



Natural Gas Pipeline

Petroleum and Natural Gas Regulatory Board



पी एन जी आर बी
PNGRB

**Knowledge Sharing Workshop for
Natural Gas Pipelines (NGPL) entities**

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- PNGRB Regulations on NGPL

2

- Recent Amendments in PNGRB T₄S, IMS & ERDMP Regulations

3

- Natural Gas Pipeline Infrastructure

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- Compliance Status of TPA Audits

5

- Critical Observations of audits

6

- Key Recommendations of Incidents

PNGRB Regulations on NGPL



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- 1 PNGRB (Technical Standards and Specifications including Safety Standards for Natural Gas Pipelines) Regulations, 2009
- 2 PNGRB (Integrity Management System for Natural Gas Pipelines) Regulations, 2012
- 3 PNGRB (Codes of Practices for Emergency Response and Disaster Management Plan (ERDMP)) Regulations, 2010

- Appointment of director for compliance within 90 days
- Inclusion of PE pipelines
- 10% margin in SV spacing
- Fire water estimation basis

Amendments in IMS NGPL Regulations : 2020



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- IMS document Approval by Board of entity – First time, periodic review by CEO or Full time director
- Entity to submit approved IMS document along with confirmation of its implementation to PNGRB
- Manpower Qualification omitted; Now entity is to decide
- Typical matrix for Risk Assessment and Risk Register included
- PNGRB empaneled TPA audit within 1 year from commissioning
- Frequency of IMS Audit
 - Internal Audit - Every year.
 - External Audit – Every 3 years by empaneled TPA

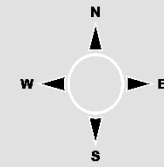
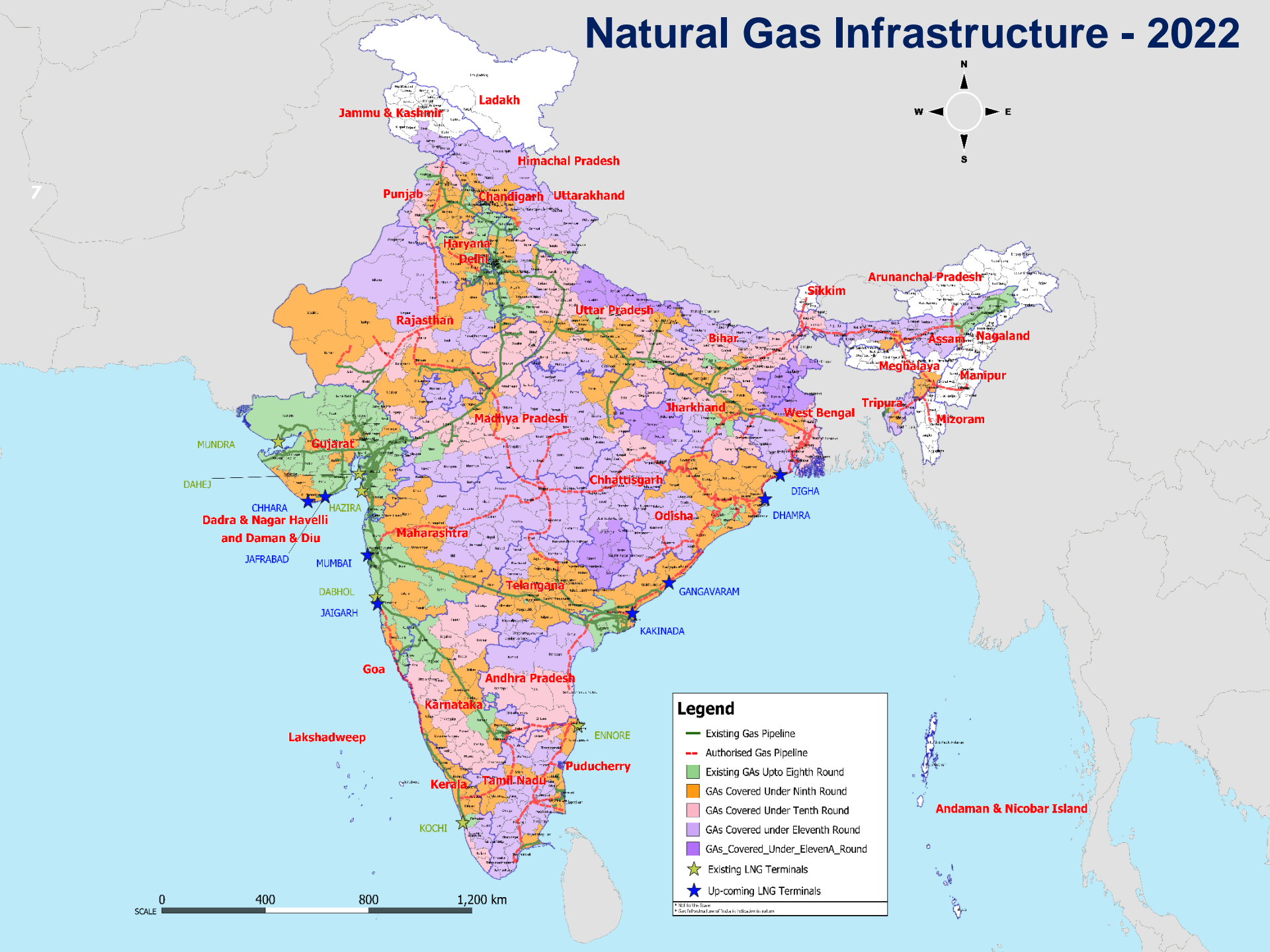
Amendments in ERDMP Regulations: 2020



6

- Penal provision for Mutual aid partners removed
- All major incidents shall be investigated by entity.
- Terms of reference of enquiry committee: identify the lapses / shortcomings, establish the root cause (s) of failure, suggest improvements / remedial measures.
- Investigation Report to be submitted to PNGRB within 30 days.

Natural Gas Infrastructure - 2022



0 400 800 1,200 km
SCALE

Legend

- Existing Gas Pipeline
- Authorised Gas Pipeline
- Existing GAs Upto Eighth Round
- GAs Covered Under Ninth Round
- GAs Covered Under Tenth Round
- GAs Covered under Eleventh Round
- GAs_Covered_Under_ElevenA_Round
- Existing LNG Terminals
- Up-coming LNG Terminals

* Not to the Scale
* Gas Pipelines are of India's, following its route

Natural Gas Pipeline Network in India

(As on 31.03.2022)



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Details		Length (Km)	Total (Km)
Authorized NGPLs	Common Carrier	32,613	34,135
	Tie-in connectivity	743	
	Dedicated	779	
Operational NGPLs	Common Carrier	20,629	21,715
	Tie-in connectivity	108	
	Dedicated	650	
	STPL	328	
Under Construction NGPLs	Common Carrier	13,189	14,240
	Tie-in connectivity	663	
	Dedicated	122	
	STPL	269	

Compliance Status of T4S External Audits



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2056

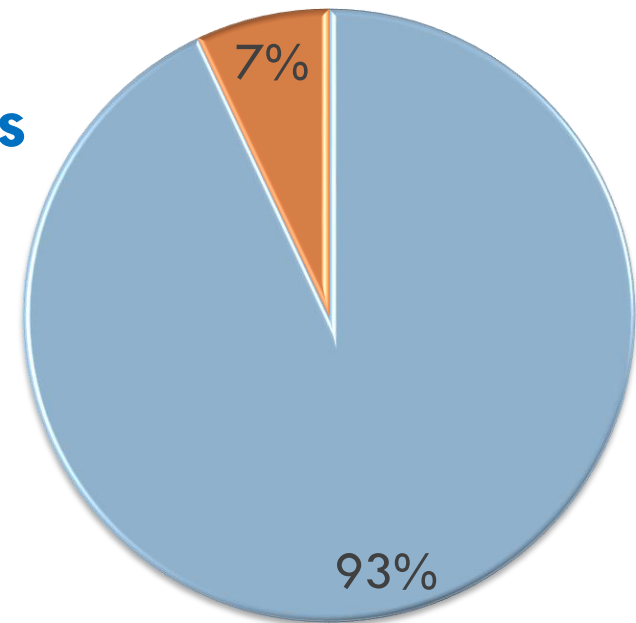
Total number of Non-compliances

1903

Complied as on 31.03.2022

153

Pending Non-compliances



- Complied as on 31.03.2022
- Pending Non-compliances

Certification Status of IMS for NGPLs

10

32

Total number of Pipelines

19

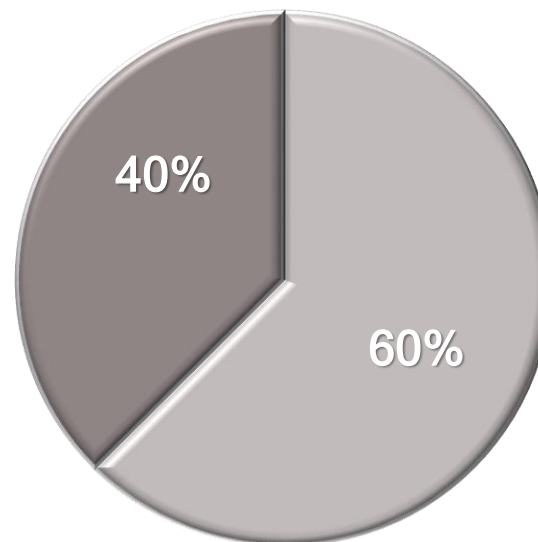
Certification Status as on

31.03.2022

13

(Audit Done: 6 , Audit not done: 7)

Pending Certifications



■ Certification Status

Pending from RIL-NMD, RIL-DMD, AGCL, DNPL, IOCL, EOGPEL, SEIL, CAIRN, MSIPL, SCPL and KRPEPL

Certification Status of ERDMP for NGPLs

32

Total number of Pipelines

19

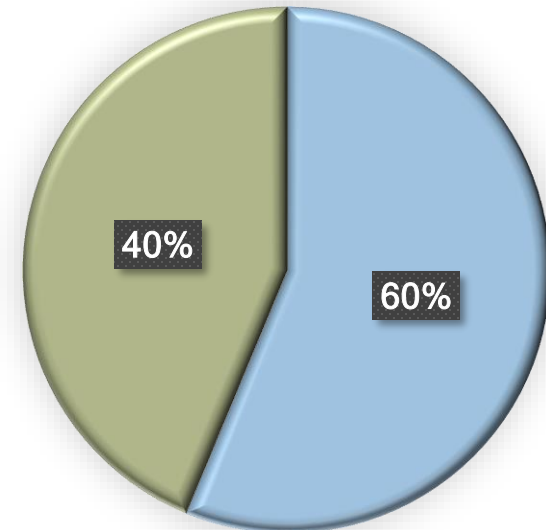
Certification Status as on

31.03.2022

13

(Audit Done: 6 , Audit not done: 7)

Pending Certifications



■ Certification Status ■ Pending Certifications

Pending from GAIL, IOCL, RIL-NMD, GGL, DNPL, EOGPEL, SEIL, CAIRN, MSIPL, SCPL, KRPEPL

Critical Observations of audits



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- Unavailability of Leak Detection System in old pipelines
- Non-implementation of ESD and MOVs at SV stations
- Non-adherence to Intelligent Pigging / Cleaning Pigging schedule
- Non-conformity to Separation distance requirements at Pipeline stations
- Cathodic Protection (CP) maintenance
- Installation of fire hydrants points/ inadequacy of fire fighting systems
- NG supply to small customers within authorized CGD GAs

Key Recommendations of Incidents



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- PIMS should be prepared, institutionalized and followed
- Dehydration facility must be provided for removal of water and condensate prior to feeding NG in the pipeline
- Leak detection system should be provided in the line
- Regular monitoring of gas quality at source points for H₂S / moisture content in supply gas & Injection of Gas Corrosion Inhibitor in Wet Gas pipeline
- Monthly follow-up with district authorities for extending support for removal of encroachments

Thank You



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