

SESSION 2

TECHNICAL DIVISION



**HIRAK
DUTTA**



**PRADEEP
TANWAR**



**VIJAY
KUMAR**



सत्यमेव जयते



पी एन जी आर बी
PNGRB



Petroleum and Natural Gas Regulatory Board

20.04.2026

Technical Division



Presentation Outline



3



Regulatory Foundation

- Technical Mandate of PNGRB
- Technical Regulations & Key Amendments

Safety & Compliance Architecture

- Guidelines, SOPs & Public Notices
- Third-Party Audit Ecosystem

ERDMP Framework

- ERDMP Regulatory Blueprint
- Pre-emergency Preparation, Escalation Radius
- Incident Report Architecture

Incidents & Analysis

- Incident Trends & Root Cause Analysis
- Addressing Systemic Gaps

Operational Safety & Capacity Building

- Process & Occupational Safety
- Workforce Training & Competency

Future Readiness

- Initiative, Innovation & Best Practices
- Energy Efficiency & Sustainability
- Gap Analysis & Way Forward



PNGRB - Enabler, Facilitator & Regulator

About Us

The Petroleum and Natural Gas Regulatory Board (PNGRB) was constituted under The Petroleum and Natural Gas Regulatory Board Act, 2006, (NO. 19 OF 2006) notified via Gazette Notification dated 31st March 2006.

The Act provide for the establishment of Petroleum and Natural Gas Regulatory Board to **protect the interests of consumers and entities engaged** in specified activities relating to petroleum, petroleum products and natural gas and to promote competitive markets and for matters connected therewith or incidental thereto.

Further as enshrined in the act, the board has also been mandated to regulate the refining, processing, storage, transportation, distribution, marketing and sale of petroleum, petroleum products and natural gas excluding production of crude oil and natural gas so as and **to ensure uninterrupted and adequate supply** of petroleum, petroleum products and natural gas in all parts of the country.

Our Vision

"To establish world class regulatory regime that provides affordable and sustainable oil and gas energy to consumers through a vibrant and competitive energy market, and collaborate towards creation of a **reliable infrastructure** to deliver the same to consumers while ensuring **highest standards of safety.**"

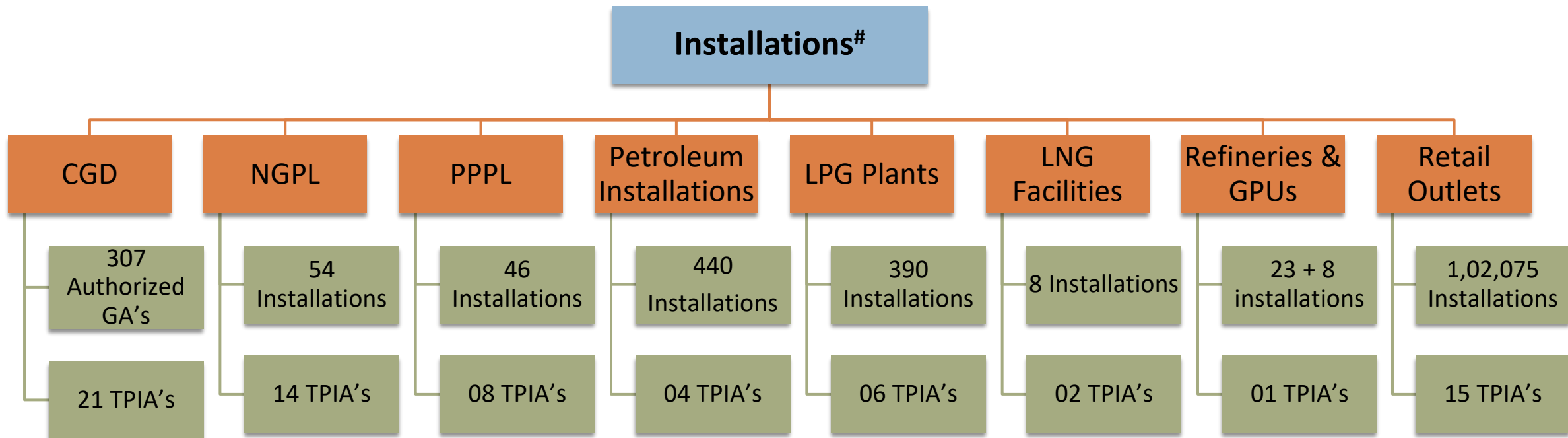
Technical functions as per PNGRB Act

Under PNGRB Act, 2006

- As per clause 11 sub clause (i), the Board shall lay down, by regulations, the technical standards and specifications including safety standards in activities relating to petroleum, petroleum products and natural gas, including the construction and operation of pipeline and infrastructure projects related to downstream petroleum and natural gas sector
- As per clause 61 sub clause (1), the Board may, by notification, make regulations consistent with this Act and the rules made there under to carry out the provisions of this Act

Installations under Regulations of PNGRB

6



~ 1,03,351

Total No of Installations

664*

TPIA Audits Conducted
(FY 2023-24)

610*

TPIA Audits Conducted
(FY 2024-25)

27#

TPIA's Empaneled

Classification of Technical Regulations

7



16/40

Technical Standards and Specifications including Safety Standards
(**T4S Regulations**) – **08 Nos.**

Emergency Response and Disaster Management Plan
(**ERDMP Regulations**) – **01 No.**

Integrity Management System
(**IMS Regulations**) – **03 Nos.**

Third Party Conformity Assessment
(**TPCA Regulations**) – **01 No.**

★ Apart from the above-mentioned Regulations, PNGRB has 02 Regulations for Determining Capacity of PPPL & NGPL and CGD and 01 Regulation for Procedure for Development of T4S Regulations



Technical Standards and Specifications including Safety Standards (T4S Regulations)

These Regulations are intended to ensure uniform application of design principles and to guide in selection and application of materials and components, equipment and systems and uniform operation and maintenance of the system and shall primarily focus on safety aspects of the employees and public and facilities associated.

These Regulations are notified for the following installations :



City or Local Natural Gas
Distribution Networks



Natural Gas
Pipeline



Petroleum and
Petroleum Product
Pipeline



Liquefied Natural
Gas Facilities



Dispensing of Automotive
Fuels



Petroleum Installations



LPG Storage, Handling
and Bottling Facilities



Petroleum Refineries and
Gas Processing Plants

City or Local Natural Gas Distribution Networks

Regulation : Petroleum and Natural Gas Regulatory Board (Technical Standards and Specifications including Safety Standards for City or Local Natural Gas Distribution Networks) Regulations, 2008

Regulation Notified on : 27.08.2008

Latest Amendment done on : 17.12.2025

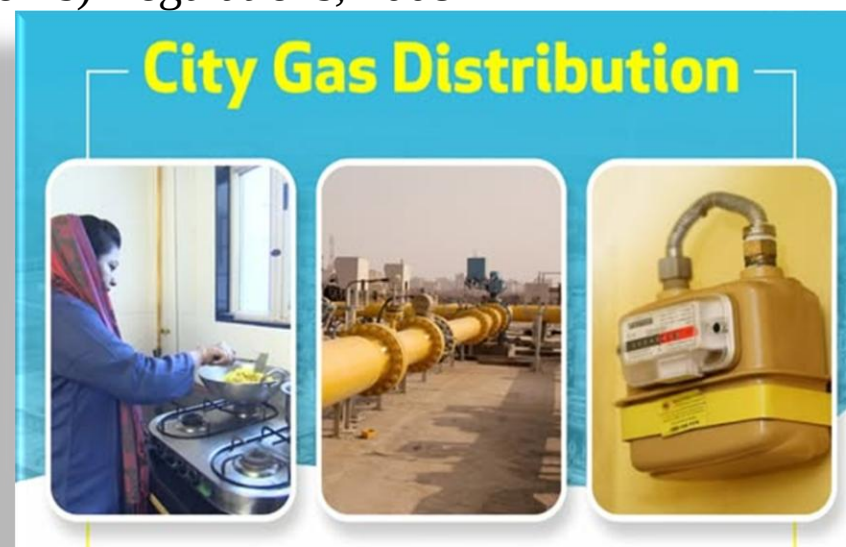
Amendment for mandating for use of domestic stoves using PNG as fuel shall conform to BIS Standard IS 17153.

Total Amendments done as of date : 13

No of Installations : 307 Authorized GA's

Frequency of Audits

T4S	3 Years
IMS	3 Years
ERDMP	5 Years



Natural Gas Pipelines

10

Regulation: Petroleum and Natural Gas Regulatory Board (Technical Standards and Specifications including Safety Standards for Natural Gas Pipelines) Regulations, 2009

Regulation Notified on : 11.11.2009

Latest Amendment done on : 23.07.2025

Latest amendment done for Inclusion of Provisions pertaining to default and consequences

Total Amendments done as of date : 06

No of Installations : 54

Frequency of Audits

T4S	3 Years
IMS	3 Years
ERDMP	5 Years



Petroleum & Petroleum Products Pipelines

11

Regulation: Petroleum and Natural Gas Regulatory Board (Technical Standards and Specifications including Safety Standards for Petroleum and Petroleum Products Pipelines) Regulations, 2016

Regulation Notified on : 12.02.2016

Latest Amendment done on : 23.07.2025

Latest amendment done for Inclusion of Provisions pertaining to default and consequences

Total Amendments done as of date : 02

No of Installations : 46

Frequency of Audits

T4S	3 Years
IMS	3 Years
ERDMP	5 Years



Liquified Natural Gas Facilities

12

Regulation: Petroleum and Natural Gas Regulatory Board (Technical Standards and Specifications including Safety Standards for Liquified Natural Gas Facilities) Regulations, 2018

Regulation Notified on : 18.01.2018

Latest Amendment done on : 23.07.2025

Latest amendment done for Inclusion of Provisions pertaining to defaults and consequences

Total Amendments done as of date : 02

No. of Installations : 08

Frequency of Audits

T4S	3 Years
ERDMP	3 Years



Dispensing of Automotive Fuels (ROs)

13

Regulation: Technical Standards and Specifications including Safety Standards for dispensing of Automotive Fuels) Regulations, 2018

Regulation Notified on : 16.11.2018

Latest Amendment done on : 23.07.2025

Latest amendment done for Inclusion of Provisions pertaining to defaults and consequences

Total Amendments done as of date : 04

Installations : 1,03,351

Frequency of Audits

T4S	Internally
ERDMP	5 Years



LPG Storage, Handling and Bottling Facilities

14

Regulation: Petroleum and Natural Gas Regulatory Board (Technical Standards and Specifications including Safety, Safety Standards for LPG Storage, Handling and Bottling Facilities) Regulations, 2019

Regulation Notified on : 21.02.2019

Latest Amendment done on : 23.07.2025

Latest amendment done for Inclusion of Provisions pertaining to defaults and consequences

Total Amendments done as of date : 01

No of Installations : 390

Frequency of Audits

T4S	3 Years
ERDMP	5 Years



Regulation: Petroleum and Natural Gas Regulatory Board (Technical Standards and Specifications including Safety Standards for Petroleum Installations) Regulations, 2020

Regulation Notified on : 18.11.2020

Latest Amendment done on : 23.07.2025

Latest amendment done for Inclusion of Provisions pertaining to defaults and consequences

Total Amendments done as of date : 02

No of Installations : 440

Frequency of Audits

T4S	3 Years
ERDMP	5 Years



Petroleum Refineries and Gas Processing Plants

16

Regulation: Petroleum and Natural Gas Regulatory Board (Technical Standards and Specifications including Safety Standards for Petroleum Refineries and Gas Processing Plants) Regulations

Regulation Notified on : 29.03.2023

Latest Amendment done on : 16.01.2026

The last amendment introduced robust provisions for third-party inspections, procurement, and maintenance of critical and high-risk equipment.

Total Amendments done as of date : 02

No of Installations : 23 Ref. + 8 GPUs

Frequency of Audits

T4S	3 Years
ERDMP	3 Years





Integrity Management System (IMS Regulations)



17

These regulations are intended to evaluate the risk associated and effectively allocate resources for prevention, detection and mitigation activities; to improve the safety of infrastructure so as to protect the personnel, property, public and environment; to have streamlined and effective operations to minimize the probability of failures.

These Regulations are notified for the following installations :



Natural Gas
Pipeline



City or Local Natural Gas
Distribution Networks



Petroleum and
Petroleum Product
Pipeline



Emergency Response and Disaster Management Plan (ERDMP Regulations)

The standards specified in these regulations are intended to develop a concise and informative ERDMP to enable the entity to mitigate the emergency as quickly as possible

- to prevent escalation of events both on-site and off-site emergencies
- to minimize impact on people,
- to reduce damage to property, machinery and environment
- to develop a state of readiness and preparedness for a prompt and orderly response to an emergency

These Regulations are notified for the following installations :



Natural Gas Pipeline



Petroleum and Petroleum Product Pipeline



City or Local Natural Gas Distribution Networks



Petroleum Installations



LPG Storage, Handling and Bottling Facilities



Retail Outlets dispensing Petroleum, Auto LPG and CNG



Petroleum Refineries and Gas Processing Plants



Liquefied Natural Gas Facilities

ERDMP Regulatory Blueprint

Navigating the PNGRB Codes of Practice for
Emergency Response and Disaster Management.

**A mandatory framework for
downstream oil and gas entities
to identify hazards, mitigate
emergencies, and prevent escalation.**

Audit Validation

Mandatory certification and
auditing by PNGRB-accredited
Third-Party Agencies (TPIAs).

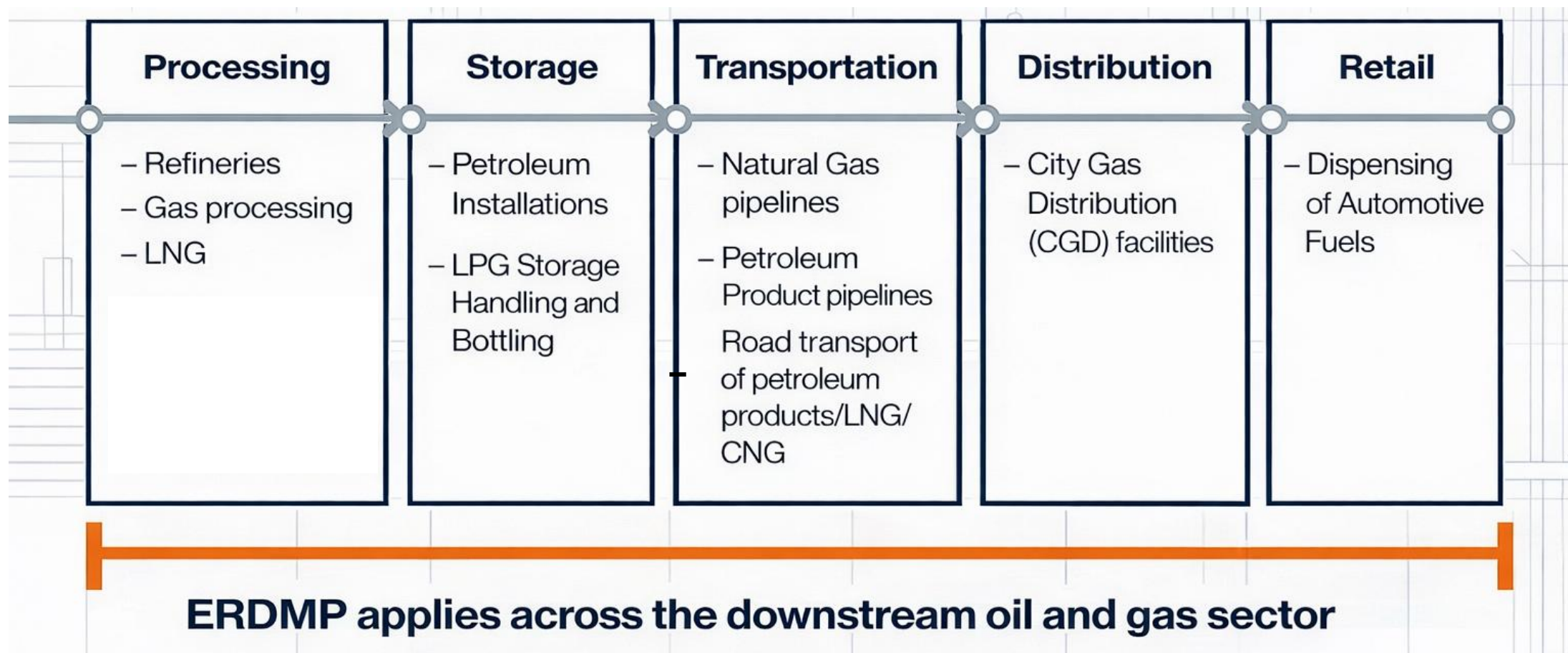
Approval & Oversight

ERDMP documents require
direct approval by the Entity's
Board of Directors.

Legal Enforcement

Integrates NDMA guidelines.
Strict penal provisions apply
under the PNGRB Act, 2006
for non-compliance.

The Compliance Perimeter across the value chain



The ERDMP Intent & The ALARP Principle



The Pre-Emergency Preparation



The Preparedness Ecosystem

Training Protocol

Mandatory emergency training for all touchpoints: employees, contract contract workers, transport crew, and security personnel.

Mutual Aid Integration

Formal agreements with neighboring industries. Requires regular joint meetings and testing of unified written plans.

The Drill Schedule

- **Every 3 Months**
On-site mock drill (Level I or II).
Note: Must conduct at least one Level-II exercise annually.
- **Every 12 Months**
Off-site mock drill (Level III). Reported via Typical Mock Drill Reporting format.

The Escalation Radius



Diagnostic Matrix : Emergency Classifications

	Level 1	Level 2	Level 3
Impact Zone	Confined to installation premises. No outside impact.	Potential to extend beyond site. Threat to assets and reputation.	Off-site catastrophic impact affecting external population, property, and environment.
Resource Requirement	Safely managed by available internal resources.	Cannot be managed internally; requires mutual aid partners.	Beyond industry capability.
Authority	Installation Occupier.	Installation Occupier + Mutual Aid Network.	District Administration (Unit manages only until they arrive).
Example	Tank truck hits helper while moving backward (fatality).	Major fire in Tank Lorry Filling Gantry requiring mutual aid.	Sanganer (Jaipur) major fire incident.

Incident Reporting Architecture

Classification



- Triggered by ANY of the following: **Fire** > 15 mins, **Explosion**/Blowout, **Fatality, Loss** > Rs. 20.0 Lac, **Cumulative** man-hours lost > 500 hrs, or **Plant shutdown**.

Minor / Near Misses

Maintained locally by entity for inspection in Schedule-VI format.

Immediate intimation of Major incident to PNGRB via phone, email, or SMS.



Within 4 Hours

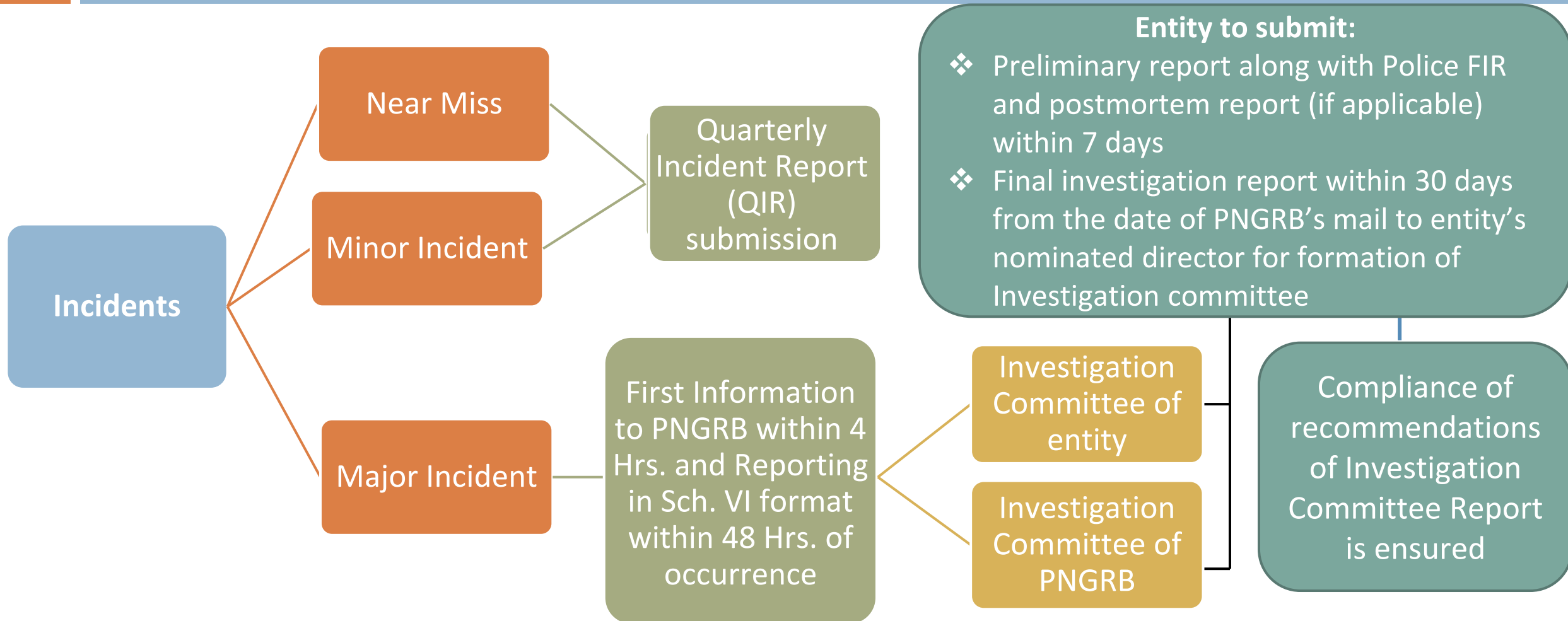
Formal **Schedule-VI report** submitted to PNGRB for Major incidents.



Within 48 Hours

Reporting of Incidents & Investigation

27



Guidelines/Public Notice/SOPs

28



- Guidelines for Road Transportation of Hazardous Petroleum Products, LPG, Natural Gas etc. dated 28-02-2025



- Guidelines for replacement of Internal Excess-Flow Check Valves (IEFCVs) in LPG Mobile Pressure vessels dated 18-03-2026



- Public Notice on Compensation to Contract Workmen/Labour in Case of Fatality/Permanent Disability. Dated



- Public Notice for Standardization of Internal Audits to improve quality, effectiveness and reduce duplication dated 26-02-2026



- Guidelines & SOP pertaining to safety and integrity of Retail Outlets



- CNG Filler/ Driveway Salesman/Driveway Saleswoman/ Customer Attendant Safety Handbook with Natural Gas Society

Third Party Conformity Assessment

Regulation:

Petroleum and Natural Gas
Regulatory Board
(Third Party Conformity
Assessment) Regulations

Regulation Notified on

17.04.2015

Total Amendments

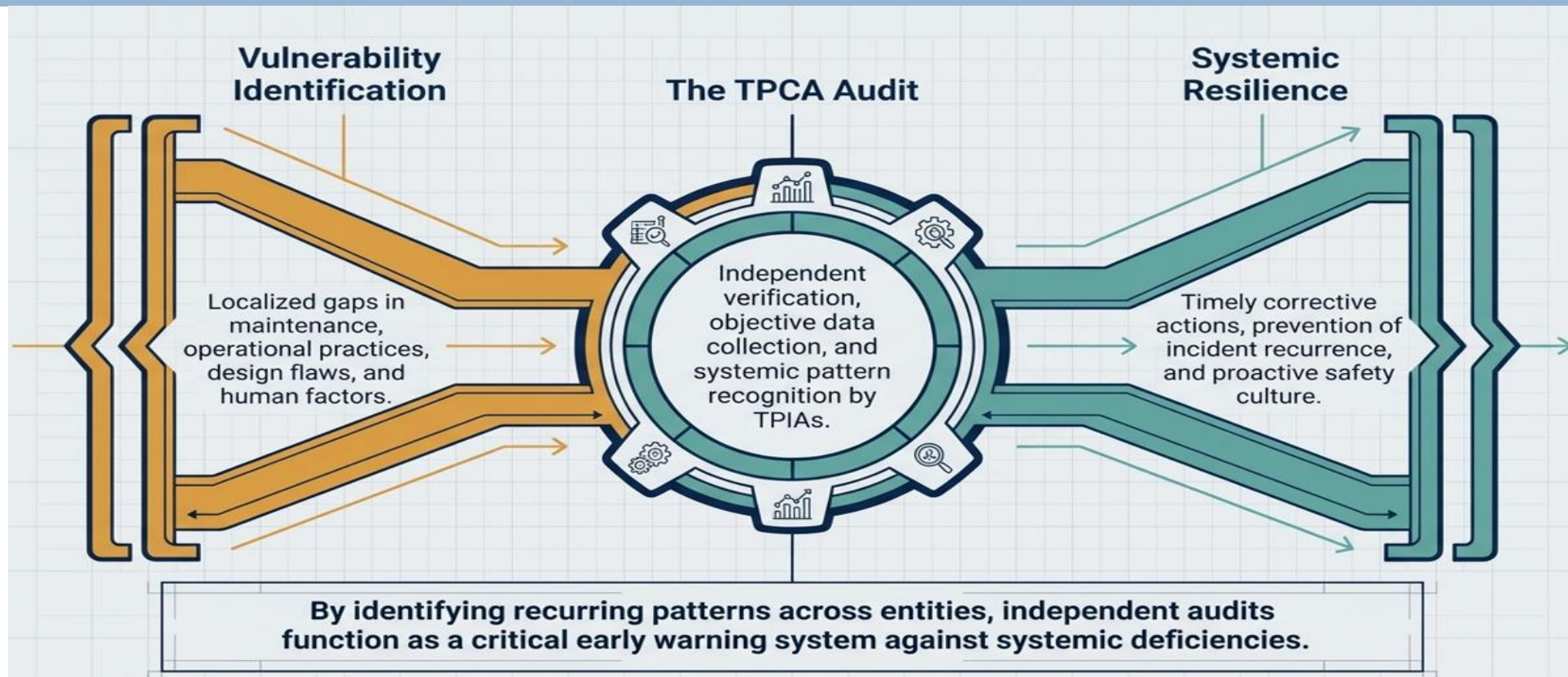
done as of date : 01

Last Amendment

done on

16.09.2021

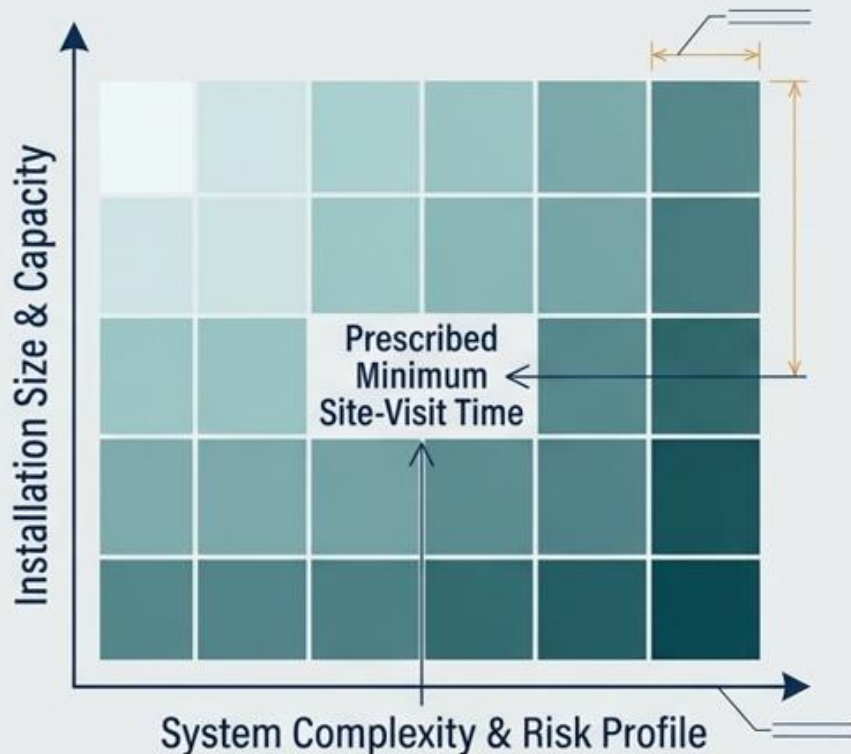
The last amendment introduced an annual internal audit mechanism for entities to ensure compliance with the relevant regulations & prescribed a minimum experience criteria of 05 years in Operation & Maintenance in relevant areas for auditors/inspectors. The amendment further mandated that applicable fees to be made for empanelment shall be levied in accordance with the PNGRB, Levy of Fee and Other Charges Regulations.



Audit Reforms - Audit Man-days Matrix

30

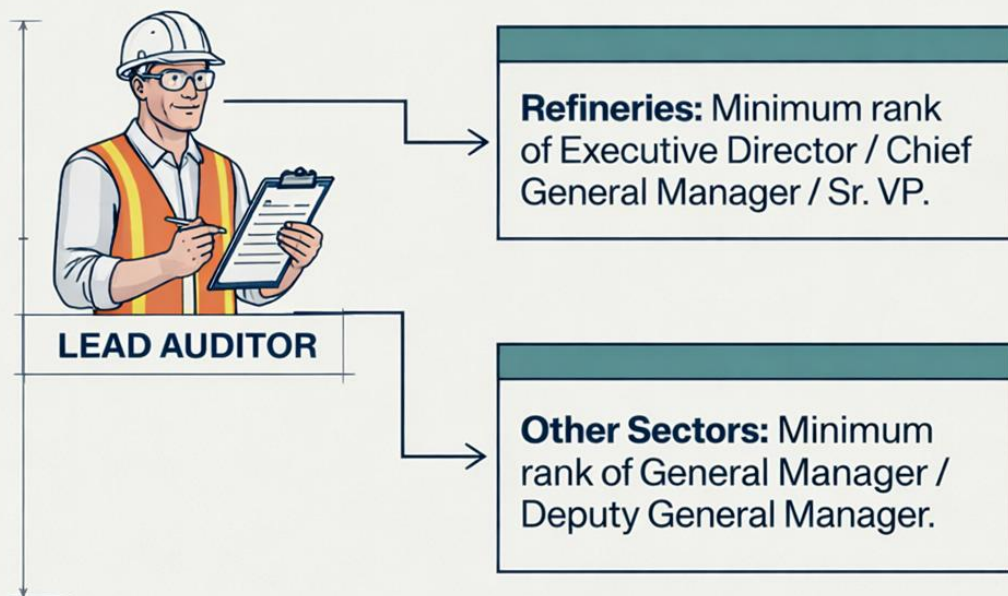
The Audit Man-Days Matrix



Ensures uniform, structured audits scaled appropriately to the asset's specific risk profile.

- PNGRB prescribed the Audit Man-days Matrix (w.e.f 01.01.2025) to standardize the minimum man-days required for site visit audits across various scope sectors.
- The matrix links audit man-days to the size, capacity, and complexity of the installation/facility/network.
- This ensures that audits are conducted in a structured and uniform manner, keeping in mind the scale, complexity and capacity of the asset and the risks associated.

Seniority Thresholds (Effective Jan 1, 2025)



Impact

Guarantees audits are led exclusively by personnel with extensive domain knowledge.

- PNGRB has issued the minimum Lead Auditor designation criteria for audit teams across all scope sectors (w.e.f 01.01.2025)
- The criteria prescribe the minimum level of seniority for the Team Leader/Lead Auditor depending upon the scope sector, such as Executive Director/Chief General Manager/Sr. VP for refineries and General Manager/Deputy General Manager level for all other sectors.
- This is intended to ensure that audits are led by suitably experienced and competent personnel having adequate domain knowledge. The criteria are applicable for site visits/audits with effect from 1st January 2025.

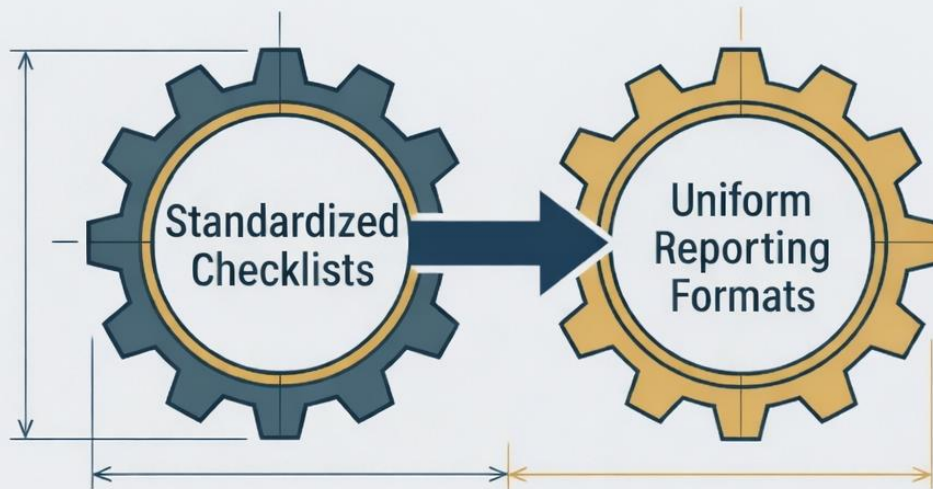
Audit Reforms - Guidelines for Remuneration to Auditors, Professional Charges, and QCBS based Selection of TPIA

Guidelines for Remuneration for Auditors, Professional Charges for TPIA, QCBS- Based Tendering for selection of TPIAs etc.

- PNGRB issued guidelines vide public notice dated 17.06.2025 With the objective is to enhance audit quality, considering that over 1,00,000 installations/facilities fall under PNGRB's regulatory framework.
- The guidelines prescribe the minimum remuneration for auditors and minimum professional charges for TPIAs for audits, along with mandate of QCBS-based selection of TPIAs with 70% weightage to technical criteria and 30% financial criteria.
- So, to further strengthen audit quality, it was decided to fix minimum remuneration for auditors and professional charges for TPIAs for audits across various scope sectors under PNGRB Technical Regulations.



Uniform Methodologies



Eliminates subjectivity, ensures cross-agency consistency, and facilitates ease of doing business.

- PNGRB, vide Public Notice dated 26.02.2026 , issued guidelines for standardization of Internal Audits to improve quality, effectiveness, reduce duplication, and ensure uniformity of internal audits under the PNGRB (TPCA) Regulations, 2015.
- Internal Audits should be conducted using PNGRB checklists and prescribed man-days
- Entity shall ensure conduct of audits and submit quarterly and annual compliance status to PNGRB.
- The measures aim to strengthen audit effectiveness, improve safety compliance, and reduce duplication.
- To promote ease of doing business, OISD audit if carried out in the financial year shall be considered as internal audit for respective year.

Safety in downstream Oil & Gas Sector

– PNGRB Perspective

PNGRB constituted High Level Expert Committee chaired by Shri M B Lal (Ex-CMD, HPCL) and other renowned industry experts had deliberated extensively on Safety in the downstream Oil & Gas Sector.

Strengthening
Regulatory
Capability

Enhancing
Regulatory
Processes

Future
Readiness

Scan below
and to view
and download
HLEC Report



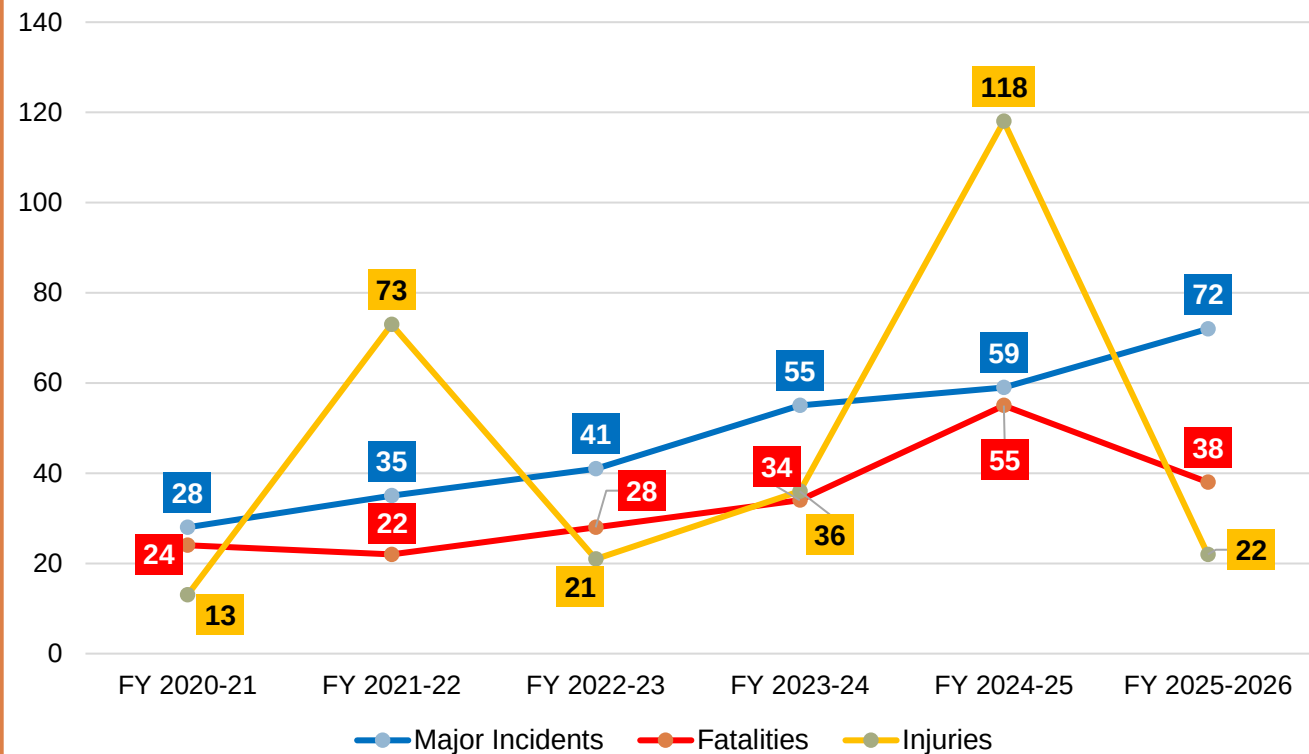
Trend of Incidents - Year wise

35

Major Incident Details

S. No.	Period	Major Incidents	Fatalities	Injuries
1	FY 2020-21	28	24	13
2	FY 2021-22	35	22	73
3	FY 2022-23	41	28	21
4	FY 2023-24	55	34	36
5	FY 2024-25	59	55	118
6	FY 2025-26	72	38	22

Major Incident Trend

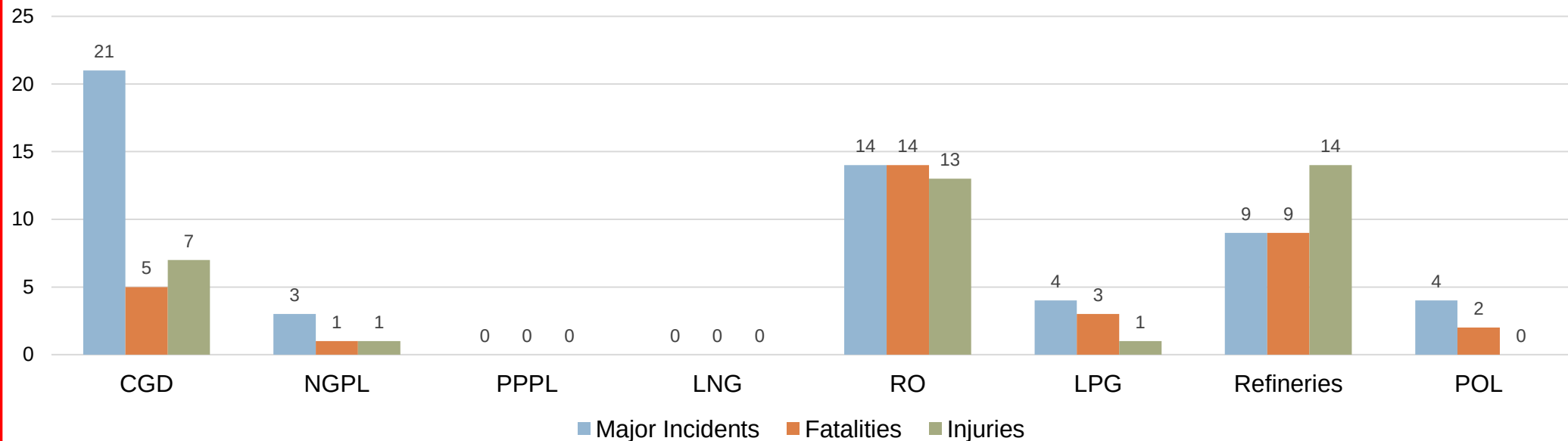


Trend – Sector wise (FY2023-24)

36

Sector	CGD	NGPL	PPPL	LNG	RO	LPG	Refineries	POL	TOTAL
Major Incidents	21	3	0	0	14	4	9	4	55
Fatalities	5	1	0	0	14	3	9	2	34
Injuries	7	1	0	0	13	1	14	0	36

Trend – Sector Wise

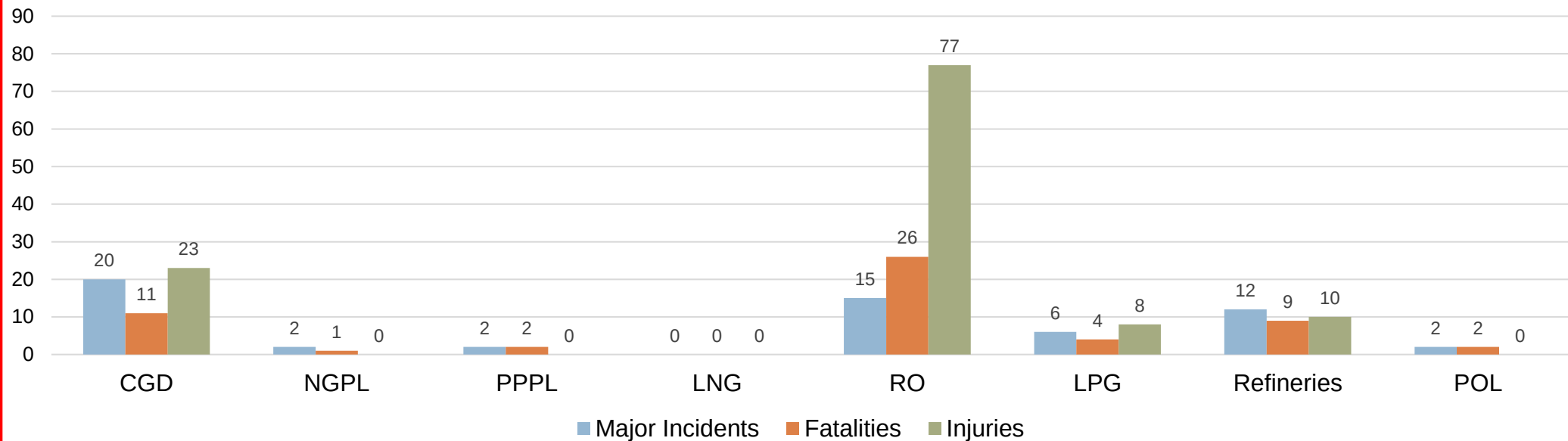


Trend – Sector wise (FY2024-25)

37

Sector	CGD	NGPL	PPPL	LNG	RO	LPG	Refineries	POL	TOTAL
Major Incidents	20	2	2	0	15	6	12	2	59
Fatalities	11	1	2	0	26	4	9	2	55
Injuries	23	0	0	0	77	8	10	0	118

Trend – Sector Wise

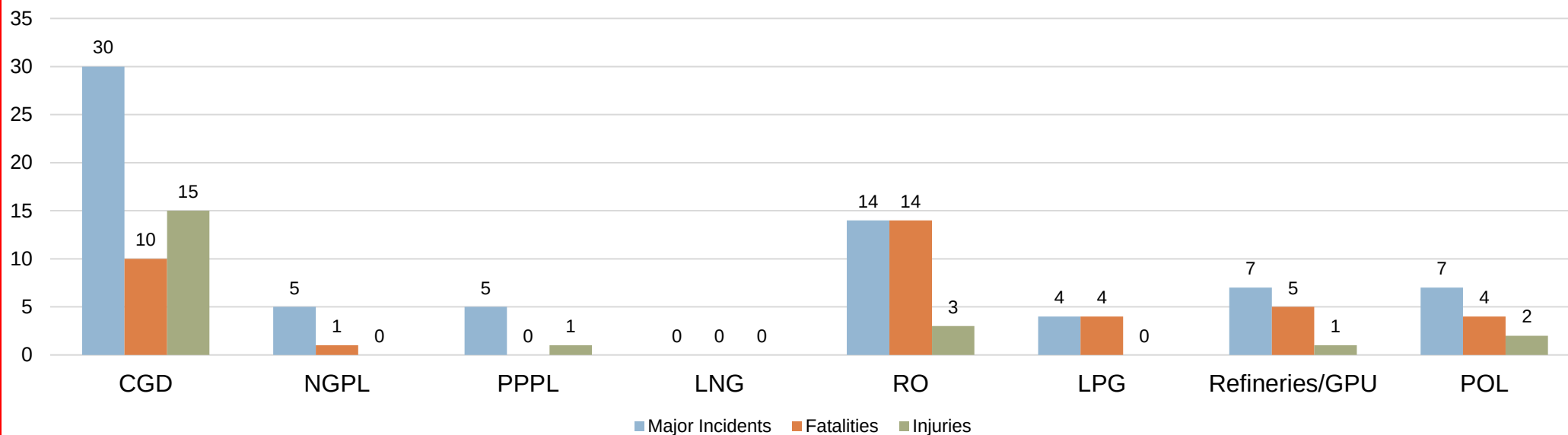


Trend – Sector wise (FY2025-26)

38

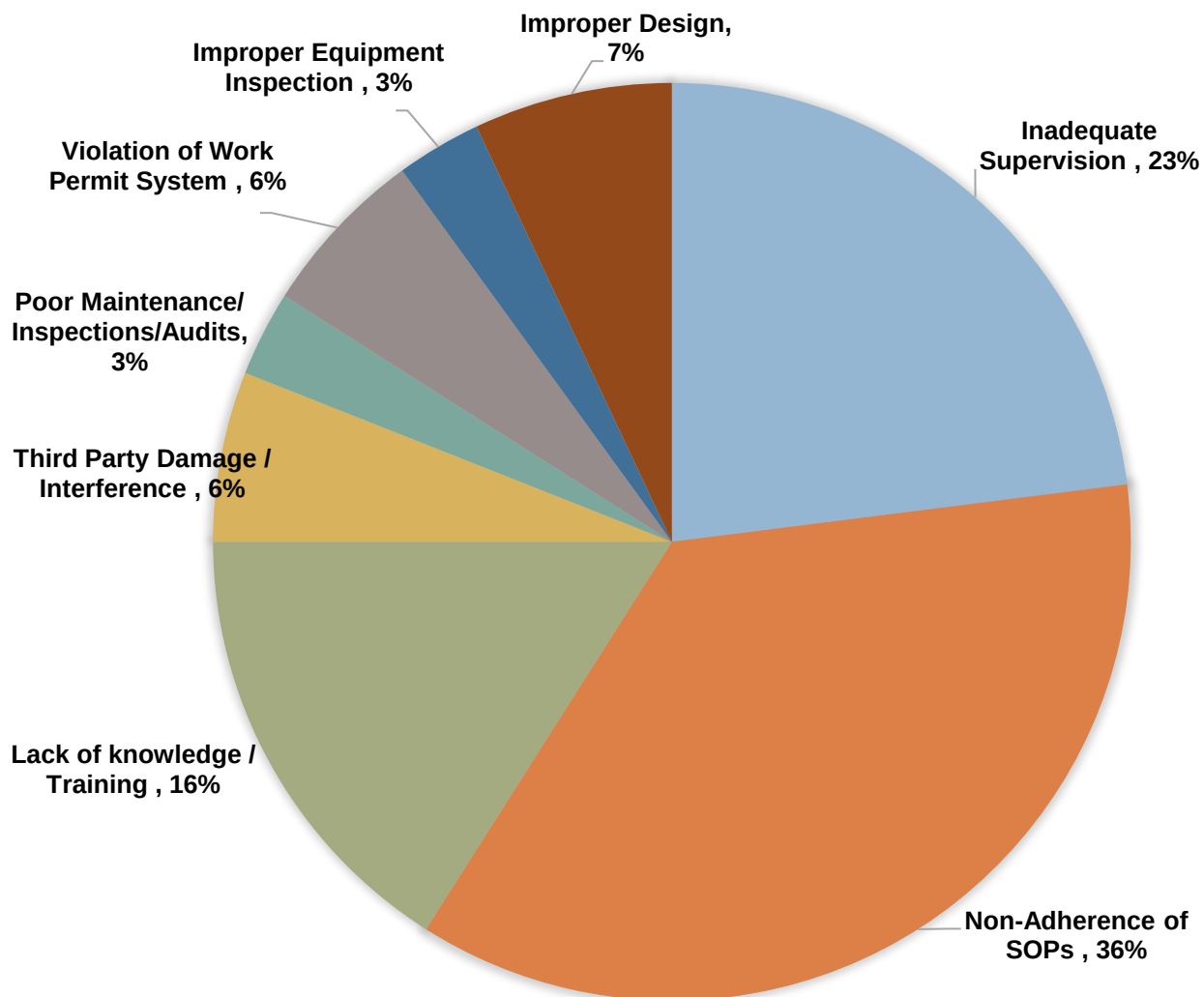
Sector	CGD	NGPL	PPPL	LNG	RO	LPG	Refineries/ GPU	POL	TOTAL
Major Incidents	30	5	5	0	14	4	7	7	72
Fatalities	10	1	0	0	14	4	5	4	38
Injuries	15	0	1	0	3	0	1	2	22

Trend – Sector Wise



Root Cause Analysis of Incidents – H1 of FY24-25

39

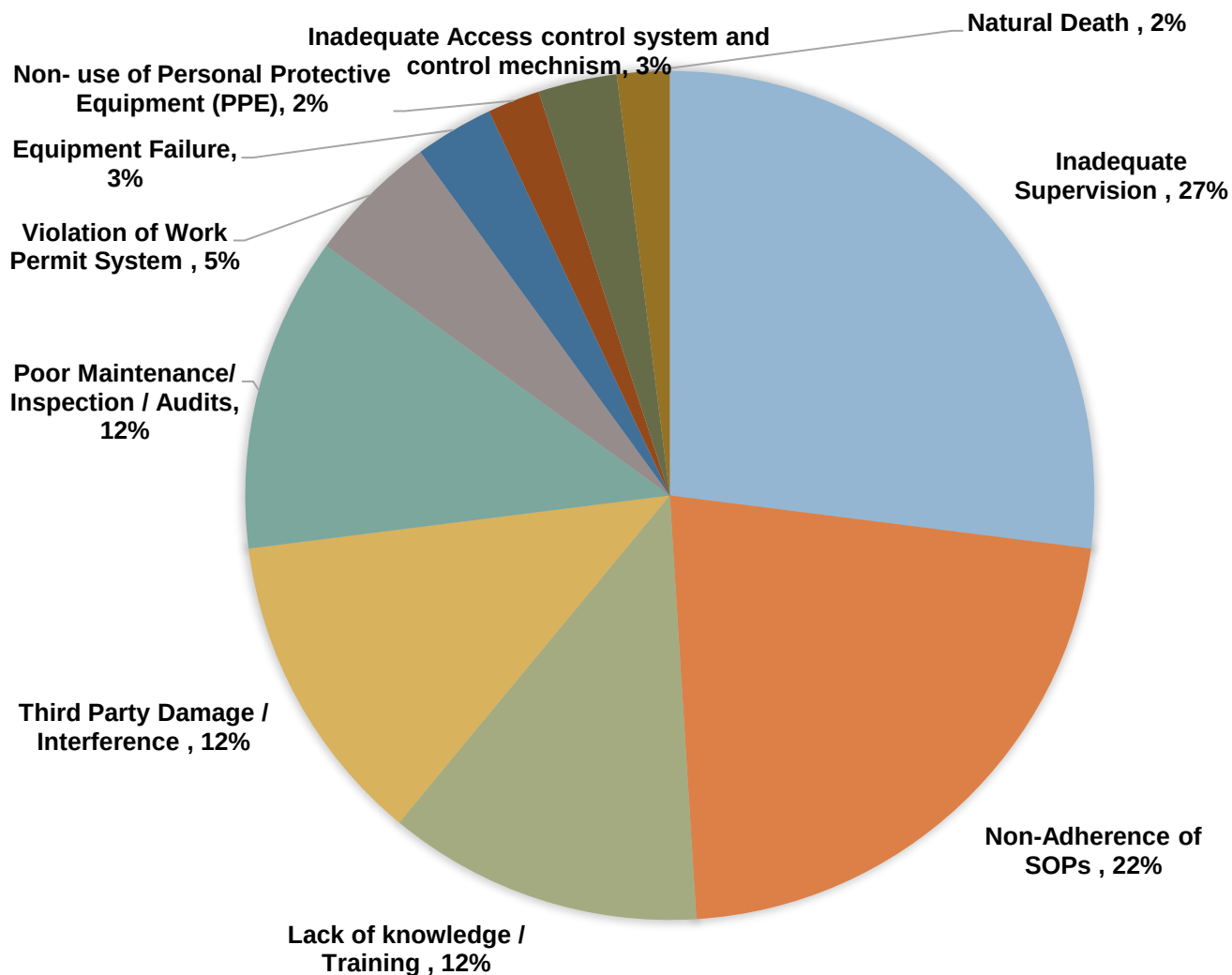


Detail of Major Incident	
Major Incidents	33
Fatalities	37
Injuries	94

Contributing Factors for Major Incident	
Inadequate Supervision	36%
Non-Adherence of SOPs	23%
Lack of knowledge/Training	16%
Third Party Damage/Interference	7%
Poor Maintenance/Inspection/Audits	6%
Violation of Work Permit System	6%
Improper Equipment Inspection	3%
Improper Design	3%

Root Cause Analysis of Incidents – H2 of FY24-25

40



Detail of Major Incident	
Major Incidents	26
Fatalities	18
Injuries	24

Contributing Factors for Major Incident	
Inadequate Supervision	27%
Non-Adherence of SOPs	22%
Lack of knowledge/Training	12%
Third Party Damage/Interference	12%
Poor Maintenance/Inspection/Audits	12%
Violation of Work Permit System	5%
Inadequate Access control system & control mechanism	3%
Non- use of Personal Protective Equipment (PPE)	2%
Equipment Failure	3%
Natural Death	2%

Shift from Immediate Cause to Root Cause

41





Process Safety - Is India's incident frequency telling us something structural?

- In the Last few months, TOI reported four serious incidents - an LPG explosion in Ahmedabad, a gas leak and flash fire in Surat, a chemical release in Bhilai, and fire safety lapses identified at a lubricants facility in Kochi. Individually, none of these is unusual. Taken together, they begin to illustrate a pattern.
- Across multiple sectors and states, there have been repeated occurrences of fires, gas leaks, explosions, and community exposures.
- None of these, in isolation, is unusual in an industrialising economy. However, when viewed over time, the pattern of events, rather than any single incident, becomes the more significant concern.
- No industrial system is free from risk. The question is whether these incidents are random, or whether they are statistically meaningful and indicative of something structural.
- This may point to underlying weaknesses in enforcement, oversight, safety culture, or operational control in India, rather than isolated failures.

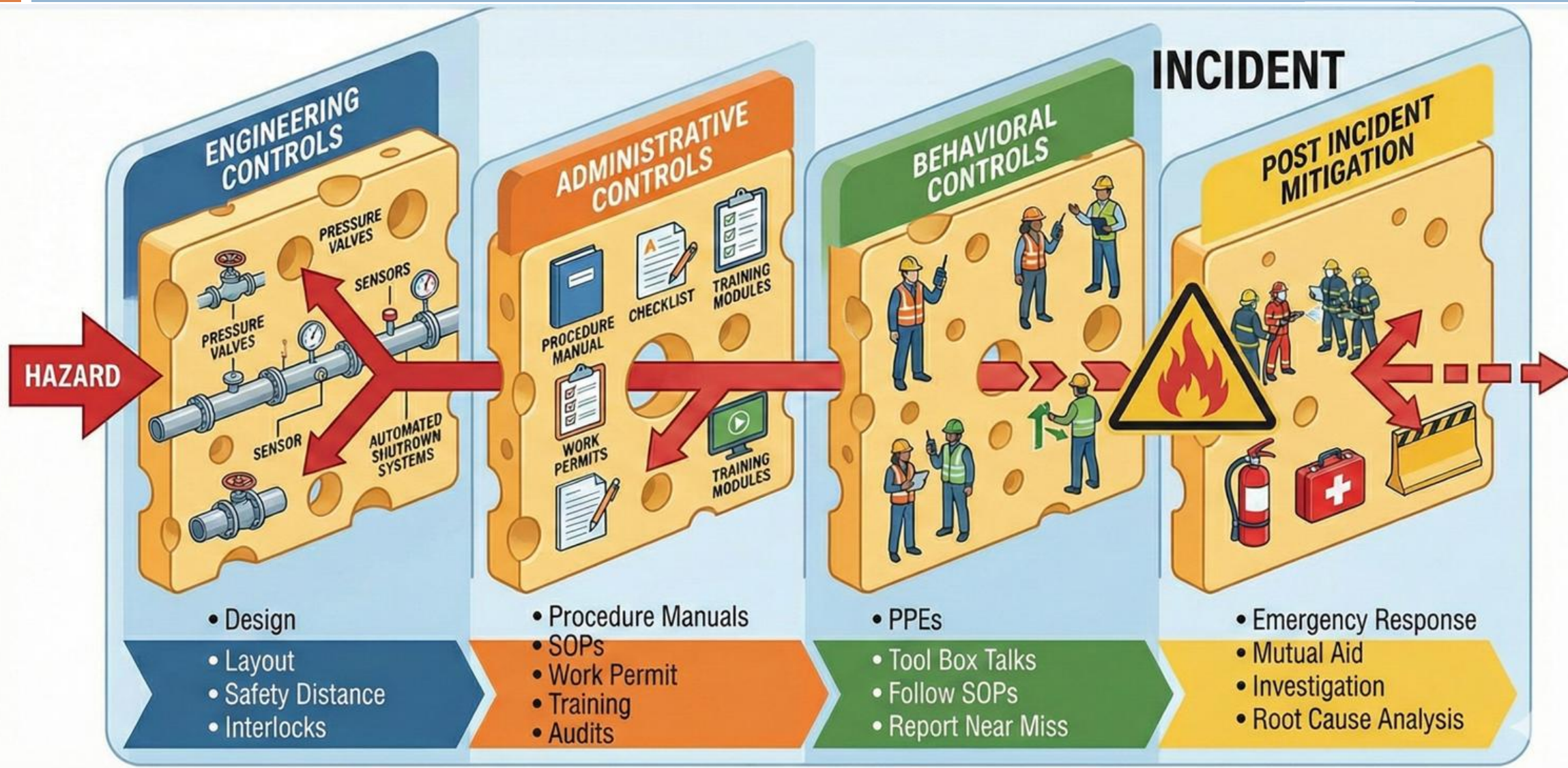
That is not a conclusion. But it is a question India may need to confront more directly.

What is particularly notable is the recurrence of similar failure modes:



PNGRB's Holistic Approach

43



PNGRB Initiative : Training of Workforce

44



- Courses on ERDMP and Road Safety
 - Three-day residential training
 - Four Batches starting from 11th Nov 2025 to 31st January 2026
- Total personnel trained
120



- Course on ERDMP
 - Two-day residential training
 - First batch on 9-10th March 2026
- Total personnel trained
31



- Training for CGD Plumbers
 - Two-day onsite training
 - First batch on 23-24th March 2026
- Total personnel trained
27

We encourage stakeholders across the Oil & Gas sector to collaborate with PNGRB by supporting training initiatives and providing their training centers to build a skilled, safety-driven, and future-ready workforce.

Knowledge sharing conferences / workshops / meetings

45



Organised a roundtable conference on “**Adoption of High efficiency domestic PNG Stoves for PNG**” in June’24



Organised a mega conference in association with FIPI on “**Pioneering Technical Innovations for a Safe Tomorrow**” in Dec’24



Organised a Knowledge Sharing Workshop regarding **Technical & Safety aspects of CGD Network** at Guwahati, Assam in Jan’25



Organised a **Capacity Building Workshop for Third party Inspection Agencies** in Feb’25



Organised a Mega Conference in association with IOCL on **Achieving 'Excellence in Safety' in Marketing Operations** held in April 2025 in Kochi, Kerala



Organised a **National Conference** in association with BPCL on **'Excellence in safety in Road Transportation'** held in October 2025 in Hyderabad, Telangana



New Initiatives, Innovations & Best Practices (1/2)



46

- 1) Constitution of High-Level Expert Committee to review the Extant Safety Framework, Recommendations for Unified & Comprehensive Safety and Integrity Framework for Downstream Oil and Gas Sector.
- 2) Constitution of the Industry Committee – Supply security for CGD, NGPL and PPPL. Report under preparation.
- 3) Constitution of Panel of Technical Experts (16 Nos) for review of audit reports/investigation reports and IMS/ERDMP. Manuals. More than 314 Numbers of Audit reports, Incident Investigation, IMS/ERDMP Manuals reviewed by the panel.
- 4) Spearheaded adoption and implementation of PNG Stoves by Amending CGD – T4S Regulations and Amendment of CGD Authorisation Regulations is in progress.



New Initiatives, Innovations & Best Practices (2/2)



47

- 5) Industry Committee constituted by PNGRB, has submitted its report for Roadmap for Implementation of smart domestic PNG Meters across India.
- 6) NGPL Compressor Electrification is under deliberation within T4S NGPL – Technical Committee.
- 7) Transmission losses in PPPL is under deliberation within T4S PPPL – Technical Committee.
- 8) Disseminating learnings on Safety through Case Studies and Animated safety videos.
- 9) Trainings across the oil & gas sector.

Energy Efficiency & Sustainability – PNG Stoves

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The PNG Stove Upgrade: Retrofitted vs. Standard (IS 17153)

Retrofitted LPG Stoves for PNG Usage

Standard PNG Stoves

(**SMART CHOICE**: Conforming to IS 17153, Efficient & Safe)

LOW
Efficiency



~40-45%
Efficiency

Thermal
Efficiency

≥ 68%
Efficiency



HIGH
Efficiency



HIGH
Consumption

Monthly fuel
consumption



LOW
Consumption



MORE
GHG & CO Emissions

Environmental
Impact



LESS
GHG & CO Emissions



⚠️ Unstable flame
⚠️ Flashback
⚠️ Flame lift
⚠️ Soot formation

Safety aspects



✓ Stable Flame
✓ No Flash Back
✓ No Flame Lift



NON-STANDARD
Retrofitting

BIS
Standardisation



BIS COMPLIANT
(IS 17153)

SWITCH TO STANDARDIZED PNG STOVE FOR INCREASED EFFICIENCY AND MORE SAVINGS

PNGRB envisages adoption of efficient BIS compliant PNG stoves as a way of enabling households to reduce fuel consumption, lower emissions, and contribute to a cleaner and more sustainable energy future.

Energy Efficiency & Sustainability – Smart DPNG Meters

49

To enhance transparency, safety, and efficiency in the City Gas Distribution (CGD) sector, the Industry Committee recommends a nationwide transition to Smart Domestic PNG (DPNG) meters.



The Technology

Smart Diaphragm Meters.
Combining proven mechanical accuracy with two-way communication and in-built shut-off valves.



The Financial Engine

TOTEX Models.
Shifting from high upfront CAPEX to a manageable, subscription-based operational expense.



The Operational Shift

Mandatory Prepaid Billing.
Eliminating bad debt, slashing manual recovery costs, and fundamentally securing CGD cash flows.

National & International Collaborations (MOU)

50



FERC, USA



**American Society of
Mechanical
Engineers**



USTDA, USA



Quality Council of India

**Quality Control of
India**



**Institute of Gas
Engineers &
Managers, UK**



IIT BOMBAY

IIT Bombay



IIT Delhi



API

American
Petroleum
Institute



NSC



GIDM



Future Plans and Way Forward



51

- Strengthening of Third-Party Auditing System.
- Supply Security Regulations will be prepared in line with ERDMP Regulations
- Various Skill Development courses/programmes will be implemented across India for training of workforce engaged in the downstream Oil & Gas Sector
- T4S Audits will be initiated for Retail Outlets (ROs) under PNRB Technical Standards and Specifications including Safety Standards for dispensing of Automotive Fuels Regulations, 2018
- Pre-construction/Pre-commissioning stage audits will be conducted by PNRB empanelled TPIAs
- Guideline shall be issued for incident investigations which will be standardized and necessary amendments will be done in ERDMP Regulations
- Regulations on safe Road transportation of Hazardous goods will be drafted
- Gap Analysis of Technical Regulations

PNGRB TECHNICAL REGULATION EVALUATION & IMPROVEMENT INITIATIVE

STEP 1: EVALUATION - PNGRB ACT 2006 ALIGNMENT



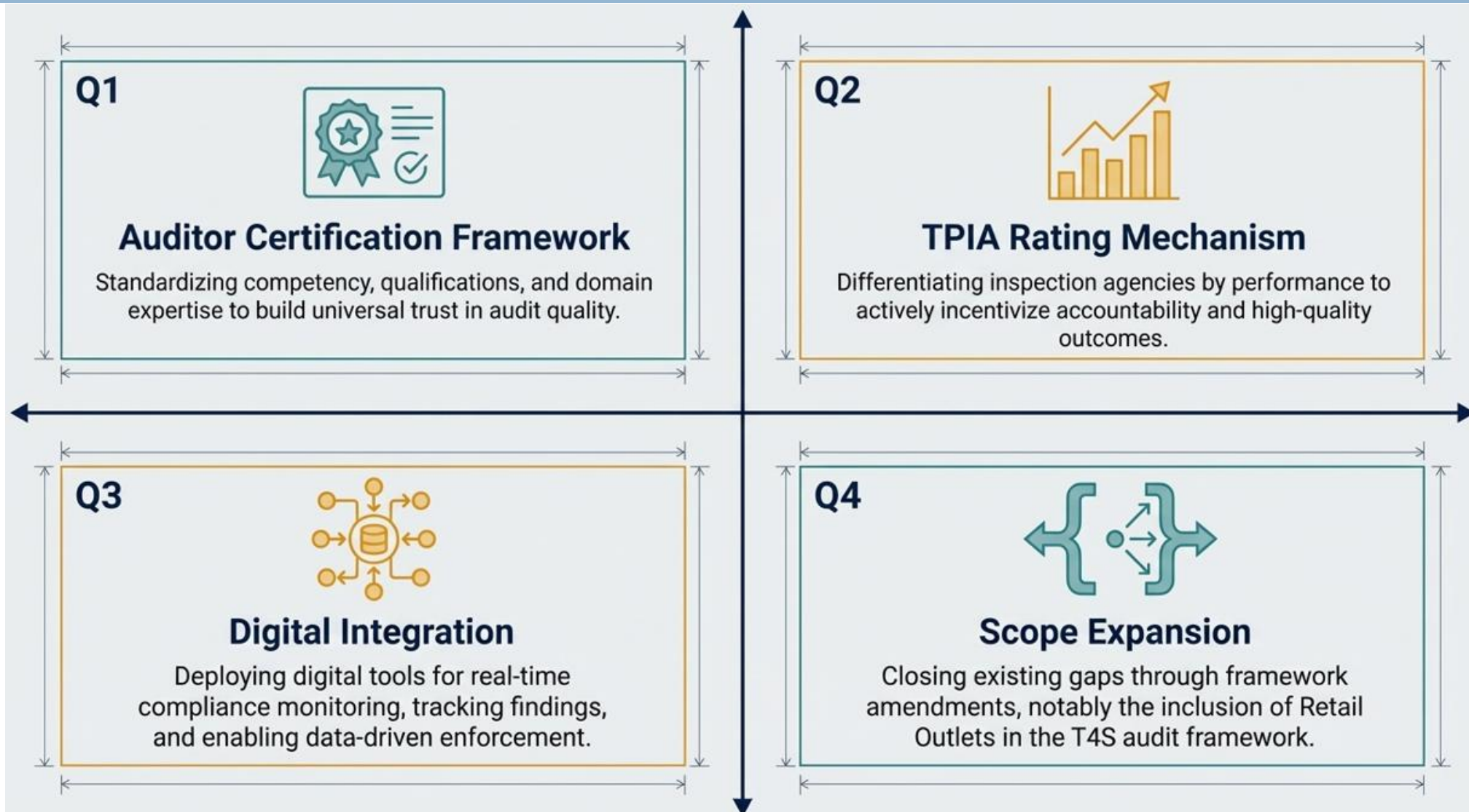
STEP 2: GAP ANALYSIS - INTERNATIONAL BENCHMARKING



STEP 3: RECOMMENDATIONS - REGULATORY ENHANCEMENTS



Way ahead for Third Party Audit System



Thank You

