



vedanta

transforming elements (Reg. A/D)



HZL/PMP/ENV/2017-18/01

Date 06.08.2018

To,

The Member Secretary

**Uttarakhand Environment Protection and Pollution Control Board
29/20, Nemi Road, Dehradun – 248001**

Sub: Environmental Statement (Form-V) for the year 2017-18 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: UEPPCB/HO/Con-H-77/2017/1106-1181 dated: 10/10/2017

Sir,

With reference to above subject please find enclosed herewith the Environmental Statement for the financial year 2017-18 for Hindustan Zinc Limited, Pantnagar Zinc-Lead Melting & Casting Unit.

Thanking You,
For Hindustan Zinc Limited
Yours Faithfully

For A.C. Chandru
(C Chandru), **Hindustan Zinc Ltd.**
Unit Head, **Pantnagar Plant**
SIDCUL Pantnagar (U.K.)
Pantnagar Zinc-Lead Melting & Casting Unit.
Hindustan Zinc Ltd.

Cc:

1. The Regional Officer, UEPPCB Kashipur
Chamunda Complex, Ramnagar Road
Kashipur, Distt - Udham Singh Nagar, Uttarakhand- 244713
2. Regional Officer, NCZ
Ministry of Environment Forest & Climate Change
Pearson road, P.O.- New FRI Campus, Dehradun, Uttarakhand- 248006
3. Member of Secretary
State Level Environment Impact Assessment Authority
Ajabpur Kalan near PNB Mothorawala road Dehradun Uttarakhand- 248001
4. Office Copy, HZL

Hindustan Zinc Limited

Pantnagar Metal Plant
Plot No. 2 & 3, Sector 14, IIE, SIDCUL Pantnagar
☎: 05944-257300, www.hzindia.com

Regd. Office: Yashad Bhawan, Udaipur (Rajasthan) - 313 004
CIN : L27204RJ1966PLC001208

Hindustan Zinc Limited
Pantnagar Zinc Lead Melting & Casting Unit



HINDUSTAN ZINC
Zinc of India

ENVIRONMENTAL STATEMENT
(FINANCIAL YEAR ENDING MARCH 31ST 2018)

PREPARED & SUBMITTED BY

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

FORM-V**Environmental Statement
for the financial year ending the 31st March 2018****PART-A**

- (i) Name and address of the owner/occupier of the industry operation or process : Mr. Sunil Duggal
Chief Executive Officer
Hindustan Zinc Limited,
Rudrapur, Dist.- U.S. Nagar
Uttarakhand- 263153
- (ii) Industry category : Red category
Primary – (STC Code) AAACH7354KEM062
Secondary- (SIC Code)
- (iii) Production Capacity : 465000 TPA Zinc Metal & 150000 TPA Lead
- (iv) Year of Establishment : 2011-12
- (v) Date of Last Environmental Statement Submitted : 20.05.2017

PART -B**WATER AND RAW MATERIAL CONSUMPTION****(1) Water consumption (m3 /d)***

Boiler/Cooling	214 M3/Day (Common for Zinc, Lead & Silver)
Domestic	60 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)	0.244 M3/MT	0.257 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	1.031 Mt/Mt	1.025 Mt/Mt
Lead cathode	Lead Ingot	1.008 Mt/Mt	1.009 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/Nm³)						
Month	Stack -1 Attached to Zinc Furnace	Stack -2 Attached to Zinc Furnace	Stack of Lead Plant	Stack -1 of D.G 7.5	Stack -2 of D.G 7.5	Average
Apr-17	23.6	20.1	29.6	40.6	44.6	31.7
May-17	27.5	18.7	26.3	46.1	46.5	33.0
Jun-17	20.8	15.6	23.6	39.8	42.8	28.5
Jul-17	16.3	19.2	26.1	44.3	47.1	30.6
Aug-17	12.9	14.6	23.4	40.6	43.4	27.0
Sep-17	14.6	17.2	28.7	36.9	39.8	27.4
Oct-17	19.2	20.4	23.9	40.8	43.6	29.6
Nov-17	14.6	23.5	26.2	37.2	41.5	28.6
Dec-17	12.9	20.6	23.5	34.8	39.2	26.2
Jan-18	14.6	16.8	28.7	39.6	42.6	28.5
Feb-18	17.3	20.5	26.5	32.8	47.4	28.9
Mar-18	20.4	17.6	24.2	43.6	49.5	31.1

**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	6126 MT/year	6768 MT/year
Lead Dross	583 MT/year	730 MT/year
Used/Waste Oil	2.52 MT/year	1.81 MT/year
SCRAP OIL FILTER	Nil	0.090 MT/year
Oil Soaked Cotton Material	Nil	0.120 MT/year
Nonferrous sludge	Nil	Nil
Empty barrels	Nil	Nil
(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 :		
-	Nil	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 will be generated during operation, Used and waste oils will be sold to MOEF/CPCB registered recyclers and based on metal content ETP sludge will be recycled in HZL smelters or sold to registered recyclers. 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	7286.016	Schedule I, 6.2	Zinc dross is being sent for recycling to Zinc Smelters in Rajasthan
Lead Dross	Lead 80-90 %	10,000	789.116	Schedule I, 9.2	Lead is being sent for recycling to Lead Smelters in Rajasthan
Used & waste oil	---	50	12.360	Schedule I,	Will be sold to registered recyclers.

				5.1	
SCRAP OIL FILTER	---	20	0.140	Schedule I, 5.2	Will be sold to registered recyclers.
Oil Soaked Cotton Material	---		Nil	Schedule I, 5.2	Will be sold to registered recyclers.
Nonferrous sludge	---	5	Nil	Schedule I, 7.4	Will be sold to registered recyclers.
Empty barrels	---	10	Nil	Schedule I, 33.1	Will be sold to registered recyclers.

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.
- 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.

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- 3 Storm water pond of capacity (2542, 1500 and 841 cum) have been constructed inside the plant premises for storing and conserving the rain water and further use in gardening.
 - **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 38 *per cent* area of plant has been covered by selection of plant species as per CPCB 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*), Shisum (*Dalbergia Shishoo*), Pipal (*Ficus Religiosa*), Arjun (*Terminalia Arjuna*), Karanj (*Pongamia pinnata*), Siris (*Albizia lebeck*), Gulmoher (*Delonix regia*), Babool (*Accacia nelotica*), Khair (*Accacia catechu*) 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

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- 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 17-18 was 29.05 Lacs (Common for Zinc Lead & Silver) on environment protection including abatement of Pollution/Prevention of pollution. Total estimated expenditure for environment protection including abatement of pollution /prevention of pollution is Rs. 56 Lacs (Common for Zinc Lead & Silver) is proposed for FY 2018-19.

PART-I

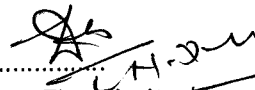
Any other particular for improving the quality of the environment.

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 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: - 06/08/2018

Signature.....
For: Hindustan Zinc Limited
Pantnagar Zinc Lead Melting & Casting unit
Hindustan Zinc Ltd.
Pantnagar Plant
SIDCUL, Pantnagar (U.K.)

**Annexure-1
(CSR activities)**

Following CSR activities being undertaken during the year 2017-18, for your kind information please.

01. Every Year Hindustan Zinc Limited is organizing one month summer camps for strengthening in Mathematics, English & Science subjects to 9th & 10th Class students from Govt. Schools of our Operating Units of Rajasthan and Uttarakhand. Accordingly this year also we sent 12 students from Nagla Girls High School and Jayanagar Inter College. They were trained in various skills completely for one month and obtained benefit from this camp.
02. Selected 13 top students of 9th & 10th class students only from local Govt. schools for our sponsorship program of IIT coaching with Resonance institute along with academic study. Academic study will be completed through Vidhaya Bhawan, and IIT coaching from 9th class onwards through Resonance Institute, Udaipur, and Rajasthan. Our company is bearing all their expenses for education and stay.
03. On the request of The DPO, ICDS, Rudrapur, Base Line study has been conducted for 10 Anganwadi centres which were running in Govt. building premises through Grameena Evam Samajik vikas sanstha, Ajmeer. Basing on the need assessment, we converted three Anganwadi centres of Simla Pstore 1 & 2, Neta Nagar to Vedanta Groups's brown field Nandghar model. In which RO drinking water facility, toilets, solar power, LED TV & and also inside outside good paintings to attract children towards Anganwadi centres. These three Nandghars were inaugurated by Hon'ble Chief Minister on 25.2.18.
04. On the request of The DPO, ICDS Rudrapur, Established Hygienic Cost effective Sanitary Napkins making Unit "Sparsh" to prevent infectious diseases among women and adolescent girls. This unit was also inaugurated by Hon'ble Chief Minister on 25.2.18 along with Smt. Rekha Aarya , Minster for women and child development, Govt. of Uttarakhand.
05. To empower women and youth started "Sakhi project" at Kali Nagar, Netaji Nagar, Jaynagar – 1, Jagdishpur, Srirampur, and Chanidipur through Saheli Samithi & Manjari Foundation, Dualpur Rajasthan. Further to develop women empowerment & enterprenurship also starting training programme in computer and tailoring at Kali nagar to cover above villagers. Apart from the above our team is also working on formation of Self Help Groups in above villagers to strengthen rural women further.

Contd....2.

06. This year we celebrated International Women’s day on 8th March’18 with 400 villagers and along with our female executives/ Executive family members at kali nagar premises successfully. This program was chaired by Sri Naresh Durga Pal, SDM Rudrapur and appreciated our initiative through media and local newspapers.

This is for your information please.

Thanking you

