

HZL/PMP/ENV/Silver/2018-19/01

Date 06.08.2019

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 2018-19 for Hindustan Zinc Limited, Pantnagar Silver Refining Plant.

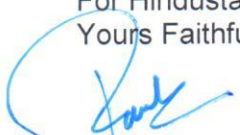
Ref: Letter no:- E.C. No.- 10-9(10)/2018 dated 08-02-2019 from SEIAA, Dehradun.

Consent to Operate No: UEPPCB/HO/Con-H-71/2019/2101 dated 29.03.2019.

Sir,

With reference to above subject please find enclosed herewith the Environmental Statement for the financial year 2018-19 for Hindustan Zinc Limited, Pantnagar Silver Refining Plant.

Thanking You,
For Hindustan Zinc Limited
Yours Faithfully


(Ravish Sharma)

Unit Head
Pantnagar Silver Refining Plant
Hindustan Zinc Limited

Hindustan Zinc Ltd.
Pantnagar Plant
SIDCUL, Pantnagar (U.K.)

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 Silver Refining Plant**



HINDUSTAN ZINC

Zinc & Silver of India

**ENVIRONMENTAL STATEMENT
(FINANCIAL YEAR ENDING MARCH 31ST 2019)**

PREPARED & SUBMITTED BY

*Hindustan Zinc Limited
Pantnagar Silver Refining Plant
Plot No. 2 & 3, Sector-14,
IIE, SIDCUL, Pantnagar.
Uttarakhand*

FORM-V

Environmental Statement
For the financial year ending the 31st March 2019

PART-A

- (i) Name and address of the owner/occupier of the industry operation or process : Sh. Sunil Duggal
 CEO & Whole Time Director
 Hindustan Zinc Limited,
 Yashad Bhawan, Udaipur, 313001
- Name and address of the Unit Head : Sh. Ravish Sharma
 Unit Head- PMP
 Hindustan Zinc limited
 Pantnagar Silver Refinery Plant
 Rudrapur, Dist.- U.S. Nagar,
 Uttarakhand- 263153
- (ii) Industry category : Red category
 Primary – (GST Code) : 05AAACH7354K1ZH
 Secondary- (SIC Code)
- (iii) Production Capacity : 800 TPA Refined Silver
- iv) Year of Establishment : 2011-12
- (v) Date of Last Environmental Statement Submitted : 06.08.2018

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

Boiler/Cooling	190 M3/Day (Common for Zinc, Lead & Silver)
Domestic	49 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)	0.257 M3/MT	0.229 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
Anode Slime	Silver Ingot	5.109 Mt/Mt	4.433 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			

<i>Particulate matter (Mg/Nm³)</i>			
Month	stack attached to furnace	Stack of NOX Scrubber	Average
Apr-18	26.8	21.7	24.3
May-18	23.1	15.8	19.5
Jun-18	25.6	17.9	21.8
Jul-18	18.9	15.4	17.2
Aug-18	23.6	12.6	18.1
Sep-18	18.2	14.9	16.6
Oct-18	22.6	17.2	19.9
Nov-18	25.1	19.3	22.2
Dec-18	22.6	13.2	17.9
Jan-19	27.2	20.8	24.0
Feb-19	24.9	23.6	24.3
Mar-19	27.8	26.5	27.2

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		
Used/Waste Oil	Nil	Nil
SCRAP OIL FILTER	Nil	Nil
Oil Soaked Cotton Material	Nil	Nil
Process residues	Nil	Nil
Nonferrous sludge	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	Nil

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
Used & waste oil	---	5	Nil	Schedule I, 5.1	HW is being sold to registered recyclers.
SCRAP OIL FILTER	---	5	Nil	Schedule I, 5.2	HW is being sold to registered recyclers.
Oil Soaked Cotton Material	---		Nil	Schedule I, 5.2	HW is being sold to registered recyclers.

Process residues	---	5	Nil	Schedule I, 7.2	HW is being sold to registered recyclers.
Nonferrous sludge	---	2	Nil	Schedule I, 7.4	HW is being 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.
- 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 lebbeck*), 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
- 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 18-19 was 82.24 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. 86 Lacs (Common for Zinc Lead & Silver) is proposed excluding Capex cost of 200 Lacs for FY 2019-20.

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: - 06/08/2019


Signature.....
For: Hindustan Zinc Limited
Pantnagar Silver Refining Plant



Annexure-1
(CSR Activities)

Following CSR activities being undertaken during the year 2018-19 & 2019-20, for your kind information please.

Long term Projects

- An Education Initiative – Learning through Technology for Class 1 to 8th class students in two schools of Rudrapur. Covering in two schools, 382 students were benefitted.

Budget spent 20.34 lakhs

- Unchi Udaan Project (coaching for IIT entrance exam) at Udaipur. Total 13 students were studying since 2017.

Budget spent 53.78 lakhs

- Extending primary and Preventive care facilities through Health checkup camps and distribution of medicines through Mobile Health Clinic Project with Jimmedhari Foundation.

Budget spent 22.09 lakhs

- Empowerment of women and strengthening of Self Help Group through Sakhi Project through Saheli Samiti & Manjari Foundation.

Budget spent 68.20 lakhs

Short term Projects

- Sending students for Summer camp organized at Udaipur under Shiksha Shambhal Project for across HZL units. Total 30 students were benefitted.

Budget spent 4.54 lakhs

This is for your information please,

Thanking you.

Education initiative



Health care camp



Unchi Udaan Project



Summer camp



Women empowerment

