



# **PNGRB's Capacity Building Workshop**

**for**

# **Third-Party Inspection Agencies**

*24 February 2025*

**Ajay Sharma, Joint Director, NABCB**



**National Accreditation Board for  
Certification Bodies (NABCB)**



## PNGRB Regulations

- T4S for Natural Gas Pipelines-2009
- T4S for City Gas Distribution Network-2008
- T4S for Petroleum & Petroleum Products pipelines-2016
- T4S for Liquefied Natural Gas Facilities-2018
- T4S for Liquefied Petroleum Gas Storage, Handling and Bottling Facilities-2019
- T4S for Petroleum Installations- 2020
- T4S for Petroleum Refineries & Gas Processing Plants -2023
- IMS for Natural Gas Pipelines- 2012
- IMS for City Gas Distribution Network-2012
- IMS for Petroleum and Petroleum Products Pipelines-2021
- ERDMP for Midstream and Downstream installations -2010
- Third Party Conformity Assessment Regulations-2016





## ISO/IEC 17020:2012

**Conformity assessment — Requirements for the operation of various types of bodies performing inspection.**





# ISO/IEC 17020:2012

## Key requirements:

- Impartiality
- Independence
- Competence



# Independence: Categories of Inspection Bodies

- ❖ The categorization of inspection bodies as type **A, B and C** is a measure of independence.
- ❖ Demonstrable independence of inspection body can **strengthen the confidence** of the inspection body's **client**.





# Type 'A' Inspection Body

## ❖ Independence of IB.

- ❖ The inspection body and its personnel **shall not engage in any activities that may conflict with their independence** of judgment and integrity in relation to their inspection activities.
- ❖ IB shall **not be engaged** in the design, manufacture, supply, installation, purchase, ownership, use or maintenance of the items inspected.
- ❖ An inspection body shall **not be a part of a legal entity** that is engaged in design, manufacture, supply, installation, purchase, ownership, use or maintenance of the items inspected.





# Type 'A' Inspection Body

- ❖ The inspection body shall not be linked to a separate legal entity engaged in the design, manufacture, supply, installation, purchase, ownership, use or maintenance of the items inspected by the following:
  - **Common ownership**, except where the owners have no ability to influence the outcome of an inspection;
  - Common ownership **appointees on the boards** or equivalent of the organizations, except where these have functions that have no influence on the outcome of an inspection;
  - Directly reporting to the **same higher level** of management, except where this cannot influence the outcome of an inspection;
  - **Contractual commitments**, or other means that may have an ability to influence the outcome of an inspection.





# Type 'B' Inspection Body

- ❖ IB shall cater to activities which are **in house** and for **it's own organization** with clear separation of responsibilities and ensuring there is no conflict and their independence of judgment and integrity in relation to their inspection activities is maintained.



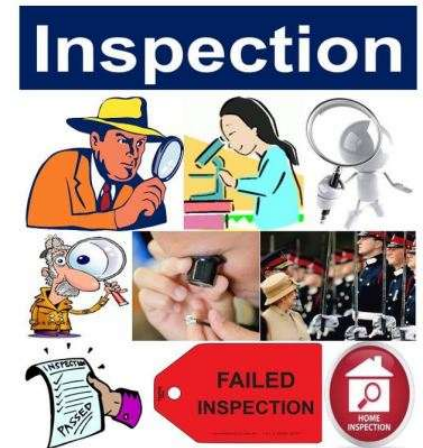


# Type 'C' Inspection Body

❖ Open to others

❖ Activities related to design / manufacture / supply / installation / servicing / maintenance and the inspection of the same item carried out by a Type C inspection body shall **not be undertaken by the same person.**

❖ The inspection body shall provide safeguards within the organization to ensure adequate **segregation** of responsibilities and accountabilities **between inspection and other activities.**





# NABCB Criteria Documents for IBs/TPIAs

## **BCB 501(O&G) - December 2024**

Competence requirements for IBs for accreditation against PNGRB Regulations



BCB 501

## **BCB 502 (O&G) - December 2024**

Process for Emergency Response and Disaster Management Plan (ERDMP) Audit



BCB 502

## **BCB 503 (O&G) - December 2024**

Sub-sector categorization for Inspection Bodies for accreditation under PNGRB Regulations



BCB 503





## **Revision of BCB-501(O&G), 502 (O&G) & 503(O&G) documents**

Key changes in BCB-501, 502 & 503 documents are as under:

- Addition of new sub-sector categorization in BCB 503(IB) in view of notification of the following PNGRB Regulations:
  - T4S (Petroleum Installations)
  - IMS [Petroleum Product Pipeline (PPPL)]
  - T4S [Refineries / Gas Process Units (GPU)]
- Addition of Competence requirement of HSE member for T4S Audit of Refineries/GPU and other installations in BCB 501(IB)
- Revision in Audit man-days as Annexure to BCB-501 & BCB-502.



# Audit Man-Days Matrix in BCB-501(O&G) & 502 (O & G)

T4S/IMS						ERDMP									
Sr. No.	Name of Facility/ Installation	Note - Mandays will be calculated on highest of the following			No. of auditors	Minimum Mandays	Sr. No.	Name of Facility/ Installation	Note - Mandays will be calculated on highest of the following			No. of auditors	Minimum Mandays		
		CGS (Nos.)	CNG (Nos. of Stations)	PNG (Nos. of Connections)					CGS (Nos.)	CNG (Nos. of Stations)	PNG (Nos. of Connections)				
1	City or Local Natural Gas Distribution Networks	a	Less than or equal to 2	Less than or equal to 50	Less than or equal to 30K	Greater than or equal to 3	1	City or Local Natural Gas Distribution Networks	a	Less than or equal to 2	Less than or equal to 50	Less than or equal to 30K	Greater than or equal to 3	6	
		b	Greater than 2 but less than or equal to 4	Greater than 50 but less than or equal to 100	Greater than 30K but less than or equal to 75K				b	Greater than 2 but less than or equal to 4	Greater than 50 but less than or equal to 100	Greater than 30K but less than or equal to 75K			9
		c	Greater than 4	Greater than 100	Greater than 75K				c	Greater than 4	Greater than 100	Greater than 75K			12
2	Natural Gas Pipelines / Petroleum and Petroleum Products Pipelines	Length of Pipeline (in KM)			No. of auditors	No. of days	Minimum Mandays	2	Natural Gas Pipelines / Petroleum and Petroleum Products Pipelines	Length of Pipeline (in KM)			No. of auditors	No. of days	Minimum Mandays
		less than or equal to 100			2	2	4			less than or equal to 100			2	1	2
		100-500			3	3	9			100-500			2	2	4
		500-1000			3	4	12			500-1000			2	3	6
For every additional 250 KM of pipeline 1 additional day to be considered for site visit															
3	Petroleum Installations	Particulars			No. of auditors	No. of days	Minimum Mandays	3	Petroleum Installations	Particulars			No. of auditors	No. of days	Minimum Mandays
		POL/AFS 10000 KL to 5000 KL or Lube blending plant			3	3	6			POL/AFS 10000 KL to 5000 KL or Lube blending plant			2	2	6
		POL/AFS 5000 KL to 30000 KL			3	3	9			POL/AFS 5000 KL to 30000 KL			2	3	6
POL/AFS Above 30000 KL / Import facility with Jetty			4	3	12	POL/AFS Above 30000 KL / Import facility with Jetty			3	2	9				
4	LPG Storage, Handling and Filling Facilities	Particulars			No. of auditors	No. of days	Minimum Mandays	4	LPG Storage, Handling and Filling Facilities	Particulars			No. of auditors	No. of days	Minimum Mandays
		LPG facilities with storage less than 100MT			3	3	6			LPG facilities with storage less than 100MT			2	2	6
		LPG facilities with storage 100 MT to 3500 MT			3	3	9			LPG facilities with storage 100 MT to 3500 MT			2	3	6
LPG facilities with storage Greater than 3500 MT / Import Facility with Jetty			4	3	12	LPG facilities with storage Greater than 3500 MT / Import Facility with Jetty			3	3	9				
5	Ref/GPU	Particulars			No. of auditors	No. of days	Minimum Mandays	5	Ref/GPU	Particulars			No. of auditors	No. of days	Minimum Mandays
		upto 10 MMTPA			3	3	9			upto 10 MMTPA			2	3	6
		10 to 20 MMTPA			3	4	12			10 to 20 MMTPA			3	3	9
more than 20 MMTPA			3	5	15	more than 20 MMTPA			3	4	12				
6	LNG terminals	Particulars			No. of auditors	No. of days	Minimum Mandays	6	LNG terminals	Particulars			No. of auditors	No. of days	Minimum Mandays
		Terminal			3	3	9			Terminal			2	3	6
7	Dispensing Stations	Particulars			No. of auditors	No. of days	Minimum Mandays	7	Dispensing Stations	Particulars			No. of auditors	No. of days	Minimum Mandays
		MS/NGV/CNG/LNG/CNG/ALGS			2	1	2			MS/NGV/CNG/LNG/CNG/ALGS			2	1	2
		Road length in KM			No. of auditors	No. of days	Minimum Mandays			Road length in KM			No. of auditors	No. of days	Minimum Mandays
less than or equal to 250			2	2	2	less than or equal to 250			2	2	2				
250-500			2	2	4	250-500			2	2	4				
Greater than 500 KM			2	3	6	Greater than 500 KM			2	3	6				
Mock Drive to be conducted along the route for different scenarios along SI, NH, State road, HRD area, etc.															

Note :

- (i) Above mandays is for site visit audit only
- (ii) ± 5% allowance may be considered in the capacity/nos. of installation/facility while calculating the minimum mandays
- (iii) Mandays for combined T4S and IMS audits may be derived by deducting one manday from actual mandays required for combined T4S and IMS audit ; Mandays for combine T4S and IMS = [actual mandays required for T4S + actual mandays required for IMS] - 1
- (iv) The aforementioned criteria will be implemented for site visits/audits from 1st January 2023



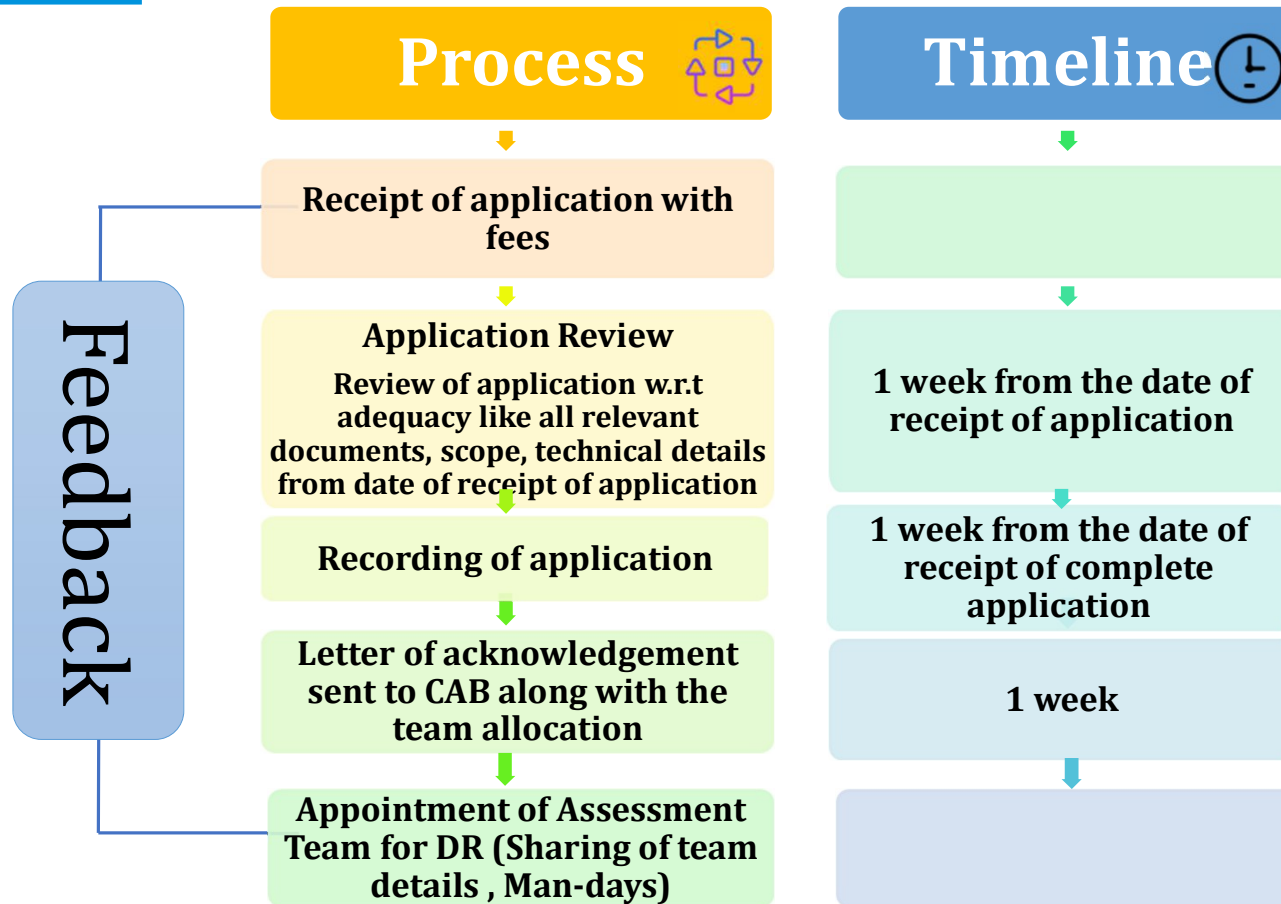
# Issues in offering Witness Assessment (WA)

- Offering of Witness Assessment (WA) as per the **Scope of accreditation**
- Submission of T4S/IMS/ERDMP **Audit schedule** for Scope sectors 26/31/34 to **identify the critical activities** by NABCB
- Closure of Non-conformities raised in the Witness Assessments

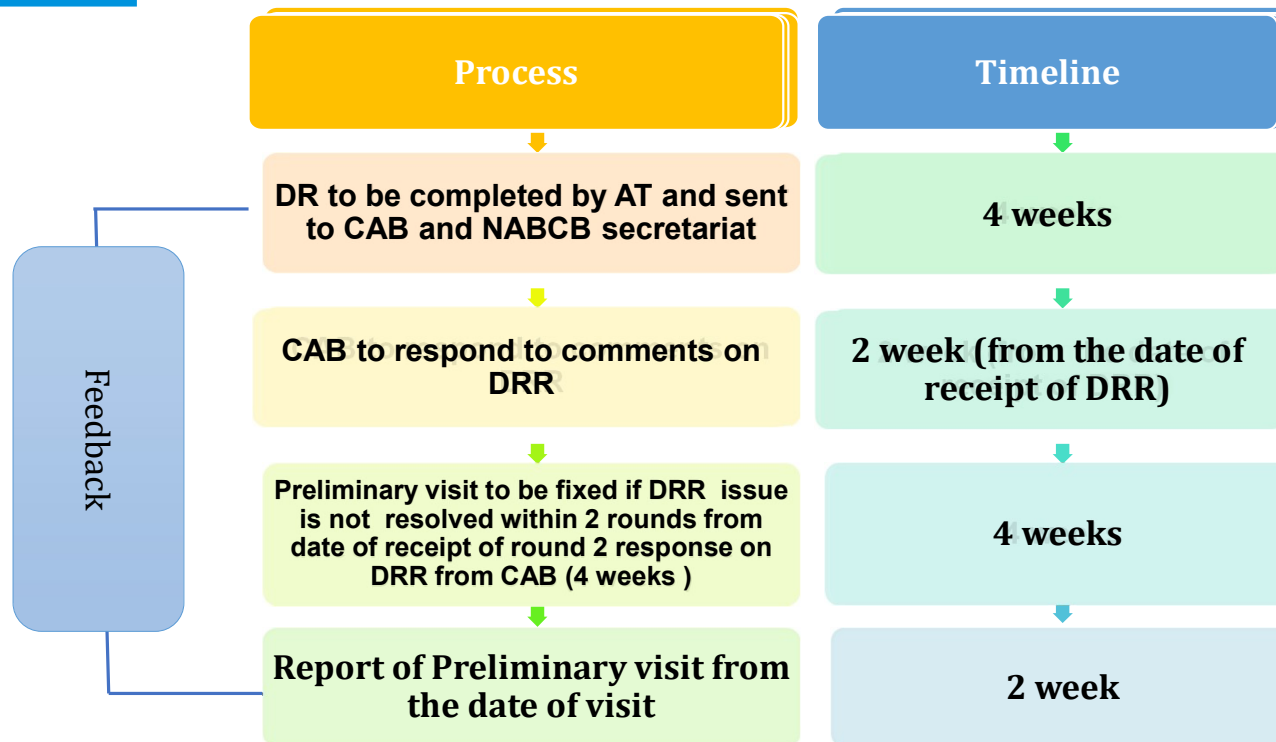


# **NABCB Accreditation Process and Timelines**

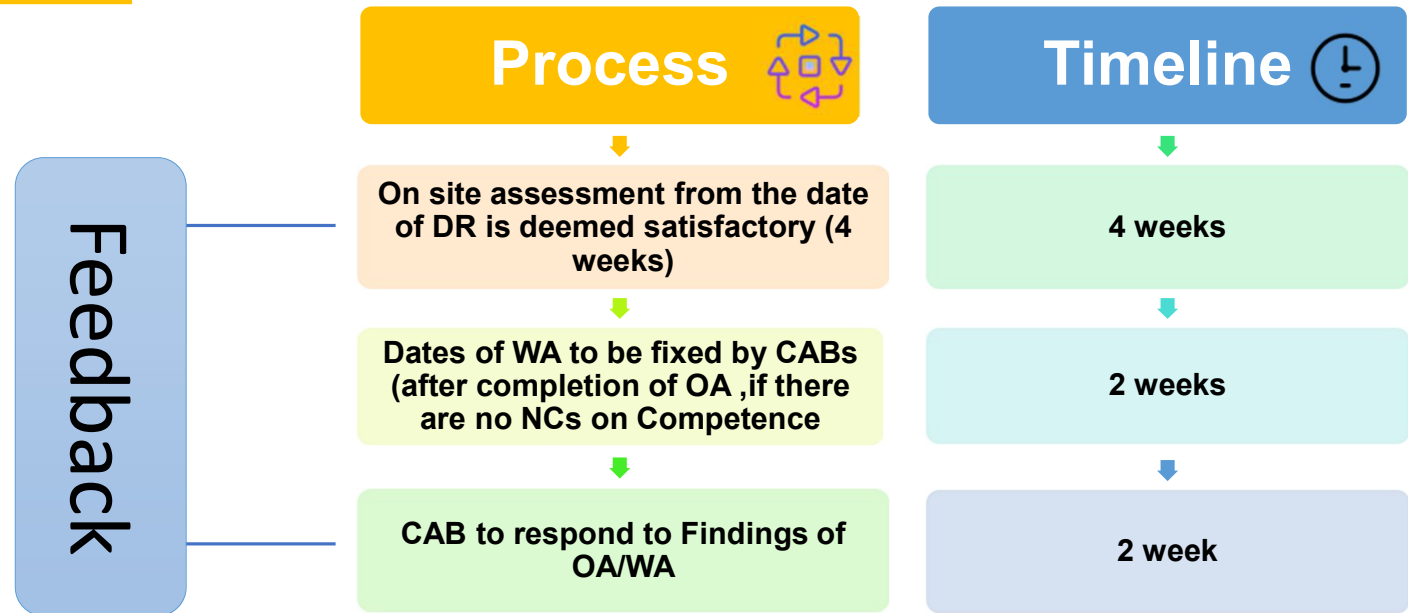
# Accreditation Process & Timeline - 1/5



# Accreditation Process & Timeline – 2/5



# Accreditation Process & Timeline - 3/5

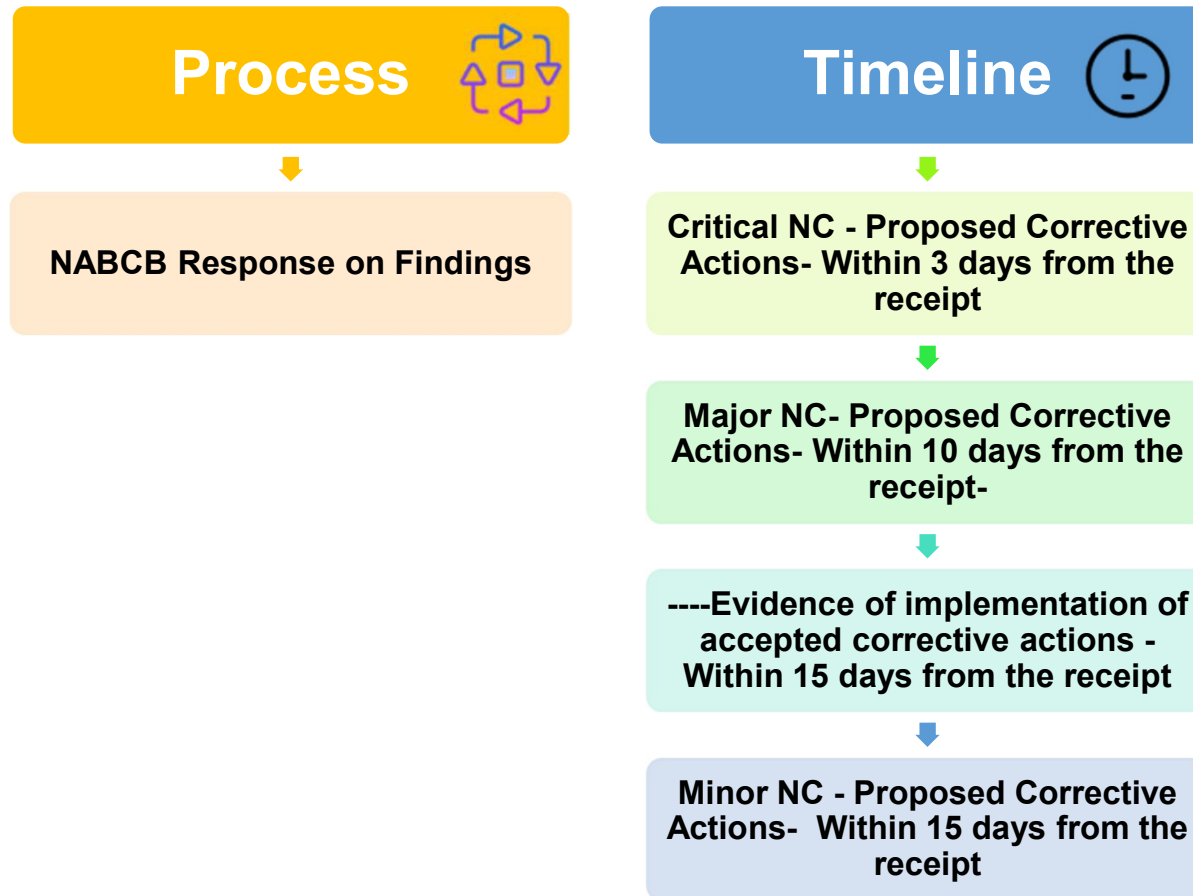


**In case of Critical NC- Proposed corrective action on non conformities within 3 days of the date on which the NC is observed by the AT**

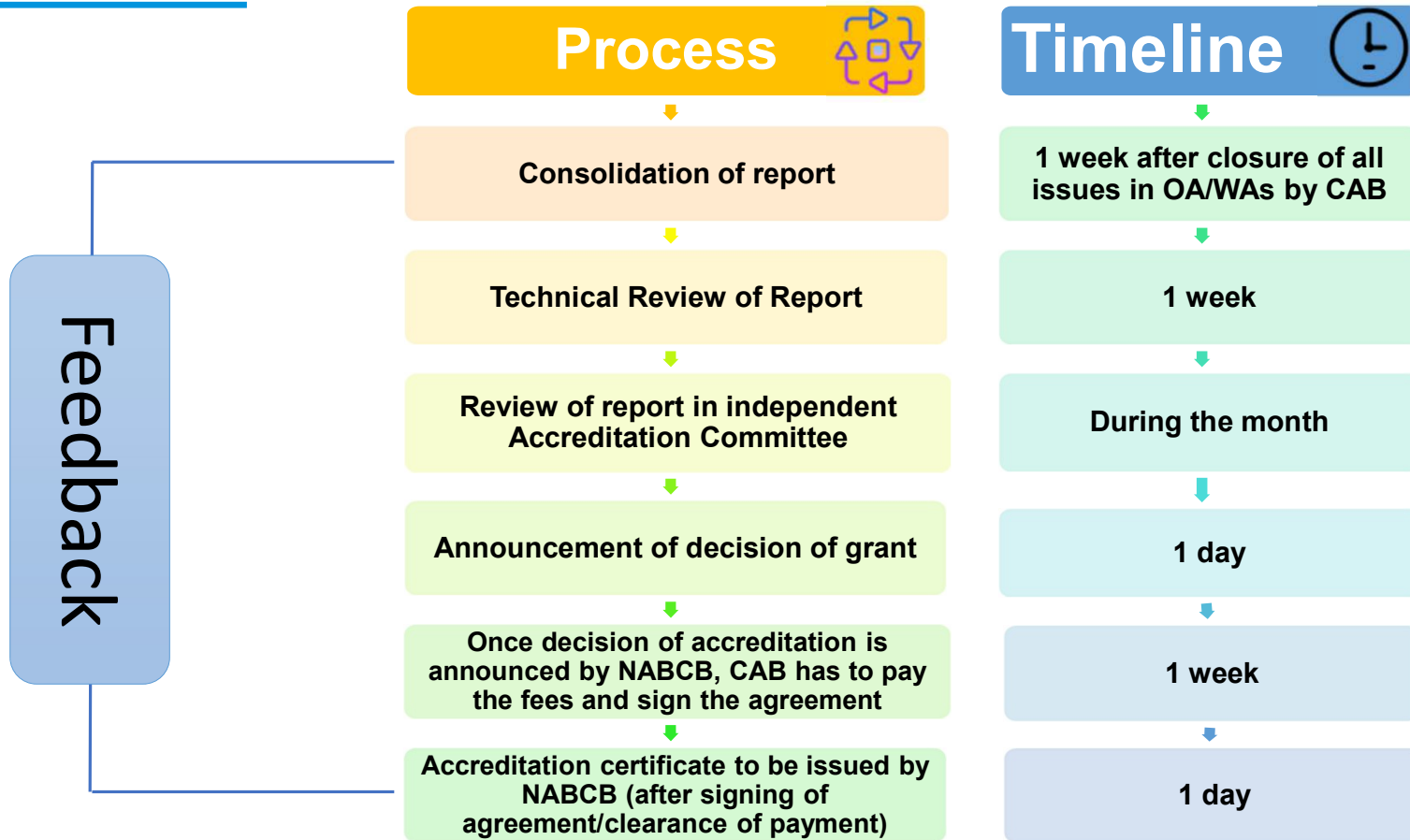
**Implementation of corrective action and closure of NC Within 30 days of the date on which the NC is observed by the AT (within 30 days of the date on which the NC is observed by the AT)**



# Accreditation Process & Timeline - 4/5



# Accreditation Process & Timeline - 5/5





## **Importance of NABCB Accreditation for IBs/TPIAs**

- ✓ Ensures Competence & Impartiality
- ✓ Meets Regulatory requirements, & Market Recognition
- ✓ Global Recognition, Acceptance & Trade Facilitation
- ✓ Enhance Quality Infrastructure across all level of Industries



# **PNGRB Regulations and NABCB's IAF Scope Sectors**

<b>S.No.</b>	<b>PNGRB Regulations</b>	<b>NABCB IAF Scope Sector</b>
1	T4S for Natural Gas Pipelines	26-A
2	T4S for City Gas Distribution	26-B
3	Integrity Management System (IMS) for NGPL & CGD	26-C
4	T4S for Liquefied Natural Gas (LNG) Facilities	26-D
5	T4S & IMS for Petroleum & Petroleum Products Pipelines, T4S for LPG Storage, Handling and Bottling Facilities Regulations, T4S for Petroleum Installations Regulations, T4S for Petroleum Refineries & Gas Processing Plants Regulations and T4S for Retail Outlet (RO) Regulations	31
6	Emergency Response and Disaster Management Plan (ERDMP) Regulations	34





## Classification of IAF Scope Sectors

### IAF Scope Sectors-26 and 31:

- **Stage-Wise inspection:** A Third Party Inspection during **various stages of Construction** from beginning till final commissioning, in field of City Gas Distribution (CGD) /Natural Gas Pipeline (NGPL) /Liquefied Natural Gas (LNG) / Liquefied Petroleum Gas (LPG) /Petroleum & Petroleum Products Pipeline (PPPL) /PI (Petroleum, Oil & Lubricants) /Petroleum Refineries & Gas Processing Plants (GPU) / LPG Recovery Unit (LRU) / Retail Outlet (RO).
- **In-service Audit:** A Third-Party Inspection during **Operation of facility**, involving T4S Audits & / or Integrity Management System (IMS) assessment, in CGD/NGPL/LNG/PPPL/LPG /PI/ Refineries & Gas Processing /LPG Recovery Unit / RO under Scope-26 and 31a.
- **Both Stage-Wise Construction inspection & In-service Audit**, specific or in combination, in CGD/NGPL/LNG/PPPL/LPG/PI/ Refineries & Gas Processing /LPG Recovery Unit/ RO.

### IAF Scope Sector-34 (ERDMP):

- In-service Inspection for Verification of ERDMP in downstream areas (“a” to “i” as identified in ERDMP Regulations-2010 of PNGRB (in Singular / Combination/ Entire mid & downstream chain as mentioned in ERDMP Regulation-2010 of PNGRB with amendments if any till date).





# Thank You !

## Quality Council of India


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### Rely on National Accreditation for Impartial, Competent, Credible Certifications & Inspections

NABCB is a constituent Board of Quality Council of India (QCI), an apex body for quality promotion & accreditation services in India, under the Ministry of Commerce & Industry, Govt. of India. NABCB provides accreditation as per International Standards ISO/IEC 17020 for Inspection Bodies, ISO/IEC 17021-1 for Management Systems Certification Bodies, ISO/IEC 17065 for Product Certification Bodies and ISO/IEC 17024 for Personnel Certification Bodies. NABCB has International Recognition and is signatory to the Multilateral Recognition Agreements / Arrangements (MLAs / MRAs) of IAF, ILAC and APAC.

#### NABCB Accreditation Schemes

- Management Systems (ISO/IEC 17021-1)
  - Quality Management Systems (ISO 9001)
  - QMS for Medical Devices (ISO 13485)
  - Educational Organizations Management Systems (ISO 21001)
  - Primary Packaging Materials (ISO 15378)
  - FAMI-QS
- Environmental Management Systems (ISO 14001)
- Occupational Health & Safety Management Systems (ISO 45001)
- Food Safety Management Systems (ISO 22000)
  - FSSC 22000
- Energy Management Systems (ISO 50001)
- Information Security Management Systems (ISO/IEC 27001)
  - Privacy Information Management Systems (ISO/IEC 27701)
- Information Technology Service Management Systems (ISO/IEC 20000-1)
- Road Traffic Safety Management Systems (ISO 38001)
- Trustworthy Digital Repository Management Systems (ISO 16363)
- Business Continuity Management Systems (ISO 22301)
  - Anti-Bribery Management Systems (ISO 37001)
  - Asset Management Systems (ISO 55001)
- Inspection (ISO/IEC 17020)
- Personnel Certification (ISO/IEC 17024)
- Product Certification (ISO/IEC 17065), including
  - Global G.A.P.
  - Best Aquaculture Practices (B.A.P)
  - British Retail Consortium (BRC)
  - QCI Voluntary Certification Schemes

#### NABCB Accreditation Benefits:

- Government Authorities & Regulators
- Business & Industry - both Manufacturing & Services
- Conformity Assessment Bodies
- Trade – both Domestic & Exports
- Consumers

Accreditation assures technical competence, reliability & integrity of Certification / Inspection Bodies



Accreditation ensures compliance to Standards & Regulations and facilitates trade

For more details on NABCB accreditation, please visit NABCB website

Join us for Monthly Webinars on NABCB Accreditation (19<sup>th</sup> Mar and 26<sup>th</sup> Mar 2021)  
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#### Use NABCB Accredited Certification/Inspection Bodies A step towards AtmaNirbhar Bharat

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