risk and hazard related to gas pipelines.
- ❖ Due to lack of awareness many Residential Societies burn articles, crackers or excavate near gas installations.



Seasonal/Temporary Workforce

- ❖ Labourers work for few months & are generally immigrants
- ❖ Labourers lack basic education, hence are not aware of basic work related hazards
- ❖ Daily wages labour try to finish work by taking short cuts
- ❖ Availability & retaining of trained & experienced manpower



Road Safety for CNG Transport vehicles

- ❖ Traffic snarls cause fatigue in drivers
- ❖ Poor Road conditions
- ❖ Behaviour of drivers
- ❖ Night Driving
- ❖ Gas Leakage in Cascade



How to check Authenticity / Validity of CNG cylinders?

- ❖ Spurious CNG cylinders and kits
- ❖ Unauthorised vendors for supply and installation
- ❖ Lack of knowledge in customers regarding safety hazard
- ❖ Onus of CNG cylinder safety is on CGD entity
- ❖ Plying of unauthorised vehicles



Administrative Challenges

- No thrust from State/Central Authorities to Municipal Authority for supporting CGD
- Delay in receiving permissions from Central Authorities like Railway, Forest, Environment
- Unreasonable Targets with hefty penalties not meeting target
- No separate status as Utility to CGD
- Unreasonable RI / Way lease / Rental Charges from Authorities
- Stamping of Domestic Meters
- CGDs to take care for traffic snarls
- Irrational pressure from local Goons making IR issues

Statutory Permissions



General Challenges

- Availability of Land for CNG Stations
- Space Constraints for setting of new CNG stations
- Long queuing due to lack of CNG station and inherent operational constraint
- Lack of Availability and Competency of Contractors
- Limited availability of OEMs for equipment like compressor, dispenser, regulating skids, steel valves etc.
- No Continual/Regular Review of CGD Guidelines for accommodating pragmatic approach
- Lack of Skilled Resources
- Relaying of Pipeline, Route Markers Re-installation due to Infrastructure Development activity
- Continuation of NZS Nozzles for filling
- Lack of technology for domestic metering
- AC/DC and HVDC Interference leads to Under/Over protection of pipeline
- Repair of Coating defects on Steel Pipeline



Remember !!!!

CGD stands for **C**hallenges in **G**as Industry on **D**aily Basis

Thank You...



**MAHANAGAR
GAS**