

Vide Letter No.: HZLP/M&C/23-24/H-II

Date: 25/05/2024

To,  
The Regional Officer (North Central Zone),  
Ministry of Environment, Forests & Climate Change,  
25, Subhash Road, Dehradun, Uttarakhand-248001

**Subject:** Submission of Environment Clearance compliance report for Pantnagar Zinc-Lead melting & casting Plant (Zinc Metal- 4,65,000 TPA & Lead Metal- 1,50,000 TPA) of M/s Hindustan Zinc Limited, Plot No 2 & 3, Sector 14, IIE, SIDCUL, Pantnagar, Dist. U.S. Nagar for the period **October-2023 to March-2024.**

**Ref; Letter No:- J-11011/327/2010/IA-II (I) dated 26.04.2011 from MoEF&CC.**


Dear Sir,

With reference to the aforesaid subject, we have obtained Environment Clearance from Ministry of Environment, Forest and Climate Change, New Delhi for Pantnagar Zinc-Lead melting & casting Plant (Zinc Metal- 4, 65,000 TPA & Lead metal- 1, 50,000 TPA) on dated 26.04.2011.

Please find enclosed herewith the Compliance report of Environment Clearance for Pantnagar Zinc-Lead melting & casting Plant of M/s Hindustan Zinc Limited, Plot No 2 & 3, Sector 14, IIE, SIDCUL, Pantnagar, Dist. U.S. Nagar for the period of October-2023 to March-2024.

In case any additional information / documents / clarifications are required, the same may kindly be informed to us.

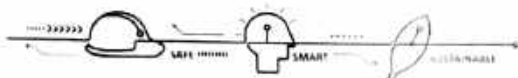
Thanking you.

  
(Anamika Jha)  
SBU Director  
Pantnagar Zinc-Lead melting & casting Plant  
Hindustan Zinc Limited

**Hindustan Zinc Limited**  
Pantnagar Metal Plant  
Plot No.2&3, Sector 14, IIE, SIDCUL,  
Rudrapur - 263153, Uttarakhand.

CC:

1. Regional Officer, CPCB, Lucknow
2. MS office, UEPPCB, Dehradun
3. Regional Officer, UEPPCB, Kashipur
4. Office copy, HZL



Hindustan Zinc Limited, Registered Office: Yashad Bhawan, Udaipur-313 004, Rajasthan, INDIA.  
T. +91 294-6604000-02 www.hzindia.com CIN: L27204RJ1966PLC001208

## **Compliance Report of Environment Clearance (October-2023 to March-2024)**

**Name of the Project:** M/s Hindustan Zinc Limited  
Pantnagar Zinc-Lead melting & casting Plant  
**Location of the Project:** Plot No.- 2 & 3, Sector 14, IIE, SIDCUL,  
Pantnagar, District - Udham Singh Nagar,  
Uttarakhand – 263153

**Clearance Letter No:** J-11011/327/2010/IA-II (I) Dt.26<sup>th</sup> April 2011 from MoEF&CC

**Period of Compliance Report:** October-2023 to March-2024

S.No	Condition	Compliance Status
<b>A</b>	<b>Specific conditions.</b>	
<b>1</b>	On-line ambient air quality monitoring and continuous stack monitoring facilities for all the stacks shall be provided and sufficient air pollution control devices viz. bag filters shall be provided to keep the emission levels below 50 mg/Nm <sup>3</sup> by installing energy efficient technology.	Being Complied. Efficient bag filters and continuous stack monitoring PM analyzers have been provided in all process stacks. Continuous on-line Ambient air quality monitoring station (CAAQMS) is also installed in the plant premises to monitor the ambient air continuously. Emission levels are being maintained well within the stipulated limit. Copy of Ambient air & Stack emission quality monitoring reports attached herewith as Annexure-1(a) & 1 (b) respectively. Photograph of CEMS & CAAQMS are attached herewith as Annexure-2.
<b>2</b>	The National Ambient Air Quality Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16 <sup>th</sup> November, 2009 should be followed.	Noted and being Complied. Ambient air quality monitoring results are well within the NAAQs limits.
<b>3</b>	Gaseous emission levels including secondary fugitive emissions from all the sources shall be controlled within the latest permissible limits issued by the Ministry vide G.S.R. 414(E) dated 30 <sup>th</sup> May, 2008 and regularly monitored. Guidelines / Code of Practice issued by the CPCB should be followed.	Being Complied. All Gaseous emission are being controlled through efficient bag filters connected to adequate stacks height provided for proper dispersion. In addition, monthly work zone monitoring is also being carried out. Reports of stack emission and work zone are attached herewith as Annexure-1(b) & 1(c) respectively.
<b>4</b>	The total water requirement shall not exceed 500 KLD. Permission to draw water from the Competent Authority shall be obtained. No effluent shall be discharged and 'zero' discharge should be adopted.	Being Complied. Water requirement of Zinc and Lead M&C process and silver process is limited to 260m <sup>3</sup> /day (20% reduction from previously issued NOC- 325m <sup>3</sup> /day). For which CGWA is already given consent (Letter no.: CGWA/NOC/IND/ORIG/2018/4160 on dated 17 Oct 2018 & 01 Mar 2019 and corrigendum letter against condition no 3 on date 02 July 2019 & its

Hindustan Zinc Limited  
Pantnagar Metal Plant  
Plot No.2&3, Sector 14, IIE, SIDCUL,  
Rudrapur – 263153, Uttarakhand.

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		renewal). No effluent is being generated from the process. However, Effluent treatment plant of 87 KLD is already provided for treating the combined trade effluents of Zinc & Lead melting casting and Silver refining plant so ETP is not in operation. Combined STP of 30 KLD already installed to treat the wastewater of Zinc and Lead Melting & Casting unit as well as silver plant. Treated water of the same is being used for horticulture/plantation. Zero discharge is being maintained.
5	Regular monitoring of influent and effluent surface, sub-surface and ground water shall be ensured and treated wastewater shall meet the norms prescribed by the State Pollution Control Board or described under the E(P) Act whichever are more stringent. Leachate study for the effluent generated and analysis should also be regularly carried out and report submitted to the Ministry's Regional Office at Lucknow, SPCB and CPCB.	Being Complied. No effluent is being generated from the process. Ground water being used for plant operation and regular bore well monitoring being ensured. Zero Discharge is being maintained and no effluent discharged to surface water body. Provision for online monitoring of STP outlet for BOD, COD, pH, TSS & Flow has been made. Copy of ground water monitoring is attached herewith as Annexure 1(d).
6	Efforts shall be made to make use of rainwater harvested. If needed, capacity of the reservoir shall be enhanced to meet the maximum water requirement. Only balance water requirement should be met from other sources	Complied. Presently We have four rainwater harvesting pond for rainwater collection having capacity approx. 2542, 1500, 841 and 750 cu.m and collected rainwater is being utilized into the process. In FY 2023-24, we have reused around <b>14,950 cu.m</b> rainwater in the process for conserving the fresh water. Photograph of the same is attached herewith as Annexure-3.
7	Risk and Disaster Management Plan along with the mitigation measures should be prepared and a copy submitted to the Ministry's Regional Office at Lucknow, SPCB and CPCB within 3 months of issue of environment clearance letter.	Complied. Risk and Disaster Management Plan has been submitted to Ministry's Regional Office at Lucknow, SPCB and CPCB on 20.07.2011. Also, we have prepared and submitted On Site Emergency plan to the competent authority. Receiving copy was submitted along with compliance report vide letter no- HZLP/M&C/18-19/H-II dated 23.04.2019 & 29.05.2023 and its amendment on 16.02.2024.
8	As proposed, green belt shall be developed in 33 % of the plant area. Selection of plant species should be as per the CPCB guidelines in consultation with the DFO.	Complied. More than 33% Green Belt of total plant area has already been provided with three rows along with boundary wall in plant premises in consultation with DFO (Divisional Forest Officer) and CPCB guidelines. Gap filling

		plantation being carried out for maintaining the survival rate of Plantation.
9	At least 5 % of the total cost of the project shall be earmarked towards the enterprise social commitment (ESC) and item-wise details along with time bound action plan should be prepared and submitted to the Ministry's Regional Office at Lucknow. Implementation of such program should be ensured accordingly in a time bound manner.	Being Complied. CSR plan prepared and submitted to MOEF-Regional Office Lucknow, CPCB regional office Lucknow and UEPPCB Dehradun along with E.C compliance report as dated 20.07.2012, This is being implemented in phased manner with the help of local administration. Many CSR development activities are being carried out for upliftment of nearby communities. CSR projects details is attached herewith as Annexure 4.
10	Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, Safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.	Complied. Safe drinking water, sanitation facilities. Medical health care etc. provided at the plant premises. No housing facility provided in plant premises.
B	<b>General Conditions</b>	
1	The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board (SPCB) and the State Government.	Noted and being Complied.
2	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment and Forests.	Noted and being Complied.
3	At least four ambient air quality monitoring stations shall be established in the downward direction as well as where maximum ground level concentration of PM <sub>10</sub> , SO <sub>2</sub> and NO <sub>x</sub> are anticipated in consultation with the SPCB including one ambient air quality monitoring station in the downwind direction. Data on ambient air quality and stack emission should be regularly submitted to this Ministry including its Regional Office at Lucknow and the SPCB / CPCB once in six months.	Being Complied. In consultation with RO, UEPPCB, 4 Ambient air quality monitoring location finalized including downwind direction as well as maximum ground level concentration anticipated areas. CAAQMS also installed at plant premises. Monthly monitoring is being carried out in plant area. Data on ambient air quality and stack emission is being submitted regularly as stipulated. Continuous on-line Ambient air quality monitoring station (CAAQMS) is also installed in the plant premises to monitor the ambient air continuously. Emission levels are being maintained well within the stipulated limit. Copy of Ambient air & Stack emission quality monitoring reports attached herewith as Annexure-1(a) & 1 (b) respectively. Photograph of CEMS & CAAQMS are attached herewith as Annexure-2.
4	Industrial wastewater shall be properly collected, treated	Being Complied. The domestic effluent is being

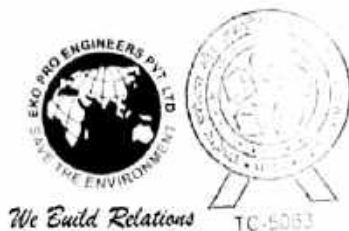


	so as to conform to the standards prescribed under GSR 422 (E) dated 19 <sup>th</sup> May, 1993 and 31 <sup>st</sup> December, 1993 or as amended from time to time. The treated wastewater shall be utilized for plantation purpose.	treated in the STP to ensure stipulated quality and used for plantation. Photograph of STP is attached herewith as Annexure-5.
5	The overall noise levels in and around the plant area shall be kept well within the standards (85 dB) by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels should conform to the standards prescribed under EPA Rules, 1989 viz. 75 dB (daytime) and 70 dB (nighttime)	Being Complied. Acoustic enclosures/silencers are provided for DG, compressors, blowers and exhaust fans to ensure the noise levels within the factory premises is within the stipulated levels for industrial area. Green Belt along with boundary provided to limit the noise from the plant to surrounding areas. Noise monitoring reports are attached herewith as Annexure 1(e).
6	Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.	Being complied. Pre-employment & periodic medical examinations are being carried out for the relevant occupational hazards at a regular frequency, as per statutory requirements.
7	The company shall develop rain water harvesting structures to harvest the rain water for utilization in the lean season besides recharging the ground water table.	Complied. Presently We have four rainwater harvesting pond for rainwater collection having capacity approx. 2542, 1500, 841 and 750 cu.m and collected rainwater is being utilized into the process. In FY 2023-24, we have reused around <b>14,950 cu.m</b> rainwater in the process for conserving the fresh water. Photograph of the same is attached herewith as Annexure-3.
8	The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA/EMP report. Further, the company must undertake socio-economic development activities in the surrounding villages like community development programmes, educational programmes, drinking water supply and health care etc.	Being Complied. Environment protection measures and safeguards recommended in the EIA/EMP report being implemented, Socio-Economic development activities are being implemented as per action plan. Many CSR development activities are being carried out for upliftment of nearby communities. CSR projects photographs is attached herewith as Annexure 4.
9	The requisite funds shall be earmarked towards the capital cost and recurring cost/annum for environmental protection measures and judiciously utilized to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government. The funds so provided shall not be diverted for any other purpose.	Being Complied. Sufficient funds available for operation and maintenance of the facility during operation phase. The said funds not been diverted for any other purpose.
10	A copy of clearance letter shall be sent by the proponent to concerned Panchayat, Zila Parishad / Municipal Corporation, Urban Local Body and the local NGO, if any,	Complied. The copy of the clearance letter submitted to the Panchayat/ Zila Panchayat, Municipal Corporation and Urban Local Body

	from whom suggestions / representations, if any, were received while processing the proposal. The clearance letter shall also be put on the web site of the company by the proponent.	(SIDCUL). EC letter is also available on company website. Link of website <a href="https://www.hzlindia.com/wp-content/uploads/Environment-Clearance-Letter-for-Pantnagar-Metal-Plant-Melting-and-Castingmmpm.pdf">https://www.hzlindia.com/wp-content/uploads/Environment-Clearance-Letter-for-Pantnagar-Metal-Plant-Melting-and-Castingmmpm.pdf</a>
11	The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of the MOEF, the respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; RSPM, SO <sub>2</sub> , NO <sub>x</sub> and Lead (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.	Being Complied. Submission of Six-monthly compliance report of environmental condition with monitoring results (in hard copies as well as by e-mail) to RO, MOEF&CC, Dehradun, Zonal Office CPPCB, Lucknow, MS UEPPCB, Dehradun and RO UEPPCB, Kashipur being ensured. Six monthly compliance reports are being uploaded on the company website. Link of website uploading EC compliance of April'23 to September'23 is <a href="https://www.hzlindia.com/wp-content/uploads/Pantnagar-Metal-Plant-EC-Compliance-Report-Zinc-Lead-MC-Plant_H1_2023-24.pdf">https://www.hzlindia.com/wp-content/uploads/Pantnagar-Metal-Plant-EC-Compliance-Report-Zinc-Lead-MC-Plant_H1_2023-24.pdf</a> Display board on all criteria pollutants provided at main gate which is being updated regularly. Photograph of board is attached herewith as Annexure 6.
12	The project proponent shall also submit six monthly reports on the status of the compliance of the stipulated environmental conditions including results of monitored data (both in hard copies as well as by e-mail) to the Regional Office of MOEF at Lucknow, the respective Zonal Office of CPCB and the SPCB. The Regional Office of this Ministry at Lucknow / CPCB / SPCB shall monitor the stipulated conditions.	Being Complied. Submission of Six-monthly compliance report of environmental condition with monitoring results (in hard copies as well as by e-mail) to RO, MOEF&CC, Dehradun, Zonal Office CPPCB, Lucknow, MS UEPPCB, Dehradun and RO UEPPCB, Kashipur being ensured. Link of website uploading EC compliance of April'23 to September'23 is <a href="https://www.hzlindia.com/wp-content/uploads/Pantnagar-Metal-Plant-EC-Compliance-Report-Zinc-Lead-MC-Plant_H1_2023-24.pdf">https://www.hzlindia.com/wp-content/uploads/Pantnagar-Metal-Plant-EC-Compliance-Report-Zinc-Lead-MC-Plant_H1_2023-24.pdf</a>
13	The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company alongwith the status of compliance of environmental conditions and shall also be sent to the respective Regional Offices of the MOEF by e-mail.	Environmental statement of every year is being submitted to Regional Office MoEF, CPCB and UEPPCB. Last Environment statement was submitted to RO, MoEF&CC vide letter no. HZL/PMP/ENV/M&C/2022-23/01 dated 05.09.2023. Environment statement of every year has been uploaded on company website. Link of last Environment Statement is

Hindustan Zinc Limited  
Pantnagar Metal Plant  
Plot No.2&3, Sector 14, IIE, SIDCUL,  
Rudrapur - 263153, Uttarakhand.

		<a href="https://www.hzindia.com/wp-content/uploads/Environment-statement-2022-23MC.pdf">https://www.hzindia.com/wp-content/uploads/Environment-statement-2022-23MC.pdf</a>
14	The Project Proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB and may also be seen at Website of the Ministry of Environment and Forests at <a href="http://envfor.nic.in">http://envfor.nic.in</a> . This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the Regional office at Lucknow.	Complied. Published in newspapers of Dainik Jagaran and Amar Ujala. Copies have been submitted to Regional office at Lucknow along with reply of letter No. IV/ENV/Utr/Ind-34/110/2011/156 dated 08.06.2011 & on 20.07.2011 to CPCB Regional office Lucknow and UEPPCB Dehradun.
15	Project authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of commencing the land development work.	Noted & complied. Plant was commissioned in March 2012.



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### TEST REPORT

#### Ambient Air Quality Monitoring

Test Report No. : EKO/E-520/260324

Issue Date : 30/03/2024

Issued To

: HINDUSTAN ZINC LIMITED  
Plot No. 2, Sec - 14  
IIE, Sidcul Panthnagar  
Rudrapur - Uttarakhand

Sample Description : Ambient Air  
Sample Drawn on : 21/03/2024 To 22/03/2024  
Sample Drawn by : EPEPL (Mr. Chandan Sharma)  
Sample Received on : 26/03/2024  
Sampling Location : Near Main Gate/Security  
Sampling Time : 24.0 Hrs.  
Sampling Plan & Procedure : SOP-AAQ/15  
Analysis Duration : 26/03/2024 To 30/03/2024  
Ambient Temperature (°C) : 27.0  
Average Flow Rate of SPM (m<sup>3</sup>/min.) : 1.1  
Average Flow Rate of Gases (lpm) : 1.0  
Weather Conditions : Clear  
Remark (if any) : NA

### RESULTS

S. No.	Parameters	Test Methods	Results	Units	Limits as per CPCB Notification, 18th Nov 2009
1	Particulate Matter (PM10)	IS: 5182 (P-23)	98.2	µg/m <sup>3</sup>	100.0
2	Particulate Matter (PM2.5)	IS: 5182 (P-24)	55.3	µg/m <sup>3</sup>	60.0
3	Sulphur Dioxide (as SO <sub>2</sub> )	IS: 5182 (P-2)	12.4	µg/m <sup>3</sup>	80.0
4	Nitrogen Dioxide (as NO <sub>2</sub> )	IS: 5182 (P-6)	29.6	µg/m <sup>3</sup>	80.0
5	Carbon Monoxide (as CO)	IS: 5182 (P-10)	1.24	mg/m <sup>3</sup>	4.0
6	Lead (as Pb)	IS: 5182 (P-22)	<0.1	µg/m <sup>3</sup>	1.0
7	Nickel (as Ni)	IS: 5182 (P-26)	<15.0	ng/m <sup>3</sup>	20.0
8	Arsenic (as As)	EKO/CHEM/SOP/AAQ-02	<5.0	ng/m <sup>3</sup>	6.0
9	Ozone (as O <sub>3</sub> )	IS: 5182 (P-9)	<10.0	µg/m <sup>3</sup>	180.0
10	Ammonia (as NH <sub>3</sub> )	IS: 5182 (P-25)	<20.0	µg/m <sup>3</sup>	400.0
11	Benzene (as C <sub>6</sub> H <sub>6</sub> )	IS: 5182 (P-11)	<1.0	µg/m <sup>3</sup>	5.0
12	Benzo(alpha) Pyrene-Particulate Phase Only	IS: 5182 (P-12)	<1.0	ng/m <sup>3</sup>	1.0

#### Notes :

- The results given above are related to the tested sample, for various parameters, as observed at the time of at the time of Sampling. The customer asked for the above tests only.
- This test report will not be generated again, either wholly or in part, without prior written permission of the Laboratory.
- The test samples will be disposed off after 15 days from the date of issue of test report, unless until specified by the customer. Sample received for biological tests will be destroyed after 7 days from the date of issue of test report.
- Responsibility of the Laboratory is limited to the invoiced amount only.

\*\* End of Report \*\*

For EKO PRO ENGINEERS PVT. LTD.  
★ PURNIMA CHANDAN ★  
★ TECHNICAL MANAGER ★  
(Authorized Signature)





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# EKO TESTING LABS<sup>(P)</sup>

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### TEST REPORT

#### Ambient Air Quality Monitoring

Test Report No. : EKO/E-519/260324

Issue Date : 30/03/2024

Issued To

: HINDUSTAN ZINC LIMITED  
Plot No. 2, Sec - 14  
IIE, Sidcul Pantnagar  
Rudrapur - Uttarakhand

Sample Description : Ambient Air  
Sample Drawn on : 22/03/2024 To 23/03/2024  
Sample Drawn by : EPEPL (Mr. Chandan Sharma)  
Sample Received on : 26/03/2024  
Sampling Location : SE Corner of Lead Plant  
Sampling Time : 24.0 Hrs.  
Sampling Plan & Procedure : SOP-AAQ/15  
Analysis Duration : 26/03/2024 To 30/03/2024  
Ambient Temperature (°C) : 27.0  
Average Flow Rate of SPM (m<sup>3</sup>/min.) : 1.1  
Average Flow Rate of Gases (lpm) : 1.0  
Weather Conditions : Clear  
Remark (if any) : NA

### RESULTS

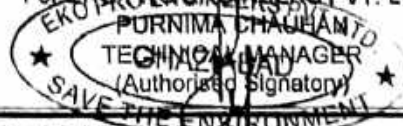
S. No.	Parameters	Test Methods	Results	Units	Limits as per CPCB Notification, 18th Nov 2009
1	Particulate Matter (PM10)	IS: 5182 (P-23)	83.6	µg/m <sup>3</sup>	100.0
2	Particulate Matter (PM2.5)	IS: 5182 (P-24)	54.1	µg/m <sup>3</sup>	60.0
3	Sulphur Dioxide (as SO <sub>2</sub> )	IS: 5182 (P-2)	12.30	µg/m <sup>3</sup>	80.0
4	Nitrogen Dioxide (as NO <sub>2</sub> )	IS: 5182 (P-6)	29.6	µg/m <sup>3</sup>	80.0
5	Carbon Monoxide (as CO)	IS: 5182 (P-10)	1.05	mg/m <sup>3</sup>	4.0
6	Lead (as Pb)	IS: 5182 (P-22)	<0.1	µg/m <sup>3</sup>	1.0
7	Nickel (as Ni)	IS: 5182 (P-26)	<15.0	ng/m <sup>3</sup>	20.0
8	Arsenic (as As)	EKO/CHEM/SOP/AAQ-02	<5.0	ng/m <sup>3</sup>	6.0
9	Ozone (as O <sub>3</sub> )	IS: 5182 (P-9)	<10.0	µg/m <sup>3</sup>	180.0
10	Ammonia (as NH <sub>3</sub> )	IS: 5182 (P-25)	<20.0	µg/m <sup>3</sup>	400.0
11	Benzene (as C <sub>6</sub> H <sub>6</sub> )	IS: 5182 (P-11)	<1.0	µg/m <sup>3</sup>	5.0
12	Benzo(alpha) Pyrene-Particulate Phase Only	IS: 5182 (P-12)	<1.0	ng/m <sup>3</sup>	1.0

#### Notes :

- The results given above are related to the tested sample, for various parameters, as observed at the time of at the time of Sampling. The customer asked for the above tests only.
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**\*\* End of Report \*\***

For EKO PRO ENGINEERS PVT. LTD.



Office & Laboratory : 32/41, South Side of GT Road, UPSIDC Industrial Area, Ghaziabad (Delhi-NCR) - 201002  
Contact No: 97111159210, 9810240837, 9810240678 E-mail: email@eko-pro.in, ekoproengineers@gmail.com, Website: www.eko-pro.com

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### TEST REPORT

#### Ambient Air Quality Monitoring

Test Report No. : EKO/E-521/260324

Issue Date : 30/03/2024

Issued To

: HINDUSTAN ZINC LIMITED

Plot No. 2, Sec - 14

MIE, Sidcul Pantnagar

Rudrapur - Uttarakhand

Sample Description : Ambient Air  
 Sample Drawn on : 21/03/2024 To 22/03/2024  
 Sample Drawn by : EPEPL (Mr. Chandan Sharma)  
 Sample Received on : 26/03/2024  
 Sampling Location : Canteen East Side In New Plant  
 Sampling Time : 24.0 Hrs.  
 Sampling Plan & Procedure : SOP-AAQ/15  
 Analysis Duration : 26/03/2024 To 30/03/2024  
 Ambient Temperature (°C) : 27.0  
 Average Flow Rate of SPM (m³/min.) : 1.1  
 Average Flow Rate of Gases (lpm) : 1.0  
 Weather Conditions : Clear  
 Remark (if any) : NA

### RESULTS

S. No.	Parameters	Test Methods	Results	Units	Limits as per CPCB Notification, 18th Nov 2009
1	Particulate Matter (PM10)	IS: 5182 (P-23)	79.6	µg/m³	100.0
2	Particulate Matter (PM2.5)	IS: 5182 (P-24)	50.2	µg/m³	60.0
3	Sulphur Dioxide (as SO₂)	IS: 5182 (P-2)	11.3	µg/m³	80.0
4	Nitrogen Dioxide (as NO₂)	IS: 5182 (P-6)	28.5	µg/m³	80.0
5	Carbon Monoxide (as CO)	IS: 5182 (P-10)	1.16	mg/m³	4.0
6	Lead (as Pb)	IS: 5182 (P-22)	<0.1	µg/m³	1.0
7	Nickel (as Ni)	IS: 5182 (P-26)	<15.0	ng/m³	20.0
8	Arsenic (as As)	EKO/CHEM/SOP/AAQ-02	<5.0	ng/m³	6.0
9	Ozone (as O₃)	IS: 5182 (P-9)	<10.0	µg/m³	180.0
10	Ammonia (as NH₃)	IS: 5182 (P-25)	<20.0	µg/m³	400.0
11	Benzene (as C₆H₆)	IS: 5182 (P-11)	<1.0	µg/m³	5.0
12	Benzo(alpha) Pyrene-Particulate Phase Only	IS: 5182 (P-12)	<1.0	ng/m³	1.0

#### Notes :

- The results given above are related to the tested sample, for various parameters, as observed at the time of at the time of Sampling. The customer asked for the above tests only.
- This test report will not be generated again, either wholly or in part, without prior written permission of the Laboratory.
- The test samples will be disposed off after 15 days from the date of issue of test report, unless until specified by the customer. Sample received for biological tests will be destroyed after 7 days from the date of issue of test report.
- Responsibility of the Laboratory is limited to the invoiced amount only.

**\*\* End of Report \*\***

For EKO PRO ENGINEERS PVT. LTD.  
 ★ PURNIMA MAHAN ★  
 ★ TECHNICAL MANAGER ★  
 (Authorized Signature)



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ISO 9001

# EKO TESTING LABS

## Eko Pro Engineers Pvt. Ltd.

Contact : +91 - 9810243870

Competence | Quality | Service

### TEST REPORT

#### Ambient Air Quality Monitoring

Test Report No. : EKO/E-518/260324

Issue Date : 30/03/2024

Issued To

: HINDUSTAN ZINC LIMITED  
Plot No. 2, Sec - 14  
IIE, Sidcul Pantnagar  
Rudrapur - Uttarakhand

Sample Description : Ambient Air  
Sample Drawn on : 22/03/2024 To 23/03/2024  
Sample Drawn by : EPEPL (Mr. Chandan Sharma)  
Sample Received on : 26/03/2024  
Sampling Location : Back Side of DG Area  
Sampling Time : 24.0 Hrs.  
Sampling Plan & Procedure : SOP-AAQ/15  
Analysis Duration : 26/03/2024 To 30/03/2024  
Ambient Temperature (°C) : 27.0  
Average Flow Rate of SPM (m<sup>3</sup>/min.) : 1.1  
Average Flow Rate of Gases (lpm) : 1.0  
Weather Conditions : Clear  
Remark (if any) : NA

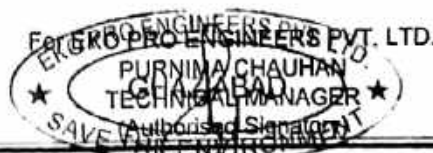
### RESULTS

S. No.	Parameters	Test Methods	Results	Units	Limits as per CPCB Notification, 18th Nov 2009
1	Particulate Matter (PM10)	IS: 5182 (P-23)	92.3	µg/m <sup>3</sup>	100.0
2	Particulate Matter (PM2.5)	IS: 5182 (P-24)	56.4	µg/m <sup>3</sup>	60.0
3	Sulphur Dioxide (as SO <sub>2</sub> )	IS: 5182 (P-2)	12.7	µg/m <sup>3</sup>	80.0
4	Nitrogen Dioxide (as NO <sub>2</sub> )	IS: 5182 (P-6)	29.6	µg/m <sup>3</sup>	80.0
5	Carbon Monoxide (as CO)	IS: 5182 (P-10)	0.91	mg/m <sup>3</sup>	4.0
6	Lead (as Pb)	IS: 5182 (P-22)	<0.1	µg/m <sup>3</sup>	1.0
7	Nickel (as Ni)	IS: 5182 (P-26)	<15.0	ng/m <sup>3</sup>	20.0
8	Arsenic (as As)	EKO/CHEM/SOP/AAQ-02	<5.0	ng/m <sup>3</sup>	6.0
9	Ozone (as O <sub>3</sub> )	IS: 5182 (P-9)	<10.0	µg/m <sup>3</sup>	180.0
10	Ammonia (as NH <sub>3</sub> )	IS: 5182 (P-25)	<20.0	µg/m <sup>3</sup>	400.0
11	Benzene (as C <sub>6</sub> H <sub>6</sub> )	IS: 5182 (P-11)	<1.0	µg/m <sup>3</sup>	5.0
12	Benzo(alpha) Pyrene-Particulate Phase Only	IS: 5182 (P-12)	<1.0	ng/m <sup>3</sup>	1.0

#### Notes :

- The results given above are related to the tested sample, for various parameters, as observed at the time of at the time of Sampling. The customer asked for the above tests only.
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- Responsibility of the Laboratory is limited to the invoiced amount only.

**\*\* End of Report \*\***



Office & Laboratory : 32/41, South Side of GT Road, UPSIDC Industrial Area, Ghazabada (Delhi-NCR) - 110042  
Contact No. 97111159210, 9810240837, 9810240678 E-mail: email@ekopro.in, ekoproengineers@gmail.com, Website: www.ekopro.in Page 1 of 1

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# EKO TESTING LABS®

## Eko Pro Engineers Pvt. Ltd.

Contact : +91 - 9810243870

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### TEST REPORT

#### Stack Emission Analysis

Issue Date : 30/03/2024

Test Report No. : EKO/E-522/260324-A

Issued To

: HINDUSTAN ZINC LIMITED  
Plot No. 2, Sec - 14  
IIE, Sidcul Pantnagar  
Rudrapur - Uttarakhand

Sample Description	: Stack Emission
Sample Drawn on	: 22/03/2024
Sample Drawn by	: EPEPL (Mr. Chandan Sharma)
Sample Received on	: 26/03/2024
Time of Sampling (minutes)	: 30.0
Sampling Location	: NA
Sampling Plan & Procedure	: SOP-SE/09
Analysis Duration	: 26/03/2024 To 30/03/2024
Source of Emission	: Stack Attached To Furnace No. 1
Capacity	: 30.0 TPH
Operating Load	: Normal
Normal Operation Schedule	: As per requirement
Type of Stack	: Metal/Circular
Diameter of Stack (meter)	: 1.2 at top
Height of Stack from Ground Level (meter)	: 30.0
Height of Stack from Roof Level (meter)	: NA
Height of Sampling Location (meter)	: 19.8 From Ground Level
Type of Fuel Used	: Electricity
Fuel Consumed per hour	: -
Ambient Temperature (°C)	: 29.0
Stack Temperature (°C)	: 125.0
Average Velocity of Flue Emission (m/sec)	: 7.1
Average Flow Rate (lpm)	: 19.4
Control Measures (if any)	: Nil
Remark (if any)	: Sampling Instrument Used-Stack Monitoring kit APM-610

#### RESULTS

S. No.	Parameters	Test Methods	Results	Units	Limits as per CPCB Guidelines
1	Particulate Matter (as PM)	IS: 11255 (P-1)	34.8	mg/Nm <sup>3</sup>	150.0
2	Sulphur Dioxide (as SO <sub>2</sub> )	IS: 11255 (P-2)	13.2	mg/Nm <sup>3</sup>	Not Specified
3	Oxide of Nitrogen (as NOx)	IS: 11255 (P-7)	52.6	mg/Nm <sup>3</sup>	Not Specified
4	Carbon Monoxide (as CO)	IS: 13270	<0.2	% V/V	1.0
5	Lead (as Pb)	USEPA (P-12)	<1.0	mg/Nm <sup>3</sup>	10.0

#### Notes :

- The results given above are related to the tested sample, for various parameters, as observed at the time of Sampling. The customer asked for the above tests only.
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- The test samples will be disposed off after 15 days from the date of issue of test report, unless until specified by the customer.
- Responsibility of the Laboratory is limited to the invoiced amount only.

\*\* End of Report \*\*

For EKO PRO ENGINEERS PVT. LTD.  
PURNIMA CHAUHAN  
TECHNICAL MANAGER  
GHAZIABAD  
Authorised Signatory  
SAVE THE ENVIRONMENT





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## Eko Pro Engineers Pvt. Ltd.

Contact : +91 - 9810243870

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### TEST REPORT

#### Stack Emission Analysis

Test Report No. : EKO/E-522/260324-B

Issue Date : 30/03/2024

Issued To

: HINDUSTAN ZINC LIMITED  
Plot No. 2, Sec - 14  
IIE, Sidcul Panthnagar  
Rudrapur - Uttarakhand

Sample Description	: Stack Emission
Sample Drawn on	: 22/03/2024
Sample Drawn by	: EPEPL (Mr. Chandan Sharma)
Sample Received on	: 26/03/2024
Time of Sampling (minutes)	: 30.0
Sampling Location	: NA
Sampling Plan & Procedure	: SOP-SE/09
Analysis Duration	: 26/03/2024 To 30/03/2024
Source of Emission	: Stack Attached To Furnace No. 1
Capacity	: 30.0 TPH
Operating Load	: Normal
Normal Operation Schedule	: As per requirement
Type of Stack	: Metal/Circular
Diameter of Stack (meter)	: 1.2 at top
Height of Stack from Ground Level (meter)	: 30.0
Height of Stack from Roof Level (meter)	: NA
Height of Sampling Location (meter)	: 19.8 From Ground Level
Type of Fuel Used	: Electricity
Fuel Consumed per hour	: -
Ambient Temperature (°C)	: 29.0
Stack Temperature (°C)	: 125.0
Average Velocity of Flue Emission (m/sec)	: 7.1
Average Flow Rate (lpm)	: 19.4
Control Measures (if any)	: Nil
Remark (if any)	: Sampling Instrument Used-Stack Monitoring kit APM-610

#### RESULTS

S. No.	Parameters	Test Methods	Results	Units	Limits as per CPCB Guidelines
1	Total Hydrocarbon (as HC)	IS: 5182 (P-17)	ND	mg/Nm <sup>3</sup>	Not Specified
2	Total VOC	IS: 5182 (P-11)	ND	mg/Nm <sup>3</sup>	Not Specified

#### Notes :

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4. Responsibility of the Laboratory is limited to the invoiced amount only.

**\*\* End of Report \*\***







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# EKO TESTING LABS®

## Eko Pro Engineers Pvt. Ltd.

Contact : 91 - 9810243870

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### TEST REPORT

#### Stack Emission Analysis

Issue Date : 30/03/2024

Test Report No. : EKO/E-523/260324-A

Issued To

: HINDUSTAN ZINC LIMITED  
Plot No. 2, Sec - 14  
IIE, Sidcul Pantnagar  
Rudrapur - Uttarakhand

Sample Description	: Stack Emission
Sample Drawn on	: 22/03/2024
Sample Drawn by	: EPEPL (Mr. Chandan Sharma)
Sample Received on	: 26/03/2024
Time of Sampling (minutes)	: 30.0
Sampling Location	: NA
Sampling Plan & Procedure	: SOP-SE/09
Analysis Duration	: 26/03/2024 To 30/03/2024
Source of Emission	: Stack Attached To Furnace No. 2
Capacity	: 30.0 TPH
Operating Load	: Normal
Normal Operation Schedule	: As per requirement
Type of Stack	: Metal/Circular
Diameter of Stack (meter)	: 1.2 at top
Height of Stack from Ground Level (meter)	: 30.0
Height of Stack from Roof Level (meter)	: NA
Height of Sampling Location (meter)	: 19.8 From Ground Level
Type of Fuel Used	: Electricity
Fuel Consumed per hour	: -
Ambient Temperature (°C)	: 29.0
Stack Temperature (°C)	: 132.0
Average Velocity of Flue Emission (m/sec)	: 7.1
Average Flow Rate (lpm)	: 20.2
Control Measures (if any)	: Nil
Remark (if any)	: Sampling Instrument Used-Stack Monitoring kit APM-610

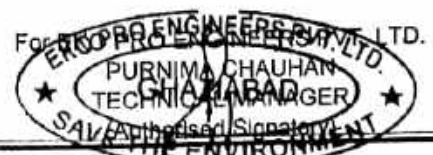
#### RESULTS

S. No.	Parameters	Test Methods	Results	Units	Limits as per CPCB Guidelines
1	Particulate Matter (as PM)	IS: 11255 (P-1)	31.5	mg/Nm <sup>3</sup>	150.0
2	Sulphur Dioxide (as SO <sub>2</sub> )	IS: 11255 (P-2)	10.98	mg/Nm <sup>3</sup>	Not Specified
3	Oxide of Nitrogen (as NO <sub>x</sub> )	IS: 11255 (P-7)	43.6	mg/Nm <sup>3</sup>	Not Specified
4	Carbon Monoxide (as CO)	IS: 13270	<0.2	% V/V	1.0
5	Lead (as Pb)	USEPA (P-12)	<1.0	mg/Nm <sup>3</sup>	10.0

#### Notes :

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**\*\* End of Report \*\***



Office & Laboratory : 32/41, South Side of GT Road, UPSIDC Industrial Area, Ghaziabad (Distt-NCR) - 201005  
Contact No. 97111159210, 9810240837, 9810240678 E mail : email@ekopro.in, ekoproengineers@gmail.com, Website : www.ekoproengineers.com

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# EKO TESTING LABS

## Eko Pro Engineers Pvt. Ltd.

Contact : +91 9810243870

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### TEST REPORT

#### Stack Emission Analysis

Test Report No. : EKO/E-523/260324-B

Issue Date : 30/03/2024

Issued To

: HINDUSTAN ZINC LIMITED  
Plot No. 2, Sec - 14  
IIE, Sidcul Pantnagar,  
Rudrapur - Uttarakhand

Sample Description	: Stack Emission
Sample Drawn on	: 22/03/2024
Sample Drawn by	: EPEPL (Mr. Chandan Sharma)
Sample Received on	: 26/03/2024
Time of Sampling (minutes)	: 30.0
Sampling Location	: NA
Sampling Plan & Procedure	: SOP-SE/09
Analysis Duration	: 26/03/2024 To 30/03/2024
Source of Emission	: Stack Attached To Furnace No. 2
Capacity	: 30.0 TPH
Operating Load	: Normal
Normal Operation Schedule	: As per requirement
Type of Stack	: Metal/Circular
Diameter of Stack (meter)	: 1.2 at top
Height of Stack from Ground Level (meter)	: 30.0
Height of Stack from Roof Level (meter)	: NA
Height of Sampling Location (meter)	: 19.8 From Ground Level
Type of Fuel Used	: Electricity
Fuel Consumed per hour	: -
Ambient Temperature (°C)	: 29.0
Stack Temperature (°C)	: 132.0
Average Velocity of Flue Emission (m/sec)	: 7.1
Average Flow Rate (lpm)	: 20.2
Control Measures (if any)	: Nil
Remark (if any)	: Sampling Instrument Used-Stack Monitoring kit APM-610

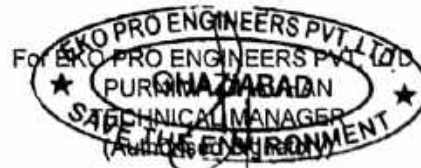
#### RESULTS

S. No.	Parameters	Test Methods	Results	Units	Limits as per CPCB Guidelines
1	Total Hydrocarbon (as HC)	IS: 5182 (P-17)	ND	mg/Nm <sup>3</sup>	Not Specified
2	Total VOC	IS: 5182 (P-11)	ND	mg/Nm <sup>3</sup>	Not Specified

#### Notes :

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\*\* End of Report \*\*





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# EKO TESTING LABS

## Eko Pro Engineers Pvt. Ltd.

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Contact : +91 - 9810243870

### TEST REPORT

#### Stack Emission Analysis

Test Report No. : EKO/E-526/260324-A

Issue Date : 30/03/2024

Issued To

: HINDUSTAN ZINC LIMITED  
Plot No. 2, Sec - 14  
IIE, Sidcul Pantnagar  
Rudrapur - Uttarakhand

Sample Description	: Stack Emission
Sample Drawn on	: 22/03/2024
Sample Drawn by	: EPEPL (Mr. Chandan Sharma)
Sample Received on	: 26/03/2024
Time of Sampling (minutes)	: 30.0
Sampling Location	: NA
Sampling Plan & Procedure	: SOP-SE/09
Analysis Duration	: 26/03/2024 To 30/03/2024
Source of Emission	: Stack Attached To DG Set No. 1
Capacity	: 7.5 MW
Operating Load	: Normal
Normal Operation Schedule	: As per requirement
Type of Stack	: Metal/Circular
Diameter of Stack (meter)	: 1.1
Height of Stack from Ground Level (meter)	: 50.0
Height of Stack from Roof Level (meter)	: NA
Height of Sampling Location (meter)	: 24.0 From Ground Level
Type of Fuel Used	: HSD
Fuel Consumed per hour	: 1600.0 lph
Ambient Temperature (°C)	: 29.0
Stack Temperature (°C)	: 332.0
Average Velocity of Flue Emission (m/sec)	: 14.4
Average Flow Rate (lpm)	: 16.9
Control Measures (if any)	: Nil
Remark (if any)	: Sampling Instrument Used-Stack Monitoring kit APM-610

### RESULTS

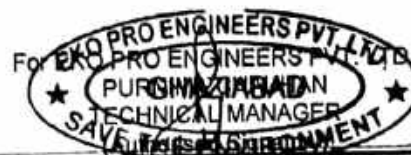
S.No.	Parameters	Test Methods	Results	Units	Limits as per CPCB Guidelines
1	Particulate Matter (as PM)	IS: 11255 (P-1)	47.2	mg/Nm <sup>3</sup>	75.0
2	Sulphur Dioxide (as SO <sub>2</sub> )	IS: 11255 (P-2)	28.9	mg/Nm <sup>3</sup>	Not Specified
3	Oxide of Nitrogen (as NO <sub>x</sub> )	IS: 11255 (P-7)	232.6	mg/Nm <sup>3</sup>	710.0
4	Carbon Monoxide (as CO)	USEPA (P-10)	63.7	mg/Nm <sup>3</sup>	150.0

Remark- PM, NO<sub>x</sub>, & CO at 15% O<sub>2</sub> Correction.

#### Notes :

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\*\* End of Report \*\*





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## Eko Pro Engineers Pvt. Ltd.

Contact : +91 9810243870

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### TEST REPORT

#### Stack Emission Analysis

Test Report No. : EKO/E-526/260324-B

Issue Date : 30/03/2024

Issued To

: HINDUSTAN ZINC LIMITED  
Plot No. 2, Sec - 14  
IIE, Sidcul Panthnagar  
Rudrapur - Uttarakhand

Sample Description	: Stack Emission
Sample Drawn on	: 22/03/2024
Sample Drawn by	: EPEPL (Mr. Chandan Sharma)
Sample Received on	: 26/03/2024
Time of Sampling (minutes)	: 30.0
Sampling Location	: NA
Sampling Plan & Procedure	: SOP-SE/09
Analysis Duration	: 26/03/2024 To 30/03/2024
Source of Emission	: Stack Attached To DG Set No. 1
Capacity	: 7.5 MW
Operating Load	: Normal
Normal Operation Schedule	: As per requirement
Type of Stack	: Metal/Circular
Diameter of Stack (meter)	: 1.1
Height of Stack from Ground Level (meter)	: 50.0
Height of Stack from Roof Level (meter)	: NA
Height of Sampling Location (meter)	: 24.0 From Ground Level
Type of Fuel Used	: HSD
Fuel Consumed per hour	: 1600.0 lph
Ambient Temperature (°C)	: 29.0
Stack Temperature (°C)	: 332.0
Average Velocity of Flue Emission (m/sec)	: 14.4
Average Flow Rate (lpm)	: 16.9
Control Measures (if any)	: Nil
Remark (if any)	: Sampling Instrument Used-Stack Monitoring kit APM-610

#### RESULTS

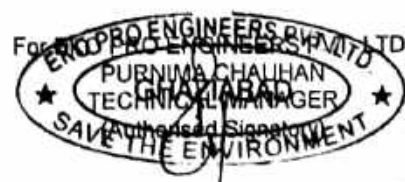
S.No.	Parameters	Test Methods	Results	Units	Limits as per CPCB Guidelines
1	NMHC	IS: 5182 (P-21)	23.5	mg/Nm <sup>3</sup>	100.0
2	Total VOC	IS: 5182 (P-11)	ND	mg/Nm <sup>3</sup>	Not Specified

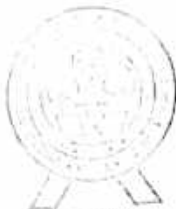
Remark- PM, NOx, & CO at 15% O<sub>2</sub> Correction.

#### Notes :

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**\*\* End of Report \*\***





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## Eko Pro Engineers Pvt. Ltd.

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### TEST REPORT

#### Stack Emission Analysis

Test Report No. : EKO/E-527/260324-A

Issue Date : 30/03/2024

Issued To

: HINDUSTAN ZINC LIMITED  
Plot No. 2, Sec - 14  
IIE, Sidcul Pantnagar  
Rudrapur - Uttarakhand

Sample Description	: Stack Emission
Sample Drawn on	: 22/03/2024
Sample Drawn by	: EPEPL (Mr. Chandan Sharma)
Sample Received on	: 26/03/2024
Time of Sampling (minutes)	: 30.0
Sampling Location	: NA
Sampling Plan & Procedure	: SOP-SE/09
Analysis Duration	: 26/03/2024 To 30/03/2024
Source of Emission	: Stack Attached To DG Set No. 2
Capacity	: 7.5 MW
Operating Load	: Normal
Normal Operation Schedule	: As per requirement
Type of Stack	: Metal/Circular
Diameter of Stack (meter)	: 1.1
Height of Stack from Ground Level (meter)	: 50.0
Height of Stack from Roof Level (meter)	: NA
Height of Sampling Location (meter)	: 24.0 From Ground Level
Type of Fuel Used	: HSD
Fuel Consumed per hour	: 1600.0 lph
Ambient Temperature (°C)	: 29.0
Stack Temperature (°C)	: 328.0
Average Velocity of Flue Emission (m/sec)	: 14.2
Average Flow Rate (lpm)	: 17.2
Control Measures (if any)	: Nil
Remark (if any)	: Sampling Instrument Used-Stack Monitoring kit APM-610

### RESULTS

S.No.	Parameters	Test Methods	Results	Units	Limits as per CPCB Guidelines
1	Particulate Matter (as PM)	IS: 11255 (P-1)	45.8	mg/Nm <sup>3</sup>	75.0
2	Sulphur Dioxide (as SO <sub>2</sub> )	IS: 11255 (P-2)	29.2	mg/Nm <sup>3</sup>	Not Specified
3	Oxide of Nitrogen (as NO <sub>x</sub> )	IS: 11255 (P-7)	242.3	mg/Nm <sup>3</sup>	710.0
4	Carbon Monoxide (as CO)	USEPA (P-10)	65.4	mg/Nm <sup>3</sup>	150.0

Remark- PM, NO<sub>x</sub>, & CO at 15% O<sub>2</sub> Correction.

#### Notes :

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- Responsibility of the Laboratory is limited to the invoiced amount only.

\*\* End of Report \*\*







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# EKO TESTING LABS<sup>®</sup>

## Eko Pro Engineers Pvt. Ltd.

Contact : +91 - 9810243870

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### TEST REPORT

#### Stack Emission Analysis

Test Report No. : EKO/E-527/260324-B

Issue Date : 30/03/2024

Issued To

: HINDUSTAN ZINC LIMITED  
Plot No. 2, Sec - 14  
IIE, Sidcul Panthnagar  
Rudrapur - Uttarakhand

Sample Description	: Stack Emission
Sample Drawn on	: 22/03/2024
Sample Drawn by	: EPEPL (Mr. Chandan Sharma)
Sample Received on	: 26/03/2024
Time of Sampling (minutes)	: 30.0
Sampling Location	: NA
Sampling Plan & Procedure	: SOP-SE/09
Analysis Duration	: 26/03/2024 To 30/03/2024
Source of Emission	: Stack Attached To DG Set No. 2
Capacity	: 7.5 MW
Operating Load	: Normal
Normal Operation Schedule	: As per requirement
Type of Stack	: Metal/Circular
Diameter of Stack (meter)	: 1.1
Height of Stack from Ground Level (meter)	: 50.0
Height of Stack from Roof Level (meter)	: NA
Height of Sampling Location (meter)	: 24.0 From Ground Level
Type of Fuel Used	: HSD
Fuel Consumed per hour	: 1600.0 lph
Ambient Temperature (°C)	: 29.0
Stack Temperature (°C)	: 328.0
Average Velocity of Flue Emission (m/sec)	: 14.2
Average Flow Rate (lpm)	: 17.2
Control Measures (if any)	: Nil
Remark (if any)	: Sampling Instrument Used-Stack Monitoring kit APM-610

### RESULTS

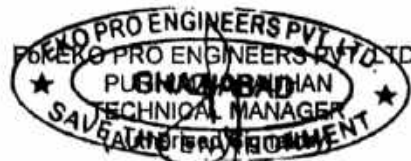
S.No.	Parameters	Test Methods	Results	Units	Limits as per CPCB Guidelines
1	NMHC	IS: 5182 (P-21)	21.2	mg/Nm <sup>3</sup>	100.0
2	Total VOC	IS: 5182 (P-11)	ND	mg/Nm <sup>3</sup>	Not Specified

Remark- PM, NOx, & CO at 15% O<sub>2</sub> Correction.

#### Notes :

1. The results given above are related to the tested sample, for various parameters, as observed at the time of Sampling. The customer asked for the above tests only.
2. This test report will not be generated again, either wholly or in part, without prior written permission of the Laboratory.
3. The test samples will be disposed off after 15 days from the date of issue of test report, unless until specified by the customer.
4. Responsibility of the Laboratory is limited to the invoiced amount only.

**\*\* End of Report \*\***





# EKO TESTING LABS<sup>(P)</sup>

## Eko Pro Engineers Pvt. Ltd.

Contact : 91 9810243870

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### TEST REPORT

#### Stack Emission Analysis

Test Report No. : EKO/E-528/260324-A

Issue Date : 30/03/2024

Issued To

: HINDUSTAN ZINC LIMITED  
Plot No. 2, Sec - 14  
IIE, Sidcul Pantnagar  
Rudrapur - Uttarakhand

Sample Description	: Stack Emission
Sample Drawn on	: 22/03/2024
Sample Drawn by	: EPEPL (Mr. Chandan Sharma)
Sample Received on	: 26/03/2024
Time of Sampling (minutes)	: 30.0
Sampling Location	: NA
Sampling Plan & Procedure	: SOP-SE/09
Analysis Duration	: 26/03/2024 To 30/03/2024
Source of Emission	: Stack Attached To DG Set No. 3
Capacity	: 1250 KVA
Operating Load	: Normal
Normal Operation Schedule	: As per requirement
Type of Stack	: Metal/Circular
Diameter of Stack (meter)	: 0.5
Height of Stack from Ground Level (meter)	: 30.0
Height of Stack from Roof Level (meter)	: NA
Height of Sampling Location (meter)	: 16.0 From Ground Level
Type of Fuel Used	: HSD
Fuel Consumed per hour	: -
Ambient Temperature (°C)	: 29.0
Stack Temperature (°C)	: 250.0
Average Velocity of Flue Emission (m/sec)	: 13.1
Average Flow Rate (lpm)	: 16.5
Control Measures (if any)	: Nil
Remark (if any)	: Sampling Instrument Used-Stack Monitoring kit APM-610

### RESULTS

S.No.	Parameters	Test Methods	Results	Units	Limits as per CPCB Guidelines
1	Particulate Matter (as PM)	IS: 11255 (P-1)	43.4	mg/Nm <sup>3</sup>	75.0
2	Sulphur Dioxide (as SO <sub>2</sub> )	IS: 11255 (P-2)	22.8	mg/Nm <sup>3</sup>	Not Specified
3	Oxide of Nitrogen (as NO <sub>x</sub> )	IS: 11255 (P-7)	165.7	mg/Nm <sup>3</sup>	710.0
4	Carbon Monoxide (as CO)	USEPA (P-10)	60.2	mg/Nm <sup>3</sup>	150.0

Remark- PM, NO<sub>x</sub>, & CO at 15% O<sub>2</sub> Correction.

#### Notes :

- The results given above are related to the tested sample, for various parameters, as observed at the time of Sampling. The customer asked for the above tests only.
- This test report will not be generated again, either wholly or in part, without prior written permission of the Laboratory.
- The test samples will be disposed off after 15 days from the date of issue of test report, unless until specified by the customer.
- Responsibility of the Laboratory is limited to the invoiced amount only.

**\*\* End of Report \*\***

FOR EKO PRO ENGINEERS PVT. LTD.

PURNIMA CHAUDHARY

TECHNICAL MANAGER

(Authorized Signatory)

Save THE ENVIRONMENT

Office & Laboratory : 32/41, South Side of GT Road, UPSIDC Industrial Area, Ghaziabad, Delhi-201012  
Contact No. 97111159210, 9810240817, 9810240878 E-mail: email@ekopro.in, ekoproengineers@gmail.com

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# EKO TESTING LABS

## Eko Pro Engineers Pvt. Ltd.

Competence | Quality | Service

Contact : +91 - 9810243870

### TEST REPORT

#### Stack Emission Analysis

Test Report No. : EKO/E-528/260324-B

Issue Date : 30/03/2024

Issued To

: HINDUSTAN ZINC LIMITED  
Plot No. 2, Sec - 14  
IIE, Sidcul Pantnagar  
Rudrapur - Uttarakhand

Sample Description : Stack Emission  
Sample Drawn on : 22/03/2024  
Sample Drawn by : EPEPL (Mr. Chandan Sharma)  
Sample Received on : 26/03/2024  
Time of Sampling (minutes) : 30.0  
Sampling Location : NA  
Sampling Plan & Procedure : SOP-SE/09  
Analysis Duration : 26/03/2024 To 30/03/2024  
Source of Emission : Stack Attached To DG Set No. 3  
Capacity : 1250 KVA  
Operating Load : Normal  
Normal Operation Schedule : As per requirement  
Type of Stack : Metal/Circular  
Diameter of Stack (meter) : 0.5  
Height of Stack from Ground Level (meter) : 30.0  
Height of Stack from Roof Level (meter) : NA  
Height of Sampling Location (meter) : 16.0 From Ground Level  
Type of Fuel Used : HSD  
Fuel Consumed per hour : -  
Ambient Temperature (°C) : 29.0  
Stack Temperature (°C) : 250.0  
Average Velocity of Flue Emission (m/sec) : 13.1  
Average Flow Rate (lpm) : 16.5  
Control Measures (if any) : Nil  
Remark (if any) : Sampling Instrument Used-Stack Monitoring kit APM-610

#### RESULTS

S.No.	Parameters	Test Methods	Results	Units	Limits as per CPCB Guidelines
1	NMHC	IS: 5182 (P-21)	18.9	mg/Nm <sup>3</sup>	100.0
2	Total VOC	IS: 5182 (P-11)	ND	mg/Nm <sup>3</sup>	Not Specified

Remark- PM, NOx, & CO at 15% O<sub>2</sub> Correction.

#### Notes :

1. The results given above are related to the tested sample, for various parameters, as observed at the time of Sampling. The customer asked for the above tests only.
2. This test report will not be generated again, either wholly or in part, without prior written permission of the Laboratory.
3. The test samples will be disposed off after 15 days from the date of issue of test report, unless until specified by the customer.
4. Responsibility of the Laboratory is limited to the invoiced amount only.

**\*\* End of Report \*\***





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# EKO TESTING LABS

## Eko Pro Engineers Pvt. Ltd.

Contact : +91 - 9810243870

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### TEST REPORT

#### Workzone Air Quality Monitoring

Test Report No. : EKO/E-530/260324

Issue Date : 30/03/2024

Issued To

: HINDUSTAN ZINC LIMITED  
Plot No. 2 Sec-14  
IIE, Sidcul Pantnagar  
Rudrapur - Uttarakhand

Sample Description : Workzone Air  
Sample Drawn on : 22/03/2024  
Sample Drawn by : EPEPL (Mr. Chandan Sharma)  
Sample Received on : 26/03/2024  
Sampling Location : Zinc Casting Machine Floor  
Sampling Plan & Procedure : SOP-AAQ/15  
Analysis Duration : 26/03/2024 To 30/03/2024  
Sampling Time : 08 Hrs.  
Ambient Temperature (°C) : 27.0  
Average Flow Rate of SPM (m<sup>3</sup>/min) : 1.60  
Average Flow Rate of Gases (lpm) : 1.60  
Weather Condition : Clear  
Remark (if any) : NA

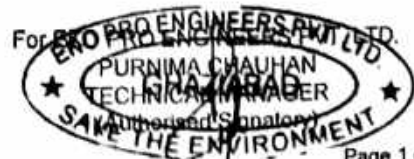
#### RESULTS

S. No.	Parameters	Test Methods	Results	Units	Permissible Limits
1	SPM	IS: 5182 (P-4)	0.598	mg/m <sup>3</sup>	15.0 as per OSHA
2	Sulphur Dioxide (as SO <sub>2</sub> )	IS: 5182 (P-2)	0.012	mg/m <sup>3</sup>	5.0 as per Factories Act, 1948
3	Nitrogen Dioxide (as NO <sub>2</sub> )	IS: 5182 (P-6)	0.017	mg/m <sup>3</sup>	6.0 as per Factories Act, 1948
4	Lead (as Pb)	IS: 5182 (P-22)	< 0.1	mg/m <sup>3</sup>	0.15 as per Factories Act, 1948
5	Zinc (as Zn)	EKO/CHEM/SOP/AAQ-02	< 0.1	mg/m <sup>3</sup>	-

#### Notes :

- The results given above are related to the tested sample, as received & mentioned parameters.  
The customer asked for the above tests only.
- This test report will not be generated again, either wholly or in part, without prior written permission of the Laboratory.
- The test report will not be used for any publicity/legal purpose.
- The test samples will be disposed off after 15 days from the date of issue of test report, unless until specified by the customer. Sample received for biological tests will be destroyed after 7 days from the date of issue of test report.
- Responsibility of the Laboratory is limited to the invoiced amount only.

\*\*End of Report\*\*



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# EKO TESTING LABS<sup>®</sup>

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### TEST REPORT

#### Workzone Air Quality Monitoring

Test Report No. : EKO/E-529/260324

Issue Date : 30/03/2024

Issued To

: HINDUSTAN ZINC LIMITED  
Plot No. 2 Sec-14  
IIE, Sidcul Panthnagar  
Rudrapur - Uttarakhand

Sample Description : Workzone Air  
Sample Drawn on : 22/03/2024  
Sample Drawn by : EPEPL (Mr. Chandan Sharma)  
Sample Received on : 26/03/2024  
Sampling Location : Zinc Furnace Top Floor  
Sampling Plan & Procedure : SOP-AAQ/15  
Analysis Duration : 26/03/2024 To 30/03/2024  
Sampling Time : 08 Hrs.  
Ambient Temperature (°C) : 27.0  
Average Flow Rate of SPM (m<sup>3</sup>/min) : 1.65  
Average Flow Rate of Gases (lpm) : 1.65  
Weather Condition : Clear  
Remark (if any) : NA

#### RESULTS

S. No.	Parameters	Test Methods	Results	Units	Permissible Limits
1	SPM	IS: 5182 (P-4)	0.705	mg/m <sup>3</sup>	15.0 as per OSHA
2	Sulphur Dioxide (as SO <sub>2</sub> )	IS: 5182 (P-2)	0.011	mg/m <sup>3</sup>	5.0 as per Factories Act, 1948
3	Nitrogen Dioxide (as NO <sub>2</sub> )	IS: 5182 (P-6)	0.025	mg/m <sup>3</sup>	6.0 as per Factories Act, 1948
4	Lead (as Pb)	IS: 5182 (P-22)	< 0.1	mg/m <sup>3</sup>	0.15 as per Factories Act, 1948
5	Zinc (as Zn)	EKO/CHEM/SOP/AAQ-02	< 0.1	mg/m <sup>3</sup>	-

#### Notes :

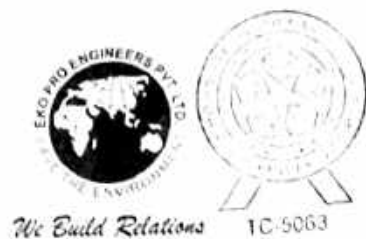
- The results given above are related to the tested sample, as received & mentioned parameters.  
The customer asked for the above tests only.
- This test report will not be generated again, either wholly or in part, without prior written permission of the Laboratory.
- The test samples will be disposed off after 15 days from the date of issue of test report, unless until specified by the customer. Sample received for biological tests will be destroyed after 7 days from the date of issue of test report.
- Responsibility of the Laboratory is limited to the invoiced amount only.

**\*\*End of Report\*\***



Page 1 of 1





# EKO TESTING LABS®

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### TEST REPORT

#### Water Sample Analysis

Test Report No. : EKO/E-549/260324

Issue Date : 30/03/2024

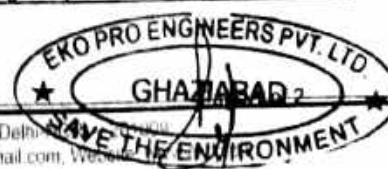
Issued To

: HINDUSTAN ZINC LIMITED  
Plot No. 2 Sec-14  
IIE, Sidcul Pantnagar  
Rudrapur - Uttarakhand

Sample Description : Ground Water  
Sample Drawn on : 22/03/2024  
Sample Drawn by : EPEPL (Mr. Chandan Sharma)  
Sample Received on : 26/03/2024  
Sampling Location : From Borewell  
Sampling Plan & Procedure : SOP-W/66  
Sample Quantity : 3.0 Litre  
Environmental Conditions : Normal  
Analysis Duration : 26/03/2024 To 30/03/2024  
Remark (if any) : NA

### RESULTS

S. No.	Parameters	Test Methods	Results	Units	Limits as per IS: 10500-2012 (Amd.No.3 Feb-2021)	
					Acceptable	Permissible
1	Colour	IS: 3025 (P-4)	<1.0	Hazen	5.0	15.0
2	Odour	IS: 3025 (P-5)	Agreeable	-	Agreeable	Agreeable
3	Taste	IS: 3025 (P-7)	Agreeable	-	Agreeable	Agreeable
4	Turbidity	IS: 3025 (P-10)	<1.0	NTU	1.0	5.0
5	pH	IS: 3025 (P-11)	7.22	-	6.5-8.5	No relaxation
6	Total Hardness (as CaCO <sub>3</sub> )	IS: 3025 (P-21)	188.0	mg/L	200.0	600.0
7	Calcium (as Ca)	IS: 3025 (P-40)	45.30	mg/L	75.0	200.0
8	Ammonia (as Total Ammonia-N)	IS: 3025 (P-34)	<0.5	mg/L	0.5	No relaxation
9	Chloride (as Cl)	IS: 3025 (P-32)	30.9	mg/L	250.0	1000.0
10	Potassium (as K)	IS 3025 (Part-45)	<1.0	mg/L	-	-
11	Sodium (as Na)	IS 3025 (Part-45)	11.30	mg/L	-	-
12	Fluoride (as F)	IS: 3025 (P-60)	<1.0	mg/L	1.0	1.5
13	Total Dissolved Solids	IS: 3025 (P-16)	395.0	mg/L	500.0	2000.0
14	Magnesium (as Mg)	IS: 3025 (P-46)	18.20	mg/L	30.0	100.0
15	Copper (as Cu)	APHA 3125 B	<0.005	mg/L	0.05	1.5
16	Sulphide (as H <sub>2</sub> S)	IS: 3025 (P-29)	<0.05	mg/L	0.05	No relaxation
17	Sulphate (as SO <sub>4</sub> )	IS: 3025 (P-24)	16.9	mg/L	200.0	400.0
18	Nitrate (as NO <sub>3</sub> )	IS: 3025 (P-34)	1.25	mg/L	45.0	No relaxation
19	Phenolic Compounds (as C <sub>6</sub> H <sub>5</sub> OH)	IS: 3025 (P-43)	<0.001	mg/L	0.001	0.002
20	Mercury (as Hg)	APHA 3125 B	<0.001	mg/L	0.001	No relaxation
21	Selenium (as Se)	APHA 3125 B	<0.005	mg/L	0.01	No relaxation
22	Arsenic (as As)	APHA 3125 B	<0.005	mg/L	0.01	No relaxation
23	Cyanide (as CN)	APHA 4500 CN-K	Absent	mg/L	0.05	No relaxation
24	Lead (as Pb)	APHA 3125 B	<0.005	mg/L	0.01	No relaxation
25	Zinc (as Zn)	APHA 3125 B	<0.01	mg/L	5.0	15.0



Office & Lab : Plot No. 2, South Side of GT Road, UPSIDC Industrial Area, Ghaziabad (Delhi)  
Phone : 9810243870, 9810240678 E-mail : email@ekopro.in, ekoproengineers@gmail.com, Website : www.ekoproengineers.com

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# EKO TESTING LABS<sup>®</sup>

## Eko Pro Engineers Pvt. Ltd.

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Test Report No. : EKO/E-549/260324

Issue Date : 30/03/2024

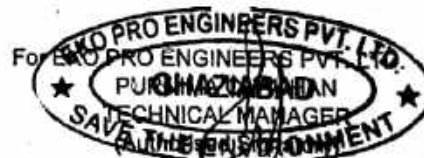
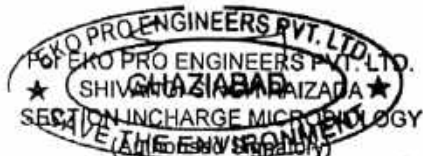
26	Total Chromium (as Cr)	APHA 3125 B	<0.005	mg/L	0.05	No relaxation
27	Total Alkalinity (as CaCO <sub>3</sub> )	IS: 3025 (P-23)	139.0	mg/L	200.0	600.0
28	Aluminium (as Al)	APHA 3125 B	<0.005	mg/L	0.03	0.2
29	Boron (as B)	IS: 3025 (P-57)	<0.25	mg/L	0.5	2.4
30	Cadmium (as Cd)	APHA 3125 B	<0.001	mg/L	0.003	No relaxation
31	Anionic Detergents (as MBAS)	APHA 5540	<0.1	mg/L	0.2	1.0
32	Total Coliform	IS: 15185	Not Detected	Per 100mL	Absent	No relaxation
33	E.coli	IS: 15185	Not Detected	Per 100mL	Absent	No relaxation

Remark:- Standard Applicable only for Drinking Water.

### Notes:

1. The results given above are related to the tested sample, as received & mentioned parameters.  
The customer asked for the above tests only.
2. This test report will not be generated again, either wholly or in part, without prior written permission of the Laboratory.
3. The test samples will be disposed off after 15 days from the date of issue of test report, unless until specified by the customer. Sample received for biological tests will be destroyed after 7 days from the date of issue of test report.
4. Responsibility of the Laboratory is limited to the invoiced amount only.

**\*\*End of Report\*\***





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TC-5063

# EKO TESTING LABS<sup>(P)</sup>

## Eko Pro Engineers Pvt. Ltd.

Competence | Quality | Service

Contact : 91-9810243870

### TEST REPORT

#### Effluent Sample Analysis

Test Report No. : EKO/E-544/260324

Issue Date : 30/03/2024

Issued To

: HINDUSTAN ZINC LIMITED

Plot No. 2 Sec-14

IIE, Sidcul Pantnagar

Rudrapur - Uttarakhand

Sample Description : STP Outlet (Final Exit Point)  
Sample Drawn on : 22/03/2024  
Sample Drawn by : EPEPL (Mr. Chandan Sharma)  
Sample Received on : 26/03/2024  
Sampling Location : From STP Plant  
Sampling Plan & Procedure : SOP-W/66  
Sample Quantity : 2.0 Litre  
Environmental Condition : Normal  
Analysis Duration : 26/03/2024 To 30/03/2024  
Remark (if any) : NA

#### RESULTS

S. No.	Parameters	Test Method	Results	Units	Limits as per CPCB (EPR-1986 Schedule-VI Part-A)
1	pH	IS : 3025 (P-11)	7.18	-	5.5-9.0
2	Total Suspended Solids	IS : 3025 (P-17)	44.0	mg/l	100.0
3	COD (as O <sub>2</sub> )	IS : 3025 (P-58)	40.3	mg/l	250.0
4	BOD (@27°C for 3 days)	IS : 3025 (P-44)	14.0	mg/l	30.0
5	Total Nitrogen (as N)	APHA 4500 N	0.26	mg/l	100.0
6	Phosphate (as P)	IS : 3025 (P-31)	0.42	mg/l	5.0
7	Ammonical Nitrogen (as N)	APHA 4500 NH <sub>3</sub>	1.25	mg/l	50.0
8	Faecal Coliform	APHA 9221 E	120	MPN/100ml	1000.0

#### Notes:

- The results given above are related to the tested sample, as received & mentioned parameters.  
The customer asked for the above tests only.
- This test report will not be generated again, either wholly or in part, without prior written permission of the Laboratory.
- The test samples will be disposed off after 15 days from the date of reporting of result, unless until specified by the customer. Sample received for biological tests will be destroyed after 7 days from the date of issue of test report.
- Responsibility of the Laboratory is limited to the invoiced amount only.

**\*\*End of Report\*\***





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IC-5063

# EKO TESTING LABS

## Eko Pro Engineers Pvt. Ltd.

Competence | Quality | Service

Contact : 91 9810243870

### TEST REPORT

#### Noise Monitoring

Test Report No. : EKO/E-539/260324

Issue Date : 30/03/2024

Issued To

: HINDUSTAN ZINC LIMITED  
Plot No. 2 Sector-14  
IIE, Sidcul Pantnagar  
Rudrapur - (Uttarakhand)

Sample Description : Ambient Noise  
Sample Drawn on : 22/03/2024  
Sample Drawn by : EPEPL (Mr. Chandan Sharma)  
Sample Received on : 26/03/2024  
Sampling Location : Near Main Gate  
Sampling Plan & Procedure : SOP-N/01  
Weather Condition : Normal  
Analysis Duration : 26/03/2024 To 27/03/2024  
Remark (if any) : NA

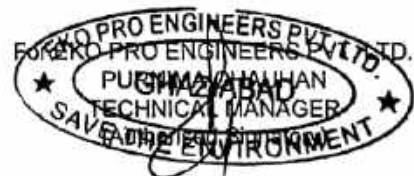
#### RESULTS

S. No.	Parameters	Test Methods	Results	Units	Limits as per "The Noise Pollution (Regulation & Control) Rules, 2000"
1	Leq (Day Time)	IS : 9989	68.2	dB (A)	75.0
2	Leq (Night Time)		61.3	dB (A)	70.0

#### Notes :

- The results given above are related to the tested sample, as received & mentioned parameters.  
The customer asked for the above tests only.
- This test report will not be generated again, either wholly or in part, without prior written permission of the Laboratory.
- Responsibility of the Laboratory is limited to the invoiced amount only.

\*\*End of Report\*\*





# EKO TESTING LABS®

## Eko Pro Engineers Pvt. Ltd.

Contact : 91 - 9810243870

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### TEST REPORT

#### Noise Monitoring

Test Report No. : EKO/E-538/260324

Issue Date : 30/03/2024

Issued To : HINDUSTAN ZINC LIMITED  
Plot No. 2 Sector-14  
IIE, Sidcul Pantnagar  
Rudrapur - (Uttarakhand)

Sample Description : Ambient Noise  
Sample Drawn on : 22/03/2024  
Sample Drawn by : EPEPL (Mr. Chandan Sharma)  
Sample Received on : 26/03/2024  
Sampling Location : Back Side of DG Area  
Sampling Plan & Procedure : SOP-N/01  
Weather Condition : Normal  
Analysis Duration : 26/03/2024 To 27/03/2024  
Remark (if any) : NA

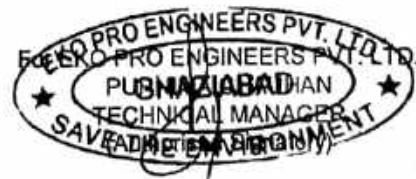
#### RESULTS

S. No.	Parameters	Test Methods	Results	Units	Limits as per "The Noise Pollution (Regulation & Control) Rules, 2000"
1	Leq (Day Time)	IS : 9989	71.3	dB (A)	75.0
2	Leq (Night Time)		65.8	dB (A)	70.0

#### Notes :

- The results given above are related to the tested sample, as received & mentioned parameters.  
The customer asked for the above tests only.
- This test report will not be generated again, either wholly or in part, without prior written permission of the Laboratory.
- Responsibility of the Laboratory is limited to the Invoiced amount only.

**\*\*End of Report\*\***







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# EKO TESTING LABS<sup>®</sup>

## Eko Pro Engineers Pvt. Ltd.

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Contact : +91 - 9810243870

### TEST REPORT

#### Noise Monitoring

Issue Date : 30/03/2024

Test Report No. : EKO/E-540/260324

Issued To

: HINDUSTAN ZINC LIMITED  
Plot No. 2 Sector-14  
IIE, Sidcul Pantnagar  
Rudrapur - (Uttarakhand)

Sample Description : Ambient Noise  
Sample Drawn on : 22/03/2024  
Sample Drawn by : EPEPL (Mr. Chandan Sharma)  
Sample Received on : 26/03/2024  
Sampling Location : East Side of Canteen In New Plant  
Sampling Plan & Procedure : SOP-N/01  
Weather Condition : Normal  
Analysis Duration : 26/03/2024 To 27/03/2024  
Remark (if any) : NA

#### RESULTS

S. No.	Parameters	Test Methods	Results	Units	Limits as per "The Noise Pollution (Regulation & Control) Rules, 2000"
1	Leq (Day Time)	IS : 9989	67.1	dB (A)	75.0
2	Leq (Night Time)		55.9	dB (A)	70.0

#### Notes :

1. The results given above are related to the tested sample, as received & mentioned parameters.

The customer asked for the above tests only.

2. This test report will not be generated again, either wholly or in part, without prior written permission of the Laboratory.

3. Responsibility of the Laboratory is limited to the invoiced amount only.

**\*\*End of Report\*\***





We Build Relations



TC-5063

# EKO TESTING LABS<sup>®</sup>

## Eko Pro Engineers Pvt. Ltd.

Contact : +91 - 9810243870

Competence | Quality | Service

### TEST REPORT

#### Noise Monitoring

Test Report No. : EKO/E-537/260324

Issue Date : 30/03/2024

Issued To

: HINDUSTAN ZINC LIMITED

Plot No. 2 Sector-14

IIE, Sidcul Pantragar

Rudrapur - (Uttarakhand)

Sample Description : Ambient Noise  
Sample Drawn on : 22/03/2024  
Sample Drawn by : EPEPL (Mr. Chandan Sharma)  
Sample Received on : 26/03/2024  
Sampling Location : Near Compressor Area  
Sampling Plan & Procedure : SOP-N/01  
Weather Condition : Normal  
Analysis Duration : 26/03/2024 To 27/03/2024  
Remark (if any) : NA

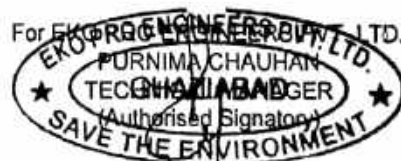
#### RESULTS

S. No.	Parameters	Test Methods	Results	Units	Limits as per "The Noise Pollution (Regulation & Control) Rules, 2000"
1	Leq (Day Time)	IS : 9989	73.1	dB (A)	75.0
2	Leq (Night Time)		66.5	dB (A)	70.0

#### Notes :

- The results given above are related to the tested sample, as received & mentioned parameters.  
The customer asked for the above tests only.
- This test report will not be generated again, either wholly or in part, without prior written permission of the Laboratory.
- Responsibility of the Laboratory is limited to the invoiced amount only.

**\*\*End of Report\*\***





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## Eko Pro Engineers Pvt. Ltd.

Contact : +91 - 9810243870

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### TEST REPORT

#### Noise Monitoring

Test Report No. : EKO/E-543/260324

Issue Date : 30/03/2024

Issued To

: HINDUSTAN ZINC LIMITED

Plot No. 2 Sec-14

IIE, Sidcul Pantnagar

Rudrapur - Uttarakhand

Sample Description : Workzone Noise  
Sample Drawn on : 23/03/2024  
Sample Drawn by : EPEPL (Mr. Chandan Sharma)  
Sample Received on : 26/03/2024  
Sampling Location : Zinc M&C Area  
Sampling Plan & Procedure : SOP-N/01  
Weather Condition : Normal  
Analysis Duration : 26/03/2024 To 27/03/2024  
Remark (if any) : NA

#### RESULTS

S. No.	Parameters	Test Methods	Results	Units	Limits as per "The Noise Pollution (Regulation & Control) Rules, 2000"
1	Leq (Day Time)	IS : 9989	72.3	dB (A)	75.0
2	Leq (Night Time)		65.8	dB (A)	70.0

#### Notes :

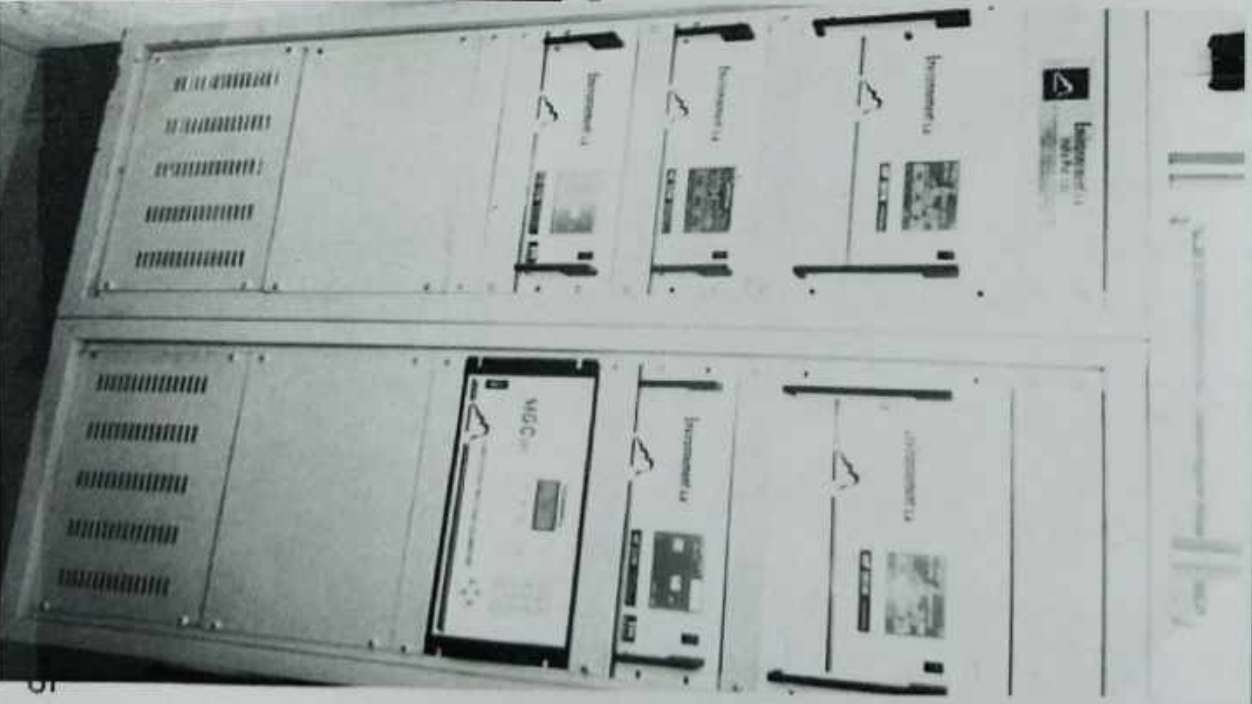
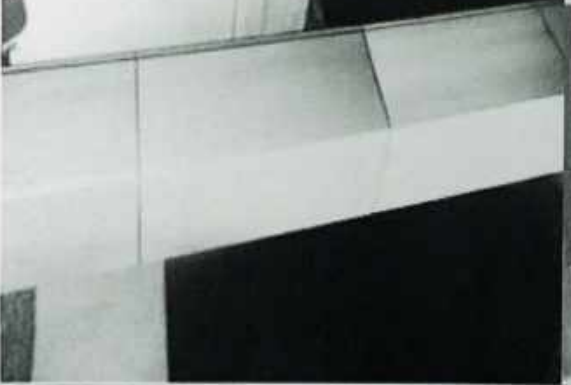
- The results given above are related to the tested sample, as received & mentioned parameters.  
The customer asked for the above tests only.
- This test report will not be generated again, either wholly or in part, without prior written permission of the Laboratory.
- Responsibility of the Laboratory is limited to the invoiced amount only.

**\*\*End of Report\*\***

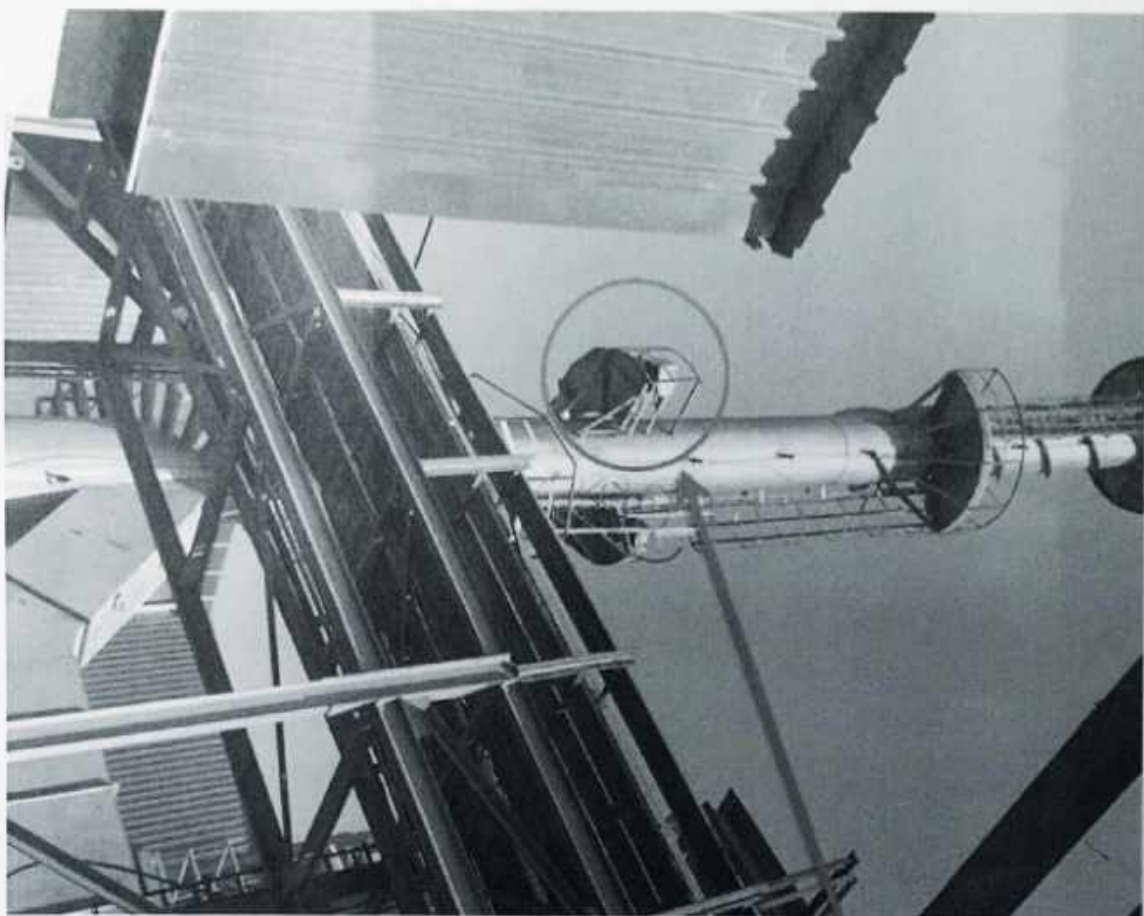


ANNE XURE-2

## CAAQMS



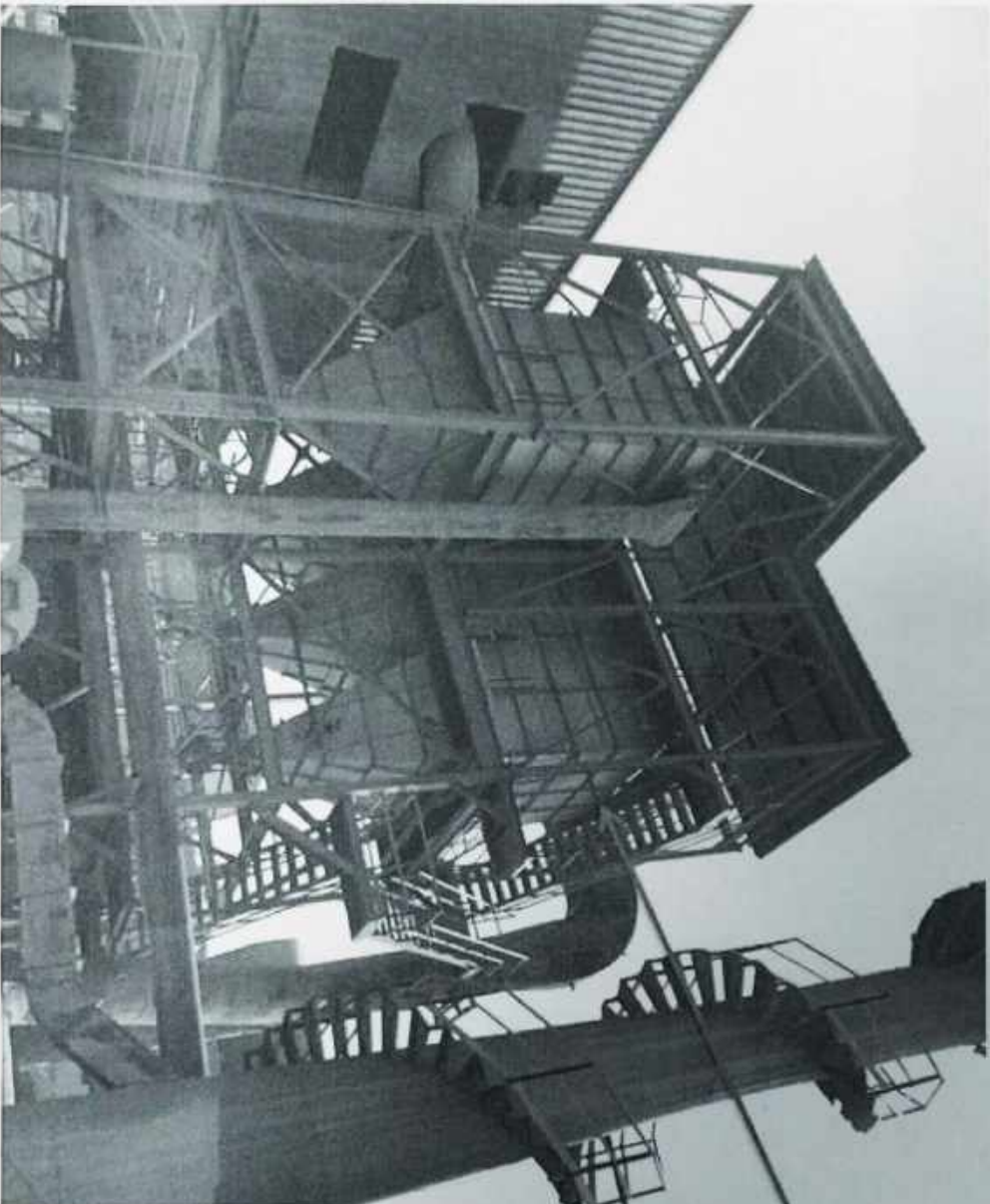
PH analyzer installed at stack



PM analyzer



## Hygiene ventilation system



Bag filter  
arrangement for  
hygiene ventilation

## ANNEXURE -3

Ground Water Withdrawal FY 2023-24			
Month	Ground Water Withdrawal	UOM	Rain water utilization
Apr-23	2,584	Cu.m	1,945
May-23	2,377	Cu.m	2,907
Jun-23	4,449	Cu.m	312
Jul-23	2,098	Cu.m	781
Aug-23	1,089	Cu.m	2,886
Sep-23	873	Cu.m	2,968
Oct-23	1,848	Cu.m	2,282
Nov-23	2,378	Cu.m	869
Dec-23	3,306	Cu.m	0
Jan-24	3,036	Cu.m	0
Feb-24	3,432	Cu.m	0
Mar-24	4,108	Cu.m	0
<b>Total</b>	<b>31,578</b>	<b>Cu.m</b>	<b>14,950</b>

- All reading recorded in cubic meter.

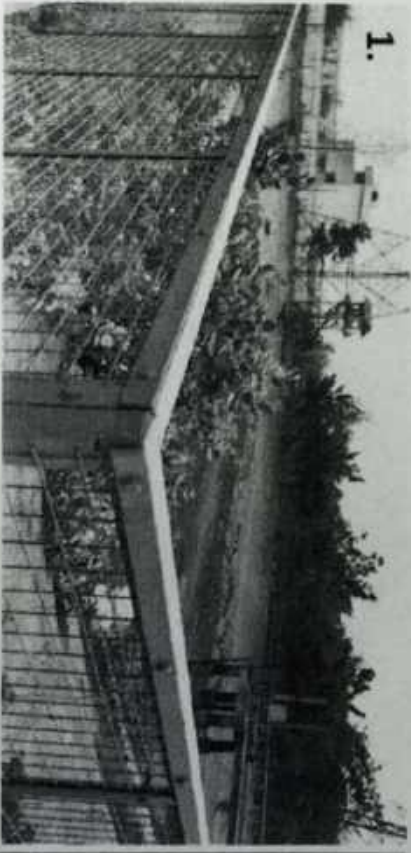
**Water Withdrawal Point – Borewell**



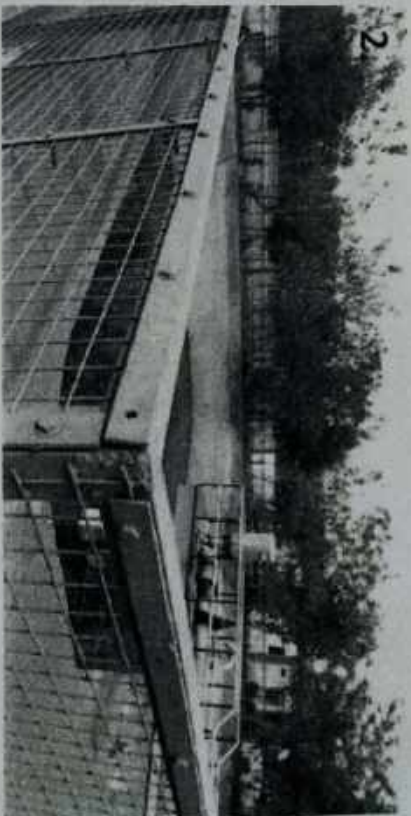
Sensitivity: Internal (C3)



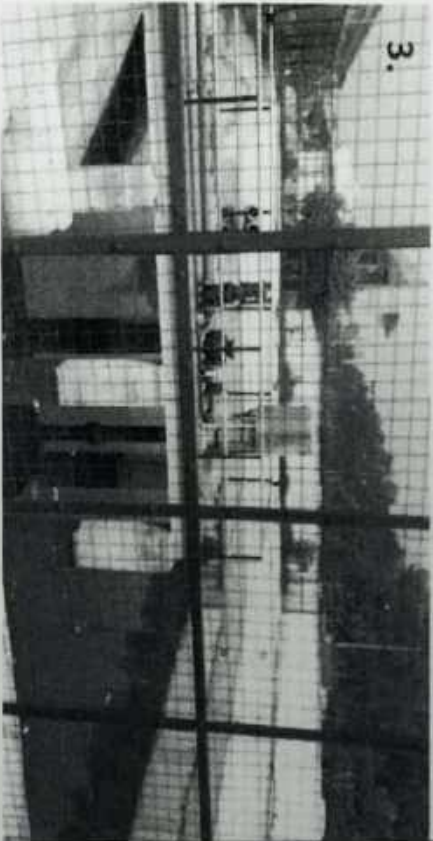
RAIN WATER STORAGE POND HZL- PANTNAGAR



Pond No-1



Pond No-2



Pond No-3



Pond No-4

## ANNEXURE - 4

### On-Going CSR Activities at PMP FY2023-24

#### **Flag Ship Projects: Continuing in FY 23-24**

1. Sakhi Project – Strengthening Women Empowerment
2. ME – Providing Micro Enterprises support to SHG women for their sustainability
3. Zinc Kaushal – Providing skilling training to rural youth through Tata Motors Tata Strive Project
4. Deployment of Mobile health van for nearby community health care services

#### **Other Activities:**

- 18 Nos. unprivileged children sent to Udaipur under summer camp initiative for career path development from different school based at nearby community.
- Exco member visited to our production centre.
- HZL CHRO visited Production centre and interacted with SHG women.
- One Girl studying in Unchi Udaan project from PMP got selection in IIT Guwahati, Assam.
- Micro Enterprises Thematic champion visited PMP production centre and pickle unit.
- Blood Donation camp conducted by HR department. 100 donors donated Blood on this Occasion.
- E booklet made of Jeevan Tarang students was launched by UH.

### On-Going CSR Activities at PMP FY2023-24



**Youth Skill Development Program- 18 Nos. unprivileged children sent to Udaipur under summer camp initiative for career path development from different school based at nearby community**

Sanjay Kumar (20)



## On-Going CSR Activities at PMP FY2023-24



**Women Empowerment- Strengthening of Self-Help Group by 33 villages and covered around 3000+ families. This project (Sakhi) was implementing through Manjari Foundation. Started in the year 2017 and continuing.**

### On-Going CSR Activities at PMP FY2023-24




**Youth Skill Development Program-** Imparting Skill training program with TATA STRIVE in field of Auto Sales, Auto technicians, Automotive Services in two, three & four wheelers for Youth from nearby community.




## On-Going CSR Activities at PMP FY2023-24



**Health & Sanitation-** Deployment of Mobile health van for nearby community health care facilities, Blood Donation camp organized at location in consultation with CMO, US Nagar, Organized Run for Zero Hunger Campaign for meals to unprivileged children's



For Sustaining the Good







HINDUSTAN ZINC  
ZINC & SILVER IN INDIA

### BLOOD DONATION CAMP AT PANTNAGAR METAL PLANT

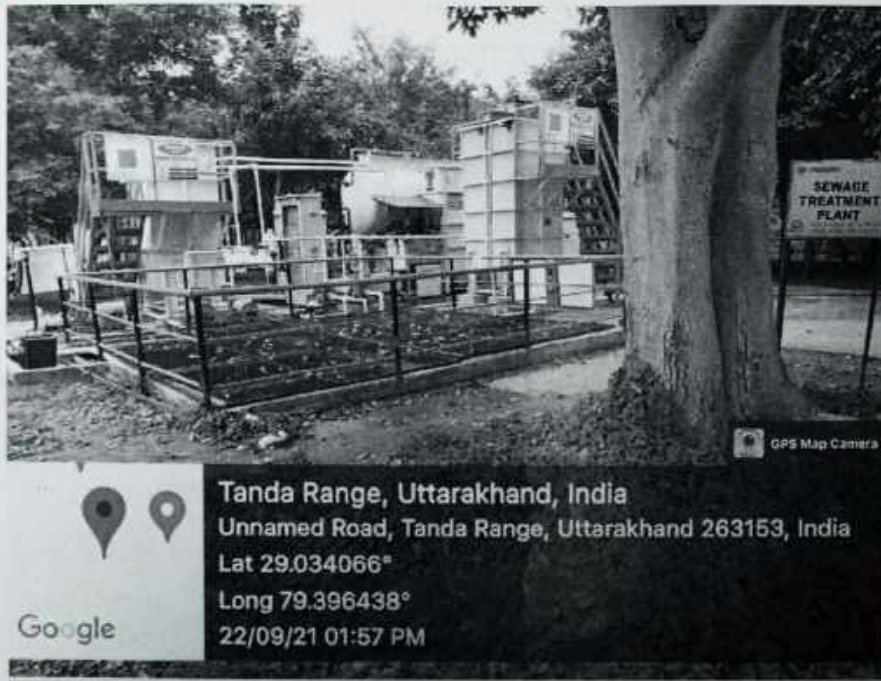
**DONATING BLOOD, SAVING LIVES**

Pantnagar Metal Plant organized a Blood Donation Camp, resulting in a remarkable contribution of 100 units of blood. The event was graced by Dr. Manoj Sharma, Chief Medical Officer of Ludhiana Singh Nagar District, who was moved by Hindustan Zinc's dedication towards this noble cause. These initiatives reminds us of our capacity to make a tangible impact on the lives of others.

STP PLANT






ETP PLANT





## PHOTOGRAPHS OF HAZARDOUS WASTE STORAGE YARD

S. No.	Name of the waste	Photographs
1.	Zinc Dross Storage Yard	
2.	Lead Dross Storage Yard	
3.	Used Oil Storage Yard	



## Total Capacity/Production

Date		Raw materials consumption	Products
From	to		
01/03/2023	31/03/2023	270 MT	63.8 MT (Ag)
01/03/2023	31/03/2023	19985 MT	19493 MT (Zn)

## Address

Hindustan Zinc Limited,  
Pantnagar Metal Plant, Plot No-  
283, Sec-14, HE, SIDCUL,  
Pantnagar, Uttarakhand-263153