

HZL/PMP/ENV/M&C/2024-25/01

Date: 12.09.2025

To,

**The Member Secretary,
Uttarakhand Environment Protection & Pollution Control Board
46 B, IT Park, Sahastradhara Road, Dehradun- 248001**

Sub: Environmental Statement (Form-V) for the year 2024-25 for Hindustan Zinc Limited, Pantnagar Zinc-Lead Melting & Casting Unit.

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

Consent to Operate No: UKPCB/HO/Con-H-77/2021/1555 dated 18.02.2021

Sir,

With reference to above subject please find enclosed herewith the Environmental Statement for the financial year 2024-25 for Hindustan Zinc Limited, Pantnagar Zinc-Lead Melting & Casting Unit located at Plot No 2 & 3, Sector 14, IIE, SIDCUL, Pantnagar, Dist. U.S. Nagar.

Thanking You,



(Anamika Jha)

SBU Director

Pantnagar Zinc-Lead M&C plant

Hindustan Zinc Limited

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

Cc:

1. The Regional Officer, UKPCB Kashipur
Chamunda Complex, Ramnagar Road
Kashipur, Distt - Udham Singh Nagar, Uttarakhand- 244713
2. Regional Officer, NCZ (North Central Zone)
Ministry of Environment, Forest & Climate Change
25, Subhash Road, Dehradun, Uttarakhand- 248001
3. The Member Secretary,
State Level Environment Impact Assessment Authority, Uttarakhand
46 B, IT Park, Sahastradhara Road, Dehradun- 248001,
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

Sensitivity: Internal (C3)

Hindustan Zinc Limited
Pantnagar Zinc Lead Melting & Casting Plant



HINDUSTAN ZINC
Zinc & Silver of India

ENVIRONMENTAL STATEMENT
(FINANCIAL YEAR ENDING MARCH 31ST 2025)

PREPARED & SUBMITTED BY

Hindustan Zinc Limited
Pantnagar Zinc Lead Melting & Casting Plant
Plot No. 2 & 3, Sector-14,
IIE, SIDCUL, Pantnagar.
Uttarakhand

FORM-V**Environmental Statement
For the financial year ending the 31st March 2025****PART-A**

- (i) Name and address of the owner/occupier of the industry operation or process : Sh. Arun Misra
Chief Executive Officer
Hindustan Zinc Limited,
Yashad Bhawan, Udaipur, 313001
- Name and address of the Unit Head : Ms. Anamika Jha
SBU Director
Hindustan Zinc limited
Pantnagar Zinc-Lead M&C Plant
Rudrapur, Dist.- U.S. Nagar,
Uttarakhand- 263153
- (ii) Industry category : Red category
Primary – (GST Code) : 05AAACH7354K1ZH
Secondary- (SIC Code)
- (iii) Production Capacity : 4,65,000 TPA Zinc Metal & 1,50,000 TPA Lead Metal
- (iv) Year of Establishment : 2011-12
- (v) Date of Last Environmental Statement Submitted : 06.09.2024

PART -B**WATER AND RAW MATERIAL CONSUMPTION****(1) Water consumption (M3 /d)***

Boiler/Cooling	111.7 M3/Day (Common for Zinc, Lead & Silver)
Domestic	24.9 M3/Day (Common for Zinc, Lead & Silver)

Name of Product	Process water consumption per unit of product output(cum/MT)	
	During the previous financial year	During the current financial year
	(1)	(2)
Zinc Metal, Lead and Refined Silver (Common for Zinc, Lead & Silver)	0.27 M3/MT	0.32 M3/MT

(2) Raw material consumption

Name of raw material	Name of products	Consumption of raw material per unit of output	
		During the previous financial year	During the current financial year
Zinc cathode	Zinc Ingot	1.025 Mt/Mt	1.027 Mt/Mt
Lead cathode	Lead Ingot	NIL	1.217 Mt/Mt

PART-C

Pollution discharged to environment/ unit of output
(Parameter as specified in the consent issued)

Pollutants	Quantity of pollutants discharged (mass/day)	Concentration of pollutants in discharges (mass/ volume)	Percentage of variation from prescribed standards
a) Water	Nil (Zero discharge maintained always)		
pH			
TDS			
DO			
Suspended Solids			
Oil and Grease			
Chromium as hexavalent			
Manganese			
Nickel			
Copper			
Zinc			
Cadmium			
Lead			
Mercury			
Cyanide			
b) Air			
Particulate matter			

Particulate matter (Mg/Nm ³)							
Month	Stack -1 Attached to Zinc Furnace	Stack -2 Attached to Zinc Furnace	Stack of Lead Plant	Stack -1 of D.G 7.5 MW	Stack -2 of D.G 7.5 MW	Stack -2 of D.G 1250 KVA	Average
Apr-24	13.5	14.2	NR	48.5	49.0	46.0	34.2
May-24	14.2	15.1		47.0	46.0	42.0	32.9
Jun-24	14.8	15.8		45.0	43.0	40.0	31.7
Jul-24	15.8	16.3		47.0	45.0	42.0	33.2
Aug-24	15.0	16.0		45.0	43.0	40.0	31.8
Sep-24	14.0	15.0		47.0	45.0	42.0	32.6
Oct-24	12.0	14.0		44.0	43.0	40.0	30.6
Nov-24	16.0	15.0		41.0	40.0	38.0	30.0
Dec-24	14.0	15.0	21	45.0	43.0	41.0	29.8
Jan-25	19.0	16.0	18	42.0	41.0	39.0	29.2
Feb-25	17.0	15.0	15	44.0	42.0	41.0	29.0
Mar-25	18.0	16.0	17	46.0	44.0	38.0	29.8

PART-D HAZARDOUS WASTES

As specified under Hazardous Wastes (Management, Handling & Trans boundary Movement)
Rules, 2016

Hazardous Waste	Total Quantity (MT)	
	During the previous financial year	During the current financial Year
(a) From process		
Zinc Dross	4736.1 MT	4937.9 MT
Lead Dross	47.1 MT	829.2 MT
Used/Waste Oil	3.210 MT	1.200 MT
Scrap Oil Filter/ Oil Soaked Cotton Material	1.040 MT	0.380 MT
Nonferrous sludge	NIL	NIL
Empty barrels/Plastic Jerry can	0.990 MT	0.950 MT
	201 Nos.	140 Nos.
(b) From pollution control facilities		
-	NIL	NIL

PART-E SOLID WASTE

Solid Waste		Total Quantity (Kg.)	
		During the previous financial year	During the current financial Year [#]
(a)	From process :		
	-	Hazardous waste details already mentioned in Part – D	Hazardous waste details already mentioned in Part – D
(b)	From pollution control facilities		
	-	NIL	NIL
(c)	1) Quantity recycled or reutilized within the unit.	NIL	NIL
	2) Sold	NIL	NIL
	3) Disposed	NIL	All Zinc and Lead Dross is being sent to HZLs other unit in Rajasthan for Recycling and Metal recovery.

PART-F

Please specify the characterization (in terms of composition and quantum) of hazardous as well as solid wastes and indicate disposal practice adopted for both the categories of wastes.

Following Hazardous waste has been generated during operation, Used/Waste oil, Scrap Oil Filter/ Oil Soaked Cotton Material/Cotton bag filters and Empty barrels/Plastic Jerry can will be sold to MOEF/CPCB/SPCB registered recyclers (M/s Bharat Oil & Waste Management, Mauza Mukimpur, Roorkee-Laksar road Roorkee, Uttarakhand). All Zinc dross and Lead dross is being recycled in HZLs Dariba and Chanderiya Zinc –Lead Smelters.

Name of Haz Waste generated	Quality	Authorized Quantity (MTA) for generation	Quantity (MTA) generated	Category as per HWMR	Treatment/Disposal method
Zinc Dross	Zn- 80 - 90 %	20,000	4954.7	Schedule I, 6.2	Zinc dross is being sent for recycling to Zinc Smelters in Rajasthan
Lead Dross	Lead 80- 90 %	10,000	829.2	Schedule I, 9.2	Lead is being sent for recycling to Lead Smelters in Rajasthan
Used & waste oil	---	50	1.560	Schedule I, 5.1	HW is being sold to registered recyclers (M/s Bharat Oil & Waste Management, Mauza Mukimpur, Roorkee-Laksar road Roorkee, Uttarakhand).
SCRAP OIL FILTER/ Oil Soaked Cotton Material	---	20	1.730	Schedule I, 5.2	

Nonferrous sludge	---	5	NIL	Schedule I, 7.4	NIL
Empty barrels/Plastic Jerry can	---	10	0.950 (140 Nos.)	Schedule I, 33.1	HW is being sold to registered recyclers (M/s Bharat Oil & Waste Management, Mauza Mukimpur, Roorkee-Laksar road Roorkee, Uttarakhand).

PART-G

In respect of the pollution abatement measures taken up on conservation of natural resources and on the cost of production.

Our aim is to preserve the long-term health of the natural environment affected by our operations. We set and achieve targets that promote effective use of resource and include the reduction and prevention pollution.

- Air Environment**

- Control of Particulate matter Emission**

Efficient bag filters with appropriate stacks and online PM analyzers for controlling PM emission are designed, installed at every stack and performance parameters verified and found below 50 mg/Nm³. We have developed facility of CAAQMS (Continuous ambient air quality monitoring station) with the consultation & approval of SPCB.

- Water Environment**

- We have a long term approach to water management that aims to improve our performance, recognize the significance of water and contribute to sustainable water management. We understand its importance and adopt best practices for making the judicious use of water and conserve it.
- Water generated from various areas is being recycled for gardening after confirming the quality parameters in prescribed limit. We have installed online & continuous monitoring facility in outlet.
- Sewage treatment plant (STP) of capacity 30 KL/D is installed to treat the sewage from unit and 100% treated water is being used for horticulture after confirming the quality parameters in prescribed limit. (STP- Common for Zinc, Lead & Silver)
- Drip irrigation system is provided to optimize the water uses for Horticulture.
- Water meters are provided in various areas of process for measurement and control of water consumption.
- 4 Storm water pond of capacity (2542, 1500, 841 and 750 cum) have been constructed inside the plant premises for storing and conserving the rainwater and further use in gardening and plant operation. In FY24-25, We have reused 10,014 Cu.m rainwater into the process by replacing ground water. (RW- Common for Zinc, Lead & Silver)

- **Waste Management**

- We focus on a '4R' waste strategy – Reduce, Recycle, Reuse and Reclaim and 'Eco-friendly' disposal of process. Waste management plan in place to ensure the proper handling and disposal of waste.

- **Noise**

- Noise generating equipment's are designed with necessary noise controlling measures and being operated to have a noise level in the line with the regulatory requirements. Preventive maintenance of the same is being ensured as per schedule.

PART-H

Additional measures/investment proposal for environment protection including abatement of pollution /prevention of pollution (Common for Zinc, Lead & Silver)

- **Green belt Development**

- Implementation of afforestation program is of paramount importance for Pantnagar Metal Plant. Plantation in more than 33 per cent area of plant has been covered by selection of plant species as per MoEF&CC/CPCB/SPCB guideline. Drip irrigation facility has been provided to all the plant saplings to ensure timely and required amount water supply.

- Keeping the pollution issue due to the vehicle movements in mind and with the understanding of the role of plants as bio-filter the following various plant species grown at Pantnagar Metal Plant includes: Neem (*Azadirachta indica*), Amaltas (*Cassia fistula*), Bottle brush (*Callistemon citrinus*), Washingtonia Palm (*Washingtonia robusta*), Curry patta (*Murraya koenigi*), Pipal (*Ficus Religiosa*), Arjuna (*Terminalia Arjuna*), Karanj (*Pongamia pinnata*), Siris (*Albizia lebbek*), Gulmoher (*Delonix regia*), Babool (*Accacia nelotica*), Khair (*Accacia catechu*), Sagwan (*Tectona grandis*), etc. While selecting the plant species for green belt, following points have been taken into considering for improve ambient air quality & variety of plant species:-

- Locally availability
- Dust capturing efficiency
- Noise control
- Absorb Gas emission
- Plants growth
- High Survival Rate
- Canopy shapes
- Origin of plant
- Arid Climate condition
- Feeding & Nesting habitats for birds species

- Green belt also performs carbon sequestration and act as carbon sink and overall help to reduce the pollution and improve the ambient air quality of the surrounding areas.

- We have developed Green belt in our plant with the consultation and approval of DFO (Divisional Forest Officer).
- We have celebrated environment day on 5th June every year.

Total expenditure for FY 2024-25 was 74.93 Lacs (Common for Zinc Lead & Silver) on environment protection including abatement of Pollution/Prevention of pollution. Also various Capex work are under pipeline to improve Environment & Safety at workplace. Total estimated expenditure for environment protection including abatement of pollution /prevention of pollution is Rs. ~89.6 Lacs (Common for Zinc, Lead & Silver) is proposed for FY2025-26 excluding Capex cost.

PART-I

Any other particular for improving the quality of the environment.

Regular monitoring of important and crucial environmental parameters is of immense importance to access the status of environment during plants operation. With the knowledge of baseline conditions, the monitoring program can serve as an indicator for any deterioration in environmental conditions due to operation of the plants and suitable preventive steps could be taken in time to safeguard the environment. Monitoring is an important that of control of pollution since the efficiency of control measures can only be determined by monitoring. Sufficient bag filters with appropriate stack are provided to control emission in environment. A full-fledged environmental laboratory has been set up for regular monitoring of environmental parameters, inside the plant and outside the plant as well as monitoring of all equipment's and area's is being done by external agency registered with MOEF/CPCB/SPCB also. Regular preventive maintenance is being ensured.

The environmental attributes being monitored are as given below:

- Air pollution and Meteorological Aspects
- Water and Waste water Quality
- Noise Levels
- Soil Quantity
- CSR Activities (Annexure 1 attached)

Date: - 12/09/2025

Signature.....

(Anamika Jha)

SBU Director

For: Hindustan Zinc Limited

Pantnagar Zinc Lead M&C Plant

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

Annexure-1

(CSR & CER Activities)

Following CSR activities being undertaken during the year 2024-25, for your kind information please.
(Common for Zinc Lead & Silver)

S. NO.	FOCUS AREA & PROGRAM	HZL, PANTNAGAR
		In Lacs
1	Education	
	Unchi Udaan Project (Coaching for IIT entrance) Shiksha Sambal KUSHI - Anganwadi Project	31.70
2	Health, Water & Sanitation	
	Health and Awareness Camps	23.72
3	Sustainable Livelihood	
	Vocational training - Mining Academy & others Micro enterprises/ SME	68.09
4	Women Empowerment	
	Formation and Strengthening of Self-Help Groups	93.48
Total	Amounts as per SAP GL plus allocated	~216.99 Lac

On-Going CSR Activities at PMP FY2024-25**Flag Ship Projects: Continuing in FY 24-25**

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. Health Project - Mobile Health project started by covering 100 patients per day from 25 villages per month.

Other Activities:

- Kept Pharindeys in plant premises and in community for birds by keeping heavy temperature. And inculcated culture to do such activities in communities as well.
- Started Keeping our Pickle unit products stall in local Veg. market nearby company premises and residents.
- Sent 16 students for summer camp conducted at Udaipur from PMP. And UH taken feedback on completion above training program on students return from Udaipur.
- Conducted Unchi Udaan IIT coaching entrance exam at rudrapur Dist. Total 82 students participated in this exam from various Govt. schools.
- Khaana Khaya Kya - Nand Ghar Movement Campaigning was done Pantnagar as well.
- Conducted awareness program on Menstrual Hygiene in nearby Govt. Girls schools.
- Conducted safety awareness program to Summer camp students while going for training by Head - Safety.
- Ganesh , Durga & Viswa Karma Pooja celebrated at PMP being conducted by HR Department in Admin Block.

On-Going CSR Activities at PMP FY2024-25**Other Activities:**

- Interacted with PMP Unchi Udaan students studying at Vidhya Bhawan Udaipur.
- ON 15th August, Unit Head, Dy. SBU Director, HR Head participated and interacted with beneficiaries of 55 SHG's Credit Linkage of amounting 55 Lakhs from Uttarakhand Grameen Bank at concessional rate of interest , the same shall benefitted to 500+ Sakhi SHG Women with their Livelihood initiatives.
- On 26.09.2024 interacted with Govt. Girls Inter college with SARD team and explaining benefits and futures how it will be helpful students to enhance their skills through digitalization and integrated science lab which is providing by HZL PMP Unit. NCERT team also given live demo to students and teachers about VR cameras etc.
- On 17th July, UH and District Education Officer interacting with students selected for Unchi Udaan Batch -9 from PMP. Total 82 students written exam and 7 students selected from Pantnagar Metal Plant.
- On 27th July special eye check up camp was conducted at Jayanagar along with regular Mobile Health Check up camp. Total 115 patients were benefitted through this camp.
- Mensural Hygiene awareness program conducted in nearby schools with the health team.
- Breastfeeding awareness session was conducted in nearby community as well.

On-Going CSR Activities at PMP FY2024-25

Special Camp;
Topic – Mensuration Hygiene
Conducted on – 24/05/2024
No of attendees -550 (Govt. Inter
College- Jainagar, Pantnagar, Fajalpur)



Special Camp;
Topic – Breast Feeding Awareness
Session
Conducted on – 05/08/2024
No of attendees -20



Special Camp;
Topic – Eye Vision camp for nearby
community
Conducted On – 27/07/2024
No of attendees – 115

On-Going CSR Activities at PMP FY2024-25

Women Skill Development & 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 FY2024-25

Environment Day Celebration



Yoga Day Celebration



World Youth Skills Day Celebration

On-Going CSR Activities at PMP FY2024-25

TATA Strive Project:- Various guest session conducted on topics- POSH (Prevention of Sexual Harassment), Auto technician Roles, Workplace & Industrial Safety, Fire Drill & extinguishing, Field visit, Morning Assembly & Mindfulness activities, etc.

On-Going CSR Activities at PMP FY2024-25

Youth Skill Development Program- Imparting Skill training practical 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 FY2024-25

Health Camp for nearby Community- Under Health, Water & Sanitation, Running mobile health clinic van in 25 villages on daily basis. Providing free doctor consultation, free medicine distribution etc. being done through this project. Daily in one village this camp will be held.

This is for your information please,

Thanking you,
For Hindustan Zinc