HINDUSTAN ZINC LIMITED
Kayad Mine
P.O.: Kayad Tahsil & Dist : Ajmer -305023
Rajasthan , Tel: 0145-6626230

HZL/Kayad/RO/2017-18/18 Dated:20.04.2018

To
Group - In – Charge (Mines)
Rajasthan State Pollution Control Board
A 4 , Institutional Area, Jhalana Doongri
Jaipur , Rajastahn

Sub : Submission of Environmental Statement for the year 2017-18- Reg

Ref: F(Mines)/Ajmer(Ajmer)/303(1)/2017-2018/9550-9554 dated 17.02.2018

Dear Sir,

Please find enclosed herewith the Environmental Statement in Form V for year ending 2017 to March 2018 is for your kind perusal .

Thanking you,
Yours faithfully,

(B.S.Rathore)
Unit Head
Hindustan Zinc Limited
Kayad Mine, Ajmer

CC to: The Regional Officer
Rajasthan State Pollution Control Board,
SPL-II, RIICO Industrial area , Phase-V ,
Kishangarh,
Dist:Ajmer

Encl: As Above

c/c.

FORM-V
(Rule 14)

ENVIRONMENTAL STATEMENT FOR THE FINANCIAL YEAR ENDING THE 31ST MARCH, 2018

PART A

Name and address of the owner/occupier of the industry operation or process	:	Shri B.S.Rathore Unit Head Hindustan Zinc Limited Kayad Mine, PO& Village: Kayad Dist & Tehsil : Ajmer-305023, Rajasthan
Industry category primary-(STC Code) Secondary (SIC Code)	:	1031-98 (Lead & Zinc Ore)
Production capacity	:	1.20 million Tons per annum of Lead Zinc Ore and Associated minerals
Year of the establishment	:	June 2011
Date of last environmental statement submitted	:	05.04.2017

PART B

Water and raw material consumption

(1) Water consumption m3/day

Process	:	-
Industrial cooling, spraying in mine pits	:	101.50 Cum/ Day
Domestic purpose	:	14.66 Cum/ Day

S.No	Name of Products	Process water consumption per unit of product output	
		During the Previous Financial year	During the current financial year
		(1)	(2)
1	Lead -Zinc Ore	0.033cum/MT	0.029 cum/MT

(2) Raw material consumption

Name of raw materials*	Name of products	Consumption of raw material per unit of output	
		During the previous Financial year	During the current financial year
Nil	Lead- Zinc Ore	Nil	Nil

*Industry may use codes if disclosing details of raw material would violate contractual obligations; otherwise all industries have to name the raw materials used.

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 discharges (mass/volume)	Percentage of variation from prescribed standards with reasons.
(a) Water	Zero Discharge being maintained		
(b) Air	Annexure-A		

PART D

HAZARDOUS WASTES

(As specified under Hazardous Waste (Management and Handling) Rules, 1989)

Hazardous Wastes	Total Quantity (Kg)	
	During the Previous financial year	During the current financial year
a) From process		
Used oil *	95.06 MT	80.89 MT
Oil contaminated cotton waste**	2.17 MT	1.23 MT
b) From Pollution control facilities	Nil	Nil

*Disposed to authorised recyclers ** Disposed to authorised Incinerator

PART E

Solid Waste	Total Quantity	
	During the previous financial year	During the current financial year
a) From process	277055MT	410439 MT
b) From Pollution control facilities	NIL	NIL
c) 1.Quantity recycled or re-utilized within the unit	100% used for Back filling of stoped voids	100% used for Back filling of stoped voids
2. Sold	NIL	NIL
3. Disposed	NIL	NIL

PART F

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

Hazardous waste:

S no	Type of Hazardous waste	Category		Hazardous waste disposal
		Schedule	Code	
1	Used oil	1	5.1	Sold to register recyclers
2	Wastes / residues containing oil	1	5.2	Approved incinerator
3	Discarded containers / barrels for Hazardous waste	1	33.3	Reused for filling of Used oil

Solid Waste: The composition of the waste rock generated from development activities mainly consists of –Amphibolites, calc-Silicate, Pegmatite, Quartz and being used for back filling in voids developed by Stopes.

PART G

Impact of the pollution abatement measures taken on conservation of natural resources and on the cost of production.

The following are the abatement measures taken on conservation of natural resources.

1. **Air Management**
   - Wet Drilling
   - Ore transportation by covered trucks
   - Truck (LPDT) deployed with slow speed and low lift
   - Regular maintenance of Heavy machinery
   - Catalytic converter to reduce emission from machineries
   - Backfilling of waste in voids developed by stoping
   - Regular sprinkling of water on haul roads
   - Plantation around the acquired area and around over burden

2. **Water Management**
   - Garland drain around the waste dump to collect run-off water and connected to a pond with de-silt provision
   - Reuse of vehicle wash water
   - Treatment of sewage generated within the mine area in a STP and reuse.
   - Reuse of Mine water for drilling , dust suppression and Plantation
   - Rain water harvesting structures for Roof Top areas, open area and green belt area
   - Zero discharge being maintained.

3. **Noise Management**
   - The mining equipment are designed with low noise level
   - All vehicles are undergoing periodic maintenance
   - Mine Ventilation fans shall be designated with low noise level
   - Mine ventilation fans shall be designed with sound attenuation system and installed underground
   - Vehicles within the acquired area will have low volume horns
   - All personnel in the mine are provided with ear protection PPE's
   - A green belt around the acquired area shall attenuate noise
   - Diesel generator is provided with acoustic enclosure and silencers

4. **Green Belt Development**
   - 29000 nos. of plantation done in and around mine area and along the boundary.
   - Nursery maintained for rare and native species

PART H

Additional measures / investment proposal for environmental protection including abatement of pollution, prevention of pollution.

S.No	Implementation of Environmental Management plan	Expenditure in Rs Lacs
1	Green belt development and maintenance	39.00
2	Implementation of Environmental Management Plan	22.50
3	Implementation of Environmental , Safety and Occupational Health Management systems	15.00
4	Hazardous waste Management	13.10
5	Training & Awareness programs	5.00
6	Others	5.00
	Total	99.60

PART I

Any other particulars for improving the quality of the environment.

1. 5 Star rating on sustainable Management from Ministry of Mines, New Delhi
2. Indian Chamber of Commerce, Excellence in Environmental Management Award
3. Recertified for ISO 14001 , ISO 9001, OHSAS 18001 ,14001 and SA 8000 Management
4. Sustainability Golden Award From Energy & Environment Foundation
5. World Environment day and Mines Environment and Mineral conservation week celebrated and provided awareness on environmental protection.

Annexure-A

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

Period : April, 2017 -March, 2018

Location	Concentration of pollutants discharges (mass/volume			Percentage of variation from prescribed standards with reasons
Lohagal village	Pollutants	Max(µg/m^3)	Min (µg/m^3)	
	SPM	341.94	72.7	No variation is observed during the period All parameters are within the limits
	PM10	86.9	29.21	
	PM2.5	52.82	16.71	
	SO_2	11.5	2.46	
	NOx	21.19	5.95	
	CO	802	190	
Mine area	Pollutants	Min (µg/m^3)	Max (µg/m^3)	No variation is observed during the period All parameters are within the limits
	SPM	409.23	69.9	
	PM10	91.38	22.65	
	PM2.5	51.33	8.12	
	SO_2	15.8	2.99	
	NOx	22.4	6.82	
	CO	1150	240	
Gagwana village	Pollutants	Min (µg/m^3)	Max (µg/m^3)	No variation is observed during the period All parameters are within the limits
	SPM	344.85	99.87	
	PM10	87.86	26.02	
	PM2.5	53.7	7.95	
	SO_2	11.2	3.37	
	NOx	21.86	6.84	
	CO	687	170	
Chatri village	Pollutants	Min (µg/m^3)	Max (µg/m^3)	No variation is observed during the period All parameters are within the limits
	SPM	464.08	95.87	
	PM10	90.69	22.78	
	PM2.5	48.85	11.64	
	SO_2	13.19	3.64	
	NOx	37.11	7.37	
	CO	573	110	
Kayad village	Pollutants	Min (µg/m^3)	Max (µg/m^3)	No variation is observed during the period All parameters are within the limits
	SPM	457.85	73.19	
	PM10	89.37	35.96	
	PM2.5	46.72	10.79	
	SO_2	11.7	3.33	
	NOx	22.2	7.58	
	CO	987	110	