

**STABILITY CERTIFICATE
&
REPORT ON NON DESTRUCTIVE TESTING**

FOR

**M/S. CHEMTROLS INDUSTRIES PVT. LTD.
PLOT NOS. 141 & 142,
KUNDAIM INDUSTRIAL ESTATE,
PONDA – GOA. 403115**

BY


ANSH STRUCTURAL LAB PVT. LTD.

ANJUSHRI, 1819, B.B.ROAD, PENHA DE FRANCA PORVORIM – GOA.403521
E-MAIL: ansh.lab@rediffmail.com PHONE NO: 0832 2411096

CERTIFICATE OF STABILITY

1. Name of the factory : **M/s. Chemtrols Industries Pvt. Ltd.**
2. Village, town and district in which Factory is situated : Kundaime Industrial Estate,
Ponda – Goa.
3. Full postal address of the factory : M/s. Chemtrols Industries Pvt. Ltd.
Plot Nos. 141 & 142,
Kundaime Industrial Estate,
Ponda – Goa. 403115
4. Name of the Occupier of the factory : Shri. K. Nandakumar (Managing Director)
5. Nature of Manufacturing Process to be carried on in the Factory : “PTFE lined and sleeved valves, butterfly valves,
Process/ Environment Monitoring Systems &
Accessories, Process Control Instruments & Systems,
Flow metering products & Systems, RTU, SCADA &
Automation Systems”
6. Number of Floors on which workers will be employed : **Main Building (I, II, III, IV)
Basement + Ground + 2**
7. Nature and amount of moving power : **241 KW**

I certify that I have personally inspected the building/buildings the plan of which have been approved by the Chief Inspector in his letter No. **VI/FAC-2/(CIPL/9333)/2022/IFB/FAB2102578/826 Dated 10/06/2022** and examined the various parts including the foundations with special reference to the machinery, plant etc., that have been installed. I am of the opinion that the building/buildings which has/have been constructed /reconstructed/extended/taken into use-is/are in accordance with the plans approved by the Chief Inspector in his letter mentioned above, that it/they is/are structurally sound and that its/ their stability will not be endangered by its/their use as a factory /part of a factory for “PTFE lined and sleeved valves, butterfly valves, Process/ Environment Monitoring Systems & Accessories, Process Control Instruments & Systems, Flow metering products & Systems, RTU, SCADA & Automation Systems” for which the machinery, plant etc., installed are intended. I hereby undertake to take responsibility and liability for any action in accordance with the law in force in the event of any structural failure endangering human life or safety.

ANSH STRUCTURAL LAB PVT. LTD.

SHIRISH KAMAT
DIRECTOR
APPROVED COMPETENT PERSON
CHIEF INSPECTOR OF FACTORIES AND BOILERS
NO. VI/FAC-6(Z-3)/IFB-2024/2917
DATE: 01/02/2024

Signature

For Chemtrols Industries Pvt. Ltd


* Signature of the Managing Director

- Name in block letters : **MR. SHIRISH KAMAT**
- Qualification : **B.E (CIVIL)**
- Address : **“ANJUSHRI” H. No. 1819,
B. B. Road,
Penha De Franca, Porvorim - Goa.**
- Date : **21st May, 2024.**

Ref No: **ASLPL /2024-25/47 (1)**


If employed by a company or association,
Name & address of the company or association :

CERTIFICATE OF STABILITY

1. Name of the factory : **M/s. Chemtrols Industries Pvt. Ltd.**
2. Village, town and district in which Factory is situated : Kundaim Industrial Estate,
Ponda – Goa.
3. Full postal address of the factory : M/s. Chemtrols Industries Pvt. Ltd.
Plot Nos. 141 & 142,
Kundaim Industrial Estate,
Ponda – Goa. 403115
4. Name of the Occupier of the factory : Shri. K. Nandakumar (Managing Director)
5. Nature of Manufacturing Process to be carried on in the Factory : “PTFE lined and sleeved valves, butterfly valves,
Process/ Environment Monitoring Systems &
Accessories, Process Control Instruments & Systems,
Flow metering products & Systems, RTU, SCADA &
Automation Systems”
6. Number of Floors on which workers will be employed : **Dark Room Building V
Ground Only**
7. Nature and amount of moving power : **0.5 KW**

I certify that I have personally inspected the ~~building/buildings~~ the plan of which have been approved by the Chief Inspector in his letter No. **VI/FAC-2/(CIPL/9333)/2022/IFB/FAB2102578/826 Dated 10/06/2022** and examined the various parts including the foundations with special reference to the machinery, plant etc., that have been installed. I am of the opinion that the ~~building/buildings~~ which ~~has/have been constructed /reconstructed/extended/taken into use is/are~~ in accordance with the plans approved by the Chief Inspector in his letter mentioned above, that ~~it/they is/are~~ structurally sound and that ~~its/~~ their stability will not be endangered by ~~its/their use as a factory /part of a factory~~ for “PTFE lined and sleeved valves, butterfly valves, Process/ Environment Monitoring Systems & Accessories, Process Control Instruments & Systems, Flow metering products & Systems, RTU, SCADA & Automation Systems” for which the machinery, plant etc., installed are intended. I hereby undertake to take responsibility and liability for any action in accordance with the law in force in the event of any structural failure endangering human life or safety.

ANSH STRUCTURAL LAB PVT. LTD.


SHIRISH KAMAT
DIRECTOR
APPROVED COMPETENT PERSON
CHIEF INSPECTOR OF FACTORIES AND BOILERS
NO. VI/FAC-6(Z-3)/IFB-2024/2917
DATE: 01/02/2024
Signature


For Chemtrols Industries Pvt. Ltd

* Signature of the Occupier
Managing Director

- Name in block letters : **MR. SHIRISH KAMAT**
- Qualification : **B.E (CIVIL)**
- Address : **“ANJUSHRI” H. No. 1819,
B. B. Road,
Penha De Franca, Porvorim - Goa.**
- Date : **21st May, 2024.**

Ref No: **ASLPL /2024-25/47 (2)**

If employed by a company or association,
Name & address of the company or association :

CERTIFICATE OF STABILITY

1. Name of the factory : **M/s. Chemtrols Industries Pvt. Ltd.**
2. Village, town and district in which Factory is situated : Kundaime Industrial Estate,
Ponda – Goa.
3. Full postal address of the factory : M/s. Chemtrols Industries Pvt. Ltd.
Plot Nos. 141 & 142,
Kundaime Industrial Estate,
Ponda – Goa. 403115
4. Name of the Occupier of the factory : Shri. K. Nandakumar (Managing Director)
5. Nature of Manufacturing Process to be carried on in the Factory : “PTFE lined and sleeved valves, butterfly valves,
Process/ Environment Monitoring Systems &
Accessories, Process Control Instruments & Systems,
Flow metering products & Systems, RTU, SCADA &
Automation Systems”
6. Number of Floors on which workers will be employed : **Canteen
Ground Only**
7. Nature and amount of moving power : **0.2 KW**

I certify that I have personally inspected the ~~building~~/buildings the plan of which have been approved by the Chief Inspector in his letter No. **VI/FAC-2/(CIPL/9333)/2022/IFB/FAB2102578/826 Dated 10/06/2022** and examined the various parts including the foundations with special reference to the machinery, plant etc., that have been installed. I am of the opinion that the ~~building~~/buildings which ~~has/have been constructed /reconstructed/extended/taken into use is/are~~ in accordance with the plans approved by the Chief Inspector in his letter mentioned above, that ~~it/they is/are~~ structurally sound and that ~~its/~~ their stability will not be endangered by ~~its/their use as a factory /part of a factory~~ for “PTFE lined and sleeved valves, butterfly valves, Process/ Environment Monitoring Systems & Accessories, Process Control Instruments & Systems, Flow metering products & Systems, RTU, SCADA & Automation Systems” for which the machinery, plant etc., installed are intended. I hereby undertake to take responsibility and liability for any action in accordance with the law in force in the event of any structural failure endangering human life or safety.

ANSH STRUCTURAL LAB PVT. LTD.


SHIRISH KAMAT

DIRECTOR

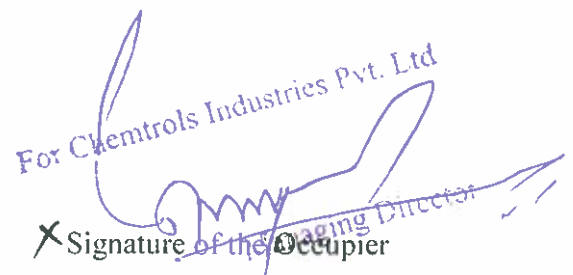
APPROVED COMPETENT PERSON

CHIEF INSPECTOR OF FACTORIES AND BOILERS

NO. VI/FAC-6(Z-3)/IFB-2024/2917

DATE: 01/02/2024

Signature


For Chemtrols Industries Pvt. Ltd.
X Signature of the Managing Director

- Name in block letters : **MR. SHIRISH KAMAT**
- Qualification : **B.E (CIVIL)**
- Address : “ANJUSHRI” H. No. 1819,
B. B. Road,
Penha De Franca, Porvorim - Goa.
- Date : **21st May, 2024.**

Ref No: **ASLPL /2024-25/47 (3)**

If employed by a company or association,

Name & address of the company or association :

INTRODUCTION

The enclosed Stability Assessment Report for the factory of **M/s. Chemtrols Industries Pvt. Ltd.**, is based on the inspection carried out on **11th May, 2024**.

Mr. Vasudev Naik of the plant gave whole-hearted co-operation during my supervision of factory.

Valid Up to : **20th May, 2029.**

Note: This Certificate does not cover risk of failure due to Earthquake, Flood, Sabotage, Over Loadings, Lack of Preventive maintenance and unauthorized expansions.

THE ASSIGNMENT

DESIRE FOR IMPROVEMENT:

During the course of the assignment, discussions were held with the various officials of the Company. From these dialogues it was quite apparent that apart from the legal obligations the management of **M/s. Chemtrols Industries Pvt. Ltd.**, was really keen of improving the safety culture of the factory. It was therefore very prudently thought that if an independent assessment of the structural stability is carried out, it could help the management to identify the areas, responsible for the number of accidents, which may take place in the factory. The future safety program could then be designed so as to take corrective actions.

METHODOLOGY:

1. Scrutiny of approved drawings.
2. Inspections of structures:
 - a) Building inspection from functional point of view.
 - i Building appearance
 - ii Staircase
 - iii Walls
 - iv Roofings
 - v Ceilings
 - b) Visual inspection of structural elements.
 - i. Physical verification of existing loads.
 - ii Detection of visual defects, if any.
 - iii Assessment of defects for probable cause.
3. Non – destructive testing:
 - a) Rebound Hammer Test
 - b) Ultrasonic Thickness Gauge Test

REPORT

In the following pages, the points, items, facts observed during the inspection are presented in the form of a report.

STABILITY ASSESSMENT FOR MAIN BUILDING (I, II, III, IV)

PRESENT CONDITION OF STRUCTURES

- ❖ Rebound hammer test was carried out in R.C.C. Columns at various locations.
- ❖ The concrete is of good quality.
- ❖ Leakage & wall dampness was observed.
- ❖ Wall cracks observed.
- ❖ Painting required.
- ❖ Exposed reinforcement was observed on the ground floor in store area.

STABILITY ASSESSMENT FOR DARK ROOM BUILDING V

PRESENT CONDITION OF STRUCTURES

- ❖ The structure is in good condition.

STABILITY ASSESSMENT FOR CANTEEN

PRESENT CONDITION OF STRUCTURES

- ❖ The structure is in good condition.
- ❖ Rebound hammer test was carried out in R.C.C. Columns at various locations.
- ❖ The concrete is of good quality.

VISUAL INSPECTION OF STRUCTURAL ELEMENTS

BY

ANSH STRUCTURAL LAB PVT. LTD.

ANJUSHRI, 1819, B.B.ROAD,
PENHA DE FRANCA PORVORIM – GOA.

STRUCTURE : MAIN BUILDING**INSPECTION OBSERVATIONS :****a) General :**

- | | |
|------------------------------------|----------------------|
| 1. Building / Structure Appearance | Ok |
| 2. Walls | Maintenance required |
| 3. Roofing | Good |
| 4. Stairs | Ok |
| 5. General maintenance | Required |

b) Structural Framing:

Discrepancy Observations	Structural Member	Location	Remarks
Cracks	nil		
Spalls	nil		
Honeycomb	nil		
Exposed reinforcement	Slab	Store/Ground floor	To be repaired
Settlement	nil		
Sagging	nil		
Buckling	nil		
Corrosion	nil		
Out of plumb	nil		
Other	wall cracks observed	Main building	To be repaired

STRUCTURE : DARK ROOM BUILDING V

INSPECTION OBSERVATIONS :

a) General :

- | | |
|------------------------------------|------|
| 1. Building / Structure Appearance | Good |
| 2. Walls | Good |
| 3. Roofing | Good |
| 4. Stairs | Nil |
| 5. General maintenance | Good |

b) Structural Framing:

Discrepancy Observations	Structural Member	Location	Remarks
Cracks	nil		
Spalls	nil		
Honeycomb	nil		
Exposed reinforcement	nil		
Settlement	nil		
Sagging	nil		
Buckling	nil		
Corrosion	nil		
Out of plumb	nil		
Other	nil		

STRUCTURE : CANTEEN

INSPECTION OBSERVATIONS :

a) General :

- | | |
|------------------------------------|------|
| 1. Building / Structure Appearance | Good |
| 2. Walls | Good |
| 3. Roofing | Good |
| 4. Stairs | Nil |
| 5. General maintenance | Good |

b) Structural Framing:

Discrepancy Observations	Structural Member	Location	Remarks
Cracks	nil		
Spalls	nil		
Honeycomb	nil		
Exposed reinforcement	nil		
Settlement	nil		
Sagging	nil		
Buckling	nil		
Corrosion	nil		
Out of plumb	nil		
Other	nil		

REBOUND HAMMER TEST

BY

ANSH STRUCTURAL LAB PVT. LTD.

ANJUSHRI, 1819, B.B.ROAD,
PENHA DE FRANCA PORVORIM – GOA.

OBSERVATION OF REBOUND HAMMER TEST

STRUCTURE	STRUCTURAL MEMBER	REB. NO.	AVG. REB. NO.	PROBABLE AVG. STRESS N/MM2	REMARK
Shop Floor 3 Ground Floor	R.C.C. Columns C - 1	30 28 32 30 28 28	29	24	More than M20
	C - 2	26 28 30 28 26 26	27	21	More than M20
	C - 3	30 28 26 26 24 26	27	21	More than M20
	C - 4	30 32 30 28 30 28	30	25	More than M20
	C - 5	30 30 28 30 26 30	29	24	More than M20
	C - 6	30 28 26 28 30 28	28	22	More than M20

Shop Floor 3	R.C.C. Columns C – 1	30 28 32 30 32 30	30	25	More than M20
Basement Floor					
	C – 2	32 30 28 28 26 30	29	24	More than M20
	C – 3	28 28 30 28 28 30	29	24	More than M20
	C – 4	30 30 32 28 28 30	30	25	More than M20
	C – 5	32 30 32 28 28 30	30	25	More than M20
	C – 6	30 28 26 28 30 28	28	22	More than M20
Shop Floor 3	R.C.C. Columns C – 1	38 36 40 38 32 34	36	36	More than M20
First Floor					

	C - 2	38 40 42 38 36 40	39	41	More than M20
	C - 3	36 34 34 36 38 36	36	36	More than M20
	C - 4	32 34 36 32 36 34	34	32	More than M20
	C - 5	34 36 38 36 38 36	36	36	More than M20
	C - 6	36 32 34 34 36 34	34	32	More than M20

OBSERVATION OF REBOUND HAMMER TEST

STRUCTURE	STRUCTURAL MEMBER	REB. NO.	AVG. REB. NO.	PROBABLE AVG. STRESS N/MM2	REMARK
Store Area Ground Floor	R.C.C. Columns C - 1	34 36 38 40 36 32	36	36	More than M20
	C - 2	38 40 42 44 40 42	41	45	More than M20
	C - 3	38 42 42 40 44 46	42	47	More than M20
	C - 4	46 42 42 38 40 40	41	45	More than M20
	C - 5	40 42 44 42 46 40	42	47	More than M20

OBSERVATION OF REBOUND HAMMER TEST

STRUCTURE	STRUCTURAL MEMBER	REB. NO.	AVG. REB. NO.	PROBABLE AVG. STRESS N/MM2	REMARK
Shop 2 First Floor	R.C.C. Columns C - 1	32 30 28 32 30 28	30	25	More than M20
	C - 2	32 30 28 30 28 30	30	25	More than M20
	C - 3	30 32 30 30 28 30	30	25	More than M20

OBSERVATION OF REBOUND HAMMER TEST

STRUCTURE	STRUCTURAL MEMBER	REB. NO.	AVG. REB. NO.	PROBABLE AVG. STRESS N/MM2	REMARK
Shop Floor 2 Ground Floor	R.C.C. Columns C - 1	34 32 30 28 30 32	31	27	More than M20
	C - 2	32 32 34 32 34 32	33	30	More than M20
	C - 3	32 34 32 30 28 30	31	27	More than M20
	C - 4	30 28 26 32 30 28	29	24	More than M20

OBSERVATION OF REBOUND HAMMER TEST

STRUCTURE	STRUCTURAL MEMBER	REB. NO.	AVG. REB. NO.	PROBABLE AVG. STRESS N/MM2	REMARK
Office Ground Floor	R.C.C. Columns C - 1	34	34	32	More than M20
		32			
		36			
		34			
		32			
		34			
	C - 2	36	33	30	More than M20
		34			
		32			
		36			
		28			
		34			
	C - 3	34	33	30	More than M20
		32			
		34			
		34			
		32			
		30			
	C - 4	40	35	34	More than M20
		38			
		36			
		34			
		30			
		32			
	C - 5	32	32	29	More than M20
		34			
		30			
		32			
		30			
		34			
First Floor	R.C.C. Columns C - 1	30	29	24	More than M20
		30			
		28			
		26			
		30			
		30			

	C - 2	32 34 36 34 32 32	33	30	More than M20
	C - 3	32 36 34 34 32 30	33	30	More than M20
	C - 4	34 36 34 34 32 34	34	32	More than M20

OBSERVATION OF REBOUND HAMMER TEST

STRUCTURE	STRUCTURAL MEMBER	REB. NO.	AVG. REB. NO.	PROBABLE AVG. STRESS N/MM2	REMARK
Shop Floor 1 Ground Floor	R.C.C. Columns C - 1	38 36 34 36 34 32	35	34	More than M20
	C - 2	36 38 36 40 38 36	37	38	More than M20
	C - 3	32 36 34 34 36 32	34	32	More than M20
	C - 4	32 32 36 34 32 34	33	30	More than M20
	C - 5	32 34 36 32 34 36	34	32	More than M20
	C - 6	34 36 34 34 36 32	34	32	More than M20

OBSERVATION OF REBOUND HAMMER TEST

STRUCTURE	STRUCTURAL MEMBER	REB. NO.	AVG. REB. NO.	PROBABLE AVG. STRESS N/MM2	REMARK
Canteen	R.C.C. Columns C - 1	32 34 28 26 30 32	30	25	More than M20
	C - 2	30 32 34 32 34 30	32	29	More than M20
	C - 3	32 34 30 32 30 32	32	29	More than M20

ULTRASONIC THICKNESS GAUGE TEST

BY

ANSH STRUCTURAL LAB PVT. LTD.

ANJUSHRI, 1819, B.B.ROAD,
PENHA DE FRANCA PORVORIM – GOA.

Ultra Sonic Thickness Gauge Test

OBSERVATIONS OF THICKNESS GAUGE INDICATOR			
SHOP FLOOR 3			
Sample	Thickness Gauge Reading of SHS 132 x 132	Section thickness as per ISI SP: 6(1)1964 for SHS 132 x 132	Remark
B4 Thickness	4.7 mm	4.8 mm	Structure is ok
	4.8 mm	4.8 mm	Structure is ok
	4.8 mm	4.8 mm	Structure is ok
B2 Thickness	4.7 mm	4.8 mm	Structure is ok
	4.8 mm	4.8 mm	Structure is ok
	4.7 mm	4.8 mm	Structure is ok

Ultra Sonic Thickness Gauge Test

OBSERVATIONS OF THICKNESS GAUGE INDICATOR

SHOP FLOOR 2

Sample	Thickness Gauge Reading of ISMC 250 x 80	Section thickness as per ISI SP: 6(1)1964 for ISMC 250 x 80	Remark
C1 Web	7.1 mm	7.1 mm	Structure is ok
	7.0 mm	7.1 mm	Structure is ok
	6.9 mm	7.1 mm	Structure is ok
C2 Web	6.8 mm	7.1 mm	Structure is ok
	6.8 mm	7.1 mm	Structure is ok
	7.1 mm	7.1 mm	Structure is ok
C3 Web	7.0 mm	7.1 mm	Structure is ok
	6.9 mm	7.1 mm	Structure is ok
	6.9 mm	7.1 mm	Structure is ok
C4 Web	7.1 mm	7.1 mm	Structure is ok
	7.0 mm	7.1 mm	Structure is ok
	6.8 mm	7.1 mm	Structure is ok
C5 Web	7.1 mm	7.1 mm	Structure is ok
	7.0 mm	7.1 mm	Structure is ok
	7.1 mm	7.1 mm	Structure is ok
C6 Web	6.9 mm	7.1 mm	Structure is ok
	6.8 mm	7.1 mm	Structure is ok
	6.9 mm	7.1 mm	Structure is ok

