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HINDUSTAN ZINC
Zinc & Silver of India

HZL/RAM/Env/2025-2026/ 755

September 27, 2025

Member secretary,
Rajasthan Pollution Control Board,
4, Institutional Area,
Jhalana Doongri,
Jaipur.

Sub : Environment Statement of Rampura Agucha Mine for year 2024-2025.

Ref: CTO Mine order No 2022-2023/Mines/10762 dated 28/02/2023.
CTO Mill order No 2023-2024/HDF/9370 dated 14/06/2023.
EC Letter No J-11015/267/2008-IA.II (M) dated 11.12.2009.

Sir,

Please find enclosed herewith the environmental statement for financial year ending on 31st March 2025.

Thanking you

Yours truly,

(Ram Murari)
CEO Agucha IBU

CEO - IBU Agucha
Hindustan Zinc Limited
Rampura Agucha Mines
PO - Agucha
Distt. - Bhilwara (Raj.)

cc to: Regional Officer,
Rajasthan State Pollution Control Board,
18, Azad Nagar, Pannadhay Circle,
Mining Engineer Office Road (Near Telephone Exchange)
Bhilwara (Raj.)

The Joint Director,
Ministry of Environment, Forest & Climate Change,
Integrated Regional Office, A-209&218, Aranya Bhawan,
Jhalana Institutional area Jaipur-302004.

O/C-Env.

Hindustan Zinc Limited
Rampura Agucha Mines, P.O. Agucha, Dist. Bhilwara (Rajasthan) - 311 022
M +91-9001294956-57 www.hzlindia.com

Registered Office : Yashad Bhawan, Udaipur (Rajasthan) 313 004
CIN No. L27204RJ1966PLC001208

FORM – 5

ENVIRONMENTAL STATEMENT FOR FINANCIAL YEAR ENDING ON 31ST MARCH 2024

PART – A

(i).	Name and address of the owner / occupier of the industry/ operation or process	:	Sh. Arun Misra Chief Executive Officer & Whole Time Director Hindustan Zinc Limited Yashad Bhawan Udaipur 313 001
	Name and address of unit head	:	Sh. Ram Murari CEO -Agucha IBU Hindustan Zinc Limited Rampura Agucha Mine AGUCHA 311 022 Distt. Bhilwara (Raj) Phone: 01483 – 229011 Fax : 01483 – 229012
(ii).	Industry category	:	Red
	Primary (STC code)		Mining of lead-zinc minerals and ore beneficiation
	Secondary (STC code)		Not Applicable
(iii).	Production Capacity -Units	:	6.15 Mtpa of lead- zinc ore production & 6.50 Mtpa lead zinc ore beneficiation
(iv)	Year of establishment	:	Commissioned on 25/03/91
(v).	Date of last environmental statement submitted	:	06/08/2024

PART – B
Water and Raw Material Consumption

(i) Water Consumption (m3/day)

	Cum/day
Process	3266.66
Cooling / Services	92.55
Domestic	2058.72

Name of Product	Process water consumption (fresh water) per unit of product output (Ore treatment)	
	During current year 2023-24	During current year 2024-25
Lead & Zinc concentrate(Mill)	0.345 cum/MT	0.218 cum/MT

(ii) Raw material consumption

Name of raw material	**Name of product**	**Consumption of raw material per unit of output (gm/MT) ***	
		2023-24	**2024-25**
Copper Sulphate	Lead & Zinc Concentrate	660.614	645.29
MIBC	--do--	26.136	17.95
Hydrated Lime	--do--	34.648	86.25
Nigrosine	--do--	4.804	7.51
Xanthate (PEX & SIPX)	--do--	145.664	141.04
Sodium Cyanide	--do--	13.378	3.93
Sodium Humate	--do--	8.00	12.27

* Raw material consumption is shown as grams per ton of ore treatment.

Production	**2023-2024 (MT)**	**2024-2025 (MT)**
Ore treatment	5531215	5471106
Lead Concentrate	90105.9	90842.9
Zinc Concentrate	1084224.8	1077160.9

PART – C

POLLUTION DISCHARGED TO ENVIRONMENT/UNIT OF OUTPUT

(Parameters as specified in the consent issued)

Sr. No	Pollutants		Quantity of pollutants discharged	Concentration of pollutants in discharge (mass/volume)	%age of variation from prescribed standards and reason
A	Water		Zero discharge status	No Discharge	Zero discharge is maintained. Water is reclaimed from tailing dam and reused in beneficiation plant.
B	Air dust emission from stack (SPM)	Primary Crusher Old	2.55 kg/day	30.14 mg/Nm^3	79.91% lesser than stack emission standard
		Primary Crusher New	6.14 kg/day	34.55 mg/Nm^3	76.97% lesser than stack emission standard
		Sec./Ter Crusher	19.29 kg/day	28.86 mg/ Nm^3	80.76% lesser than standard of stack emission

PART – D

HAZARDOUS WASTE

[As specified under Hazardous and other Waste (Management, & Transboundary Movement) Rules 2016]

Hazardous wastes	Total quantity generated during the year	
	2023-2024	2024-25
a. From Process		
Decontaminated drums	1566 Nos	570 Nos
Used oil	669.92 MT	675.6 MT
Contaminated cotton rags or other cleaning materials	1.7 MT	1.53 MT
Oil containing wastes / Residues	1.44 MT	1.2 MT

PART – E

Solid Waste

Sr. No.		Total quantity during the year	
		2023-2024	2024-25
A	From process (Tailings)*	4378762 MT	4303103 MT
	Tailing as reuse in backfilling	1790439 MT	1512101 MT
	Tailing to Tailing Dam	2588323 MT	2791002 MT
B	From pollution control facility **	Nil	Nil
C	1. Quantity recycled or reutilized	Nil	Nil
	2. Solid	Nil	Nil
	3. Disposed***	Nil	Nil

* All the tailings of beneficiation plant are being discharged to tailing dam and zero discharge is maintained. Water is reclaimed from tailing dam and is pumped back to beneficiation plant for reuse.

** All the dust slurry transported to process plant and utilized.

*** Used oil sold to registered parties with MoEF / CPCB.

PART – F

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

i. The Solid Waste in form of tailings (Non hazardous) generated from beneficiation plant having following mineralogical composition:

Particular	% Content
Total Lead	0.11 – 0.44%
Total Zinc	0.40 – 1.26%
Total Iron	4.15 – 7.60%
Insoluble	54.70 –77.68%
Gr. Carbon	2.78 – 4.22%
Silica	36.47 – 50%
Cd	0.0011 – 0.0042%

Tailing in the form of slurry (containing 60% solids) is being discharged in the tailing dam. These solids of the slurry settles, and clear water are reclaimed and put in water recirculation system.

ii.	Over burden	-	Quantity: 1417062 MT This over burden does not contain any minerals and are inactive rocks. This waste is dumped in the non-mineralized zone area with 7 X 20 m lifts with 20 m benches between successive lifts. Waste rocks are utilized in tailing dam height raising purpose.
iii.	Used Oil	-	675.6 MT of used oil is recovered from different machinery and heavy earth movers. Used oil is stored in drums and kept in the specified area for disposal to registered re-refiners with MoEF / CPCB.
iv.	Discarded Containers and bags	-	Discarded containers of chemicals are stored in the earmarked place, decontamination is Carried out before disposal to TSDF.

PART – G

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

Beneficiation plant is discharging the tailing slurry, which contains about 40% water and 60% solids. For this purpose tailing dam was constructed having an area of 1.30 sq. km. to collect water in down streamside. The pumps are installed at tailing dam to pump this water to reclaim pump house sump and from there it is pumped to beneficiation plant for reuse. To meet out water requirement, radial well constructed in Banas River bed and laid down 60 kms long pipe line for supply of water for industrial and domestic use. The water requirement for process plant is met by 60% reclaimed water of tailing dam and 40% by fresh water. The tailing dam is constructed with bottom and inside walls lined with impervious soil and HDPE for containment of tailings. The reclaimed water is used in plant to reduce the fresh water consumption by about 60%. The mine pit water is being used in process plant. Thus conserves water a natural resource.

PART – H

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

The following works are completed to improve the working environment

1. Regular sprinkling on Haul roads for dust suppression.
2. Cleaning of industrial roads and yards by Mechanical Road Sweepers.
3. Regular plantation on matured benches, periphery, road side etc.
4. Application of geotextiles over waste dump slope at critical locations for reducing fugitive dust caused by high-speed wind and improving slope stability.

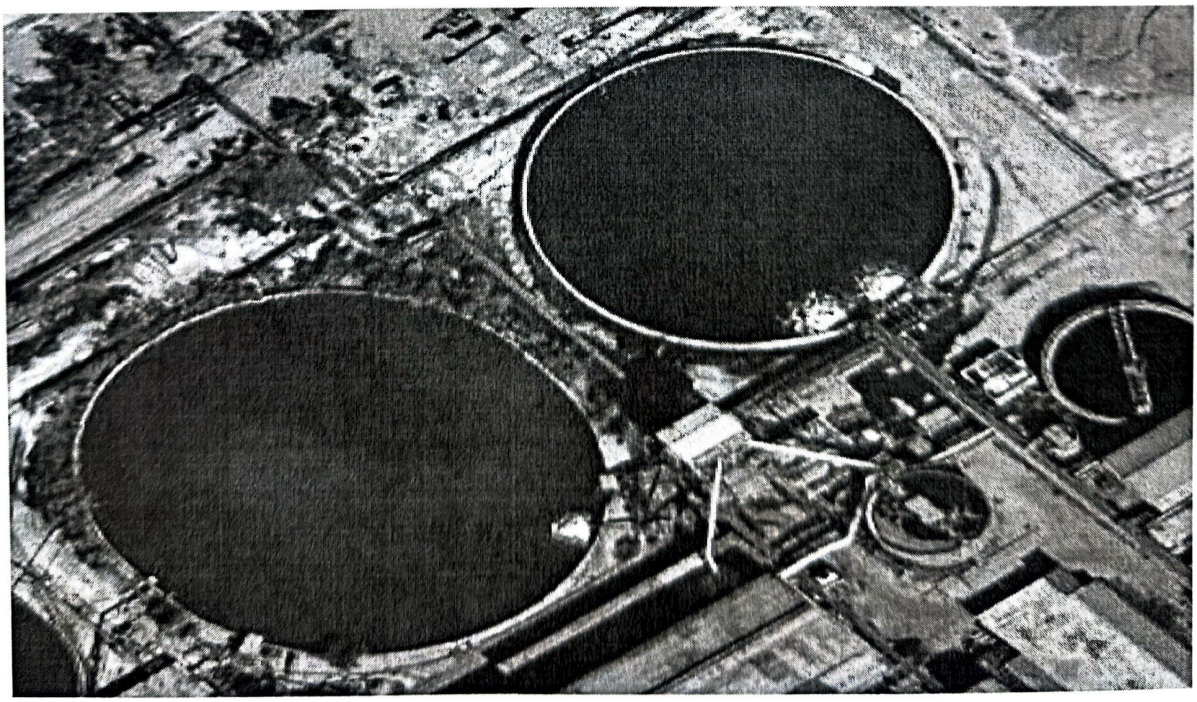
PART-I

Any other particulars for improving the quality of the environment:

1. **Air pollution control**
   - Dust from ore crushing and handling equipment is being controlled by dust extraction system through wet scrubber, dust suppression system & dust extraction system.
   - Fortnightly monitoring of ambient air quality at 6 locations and stack emissions from crushin section stack for suspended particulate matter.
   - Haul road fugitive emission controlled by regular water sprinkling with dust suppression by 40 KL (4 Nos.) water sprinkler tankers.
   - Mechanical truck mounted road sweeper for road cleaning.

2. **Water pollution control**:

- Water quality of wells and piezometers around the mine complex is being monitored on quarterly basis.
- Tailing treatment and disposal: Tailings of beneficiation plant are treated with hydrated lime prior to pumping to the tailing dam and reclaimed water is pumped back to plant for reuse.
- Reclaim water reservoir of 50,000-m3 & 35000-m3 capacity, to reduce the water evaporation losses at tailing dam. Water from all the sources is pumped to this reservoir for recycling.



3. **Noise and vibration control**

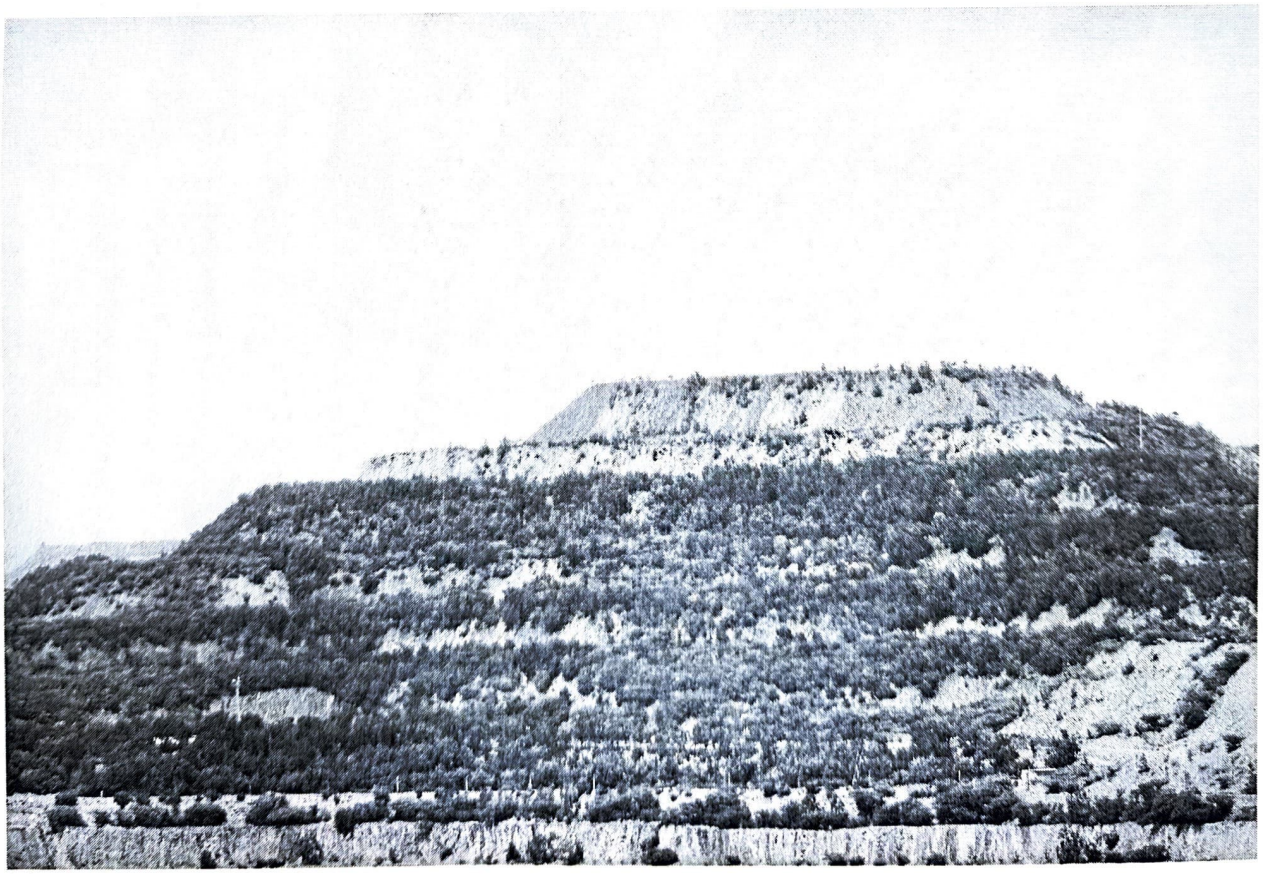
Cabins of all the HEMM are air-conditioned. Sound level of mining equipment, beneficiation plant is regularly monitored. Long hole open stopping blasting technique used in mine and Ground vibrations are regularly monitored by internal and external agencies.

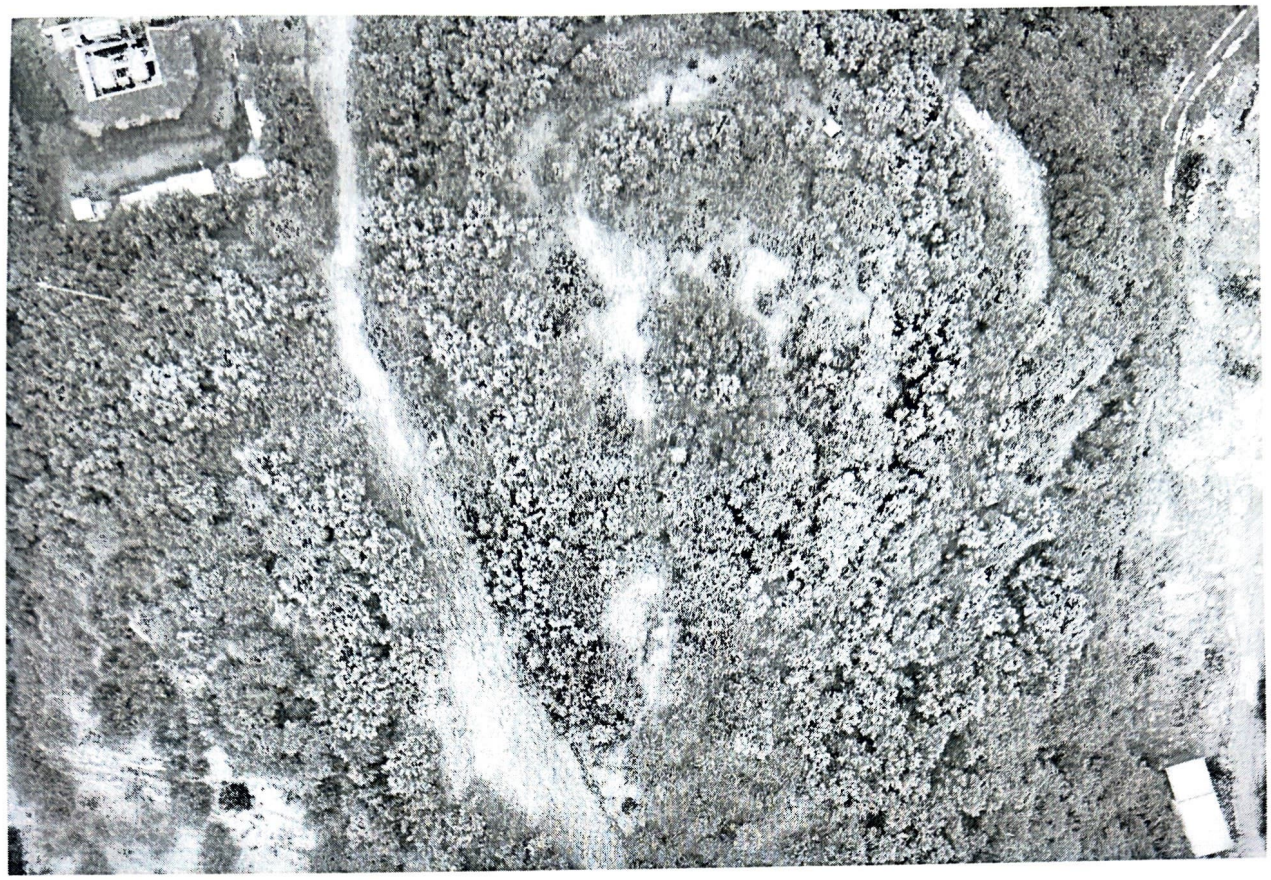
4. **Waste dump management**

Overburden is dumped in the form of 7 X 20 m lifts with an ultimate height of 140 m and having an angle of 45° and the overall slope of 27°. The rock faces are dozed and covered with the available top soil and saplings are planted on the inactive benches and slopes.

5. **Plantation & Geotextiles**

- Till March 2025, 747103 Nos Plants in 348 Hectares area are surviving in acquired land of lease area of which 15000 saplings was planted in 2025-26.
- In township 75.0771 hectares land was acquired and 50.98 hectares has been covered by greenbelt.
- Extensive plantation has been carried out along various road sides connected to plant and colony.





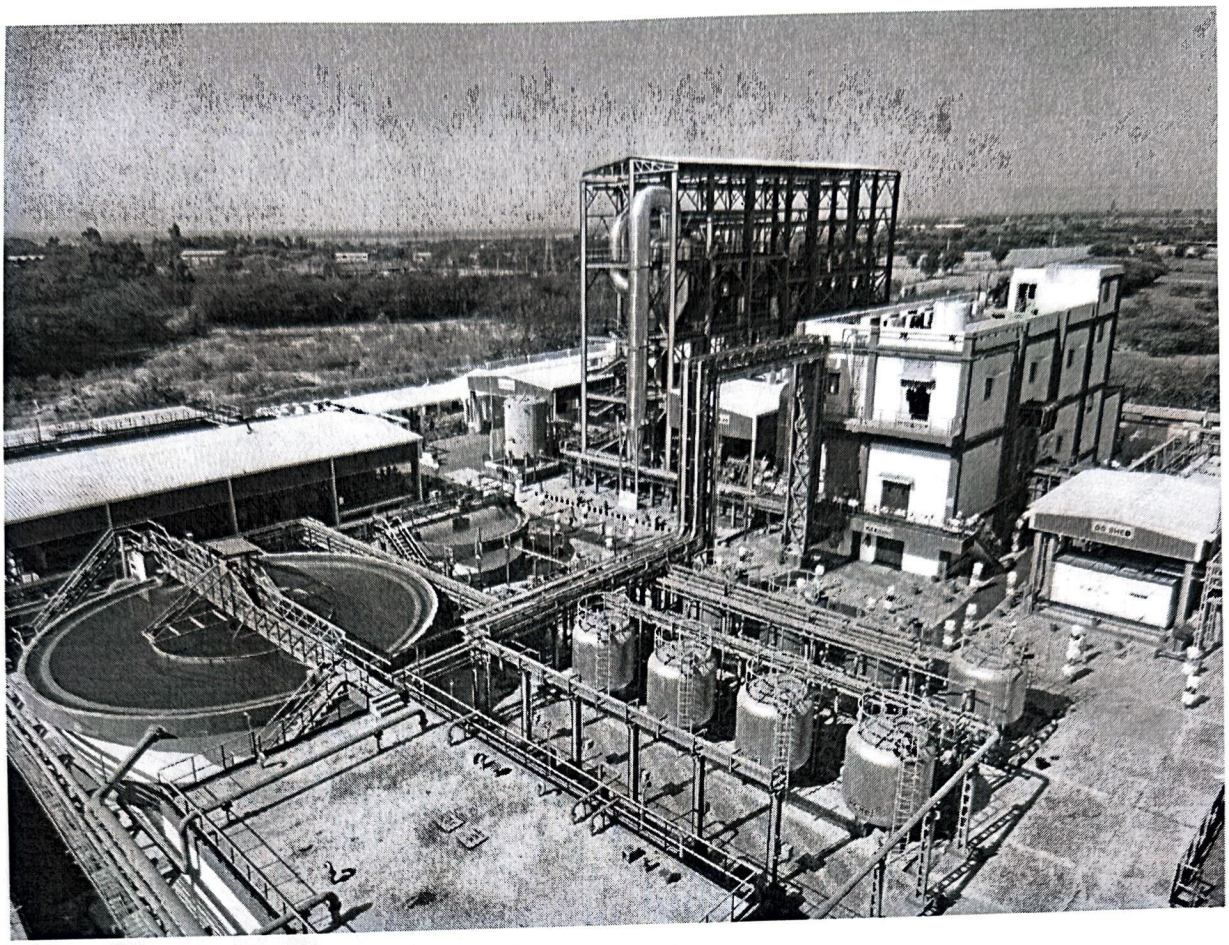
- Geotextile Laying on waste dump slopes for rehabilitation or green belt development

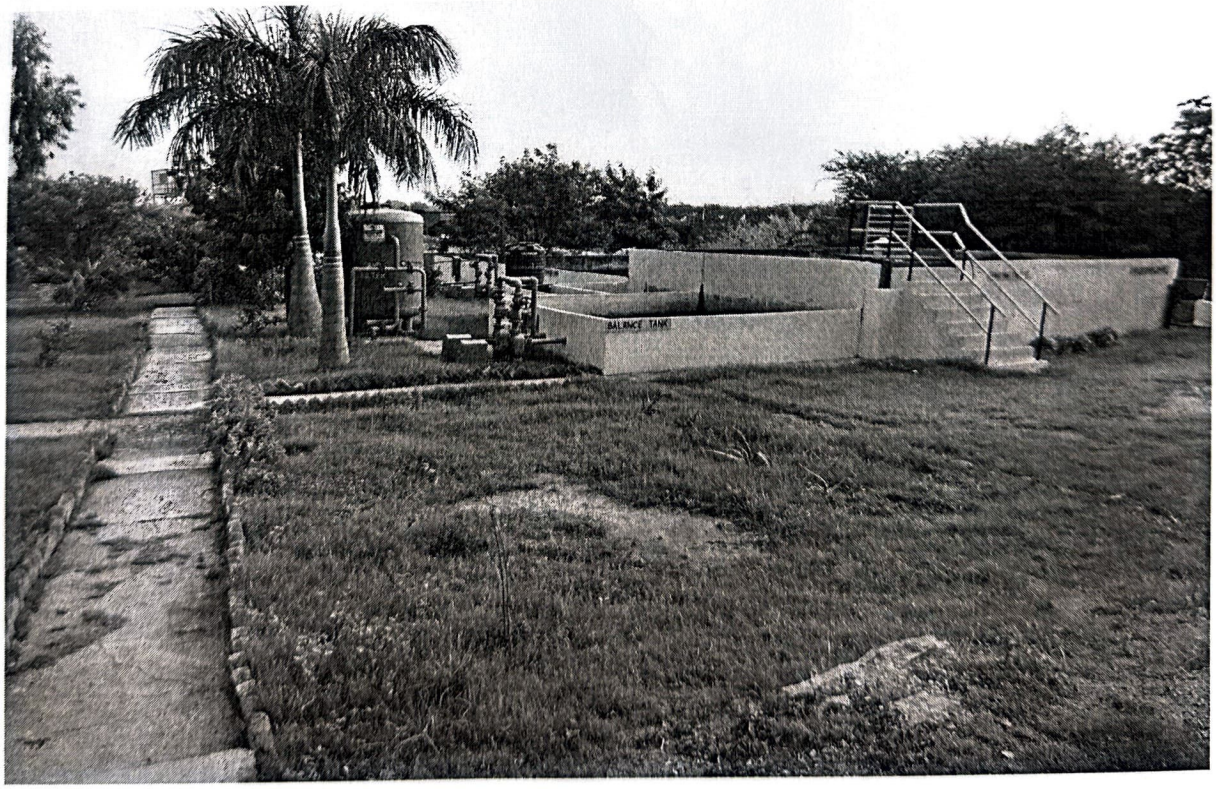
6. **Environmental awareness**:

- IBM, Ajmer region organizes Mine Environment and Mineral Conservation Week host by Rampura Agucha mine. During celebration of Week, numbers of activities were carried out to increase environmental awareness among the employees. Some of the activities, which are done during the week, are posters, slogans and speech competitions.
- Celebration of World Environment Day on 5th June 2024.
- ISO-14001, ISO 9001, ISO 45001 & ISO 50001 audit by external agency.
- Legal training on Environmental rules & regulations and sustainability etc.
- Environmental awareness is part of works training at vocational training center as per VT rules.
- Online quiz test for employee on World Environment Day.
- Waste and water management awareness skits.
- Weeklong celebration on Energy Conservation Day and World Water Conservation Day

7. **Water Conservation Measures:**

- Installation of 4000 KLD Capacity Waste water Treatment Plant at RA Mine (water saving of 1.3 Million m3/annum).
- Upgradation of Stream-4 Zinc Scavengers final tailing pump (water saving 1.6 Lakh M3/annum).
- Water from all the sources is pumped to Reclaim Water Reservoir of 50,000 m^3 & 35,000 m^3 capacity to reduce the evaporation losses.
- Use of reclaim water in place of fresh water in all the de-dusting systems and flocculants preparation tank.
- Created 8.72 MCM artificial ground water recharge structures at 4 blocks of Bhilwara district.
- Efficient operation of 425 KL/day Sewage Treatment Plant at residential colony and 300 KL/day Sewage Treatment Plant at Mine area.
- Collection of rainwater in sump & pumping back for usage




BALANCE TANK

8. Awards:

1. Received Q3 Chairman Sustainability award for RAM.
2. Received Gold award in QCFI TQM Summit.
3. RAM received a "Platinum Award in Environment Exemplary Practices in CII 6th National EHS Circle Competition – 2025".
4. Two teams won par-excellence award in TQM – INDIA.
5. RA Mine awarded First Prize in All India Mine Safety Association (AIMSA) – 2024.
6. "5 Star Rating Award" received by IBM.
7. Rampura Agucha Mine awarded "Bhamashaha Award" by Rajasthan Government.
8. 03 teams from RA mines won "Gold Category Award" at CCQC Rajsamand chapter conducted at Udaipur.
9. RAM First Aid Teams secured the "First Prize" and "Second-Best Prize" for the 6th consecutive time at the 38th Mine Safety Week Competition under the aegis of DGMS Ajmer.
10. RA won 1st Overall Position in All India Mine Rescue Competition at Dhanbad.
11. RA won 1st Overall Position in 38th Mine Safety Week.

CEO - IBU Agucha
Hindustan Zinc Limited
Rampura Agucha Mines
PO - Agucha
Distt. - Bhilwara (Raj.)