



vedanta

transforming elements

Ref : HZL/RA/ENV/MoEF&CC/2020-21/

13871



November 28, 2020

To,

The Director
Govt. of India
Ministry of Environment, Forest and Climate Change
Regional Office, Kendriya Bhawan,
5th floor, Sector- H, Aliganj
LUCKNOW (UP) - 226020

Sub: Six monthly environmental compliance reports from April 2020 to September 2020.

Ref : Environment Clearances and Amendments

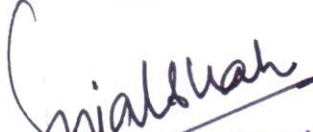
1.	Environment Clearance vide No. : J-11015/267/2008-IA.II (M) Dtd. 11.12.2009.
2.	Environment Clearance Amendment vide No. J-11015/267/2008-IA.II (M) dtd. 05.03.2012
3.	Environment Clearance Amendment vide No. J-11015/267/2008-IA.II (M) dtd. 22.08.2014
4.	Environment Clearance Amendment vide No. J-11015/267/2008-IA.II (M) dtd. 12.12.2014
5.	Environment Clearance Amendment vide No. J-11015/267/2008-IA.II (M) dtd. 28.12. 2015
6.	Environment Clearance Amendment vide No. J-11015/267/2008-IA.II (M) dtd. 28.02. 2020

Dear Sir / Madam,

Please find enclosed herewith the compliance status report of above referred Environmental Clearance granted by the Ministry of Environment, Forest and Climate Change for the period of **April 2020 to September 2020** along with soft copy in a CD.
Hope you find this in order.

Thanking you,

Your faithfully


(Sujal Shah)
Director Agucha SBU

Director, Agucha SBU
Hindustan Zinc Limited
Rampura Agucha Mine
PO- Agucha
Distt. - Bhilwara (Raj.)

Cc to:

1. In-Charge (Zonal office)
Central Pollution Control Board
Zonal Office (Central)3rd Floor, Sahkar Bhawan,
North T.T. Nagar,
Bhopal – 462 003 (MP)
2. Member Secretary
Rajasthan Pollution Control Board
4 Institutional Area, Jhalana doogri
Jaipur (Raj) -302004

3. The Regional officer
Rajasthan Pollution Control Board
18, Azad Nagar, Pannadhay Circle
Mining Engineer Office Road
(Near Telephone Exchange) Bhilwara-311001

Hindustan Zinc Limited

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CIN No. L27204RJ1966PLC001208

O/C Environment

HINDUSTAN ZINC LIMITED RAMPURA AGUCHA MINE

MoEF Environmental Clearance for Expansion of Rampura Agucha Lead and Zinc Opencast and Underground Mining Project (from 5.00 to 6.15 mTPA) and Beneficiation Capacity of Beneficiation Plant (from 5.00 to 6.50mTPA) Env Clearance Vide No. J-11015/267/2008-IA.II (M) Dtd 11.12.2009

S. No.	Condition	Status
A. Specific Conditions		
i	The project proponent shall obtain Consent to Establish and Consent to Operate from the Rajasthan State Pollution Control Board and effectively implement all the conditions stipulated therein	Consent to establish obtained from RSPCB. Consent to Operate granted by RSPCB vide File F(Mines)/Bhilwara(Hurda)/12(1)/2015-2016/1229-1233 dated 25/06/2019 for mining activity. RSPCB. Consent to Operate granted by RSPCB vide File F(CPM)/Bhilwara(Hurda)/2(1)/2019-2020/2498-2500 dated 22/10/2019 for Beneficiation plant , and the conditions stipulated are implemented.
ii	The environmental clearance is subject to approval of the State Land use Department, Government of Rajasthan for diversion of agricultural land for non-agricultural use.	Land purchased within Mine Lease area and converted in name of HZL for mining.
iii	The project proponent shall ensure that no natural watercourse and/or water resources shall be obstructed due to any mining operations.	No natural watercourse or water resources are obstructed due to mining operations.
iv	The top soil shall temporarily be stored at earmarked site(s) only and it should not be kept unutilized for long. The topsoil shall be used for land reclamation and plantation.	Top soil utilized on waste dump for its stabilization and plantation.
v	The over burden generated during the mining operation shall be stacked at earmarked dump site(s) only and it should not be kept active for a long period of time and its phase-wise stabilization shall be carried out. The maximum height of the dump should not exceed 100m having 5 terraces as recommended by the Central Institute of Mining and Fuel Research, Dhanbad. The recommendations made by the Central Institute of Mining and Fuel Research, Dhanbad shall be effectively implemented. The over burden dump shall be scientifically vegetated with suitable native species to prevent erosion and surface run off. Monitoring and management of rehabilitated areas shall continue until the vegetation becomes self-sustaining. Compliance status shall be submitted to the Ministry of Environment & Forests and its Regional Office located at Lucknow on six monthly basis	Amendment in this condition was granted in EC vide letter No J-11015/267/ 2008-I-A.II (M) dated 22 nd August, 2014. The maximum height of the dump shall not exceed 140 m (in two lifts of 20m each). Waste dump vegetated fase manner. Waste dump are covered by applicable of geotextiles.
vi	The void left unfilled in an area of 25 ha shall be converted into water body. The higher benches of excavated void/mining pit shall be terraced and plantation done to stabilize the slopes. The slope of higher benches shall be made gentler. Peripheral fencing	Will be complied during the mine closure.

	shall be carried out along the excavated area.	
vii	<p>Catch drains and siltation ponds of appropriate size should be constructed to arrest silt and sediment flows from mine working and over burden dump. The water so collected should be utilized for watering the mine area, roads, green belt development etc. The drains should be regularly desilted particularly after monsoon and maintained properly.</p> <p>Garland drain (size, gradient and length) shall be constructed for both mine pit and over burden dump and sump capacity should be designed keeping 50% safety margin over and above peak sudden rainfall (based on 50 years data) and maximum discharge in the area adjoining the mine site. Sump capacity should also provide adequate retention period to allow proper settling of silt material. Sedimentation pits should be constructed at the corners of the garland drains and desilted at regular intervals.</p>	<p>Garland drain of adequate size is constructed along the waste dump toe & mining pit, along with siltation pond that provides adequate retention time for settling of silts and rain water collection lined sumps of about 8.5 lakh CuM. The water collected is utilized for watering the mine area, roads, green belt development etc</p> <p>Annexure –VIII</p>
viii	Dimension of the retaining wall at the toe of dump and OB benches within the mine to check run-off and siltation should be based on the rain fall data.	The retaining wall at the toe of the OB dump is constructed along with garland drain. Annexure VIII
ix	Regular monitoring of subsidence movement on the surface over working area and impact on water bodies/vegetation/ structures/ surrounding shall be continued till movement ceases completely. In case of observation of any high rate of subsidence movement, appropriate measures shall be taken to avoid loss of life and material. Cracks shall be effectively plugged with ballast and clayey soil/suitable material.	A comprehensive assessment and monitoring of subsidence movement on the surface over working area is done by a dedicated team comprising of Rock mechanic engineers. There has been no subsidence or movement observed.
x	All the mine entries shall be above the highest flood level to avoid any anticipated flooding of mine from the surface water during the rainy season	The underground mine opening is at 392 mRL against highest flood level at Agucha reservoir of 391 mRL. Further, A peripheral bund is constructed around the mine pit for protection of the mine from flooding due to rain water.
xi	In areas where subsidence is anticipated in shallow mineral occurrence, such areas be identified and provided with garland drains to ensure draining of water and avoid ingress of the same in to the underground mine.	No subsidence is anticipated in the proposed area. Garland drain is already constructed as a safety measure to avoid ingress of water into underground mining.
xii	The project authorities shall check the possibility of existence of fault(s) before deciding about the thickness of safe barrier required to be maintained between the working face and the water bodies, if any, in consultation with the Director General Mines & Safety (DGMS). De-pillaring should also be carried out after taking prior approval of the DGMS.	<p>Mining activities are carried out as per Mine plan as approved by IBM.</p> <p>De-pillaring, if required shall be carried out after prior approval of the DGMS.</p>
xiii	The project proponent shall carry out conditioning of the ore with water to mitigate fugitive dust emission, without affecting flow of ore in the ore processing and handling areas.	Water sprinklers are installed on conveyer belts, transfer points, and conditioning of ore is done during crushing to mitigate fugitive dust.

		Annexure XXXII
xiv	The effluent from the ore beneficiation plant shall be treated to conform to the prescribed standards and the tailings slurry shall be transported through a closed pipeline to the tailing dam.	Tailings are being disposed through closed pipeline to the earmarked Tailing dam after necessary lime treatment. Annexure XXXVI
xv	The decanted water from the tailing dam shall be re-circulated and there should be zero discharge from the tailing dam. Acid mine water, if any, shall be neutralized and reused within the plant.	Tailing dam water is completely reused in process plant and zero discharge is maintained. There is no acid mine drainage occurring in the mine.
xvi	Plantation shall be raised in an area of 670.7ha including a green belt of adequate width by planting the native species around ML area, OB dump, around tailing dam, around beneficiation plant, roads etc. in consultation with the local DFO / Agriculture Department. In addition, the township area shall also be adequately planted. The density of the trees should be around 1500 plants per ha. Green belt shall be developed all along the mine lease area in a phased manner and shall be completed within first five years.	Green belt developed all along the acquired mine lease area. Progressive plantation is being carried out on waste dump benches every year as per plan submitted. Till date 319.20 ha. land is under plantation. Plantation in remaining area will be completed by closure of mine. Additional plantation has been done in 37.70 ha in the township and along road sides. Annexure –IX
xvii	Regular water sprinkling should be carried out in critical areas prone to air pollution and having high levels of SPM and RPM such as haul road, loading, unloading and transfer points and other vulnerable areas. It should be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central Pollution Control Board in this regard.	Water sprinkling is carried out by 4 Nos. of 40 KL water sprinkler on Haul roads to mitigate air pollution in mine area. Dust extraction system and Water sprinkling nozzles are installed at the crusher, transfer points and coarse stockpiles for dust suppression. The parameters of Ambient Air quality monitored are within the prescribed norm of CPCB. Annexure-X
xviii	The project authority should implement suitable conservation measures to augment ground water resources in the area in consultation with the Regional Director, Central Ground Water Board.	Till date 3 Nos. of anicuts have been constructed for groundwater augmentation in consultation with the CGWB. 4 anicuts constructed in the area under MJSA. Massive groundwater recharge work is in progress in four blocks of Bhilwara district Annexure –XI
xix	Regular monitoring of ground water level and quality shall be carried out in and around the project area (mine lease, beneficiation plant and tailing dam) by establishing a network of existing wells and installing new piezometers during the operation. The periodic monitoring [(at least four times in a year- pre-monsoon (April-May), monsoon (August), post-monsoon (November) and winter (January); once in each season)] shall be carried out in consultation with the State Ground Water Board/Central Ground Water Authority and the data thus collected may be sent regularly to the Ministry of Environment and Forests and its Regional	Regular groundwater monitoring is being done by piezometers and wells outside and inside the lease area. Report enclosed as Annexure -I Six monthly reports are submitted to MoEF & CPCB. Quarterly report being sent to RSPCB, CGWA and CGWB.

	Office Lucknow, the Central Ground Water Authority and the Regional Director, Central Ground Water Board. If at any stage, it is observed that the groundwater table is getting depleted due to the mining activity; necessary corrective measures shall be carried out.	
xx	The project proponent shall ensure that no additional water is drawn for the expansion project. The additional requirement of water will be met out of the water saved by adopting water conservation measures.	No additional water is drawn. The additional requirement of water if any in future will be met out by water conservation measures.
xxi	Suitable rainwater harvesting measures on long term basis shall be planned and implemented in consultation with the Regional Director, Central Ground Water Board.	Various rainwater-harvesting measures are implemented including the construction of rainwater collection pond of about 1.5 Lakh cum in the township, collection sumps of 8.5 lakh CuM capacity to collect and reuse the rain. Annexure XII
xxii	Regular monitoring of groundwater quality around the tailing dam shall be carried out in consultation with Central Ground Water Authority and records maintained. It shall be ensured that the groundwater quality is not adversely affected due to the project	Groundwater quality is regularly monitored around the tailing dam through piezometers within ML area and wells inside as well as outside the lease area. The groundwater quality report is being submitted to MoEF, CPCB RSPCB, CGWA and CGWB on regular basis.
xxiii	Groundwater and surface water in and around the mine shall be regularly monitored at strategic locations for heavy metals such as Ni, Co, Cu, Zn and Cd. The monitoring stations shall be established in consultation with the Regional Director, Central Ground Water Board and State Pollution Control Board	Ground and surface water is regularly monitoring for heavy metals. Report enclosed as in point no xix.
xxiv	Vehicular emissions should be kept under control and regularly monitored. Measures shall be taken for maintenance of vehicles used in mining operations and in transportation of mineral. The vehicles should be covered with a tarpaulin and shall not be overloaded	Periodic preventive maintenance of vehicles is part of our operations. All the trucks are covered with tarpaulin while transportation of concentrates to the smelters and no overloading is allowed. Annexure XIII
xxv	Blasting operation should be carried out only during the daytime. Controlled blasting should be practiced. The mitigative measures for control of ground vibrations and to arrest fly rocks and boulders should be implemented	Blasting operation is carried out with various mitigation measures as per DGMS guidelines to ensure the fly rocks are arrested. The vibrations monitored are well within the prescribed limits by DGMS.
xxvi	Drills shall either be operated with dust extractors or equipped with water injection system	Wet drilling system is adopted.
xxvii	Digital processing of the entire lease area using remote sensing technique should be done regularly once in three years for monitoring land use pattern and report submitted to Ministry of Environment and Forests and its Regional Office, Lucknow	Noted. The land use & land cover change study carried out in 2018. Copy already submitted on 28/05/2018. Annexure-XIV
xxviii	The tailing dam shall be lined by LDPE lining on the sides as the height of the dam is raised. The ultimate height of the dam shall be maintained to 51m and provided	The sides of the tailing dam are lined with HDPE. The present height of tailing dam is 51 meter. Garland drains are constructed

	with garland drains. The disaster management plan for tailing dam shall be prepared and implemented	around the tailing pond with pumping arrangement to collect any seepage and rainwater runoff back to tailing pond. Disaster management plan for the tailing pond is prepared and implemented. Annexure XV
xxix	The recommendations of the study report of NEERI, Nagpur on pollution vulnerability of aquifer shall be effectively implemented and action taken report submitted to the Ministry and its Regional Office, Lucknow on six monthly basis	Complied on the recommendations of NEERI i.e. network of piezometer established and report submitted on six monthly basis. Report enclosed as point no xix.
xxx	The project proponent shall regularly analyse the waste generated from the mining (at least once a year) for heavy metals such as Ni, Co, Cu, Pb, Zn and Cd and the data thus collected may be sent regularly to Ministry of Environment and Forests and its Regional Office, Lucknow. It should be ensured that the parameters conform to the prescribed norms	Being analysed and report is submitted on six montshly basis. Annexure II
xxxii	The recommendations of the study report on blood lead levels of children to monitor levels of lead in human system carried out by National Institute of Occupational Health, Ahemdabad shall be effectively implement and action taken report submitted to the Ministry and its Regional Office, Lucknow on six monthly basis.	As recommended by the NIOH, regular health checkups are carried out for the mine personnel and regular health checkup organized in nearby villages to keep a track of the health status. Annexure XX
xxxiii	Pre-placement medical examination and periodical medical examination of the workers engaged in the project shall be carried out and records maintained. For the purpose, schedule of health examination of the workers should be drawn and followed accordingly	Pre-placement medical examination and periodical medical examination of the employees are being carried out at regular interval as per the Mine Act.
xxxiv	Sewage treatment plant shall be installed for the colony. ETP shall also be provided for the workshop and the wastewater generated during mining operation	Sewage treatment plant of 425 KLD capacity in colony and 300 KLD in mine area operating efficiently. Oil & Grease Traps installed and water reused in process. Annexure XVI
xxxv	Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project	No construction labour housing is proposed in mining area. However, the sanitation and drinking water facility is provided to the workers, working at site.
xxxvi	Acid mine water, if any, has to be treated and disposed of after conforming to the standard prescribed by the competent authority	No acid mine water generated & mine pit water is used in process plant.
xxxvii	The critical parameters such as RSPM (Particulate matter with size less than 10µm i.e., PM ₁₀ and with size less than 2.5µm i.e., PM _{2.5}), NOX in the ambient air within the impact zone, peak particle velocity at 300m distance or within the nearest habitation, whichever is closer shall be monitored periodically . Further, quality of	Monitoring of Ambient air at 3 locations inside mine and 3 locations outside the mine area is regularly carried out. Monitoring report is enclosed as Annexure III. Peak Particle velocity of blast vibration is

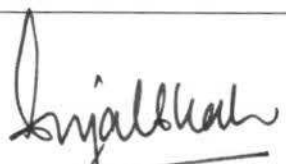
	<p>discharged water shall also be monitored [(TDS, DO, PH and Total Suspended Solids (TSS)]. The monitored data shall be uploaded on the website of the company as well as displayed on a display board at the project site at a suitable location near the main gate of the Company in public domain. The circular No. J-20012/1/2006-IA.II(M) dated 27.05.2009 issued by Ministry of Environment and Forests, which is available on the website of the Ministry www.envfor.nic.in shall also be referred in this regard for its compliance</p>	<p>being monitored for every blast & records are maintained. No effluent, treated or untreated, is discharged outside the project area as Zero discharge is maintained at all times. Monitoring data are displayed at Main Gate. Annexure XVII.</p>
xxxvii	<p>A Final Mine Closure Plan along with details of Corpus Fund should be submitted to the Ministry of Environment & Forests 5 years in advance of final mine closure for approval</p>	<p>A Final Mine Closure Plan along with details of Corpus Fund will be submitted to the Ministry of Environment & Forests 5 years in advance of final mine closure for approval.</p>


 Iqbal Shah
 28/11/2020

HINDUSTAN ZINC LIMITED
RAMPURA AGUCHA MINE

MoEF Environmental Clearance Compliance to amendment in EC vide letter No J-11015/267/2008-I-A.II (M) dated 5 March, 2012

Sr. No	Condition	Status
i	In the environment clearance letter dated 11 th December, 2009, in para number 1, the words "The mineral will be transported through the road." will be substituted by the words "The mineral will be transported through the rail".	Amendments granted by MoEF vide letter dated 28.12.2015 "The mineral will be transported both through road and rail". Railway line commissioned but not operative.
ii (a)	All the requisite prior clearance from the concerned authorities, as may be applicable to such project shall be obtained and the conditions, if any, stipulated there under shall be effectively implemented.	All the requisite prior clearance from the concerned authorities, as may be applicable to such project shall be obtained and the conditions, if any, stipulated there under shall be effectively implemented.
ii (b)	The project affected people whose land will be acquired for laying of the railway track shall be compensated as per the National / State Policy in this regard.	Compensation given to land owners done by RIICO, GOR as per the norms.
ii (c)	The company shall submit within 3 months their policy towards Corporate Environment Responsibility which should inter alia provide for (i) Standard operating process / process to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions, (ii) Hierarchical system or administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions and (iii) System of reporting of non compliance s / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders.	Policy towards Corporate Environment Responsibility enclosed.

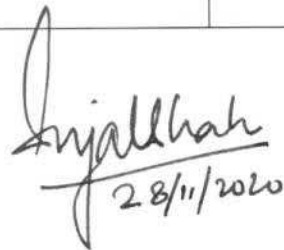

28/11/2020

HINDUSTAN ZINC LIMITED DRAMPURA AGUCHA MINE

MoEF Environmental Clearance Compliance to amendment in condition no (v) in EC
vide letter No J-11015/267/2008-I-A.II (M) dated 22nd August, 2014

Specific Condition		
S.No	Condition	Status
i	The Open crack, whenever developed in the partially consolidated new dump mass, should be consolidated with proper filling/ leveling with the help of dozer/ compactors.	In such case, we shall consolidate with proper filling/ leveling with the help of dozer.
ii	Dump foundation preparation should be done by excavating and removing soil before dumping, to improve the frictional resistance at the base of dump. It should be filled with over burden containing stones.	Complied mining rock waste dump on exiting waste dump.
iii	There should not be any dumping in pool water or on slushy ground.	No dumping is done in water pooled / slushy ground
iv	Discontinuous dumping should be avoided to check water accumulation between two isolated dumps.	Dumping is done at a single earmarked area.
v	During rainy season, an officer should be deputed to go in and around the dump site every morning to see the effectiveness of drain. If any blockage is observed, immediately steps should be taken to make it effective.	Mining officer is always deputed during rainy season to ensure smooth flow of runoff water.
vi	The dump should be surveyed periodically to produce up-to-date and accurate dump geometry.	Survey team survey the dump once in a month to produce up-to-date and accurate dump geometry.
vii	The slope and stability monitoring by Radar should be done and its report should be sent to MoEF and its Regional Office every six – months.	stability monitoring by Radar Report enclosed as Annexure VII
viii	The dump design should be reviewed by CIMFR or any other scientific agency after reaching dump height of 120m and its report sent to MoEF and its Regional office.	Complied. Waste dump design and slope stability is being reviewed yearly by CIMFR and report being submitted to MoEF Regional Office. Latest report is attached as Annexure XXI
ix	Waste dump has to be managed as per the guidelines of DGMS and quarterly monitoring report to be submitted to DGMS and regional office	Waste dump is being managed as per the DGMS guidelines and quarterly monitoring report shall be submitted to DGMS and regional office.

x	On stabilized dumps, more species such as Pongamia, Bombax ceiba, Tamarind, Arjun, Gravillea robusta and Amla to be planted.	Agreed. We shall plant the specified species along with the ones we are planting.
xi	The Radar monitoring system should satisfactorily sub-serve the dual objectives viz.(a) Investigative monitoring to provide an understanding of the slope behavior over time and typical response to external events (e.g. Precipitation and seasonal fluctuations) and (b). Predictive Monitoring: To provide a warning of a change in behavior, enabling the possibility of limiting or intervening to prevent hazardous sliding. The data so analyzed should be provided with reference to the above.	The analyzed data is enclosed Annexure - VII
xii	Paved drains are to be provided to protect the slope surface against rain-cuts and seepage during rains to make a safe way to discharge top and surface water to the bottom of the dump. Constant vigilance on the condition of dumps with special reference to accumulation of water and development of cracks.	Paved drains shall be provided. Constant vigilance shall be given on the dump condition with special reference to water accumulation and development of cracks.
xiii	Regular Monitoring of above mentioned specific conditions shall be included in the monitoring plan and report submitted to the Ministry of Environment, Forest and Climate Change and its Regional Office located at Lucknow on six monthly basis.	Regular monitoring of the above mentioned conditions conducted and report is enclosed.



 Sajal Khatun
 28/11/2020

HINDUSTAN ZINC LIMITED, RAMPURA AGUCHA MINE
MoEF Environmental Clearance Compliance to amendment in EC vide letter No. J-11015/267/2008-I-A-II (M) dated 28th February , 2020

A) Additional Specific Conditions		
S.No.	Condition	Status
1.	PP shall ensure that the recommendation provided in study conducted by Indian Institute of Science, Bangalore shall be complied for increasing the height of the tailing dam.	Height raising of the tailing dam will be done as per the recommendations of Indian Institute of Science, Bangalore study.
2	The risk arising due to surface runoff during rainy season or otherwise, from the tailing area/heap, shall be assessed on regular basis and corrective measures shall be undertaken and reported to SPCBs.	Tailing Dam is always having freeboard and there is no risk of surface runoff from the area.
3	PP shall engage suitable agency for conducting subsidence study for increasing the depth of working from 1000 mbgl to 1500mbg. The report shall be submitted to Ministry within 6 months.	Study conducted by Central Institute of Mining & Fuel Research (CSIR- CIMFER). Copy of the study report "Numerical Modelling Studies for Subsidence predication at Rampura Agucha Mine, HZL" is submitted vide letter No. HZL/RAM/ENV/2020-2021/789 dated 28.08.2020. Repot cover page – XXXII
4	No waste to be transported outside the mining lease area.	No waste is transported outside the lease area. If required to be done in future, necessary approvals will be taken.
B) Standard Conditions: (As Ministry's O.M No 22-34/2018-IA.III dated 8.01.2019 and Ministry's O.M No 22-34/2018-IA.III dated 16.01.2020)		
I. Statutory compliance		
1	This Environmental Clearance (EC) is subject to orders/ judgment of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, Common Cause Conditions as may be applicable.	All applicable orders/ and Judgment will be complied.
2	The Project Proponent complies with all the statutory requirements and judgment of Hon'ble Supreme Court dated 2nd August, 2017 in Writ Petition (Civil) No. 114 of 2014 in matter of Common Cause versus Union of India & Ors before commencing the mining operations.	Till date no liability raised by state government. If raised any in future, same will be complied.
3	The State Government concerned shall ensure that mining operation shall not be commenced till the entire compensation levied, if any, for illegal mining paid by the Project Proponent through their respective Department of Mining & Geology in strict compliance of Judgment of Hon'ble Supreme Court dated 2 nd August, 2017 in Writ Petition (Civil) No. 114 of 2014 in matter of Common Cause versus Union of India & Ors.	Till date no liability raised by state government. If raised any in future, same will be complied.
4	This Environmental Clearance shall become operational only after receiving formal NBWL Clearance from MoEF&CC subsequent to the recommendations of the Standing Committee of National Board for Wildlife, if applicable to the Project.	Not Applicable for our operations.

5	This Environmental Clearance shall become operational only after receiving formal Forest Clearance (FC) under the provision of Forest Conservation Act, 1980, if applicable to the Project.	Forest clearance not applicable as there is no forest land in Mine Lease area.
6	Project Proponent (PP) shall obtain Consent to Operate after grant of EC and effectively implement all the conditions stipulated therein. The mining activity shall not commence prior to obtaining Consent to Establish/ Consent to Operate from the concerned State Pollution Control Board/Committee.	Consent to Establish was granted by RSPCB vide letter No. F(Mines)/Bhilwara(Hurda)/1(1)2009-2010/4792 dtd 21/01/2010 (Copy attached as Annexure- XXXIV). Consents to Operate are valid till 28.02.2023. (Copies attached as Annexure -XXXV) There is no requirement of obtaining CTE & CTO afresh as this is an amendment in existing EC.
7	The PP shall adhere to the provision of the Mines Act, 1952, Mines and Mineral (Development & Regulation), Act, 2015 and rules & regulations made there under. PP shall adhere to various circulars issued by Directorate General Mines Safety (DGMS) and Indian Bureau of Mines from time to time.	Adherence to all provisions of Mines Act, MMDR Act and circulars of DGMS & IBM is ensured.
8	The Project Proponent shall obtain consents from all the concerned land owners, before start of mining operations, as per the provisions of MMDR Act,1957 and rules made there under in respect of lands which are not owned by it.	All the land is owned by HZL. Operations were started in the year 1991.
9	The Project Proponent shall follow the mitigation measures provided in MoEF&CC's Office Memorandum No. Z-11013/57/2014-IA. II (M), dated 29 th October, 2014, titled "Impact of mining activities on Habitations-Issues related to the mining Projects wherein Habitations and villages are the part of mine lease areas or Habitations and villages are surrounded by the mine lease area"	No village and Habitation are part of mining lease area.
10	The Project Proponent shall obtain necessary prior permission of the competent authorities for drawl of requisite quantity of surface water and from CGWA for withdrawal of ground water for the project.	Water withdrawal permission form CGWA NOC vide letter No. 21-4(2)/WR/CGWA/2005-1205 dated 08/07/2013. Annexure XXIV. Renewal application of ground water withdrawal submitted to CGWB vide letter No. HZL/RAM/ENV/2018-2019/26 dated 04/04/2018. As annexure XXV
11	A copy of EC letter will be marked to concerned Panchayat / local NGO etc. if any, from whom suggestion/ representation has been received while processing the proposal.	Copy of EC letter was submitted to Panchayat in 2009.
12.	State Pollution Control Board/Committee shall be responsible for display of this EC letter at its Regional office, District Industries Centre and Collector's office/ Tehsildar's Office for 30 days.	Copy is marked to Rajasthan State Pollution Control Board.
13	The Project Authorities should widely advertise about the grant of this EC letter by printing the same in at least two local newspapers, one of which shall be in vernacular	Copy of the advertisement was sent to MoEF &CC, Lucknow vide letter No

	language of the concerned area. The advertisement shall be done within 7 days of the issue of the clearance letter mentioning that the instant project has been accorded EC and copy of the EC letter is available with the State Pollution Control Board/Committee and web site of the Ministry of Environment, Forest and Climate Change (www.parivesh.nic.in). A copy of the advertisement may be forwarded to the concerned MoEFCC Regional Office for compliance and record.	HZL/RAM/Env/Exp/2009 Advertised in two News papers on 03.01.2010.
14	The Project Proponent shall inform the MoEF&CC for any change in ownership of the mining lease. In case there is any change in ownership or mining lease is transferred than mining operation shall only be carried out after transfer of EC as per provisions of the para 11 of EIA Notification, 2006 as amended from time to time.	Will inform as per EIA notification in case of any change in ownership or transfer of the mining lease.
15	In pursuant to Ministry's O.M. No 22-34/2018-IA.III dated 16.01.2020 to comply with the direction made by Hon'ble Supreme Court on 8.01.2020 in W.P. (Civil) No 114/2014 in the matter Common Cause vs Union of India, the mining lease holder shall after ceasing mining operations, undertake re-grassing the mining area and any other area which may have been disturbed due to other mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc.	Reclamation is carried out progressively for growth of flora and fauna.
II. Air quality monitoring and preservation		
16	The Project Proponent shall install a minimum of 3 (three) online Ambient Air Quality Monitoring Stations with 1 (one) in upwind and 2 (two) in downwind direction based on long term climatological data about wind direction such that an angle of 120° is made between the monitoring locations to monitor critical parameters, relevant for mining operations, of air pollution viz. PM10, PM2.5, NO2, CO and SO2 etc. as per the methodology mentioned in NAAQS Notification No. B-29016/20/90/PCI/I, dated 18.11.2009 covering the aspects of transportation and use of heavy machinery in the impact zone. The ambient air quality shall also be monitored at prominent places like office building, canteen etc. as per the site condition to ascertain the exposure characteristics at specific places. The above data shall be digitally displayed within 03 months in front of the main Gate of the mine site.	Three Online Ambient Air Quality Monitoring Stations are in place, 1 in upwind and 2 in downwind direction. Six Ambient air monitoring locations, three each in core and buffer zone each are selected in consultation with the SPCB. AAQ monitoring is carried out every fortnightly Data digitally displayed at main gate. Attached as Annexure-XXVI.
17	Effective safeguard measures for prevention of dust generation and subsequent suppression (like regular water sprinkling, metalled road construction etc.) shall be carried out in areas prone to air pollution wherein high levels of PM 10 and PM2.5 are evident such as haul road, loading and unloading point and transfer points. The Fugitive dust emissions from all sources shall be regularly controlled by installation of required equipments/machineries and preventive maintenance. Use of suitable water-soluble chemical dust suppressing agents may be	Water sprinkling is carried out by 4 Nos. of 40 KL water sprinkler on Haul roads to mitigate air pollution in mine area Annexure-X. Dust extraction system and Water sprinkling nozzles are installed at the crushers, transfer points and coarse stockpiles for dust suppression. Industrial roads are cleaned by using Truck mounted vacuum road sweepers. (Annexure-XXII) The parameters of Ambient

	<p>Environment, Forest and Climate Change and its Regional Office, Central Ground Water Authority and Regional Director, Central Ground Water Board, State Pollution Control Board and Central Pollution Control Board. Clearly showing the trend analysis on six-monthly basis.</p>	
22	<p>Quality of polluted water generated from mining operations which include Chemical Oxygen Demand (COD) in mines run-off; acid mine drainage and metal contamination in runoff shall be monitored along with Total Suspended Solids (TDS), Dissolved Oxygen (DO), pH and Total Suspended Solids (TSS). The monitored data shall be uploaded on the website of the company as well as displayed at the project site in public domain, on a display board, at a suitable location near the main gate of the Company. The circular No. J- 20012/1 /2006-IA. II (M) dated 27.05.2009 issued by Ministry of Environment, Forest and Climate Change may also be referred in this regard.</p>	<p>Water generated from mining operations is utilized in Beneficiation Plant and zero discharge is maintained. There is no acid mine drainage occurring in the mine. Garland drains are constructed around the tailing dam and waste dump with collection sumps.</p>
23	<p>Project Proponent shall plan, develop and implement rainwater harvesting measures on long term basis to augment ground water resources in the area in consultation with Central Ground Water Board/ State Groundwater Department. A report on amount of water recharged needs to be submitted to Regional Office MoEFCC annually.</p>	<p>Garland drains are constructed around the tailing dam and waste dump with collection sumps of 8.5 lakh CuM capacity to collect and reuse the rain water. Collection pond of 1.5 lakh CuM has been constructed in the township. 3 Nos. of anicuts have been constructed for groundwater augmentation in consultation with CGWB. 4 anicuts constructed in the area under MJSA. Massive groundwater recharge work is in progress in four blocks of Bhilwara district Annexure –XI.</p>
24	<p>Industrial waste water (workshop and waste water from the mine) should be properly collected and treated so as to conform to the notified standards prescribed from time to time. The standards shall be prescribed through Consent to Operate (CTO) issued by concerned State Pollution Control Board (SPCB). The workshop effluent shall be treated after its initial passage through Oil and grease trap</p>	<p>No waste water generation from mining. Water generated during mining intersection is used in sprinkling and beneficiation process. Water from tailing dam is recycled back to the Beneficiation Plant and zero discharge is maintained. Annexure-V Oil & Grease traps are installed near work shop and water reused in beneficiation process. Annexure XVIII</p>
25	<p>The water balance/water auditing shall be carried out and measure for reducing the consumption of water shall be taken up and reported to the Regional Office of the MoEF&CC and State Pollution Control Board/Committee.</p>	<p>Water balance attached as annexure XXIX</p>
IV. Noise and vibration monitoring and prevention		
26	<p>The peak particle velocity at 500m distance or within the nearest habitation, whichever is closer shall be monitored periodically as per applicable DGMS guidelines</p>	<p>Peak particle velocity monitoring done as per guidelines. Annexure-XXIII</p>

27	<p>The illumination and sound at night at project sites disturb the villages in respect of both human and animal population. Consequent sleeping disorders and stress may affect the health in the villages located close to mining operations. Habitations have a right for darkness and minimal noise levels at night. PPs must ensure that the biological clock of the villages is not disturbed; by orienting the floodlights/ masks away from the villagers and keeping the noise levels well within the prescribed limits for day /night hours.</p>	<p>Lights are installed in a manner so that no disturbance to the villagers. Noise levels are also within prescribed limits. Annexure- IV</p>
28	<p>The Project Proponent shall take measures for control of noise levels below 85 dBA in the work environment. The workers engaged in operations of HEMM, etc. should be provided with ear plugs /muffs. All personnel including laborers working in dusty areas shall be provided with protective respiratory devices along with adequate training, awareness and information on safety and health aspects. The PP shall be held responsible in case it has been found that workers/ personals/ laborers are working without personal protective equipment.</p>	<p>PPEs like ear plugs / muffs, dust masks, safety goggles, safety shoes etc. provided to all workers/ personals/ laborers. Adequate trainings provided to all concerned and toolbox talks are carried out before starting work. Noise monitoring done as per guideline report attached as per Annexure –IV</p>
V. Mining plan		
29	<p>The Project Proponent shall adhere to the working parameters of mining plan which was submitted at the time of EC appraisal wherein year-wise plan was mentioned for total excavation i.e. quantum of mineral, waste, over burden, inter burden and top soil etc.. No change in basic mining proposal like mining technology, total excavation, mineral & waste production, lease area and scope of working (viz. method of mining, overburden & dump management , OB & dump mining, mineral transportation mode, ultimate depth of mining etc.) shall not be carried out without prior approval of the Ministry of Environment, Forest and Climate Change, which entail adverse environmental impacts, even if it is a part of approved mining plan modified after grant of EC or granted by State Govt. in the form to Short Term Permit (STP), Query license or any other name.</p>	<p>Working as per mining plan. There is no changes in mining technology scope of work, method of mining, overburden & dump management, OB & dump mining, mineral transportation mode, ultimate depth of mining.</p> <p>As per the latest MoEF&CC O.M. No. 22-44/2018-IA.III dated 14.05.2020, production will not be extended beyond EC approved quantity.</p>
30	<p>The Project Proponent shall get the Final Mine Closure Plan along with Financial Assurance approved from Indian Bureau of Mines/Department of Mining & Geology as required under the Provision of the MMDR Act, 1957 and Rules/ Guidelines made there under. A copy of approved final mine closure plan shall be submitted within 2 months of the approval of the same from the competent authority to the concerned Regional Office of the Ministry of Environment, Forest and Climate Change for record and verification.</p>	<p>Progressive Mine Closure Plan is part of approved Mining Plan. Final Mine Closure Plan along with details of Corpus Fund will be got approved from IBM and copy of the same will be submitted to MoEF&CC well in advance of final mine closure.</p>
31	<p>The land-use of the mine lease area at various stages of mining scheme as well as at the end-of-life shall be governed as per the approved Mining Plan. The excavation vis-a-vis backfilling in the mine lease area and corresponding afforestation to be raised in the reclaimed</p>	<p>Land use of mine lease area, excavation and afforestation and reclamation are done as per approved mining plan.</p>


	<p>area shall be governed as per approved mining plan. PP shall ensure the monitoring and management of rehabilitated areas until the vegetation becomes self-sustaining. The compliance status shall be submitted half-yearly to the MoEFCC and its concerned Regional Office.</p>	
VI. Land reclamation		
32	<p>The Overburden (OB) generated during the mining operations shall be stacked at earmarked OB dump site(s) only and it should not be kept active for a long period of time. The physical parameters of the OB dumps like height, width and angle of slope shall be governed as per the approved Mining Plan as per the guidelines/circulars issued by D.G.M.S w.r.t. safety in mining operations shall be strictly adhered to maintain the stability of top soil/OB dumps. The topsoil shall be used for land reclamation and plantation.</p>	<p>Overburden burden is stacked at earmarked Waste Dump site. Physical parameters maintain as per mining plan and DGMS guidelines and circulars.</p> <p>The topsoil is used for land reclamation and plantation. In current FY there is no top soil generation.</p>
33	<p>The reject/waste generated during the mining operations shall be stacked at earmarked waste dump site(s) only. The physical parameters of the waste dumps like height, width and angle of slope shall be governed as per the approved Mining Plan as per the guidelines/circulars issued by DGMS w.r.t. safety in mining operations shall be strictly adhered to maintain the stability of waste dumps.</p>	<p>Overburden burden is stacked at earmarked Waste Dump site. Physical parameters maintain as per mining plan and DGMS guidelines and circulars.</p> <p>stability monitoring by Radar Report enclosed as Annexure –VII</p>
34	<p>The reclamation of waste dump sites shall be done in scientific manner as per the Approved Mining Plan cum Progressive Mine Closure Plan.</p>	<p>Reclamation of waste dump site as per mining plan.</p>
35	<p>The slope of dumps shall be vegetated in scientific manner with suitable native species to maintain the slope stability, prevent erosion and surface run off. The selection of local species regulates local climatic parameters and help in adaptation of plant species to the microclimate. The gullies formed on slopes should be adequately taken care of as it impacts the overall stability of dumps. The dump mass should be consolidated with the help of dozer/ compactors thereby ensuring proper filling/ leveling of dump mass. In critical areas, use of geo textiles/ ge-membranes / clay liners / Bentonite etc. shall be undertaken for stabilization of the dump.</p>	<p>Slopes of waste dumps are stabilized and vegetated in scientific manner using geotextile and with native and arid zone seeds (like <i>Acacia nitolica</i>, <i>Ziziphus Jojoba</i>, <i>Prosopis cineraria</i>, <i>Alkanna Tinctoria</i>, <i>Capparis decidua</i>, <i>Gundi</i>, <i>Salvadorapersica</i> spread on waste dump slopes. Aloe Vera and Vetiver grass planted during laying of geotextiles</p> <p>Annexure XXX</p>
36	<p>The Project Proponent shall carry out slope stability study in case the dump height is more than 30 meters. The slope stability report shall be submitted to concerned regional office of MoEF&CC.</p>	<p>Waste dump design and slope stability is being reviewed yearly by CIMFR and report being submitted to MoEF&CC Regional Office. Latest report submitted vide letter No.HZL/RAM/ENV/MoEF/2019-20/225 dtd 28 November 2019. Annexure XXI</p>
37	<p>Catch drains, settling tanks and siltation ponds of appropriate size shall be constructed around the mine working, mineral yards and Top Soil/OB/Waste dumps to prevent run off of water and flow of sediments directly into the water bodies (Nallah/ River/ Pond etc.). The collected water should be utilized for watering the mine</p>	<p>Garland drains of adequate size are constructed along the waste dump toe & mining pit, along with lined collection sumps of about 8.5 lakh CuM . The water collected is utilized for various purposes. De-silting sump</p>

	area, roads, green belt development, plantation etc. The drains/ sedimentation sumps etc. shall be de-silted regularly, particularly after monsoon season, and maintained properly	and drains are de-silted on regular basis. Annexure –VIII
38	Check dams of appropriate size, gradient and length shall be constructed around mine pit and OB dumps to prevent storm run-off and sediment flow into adjoining water bodies. A safety margin of 50% shall be kept for designing of sump structures over and above peak rainfall (based on 50 years data) and maximum discharge in the mine and its adjoining area which shall also help in providing adequate retention time period thereby allowing proper settling of sediments/ silt material. The sedimentation pits/ sumps shall be constructed at the corners of the garland drains.	Garland drains of adequate size are constructed along the waste dump toe & mining pit, along with lined collection sumps of about 8.5 lakh CuM . The water collected is utilized for various purposes. De-silting sump and drains are de-silted on regular basis. Annexure –VIII
39	The top soil, if any, shall temporarily be stored at earmarked site(s) within the mine lease only and should not be kept unutilized for long. The physical parameters of the top soil dumps like height, width and angle of slope shall be governed as per the approved Mining Plan and as per the guidelines framed by DGMS w.r.t. safety in mining operations shall be strictly adhered to maintain the stability of dumps. The topsoil shall be used for land reclamation and plantation purpose.	The topsoil has been utilized for land reclamation and plantation. At present no top soil dump at site.
VII. Transportation		
40	No Transportation of the minerals shall be allowed in case of roads passing through villages/ habitations. In such cases, PP shall construct a 'bypass' road for the purpose of transportation of the minerals leaving an adequate gap (say at least 200 meters) so that the adverse impact of sound and dust along with chances of accidents could be mitigated. All costs resulting from widening and strengthening of existing public road network shall be borne by the PP in consultation with nodal State Govt. Department. Transportation of minerals through road movement in case of existing village/ rural roads shall be allowed in consultation with nodal State Govt. Department only after required strengthening such that the carrying capacity of roads is increased to handle the traffic load. The pollution due to transportation load on the environment will be effectively controlled and water sprinkling will also be done regularly. Vehicular emissions shall be kept under control and regularly monitored. Project should obtain Pollution Under Control (PUC) certificate for all the vehicles from authorized pollution testing centers.	Ore transportation is being done within acquired land and not passing through any village / habitation. Regular water sprinkling is done on haul roads (Annexure X). Industrial roads are cleaned using truck mounted vacuum Road Sweepers(Annexure-XXII). Periodic preventive maintenance of vehicles is part of our operations. All the trucks are covered with tarpaulin while transportation of concentrates to the smelters. PUC certificate is ensured for every truck prior to entry in the premises. Annexure XIII
41	The Main haulage road within the mine lease should be provided with a permanent water sprinkling arrangement for dust suppression. Other roads within the mine lease should be wetted regularly with tanker-mounted water sprinkling system. The other areas of dust generation like crushing zone, material transfer points, material yards etc. should invariably be provided with dust suppression	Regular water sprinkling is done on haul roads (Annexure X). Dust extraction system and Water sprinkling nozzles are installed at the crushers, transfer points and coarse stockpiles for dust suppression. Industrial roads are cleaned by

	<p>arrangements. The air pollution control equipments like bag filters, vacuum suction hoods, dry fogging system etc. shall be installed at Crushers, belt-conveyors and other areas prone to air pollution. The belt conveyor should be fully covered to avoid generation of dust while transportation. PP shall take necessary measures to avoid generation of fugitive dust emissions.</p>	<p>using Truck mounted vacuum road sweepers. (Annexure-XXII) The parameters of Ambient Air quality monitored are within the prescribed norm of CPCB.</p>
VIII. Green Belt		
42	<p>The Project Proponent shall develop greenbelt in 7.5m wide safety zone all along the mine lease boundary as per the guidelines of CPCB in order to arrest pollution emanating from mining operations within the lease. The whole Green belt shall be developed within first 5 years starting from windward side of the active mining area. The development of greenbelt shall be governed as per the EC granted by the Ministry irrespective of the stipulation made in approved mine plan.</p>	<p>Green belt developed all along the acquired area.</p>
43	<p>The Project Proponent shall carryout plantation/ afforestation in backfilled and reclaimed area of mining lease, around water body, along the roadsides, in community areas etc. by planting the native species in consultation with the State Forest Department/ Agriculture Department/ Rural development department/ Tribal Welfare Department/ Gram Panchayat such that only those species be selected which are of use to the local people. The CPCB guidelines in this respect shall also be adhered. The density of the trees should be around 2500 saplings per Hectare. Adequate budgetary provision shall be made for protection and care of trees.</p>	<p>Green belt developed all along the acquired area. Progressive plantation is being carried out on waste dump benches every year as per plan submitted. Till date 319.20 ha. land is under plantation. Plantation in remaining area will be completed by closure of mine. Additional plantation has been done in 37.70 ha in the township and along road sides. Annexure –IX. Density of the plantation will be increased in phase manner.</p>
44	<p>The Project Proponent shall make necessary alternative arrangements for livestock feed by developing grazing land with a view to compensate those areas which are coming within the mine lease. The development of such grazing land shall be done in consultation with the State Government. In this regard, Project Proponent should essentially implement the directions of the Hon'ble Supreme Court with regard to acquisition of grazing land. The sparse trees on such grazing ground, which provide mid-day shelter from the scorching sun, should be scrupulously guarded/ protected against felling and plantation of such trees should be promoted.</p>	<p>Hindustan Zinc Ltd. is carrying out various work for livestock and agriculture development under its flagship project named "Samadha" in collaboration with BAIF (National level Origination)</p>
45	<p>The Project Proponent shall undertake all precautionary measures for conservation and protection of endangered flora and fauna and Schedule-I species during mining operation. A Wildlife Conservation Plan shall be prepared for the same clearly delineating action to be taken for conservation of flora and fauna. The Plan shall be approved by Chief Wild Life Warden of the State Govt.</p>	<p>Not applicable there is not Shedule-1 species in mining area</p>
46	<p>And implemented in consultation with the State Forest and Wildlife Department. A copy of Wildlife Conservation Plan and its implementation status (annual) shall be submitted to the Regional Office of the Ministry.</p>	<p>Not applicable There is not Shedule-1 species in mining area</p>

IX. Public hearing and human health issues

47	<p>The Project Proponent shall appoint an Occupational Health Specialist for Regular as well as Periodical medical examination of the workers engaged in the mining activities, as per the DGMS guidelines. The records shall be maintained properly. PP shall also carryout Occupational health check-ups in respect of workers which. are having ailments like BP, diabetes, habitual smoking, etc. The check-ups shall be undertaken once in six months and necessary remedial/ preventive measures be taken. A status report on the same may be sent to MoEFCC Regional Office and DGMS on half-yearly basis.</p>	<p>Appointed Occupational Health Specialist. Regular as well as Periodical medical examination of the workers are carried out as per Mines Act. Copy of the return submitted to DGMS is attached as annexure –XXXI</p>
48	<p>The Project Proponent must demonstrate commitment to work towards 'Zero Harm' from their mining activities and carry out Health Risk Assessment (HRA) for identification workplace hazards and assess their potential risks to health and determine appropriate control measures to protect the health and wellbeing of workers and nearby community. The proponent shall maintain accurate and systematic records of the HRA. The HRA for neighborhood has to focus on Public Health Problems like Malaria, Tuberculosis, HIV, Anaemia, Diarrhoea in children under five, respiratory infections due to bio mass cooking. The proponent shall also create awareness and educate the nearby community and workers for Sanitation, Personal Hygiene, Hand washing, not to defecate in open, Women Health and Hygiene (Providing Sanitary Napkins), hazard of tobacco and alcohol use. The Proponent shall carryout base line HRA for all the category of workers and there after every five years.</p>	<p>We are committed for Zero Harm from our mining activities. Various studies have been done for health risk assessment regarding identification and control measures for work place hazards. Regular health check-ups of nearby community are done through "Smile Foundation" (Annexure-XX) and awareness sessions are also conducted.</p>
49	<p>The Proponent shall carry out Occupational health surveillance which be a part of HRA and include Biological Monitoring where practical and feasible, and the tests and investigations relevant to the exposure (e.g. for Dust a X-Ray chest; For Noise Audiometric; for Lead Exposure Blood Lead, For Welders Full Ophthalmologic Assessment; for Manganese Miners a complete Neurological Assessment by a Certified Neurologist, and Manganese (Mn) Estimation in Blood; For Inorganic Chromium-Fortnightly skin inspection of hands and forearms by a responsible person. Except routine tests all tests would be carried out in a Lab accredited by NABH. Records of Health Surveillance must be kept for 30 years, including the results of and the records of Physical examination and tests. The record of exposure due to materials like Asbestos, Hard Rock Mining, Silica, Gold, Kaolin, Aluminium, Iron, Manganese, Chromium, Lead, Uranium need to be handed over to the Mining Department of the State in case the life of the mine is less than 30 years. It would be obligatory for the State Mines Departments to make arrangements for the safe and secure storage of the records including X-Ray. Only conventional X-Ray will be</p>	<p>Biological monitoring and tests and investigations relevant to the exposure are carried out and record maintain by Occupational health team. No manganese and chromium mining so Mn & Cr monitoring not applicable. Blood lead estimation is done.</p>

	<p>accepted for record purposes and not the digital one). X-Ray must meet ILO criteria (17 x14 inches and of good quality).</p>	
50	<p>The Proponent shall maintained a record of performance indicators for workers which includes (a) there should not be a significant decline in their Body Mass Index and it should stay between 18.5 -24.9, (b) the Final Chest X-Ray compared with the base line X-Ray should not show any capacities ,(c) At the end of their leaving job there should be no Diminution in their Lung Functions Forced Expiratory Volume in one second (FEV1),Forced Vital Capacity (FVC), and the ratio) unless they are smokers which has to be adjusted, and the effect of age, (d) their hearing should not be affected. As a proof an Audiogram (first and last need to be presented), (e) they should not have developed any Persistent Back Pain, Neck Pain, and the movement of their Hip, Knee and other joints should have normal range of movement, (f) they should not have suffered loss of any body part. The record of the same should be submitted to the Regional Office, MoEF&CC annually along with details of the relief and compensation paid to workers having above indications.</p>	<p>Periodical medical examination of the workers are carried out as per DGMS guidelines and records are maintained.</p>
51	<p>The Project Proponent shall ensure that Personnel working in dusty areas should wear protective respiratory devices and they should also be provided with adequate training and information on safety and health aspects.</p>	<p>Dust masks are provided to all workers/ personals/ laborers. Adequate trainings provided to all concerned and toolbox talks are carried out before starting of work.</p>
52	<p>Project Proponent shall make provision for the housing for workers/ labors or shall construct labor camps within/ outside (company owned land) with necessary basic infrastructure/ facilities like fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche for kids etc. The housing may be provided in the form of temporary structures which can be removed after the completion of the project related infrastructure. The domestic waste water should be treated with STP in order to avoid contamination of underground water.</p>	<p>No construction labour housing is proposed in mining area. However, the sanitation and drinking water facility is provided to the workers, working at site. Sewage Treatment Plants are also installed at mining area and township.</p>
53	<p>The activities proposed in Action plan prepared for addressing the issues raised during the Public Hearing shall be completed as per the budgetary provisions mentioned in the Action Plan and within the stipulated time frame. The Status Report on implementation of Action Plan shall be submitted to the concerned Regional Office of the Ministry along with District Administration.</p>	<p>All the issues raised during Public Hearing in the year 2009 were addressed.</p>
X. Corporate Environment Responsibility (CER)		
54	<p>The activities and budget earmarked for Corporate Environmental Responsibility (CER) as per Ministry's O.M No 22-65/2017-IA. II (M) dated 01.05.2018 or as proposed by EAC should be kept in a separate bank account. The activities proposed for CER shall be implemented in a time bound manner and annual report of implementation of the same along with documentary proof viz. photographs, purchase documents, latitude & longitude of</p>	<p>Separate Cost center and GL account are maintained. Activities proposed for CER will be implemented in time bound manner.</p>

	infrastructure developed & road constructed needs to be submitted to Regional Office MoEF&CC annually along with audited statement.	
55	Project Proponent shall keep the funds earmarked for environmental protection measures in a separate account and refrain from diverting the same for other purposes. The Year wise expenditure of such funds should be reported to the MoEFCC and its concerned Regional Office.	Environmental funds are earmarked for environment work only. Separate Cost center and GL account are maintained. Environmental expenditure is reported on six monthly basis enclosed as Annexure -VI
XI. Miscellaneous		
56	The Project Proponent shall prepare digital map (land use & land cover) of the entire lease area once in five years purpose of monitoring land use pattern and submit a report to concerned Regional Office of the MoEFCC.	The land use & land cover change study carried out in 2018. Copy already submitted on 28/05/2018. Annexure-XIV
57	The Project Authorities should inform to the Regional Office regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.	Being operational unit, condition is not applicable.
58	The Project Proponent shall submit six monthly compliance reports on the status of the implementation of the stipulated environmental safeguards to the MOEFCC & its concerned Regional Office, Central Pollution Control Board and State Pollution Control Board.	Compliances report submitted to MOEF&CC & Regional Office, Central Pollution Control Board and State Pollution Control Board. Environment statement submitted on 22 nd September 2020. Annexure-XIX.
59	A separate 'Environmental Management Cell' with suitable qualified manpower should be set-up under the control of a Senior Executive. The Senior Executive shall directly report to Head of the Organization. Adequate number of qualified Environmental Scientists and Mining Engineers shall be appointed and submit a report to RO, MoEF&CC.	Environment Management Cell has been set up having adequate qualified Executives and a Senior executive who reports to Location Head directly.
60	The concerned Regional Office of the MoEF&CC shall randomly monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the MoEF&CC officer(s) by furnishing the requisite data / information / monitoring reports.	Noted

Sujal Khan
28/11/2020

Mechanism for addressing Environmental Issues

HZL has a Health Safety and Environment Policy, given below, signed by its CEO and forms the guidelines for the entire organization. A well laid mechanism is implemented uniformly across all units of HZL for the implementation of the policy.

All operating units of Hindustan Zinc Limited are certified for ISO-14001 Environmental Management system (EMS). The Management Representative (MR) of the certification system is an experienced environmental officer with due authority to implement and drive a responsible EMS. The MR is duly supported by a committee constituting the operations and maintenance officers of the unit. The system has a well laid documented procedure for identification of all environmental aspect, Impacts and implementation of suitable mitigation measures.

The company has three level monitoring mechanism for addressing environmental concerns starting at unit level, HZL corporate level and Vedanta group company level. Depending on the scale and nature of the issue, the concern is escalated to different level right up to the Board of the company and also the shareholders of the company in the general body meetings.

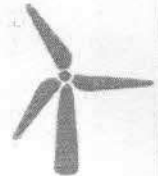
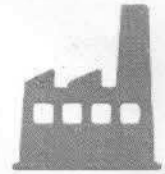
The compliances to Environment Clearance and all environmental licenses are reviewed and monitored regularly and reports are submitted to the respective regulatory authorities at every unit, by a dedicated environmental professional, who reports directly to the unit head. The compliance is periodically reviewed and audited by Corporate Environment Department, which reports to the top management of the company. A Corporate Sustainability Committee, chaired by the CEO of the company, oversees all sustainability issues including Environment, Safety and Health and also reviewing any policy matters.

Any non-compliances/show cause/notices/complaints received from regulatory authority or any stakeholder is addressed jointly by the unit and corporate environment department. Such issues are also reported and the actions taken are reviewed by the top management every month. Further, all show cause, complaint letters and notices from any stakeholder, along with the action taken report is submitted to the Board Of Directors of the company every quarterly. All major concerns are reported to the stakeholders through the annual general body meetings of the company.

Health, Safety & Environment (HSE) Policy

Hindustan Zinc is committed to conduct all business activities in a responsible manner, which ensures the health and safety of our stakeholders and the environment. In order to achieve that, we shall:

- Ensure Zero Harm to personnel and environment.
- Demonstrate visible HSE leadership that HSE is our core value.
- Comply with all HSE rules, regulations, obligations and requirements and will strive to go beyond compliance to the relevant requirements and shall continually improve our HSE management systems.
- Incorporate appropriate HSE Criteriaⁱ for all business decisions for selection of plant, technology, contractors and personnel.
- Identify and evaluate HSE risks for all activitiesⁱⁱ and take actions to eliminate /mitigate risks and hazards.
- Encourage, train, equip and empower personnel, including contractors & contract employees, to adopt a healthy and safe working approach both on and off the job. The HSE performance of individual personnel shall decide his career advancement.
- Conserve natural resources and eliminate waste through reduction, recycling and reuse methods, which are environment-friendly and energy-efficient.



Health, Safety & Environment (HSE) Guiding Principles:

- Management shall demonstrate its strong commitment towards HSE at all times.
- All injuries, occupational illnesses and adverse environmental incidents are preventable.
- Reporting and investigation of all incidents is an obligation.
- We are responsible and accountable for preventing injuries, occupational illnesses and adverse environmental incidents.
- We are empowered and obligated to stop any job being carried out in an unsafe manner.
- HSE values shall never be compromised.
- Adherence to HSE management system is a condition of employment.



We personally commit to applying the policy & principles for building positive HSE culture at Hindustan Zinc and report wherever applicable.

i - these criteria are applicable to the product distribution and logistics/entire product life cycle from extraction to product distribution and logistics

ii - the policy is not only applicable to our existing operational sites/new projects but also all the due-diligence, mergers and acquisitions and non-managed operations / licensees / third-party manufacturers / joint ventures / outsourcing partners.



Date: 1st August, 2020

Arun Misra

Arun Misra
CEO, Hindustan Zinc

Annexures Table

S. No.	Descriptions	Annexure No.
1	Water PZ & well water quality data water level	Annexure I(1,2 & 3)
2.	Waste Dump rock analysis	Annexure II
3	Ambient air quality data	Annexure III
4.	Noise level monitoring	Annexure IV
5.	Environment sump analysis	Annexure V
6.	Environmental Expenditure	Annexure VI
7.	Dump Slope monitoring Data: Radar & Prism data	Annexure VII
8.	Retaining wall & Garland Drain	Annexure VIII
9.	Plantation in mining area	Annexure IX
10	Water sprinklers in mining haul road	Annexure X
11	Anicuts photo	Annexure-XI
12	Environment Sump	Annexure XII
13	Truck covered with tarpaulin	Annexure XIII
14	Land use mapping by digital processing report	Annexure XIV
15	HDPE laying in tailing dam	Annexure XV
16	STP (300KLD & 425 KLD)	Annexure XVI
17	Display board at Main gate	Annexure XVII
18	Oil & grease trap	Annexure XVIII
19	Environment statement (Form V)	Annexure XIX
20	Smile on Wheel report	Annexure XX
21	Dump stability monitoring report by CMIFER	Annexure XXI
22	Truck mounted vacuum road sweepers	Annexure XXII
23	Peak particle velocity monitoring	Annexure-XXIII
24	CGWA NOC water withdrawal letter	Annexure XXIV
25	Renewal application of ground water withdrawal	Annexure XXV
26	Digital Display	Annexure XXVI
27	CGWA NOC water intersection letter	Annexure XXVII
28	Renewal application of ground water intersection	Annexure XXVIII
29	Water balance	Annexure XXIX
30	Geotextiles Photo	Annexure XXX
31	Periodical medical examination	Annexure XXXI
32	Covered Conveyer belt	Annexure XXXII
33	Copy of Subsidence Study	Annexure XXXIII
34	Copy of Consent to establish	Annexure XXXIV
35	Copy of Valid CTO	Annexure XXXV
36	Tailing through closed pipe line	Annexure XXXVI

HINDUSTAN ZINC LIMITED
RAMPURA AGUCHA MINE
WELL WATER ANALYSIS REPORT-April-2020 to Sep-2020

S. No Code	1 WW-10		2 ww-22		3 GWD		4 WW-13		5 HP-1		6 WW-15		7 WW-16		8 WW-23		9 PRK-1		10 KOT-1		11 WW-14	
	May-20	Sep-20	May-20	Sep-20	May-20	Sep-20	May-20	Sep-20	May-20	Sep-20	May-20	Sep-20	May-20	Sep-20	May-20	Sep-20	May-20	Sep-20	May-20	Sep-20	May-20	Sep-20
pH	7.60	7.60	7.60	7.40	7.80	8.10	8.20	8.00	8.10	7.90	7.80	7.80	8.60	7.80	7.20	7.90	8.00	8.20	7.40	7.80	7.80	7.40
Alkalinity	420	390	320	239	394	384	301	210	270	295	340	421	340	346	347	340	340	331	324	347	374	351
Chlorides	69	64	68	54	162	170	65	69	99	78	59	53	192	152	78	56	174	165	162	189	67	56
Sulphate	413	320	72	69	129	165	170	139	103	120	72	86	162	192	62	69	189	130	142	174	89	72
CN	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Pb	0.008	0.007	0.007	0.007	0.008	0.008	0.006	0.006	0.007	0.008	0.007	0.008	0.008	0.008	0.007	0.009	0.007	0.007	0.007	0.006	0.008	0.007
Zn	0.090	0.080	0.100	0.090	0.080	0.090	0.070	0.090	0.090	0.100	0.090	0.070	0.120	0.100	0.090	0.070	0.090	0.050	0.100	0.110	0.080	0.090
Fe	0.070	0.070	0.090	0.080	0.100	0.110	0.100	0.100	0.080	0.070	0.110	0.100	0.110	0.090	0.110	0.100	0.100	0.080	0.008	0.070	0.100	0.090
Cd	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
Cu	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Co	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Ni	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

All figures are in mg/l except pH

Wakil

HINDUSTAN ZINC LIMITED
 RAMPURA AGUCHA MINE
 PIEZOMETER WATER ANALYSIS REPORT April-2020 to Sep-2020

S. No. Code	1 P		2 H		3 E1		4 G1		5 H1		6 K		7 A		8 Adm	
	May-20	Sep-20	May-20	Sep-20	May-20	Sep-20	May-20	Sep-20	May-20	Sep-20	May-20	Sep-20	May-20	Sep-20	May-20	Sep-20
Months	7.60	7.50	7.40	7.60	7.40	7.60	7.40	8.10	7.50	7.20	7.40	7.60	7.80	7.40	7.40	7.30
pH	2.67	2.71	3.22	3.47	3.76	3.69	4.22	4.01	5.45	5.21	4.20	4.85	2.70	2.47	4.30	4.01
Chlorides	1.62	1.69	1.62	1.50	2.30	2.04	1.66	1.51	1.42	1.39	1.69	1.88	2.55	1.97	1.67	1.76
Sulphate	1.30	1.21	3.90	2.49	4.13	4.01	5.40	5.12	4.39	4.51	1.74	1.67	2.79	2.89	4.30	4.73
CN	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Pb	0.009	0.009	0.009	0.008	0.009	0.009	0.009	0.008	0.009	0.010	0.009	0.010	0.007	0.007	0.008	0.009
Zn	0.090	0.100	0.100	0.100	0.080	0.120	0.100	0.100	0.080	0.080	0.070	0.120	0.100	0.080	0.110	0.100
Fe	0.110	0.110	0.070	0.080	0.100	0.110	0.110	0.120	0.100	0.080	0.080	0.110	0.090	0.100	0.100	0.110
Cd	0.001	0.002	0.001	0.001	0.002	0.002	0.001	0.002	0.001	0.001	0.001	0.001	0.002	0.001	0.001	0.001
Cu	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Co	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Ni	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
As	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Hg	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Ca	68	69	65	59	94	81	64	61	65	68	47	45	62	54	70	61
Mg	37	39	32	38	38	34	30	34	34	36	35	29	45	40	40	32

All figures are in mg/l except pH

HINDUSTAN ZINC LTD
RAMPURA AGUCHA MINE
WELL WATER LEVEL MONITORING

Annexure I (3/3)

(Below the ground level in meters)

Months	W-10	W-22	W-13	W-14	W-15	W-16	W-23	GWD	PRK-1	KOT-1
Apr-20	5.20	5.20	4.70	6.90	7.40	9.40	5.80	8.10	5.80	6.20
May-20	6.00	6.90	5.40	8.40	7.70	10.40	6.20	8.40	6.20	7.40
Jun-20	6.40	7.00	6.20	9.20	8.10	10.90	6.90	9.20	7.10	8.20
Jul-20	5.20	5.20	6.10	5.40	8.40	10.10	6.80	8.20	5.10	5.90
Aug-20	4.30	4.30	5.00	4.20	6.10	8.20	4.40	6.70	4.20	4.30
Sep-20	2.90	3.10	2.80	3.30	4.20	5.00	3.00	3.80	3.50	3.10

Valin

Annexure - II

Analysis of Waste Dump Rocks

Location : Waste Dump

Element	Range
Pb	0.0002% - 0.0005%
Zn	0.0710% - 0.0820%
Cu	0.0005% - 0.0025%
Cd	0.0001% - 0.0005%
Ni	0.0020% - 0.0045%
Co	0.0010% - 0.0030%

Wahid

HINDUSTAN ZINC LIMITED
RAMPURA AGUCHA MINE

AIR MONITORING: AMBIENT AIR & STACK : April-2020 to Sep-2020

Annexure- III

Location->	Mine Site							Main Gate							Mine Tower						
	month/year	SPM (ug/m3)	PM ₁₀ (ug/m3)	PM _{2.5} (ug/m3)	SO ₂ (ug/m3)	NO _x (ug/m3)	CO (ug/m3)	SPM (ug/m3)	PM ₁₀ (ug/m3)	PM _{2.5} (ug/m3)	SO ₂ (ug/m3)	NO _x (ug/m3)	CO (ug/m3)	SPM (ug/m3)	PM ₁₀ (ug/m3)	PM _{2.5} (ug/m3)	SO ₂ (ug/m3)	NO _x (ug/m3)	CO (ug/m3)		
Apr-20	week	225.73	63.71	28.59	4.20	7.20	260.00	221.69	60.63	33.17	3.80	6.60	230.00	238.94	60.61	37.33	4.00	6.80	280.00		
	1st	295.24	69.71	37.31	4.40	8.20	330.00	293.02	68.23	32.89	4.80	8.20	310.00	286.32	70.38	36.84	6.20	8.00	310.00		
May-20	1st	287.45	68.76	32.89	7.00	7.20	346.00	235.24	67.51	29.00	4.80	6.60	270.00	266.11	67.69	32.89	5.20	6.40	290.00		
	1st	283.99	73.25	33.17	6.60	5.40	324.00	264.03	71.08	34.13	4.40	5.80	290.00	289.76	71.76	37.29	5.40	7.20	340.00		
Jun-20	1st	297.03	74.74	37.00	7.00	7.20	415.00	285.95	74.75	37.28	5.80	8.60	310.00	276.23	70.32	37.15	6.40	9.00	410.00		
	1st	292.41	68.43	32.76	8.30	8.40	390.00	291.26	71.83	34.42	6.40	7.50	410.00	279.71	71.25	36.69	5.80	7.40	370.00		
Jul-20	1st	192.85	71.92	35.90	6.38	13.20	310.00	240.92	81.93	31.81	8.85	11.98	340.00	227.07	84.74	29.47	6.31	10.44	270.00		
	1st	289.46	72.65	28.77	9.10	10.40	320.00	277.38	69.64	30.12	6.40	10.50	410.00	286.07	85.09	25.33	7.80	11.50	350.00		
Aug-20	1st	228.36	74.03	37.00	8.21	9.50	250.00	206.58	76.32	34.19	6.40	10.50	410.00	261.42	78.86	37.15	8.89	12.11	330.00		
	1st	158.98	66.52	20.00	4.81	11.12	220.00	159.11	63.42	25.58	6.31	13.42	250.00	137.43	61.74	19.94	4.85	13.32	240.00		
Sep-20	1st	210.02	59.60	37.00	4.20	8.40	370.00	286.07	80.10	34.19	6.66	10.67	260.00	227.36	81.53	37.15	5.99	10.10	330.00		
	1st	231.67	83.94	32.76	4.34	13.00	430.00	187.89	86.54	26.71	4.67	14.26	370.00	205.19	80.36	27.43	5.05	13.43	380.00		

Location->	Agucha village							Kothiyana village							Bherukhera village						
	month/year	SPM (ug/m3)	PM ₁₀ (ug/m3)	PM _{2.5} (ug/m3)	SO ₂ (ug/m3)	NO _x (ug/m3)	CO (ug/m3)	SPM (ug/m3)	PM ₁₀ (ug/m3)	PM _{2.5} (ug/m3)	SO ₂ (ug/m3)	NO _x (ug/m3)	CO (ug/m3)	SPM (ug/m3)	PM ₁₀ (ug/m3)	PM _{2.5} (ug/m3)	SO ₂ (ug/m3)	NO _x (ug/m3)	CO (ug/m3)		
Apr-20	week	158.43	49.97	28.76	2.20	4.60	190.00	169.14	54.89	29.15	4.80	8.80	201.00	170.61	55.15	20.64	4.20	8.40	190.00		
	1st	191.81	60.95	24.67	5.60	9.60	220.00	179.09	53.29	28.76	6.40	12.40	270.00	177.52	53.13	28.64	5.40	9.60	260.00		
May-20	1st	185.30	62.97	28.78	4.40	6.60	255.00	185.14	62.30	24.56	4.40	7.80	290.00	173.07	57.39	23.59	6.40	8.20	260.00		
	1st	186.62	62.30	28.64	5.60	5.40	275.00	182.36	53.35	25.00	4.40	6.20	310.00	167.55	50.37	28.65	5.50	7.20	290.00		
Jun-20	1st	179.61	62.10	29.04	4.20	7.20	270.00	188.84	59.09	28.65	5.40	7.60	230.00	179.09	58.96	27.52	5.20	6.40	230.00		
	1st	187.84	60.21	28.64	5.40	5.20	210.00	169.54	57.76	25.00	4.20	5.40	260.00	175.52	56.03	24.58	4.20	5.10	190.00		
Jul-20	1st	194.29	62.36	25.37	4.02	10.35	180.00	160.92	65.87	26.62	4.01	10.44	150.00	139.00	52.49	22.40	2.45	8.11	310.00		
	1st	171.34	48.94	33.36	6.18	8.12	240.00	162.28	49.42	29.82	5.21	7.43	220.00	179.68	56.09	24.47	5.11	7.32	220.00		
Aug-20	1st	148.19	71.87	15.65	4.89	5.40	240.00	160.66	57.76	20.46	6.32	8.33	190.00	171.70	56.03	23.59	5.30	6.80	210.00		
	1st	94.12	39.80	14.10	3.33	9.18	150.00	91.00	38.93	17.71	1.72	8.47	130.00	103.93	46.43	18.15	2.37	7.02	160.00		
Sep-20	1st	166.47	78.93	15.65	7.43	5.12	220.00	163.16	68.91	20.46	8.18	3.99	190.00	205.10	75.58	23.59	10.42	8.18	210.00		
	1st	129.94	55.06	20.22	5.66	9.43	170.00	131.70	48.45	22.79	4.55	8.55	150.00	144.46	52.55	20.46	6.19	10.73	170.00		

STACK MONITORING SPM

Month-Yr	Pr Crusher (SPM)	S. Crusher (SPM)	New Pr Crusher (SPM)	
Apr-20	1st	36.46	37.71	38.10
	1st	28.57	33.62	20.28
May-20	1st	28.51	23.15	25.79
	1st	23.08	26.04	35.42
Jun-20	1st	27.43	36.13	29.33
	1st	32.30	28.77	33.33
Jul-20	1st	22.70	28.17	27.14
	1st	30.17	32.26	30.21
Aug-20	1st	29.41	33.78	22.73
	1st	21.69	28.02	25.48
Sep-20	1st	23.96	26.39	24.00
	1st	22.79	28.09	21.74

DG SET STACK MONITORING

Month	CO (mg/Nm3)	Particular Matter (mg/Nm3)	NOK (ppm)	NMHC (mg/Nm3)
Sep-20	86.00	51.34	236.00	27.00

Walid

Annexure-IV

S. No.	Area of Monitoring	NOISE LEVEL AT WORK ENVIRONMENT IN dB(A)						Equipment Condition
		Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	
1.	BENEFICIATION PLANT							
	a. Mill Ambient	78.1/70.60	75.60/70.40	77.40/71.10	76.90/74.10	75.30/72.10	74.90/70.40	Day/ Night
	b. Mill- Grinding Area	80.3	81.5	82.3	81.0	82.3	82.1	Plant is in running condition.
	c. Operators cabin mill area	76.4	79.0	77.9	76.4	76.4	79.4	--do--
	d. Flotation cell area	79.4	81.4	81.5	80.0	80.1	81.2	--do--
	e. AFM's cabin cell area	77.3	74.3	72.5	78.2	78.4	77.4	--do--
	f. Shift engineer's room	74.1	75.4	77.6	78.5	77.4	76.4	--do--
	g. Control room	73.2	73.2	74.4	74.5	75.4	75.6	--do--
	h. Work Shop	74.3	73.5	76.1	75.3	75.00	73.4	--do--
2	PRIMARY CRUSHER							
	a. Primary Crusher I Control Room	67.90/61.40	69.50/62.40	68.40/61.30	68.30/63.40	69.30/64.30	68.40/62.30	Day/ Night
	b. Primary Crusher II Control Room	66.60/65.90	68.70/63.40	67.50/60.20	67.20/65.90	70.20/63.40	69.40/61.20	Day/ Night
3	SEC./TERT. CRUSHER							
	a. Shift Room Sec. Crusher	73.50/72.50	76.40/71.50	75.40/71.40	72.30/70.40	76.10/69.20	75.10/70.30	Day/ Night
	b. Secondary crusher control room	76.1	76.4	78.3	77.3	77.5	76.9	Plant is in running condition.
	Ambient Mine Pit	79.1/72.60	78.5/75.60	78.40/73.10	78.90/73.10	79.30/73.20	79.90/75.40	Day/ Night
4	Village monitoring							
	Agucha	49.80/42.40	50.30/40.50	50.90/43.20	48.20/41.90	50.40/41.0	50.20/43.20	Day/ Night
	Bherukhera	49.90/41.30	51.40/42.30	51.50/42.30	50.10/42.40	52.0/43.20	51.90/42.40	Day/ Night
	Kothiyan	50.40/40.90	50.60/39.50	50.90/40.40	49.20/42.30	52.80/40.20	49.30/40.70	Day/ Night

DG set Noise Monitoring		
Month	Location	Noise level(dB)
Sep-20	DG set Operator's Room	73.2
	DG set Hall	99.2

Annexure - V

Env. SUMP WATER ANALYSIS (April-20 to Sep-20)

	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20
pH	7.5	7.9	7.3	7.5	7.3	7.5
Oil & Grease	2.8	2.6	3.1	2.9	2.8	3.3
Alkalinity	235	267	304	254	267	301
Chlorides	332	453	655	621	575	634
Hardness	654	754	843	897	766	865
TDS	821	832	1032	1123	988	943
Pb	0.01	0.02	0.02	0.01	0.01	0.02
Zn	1.2	1.1	1.7	1.8	1.9	1.7
Fe	0.09	0.13	0.17	0.14	0.12	0.14
Cd	0.01	0.01	0.01	0.01	0.01	0.01

All value are in mg/l except pH

Remarks :

Collected Water is pumped to reclaim reservoir and recycled back to plant for reuse. Zero discharge is maintained.

Wahid

Annexure - VI

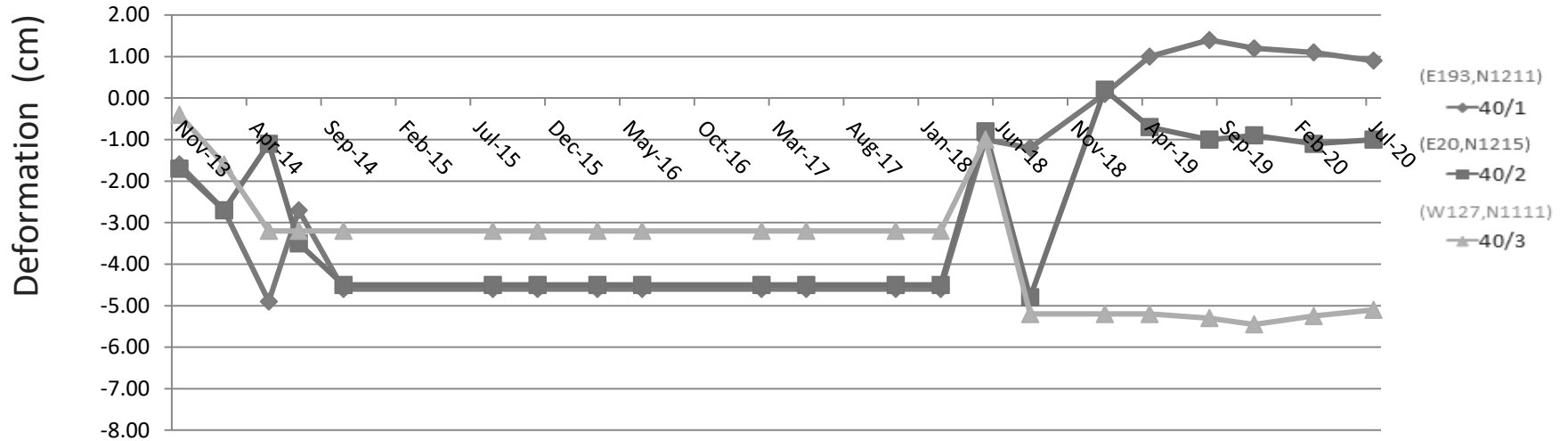
ENVIRONMENTAL EXPENDITURE DETAILS

Partiulars	2020-21					
	April 2020 to September 2020					
Expenditure	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20
	7.236	4.685	94.081	50.757	20.968	18.396
TOTAL Rs (Lacs)						196.123

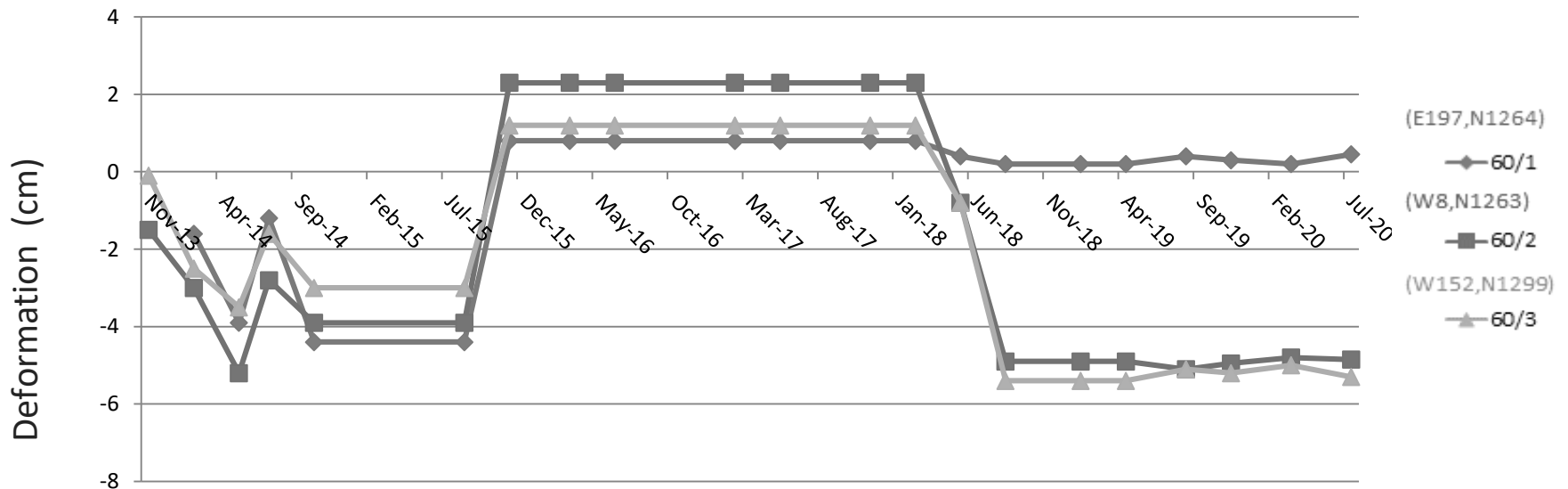
Wahid

Dump Slope monitoring Data: Radar & pillar-prism Monitoring data for MOEF_ Nov 2020

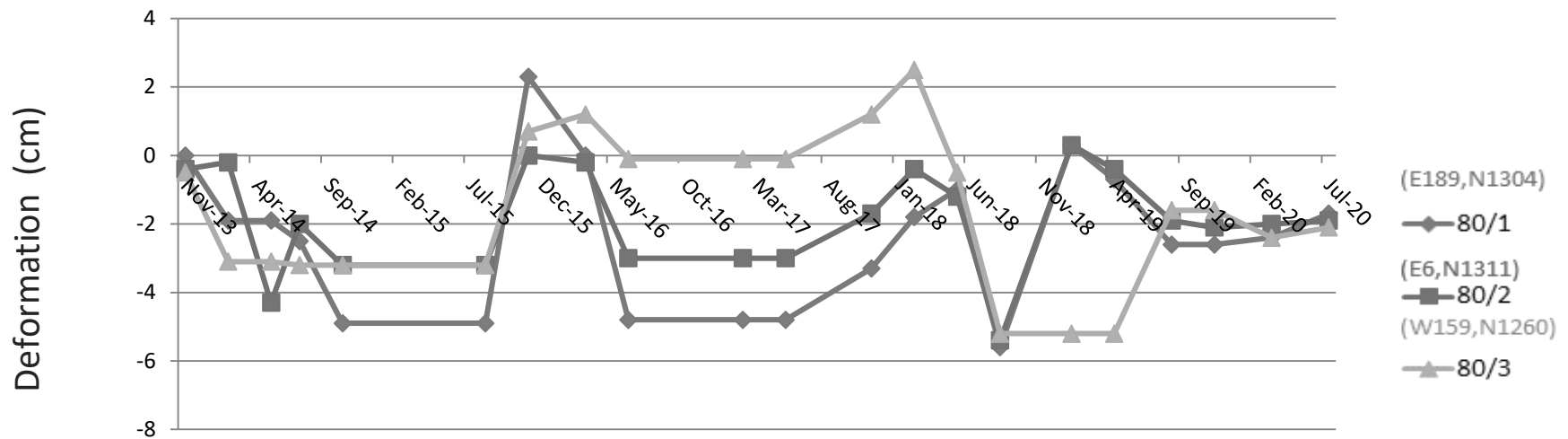
MOVEMENT : MONITORING TREND OF WASTE DUMP AT 40m LIFT BY PRISMS



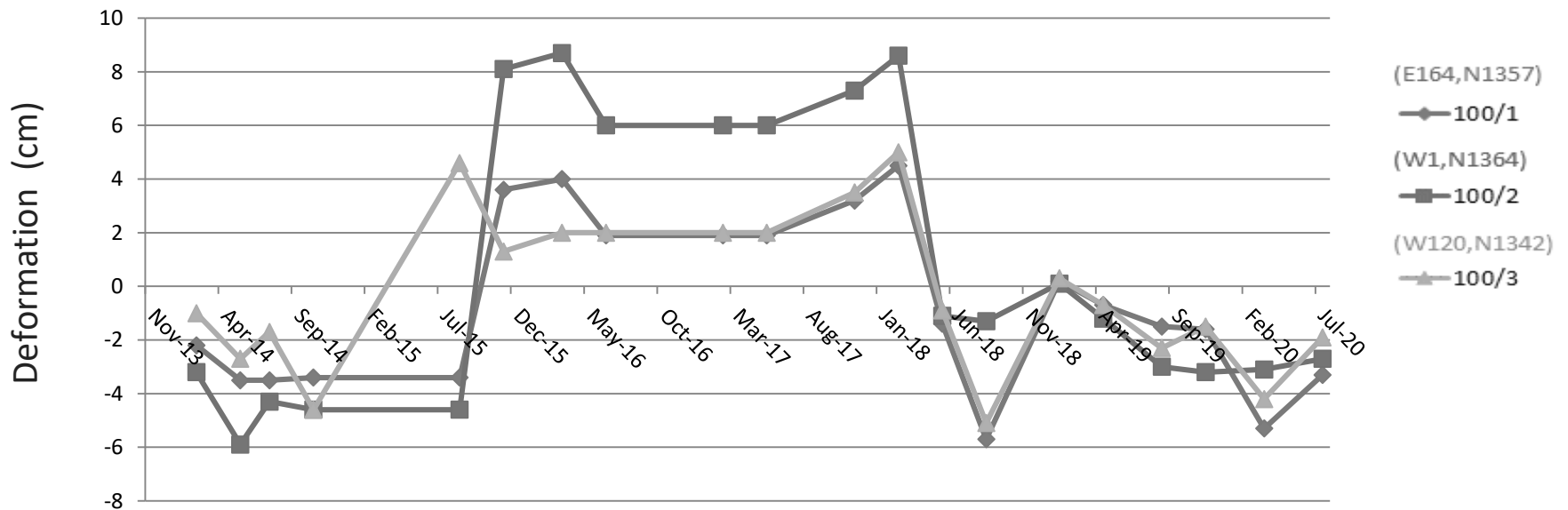
MOVEMENT: MONITORING TREND OF WASTE DUMP AT 60m LIFT BY PRISMS



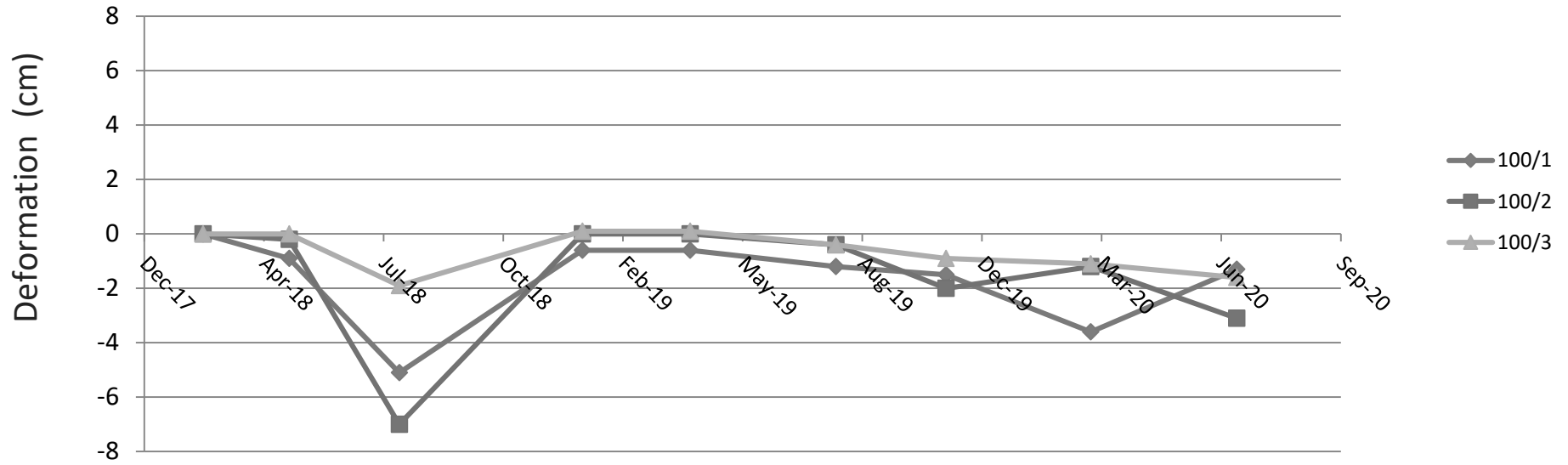
MOVEMENT: MONITORING TREND OF WASTE DUMP AT 80m LIFT BY PRISMS



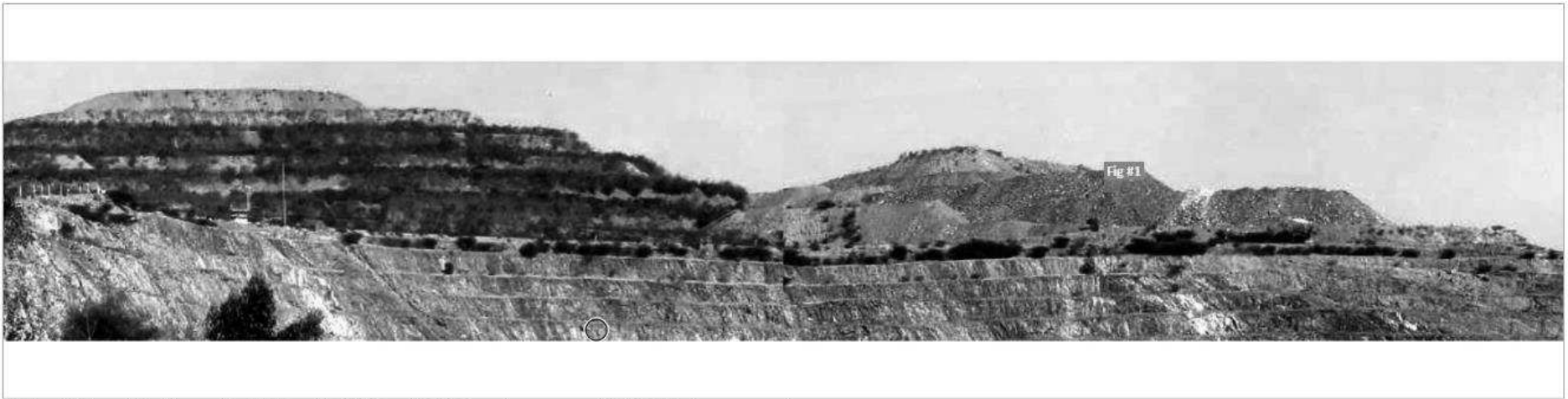
MOVEMENT : MONITORING TREND OF WASTE DUMP AT 100m LIFT BY PRISMS



MOVEMENT : MONITORING TREND OF WASTE DUMP AT 120m LIFT BY PRISMS

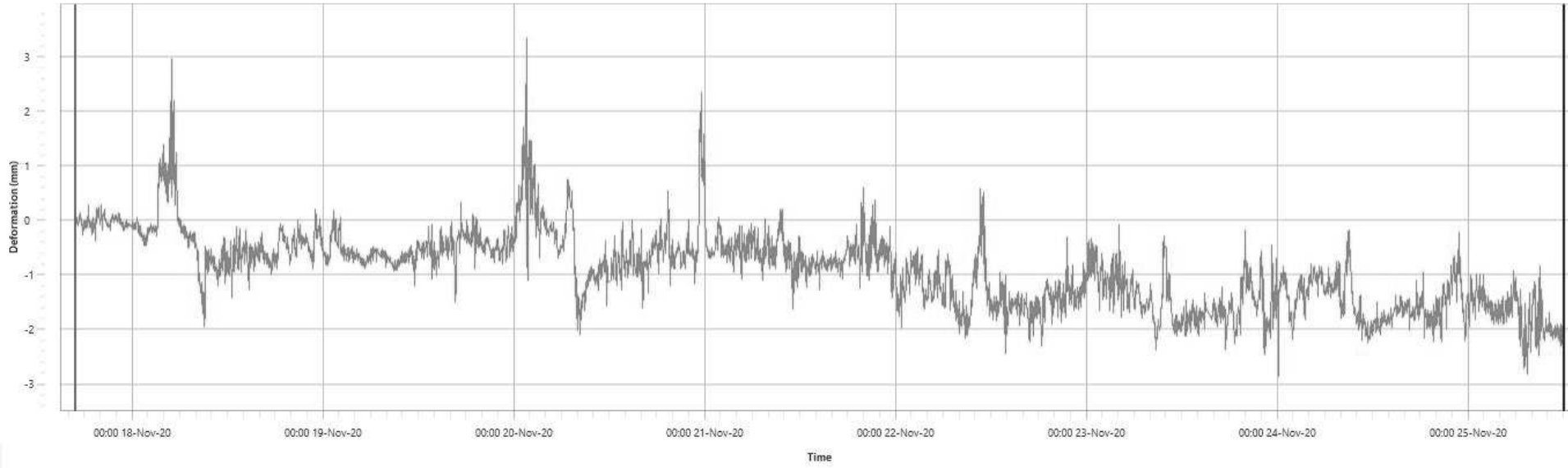


Slope Stability Radar monitoring on waste Dump Area



X: 37 | Y: 1 | D: -4.7 mm | A: 51.062 | R: 867.94 m | C: 1.000 | (7.52x7.13)m

FIGURES - ENHANCED DEFORMATION

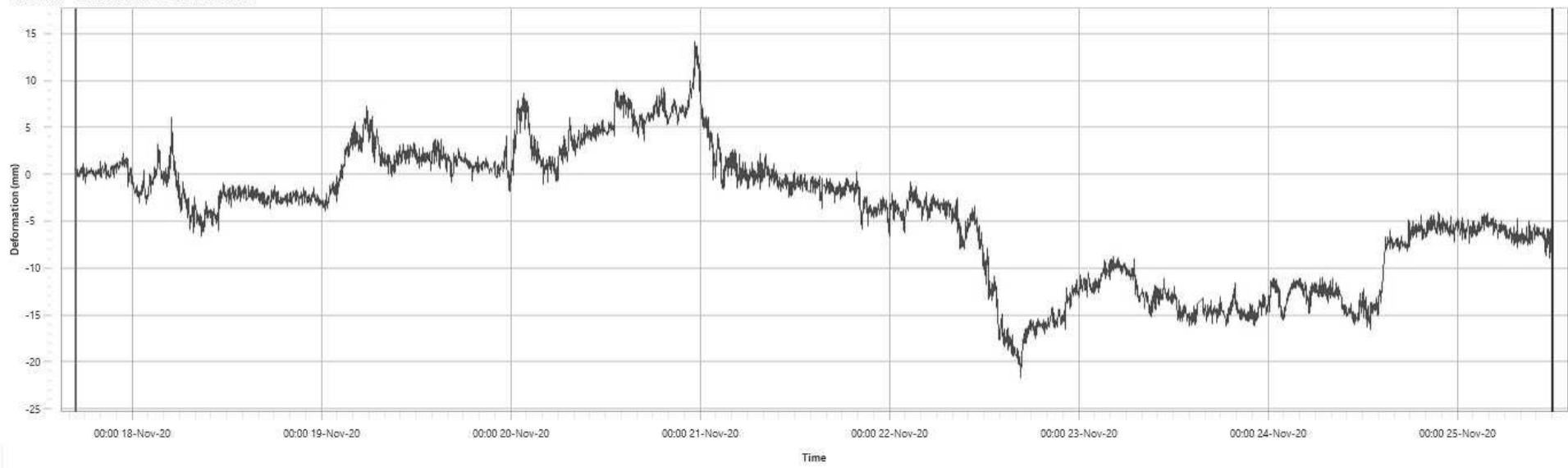


Slope Stability Radar monitoring on waste Dump Area



X: 9 | Y: 2 | D: 196.6 mm | A: 51.306 | R: 89.30 m | C: 0.992 | (0.77x0.73)m

FIGURES - ENHANCED DEFORMATION





Garland Drain Photo



Plantation Photos



40KL Water sprinkler



Anicut Photos

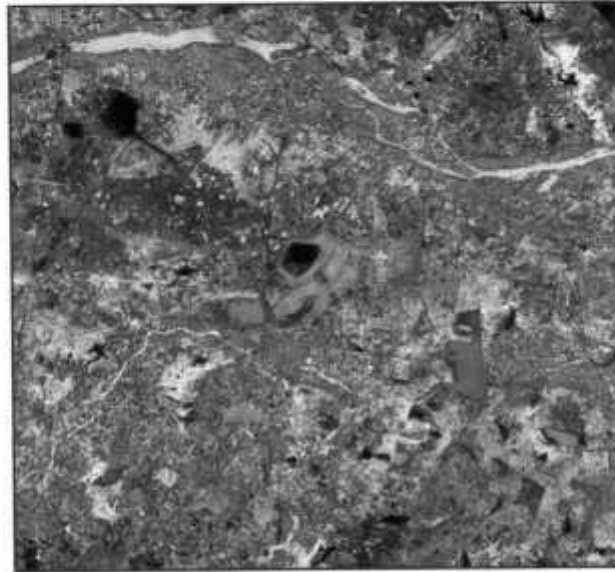


Pond Photo



Truck covered with tarpaulin

**Land use mapping by digital processing of 15 km. radius of
Rampura-Agucha mine, district Bhilwara using remote sensing techniques
and showing the changes in land use during last three years**



Sponsor: Hindustan Zinc Limited, Rampura-Agucha Mine, Bhilwara

Studied by:



Estb: 1988

Studied for:



**Hydro-Geosurvey Consultants Private Limited
C-103, Shastri Nagar, Jodhpur- 342003
Phone: - 0291-2431754**

**Web: www.hydrogeosurvey.com, E-mail: - hydro.geosurvey@yahoo.com
March, 2018**

Annexure -XV



HDPE laying in tailing dam

Annexure-XVI



STP (300KLD) in plant premises

SEWAGE TREATMENT PLANT AT COLONY.



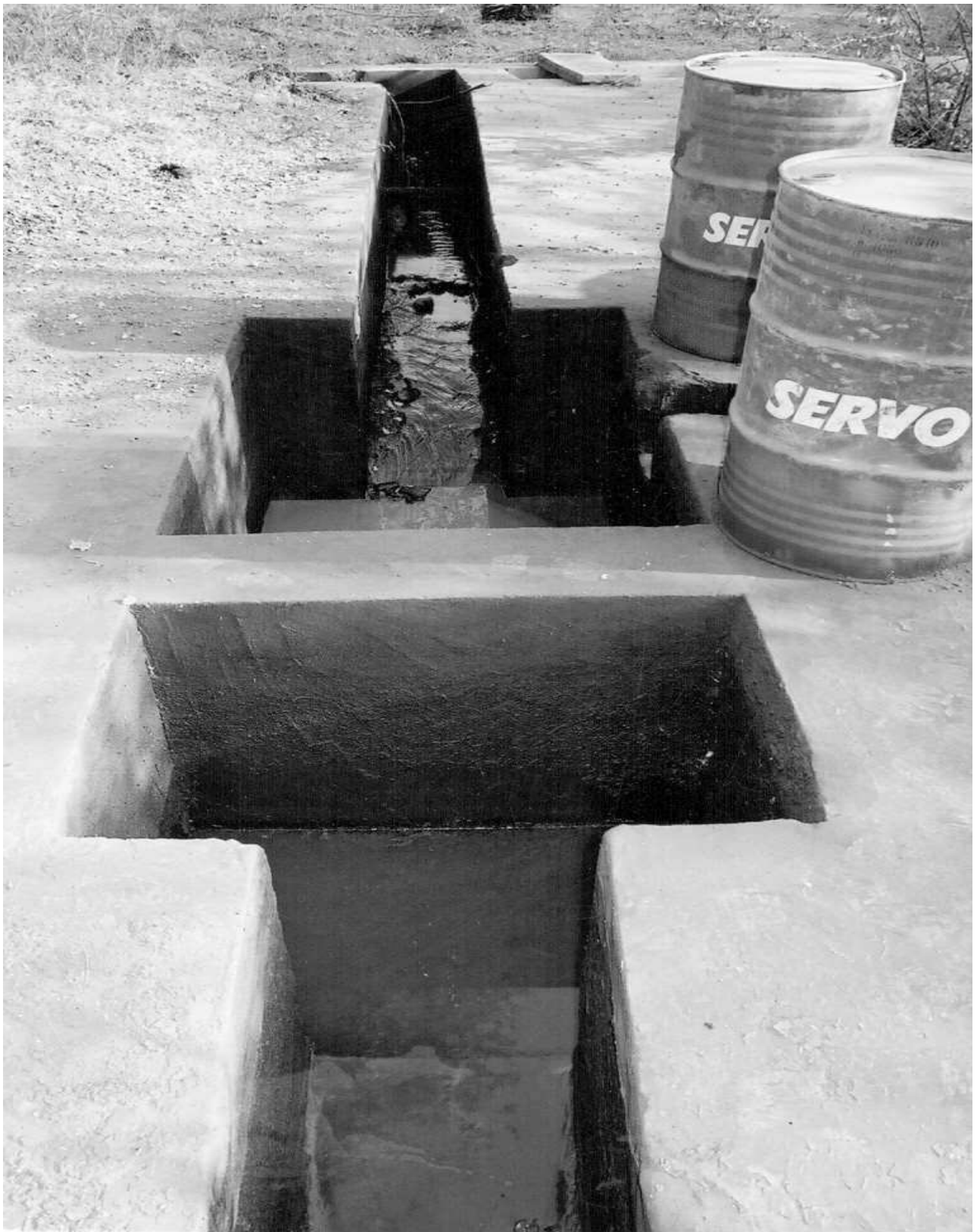
STP (425KLD) in plant premises

Annexure -XVII

उद्योग का नाम व पता		रामपुरा अगुचा खान हिन्दुस्तान जिंक लिमिटेड अगुचा 31129, जिला भिलवाड़ा (राज.)					
हार्डवेयर वेस्ट एवं प्रदूषण नियंत्रण उपकरणों को प्रकटित करने हेतु जिम्मेदार व्यक्ति का नाम		पर्यावरण प्रमुख					
3. हार्डवेयर उद्योगों के लिए प्रकटित का वर्णन							
नाम	मात्रा भण्डारण / हेडरलिम	विषय / उपलब्धता प्रकृति/ क्रियाशील / विस्फोटक					
सोडियम सायनाइड	75 MT	विषय					
4. वेस्ट पानी का विवरण :							
प्रकृति/स्रोत	मात्रा	उत्पत्ति/अवस्था/आवृत्ति	निर्देशित मानक	आवृत्ति/आवृत्ति	निर्देशित मानक BOD/COD/ TSS etc	निर्देशित विचार/कृति/प्रति	उत्पत्ति/आवृत्ति/आवृत्ति
सोडियम	Nil	आवृत्ति/आवृत्ति	भूय विचार	-	पूर्णतः पालन	आवृत्ति/आवृत्ति	भूय विचार
5. वायु प्रवाह							
स्रोत	चिमनी की ऊंचाई	निर्देशित मानक	एस पी एम	प्रदूषण नियंत्रण के उपाय किये गये/नहीं किये गये/ आवश्यकता नहीं	आवृत्ति/आवृत्ति	आवृत्ति/आवृत्ति	आवृत्ति/आवृत्ति
प्राइमरी क्रशर चिमनी	33 मी	एस पी एम 150 mg/Nm ³	25.77	प्रदान किया गया	पूर्णतः पालन		
सेकण्डरी क्रशर चिमनी	39 मी	एस पी एम 150 mg/Nm ³	24.74	प्रदान किया गया	पूर्णतः पालन		
PCH (New)	34 मी	एस पी एम 150 mg/Nm ³	22.04	प्रदान किया गया	पूर्णतः पालन		
5. हार्डवेयर वेस्ट का विवरण							
हार्डवेयर वेस्ट के प्रकार	हार्डवेयर वेस्ट श्रेणी	उत्पादित मात्रा	प्रदूषण नियंत्रण के उपाय किये गये/नहीं किये गये/ आवश्यकता नहीं	आवृत्ति/आवृत्ति	आवृत्ति/आवृत्ति	आवृत्ति/आवृत्ति	आवृत्ति/आवृत्ति
उपयुक्त/स्येत ऑयल	5.1, Sch. 1	6.15 (MT)	6.15 (MT)	700 KLA	विक्रय		
सोडियम सायनाइड डिस्फाइड कन्टेनर	33.3 Sch. 1	4.14 (Nos)	4.14 (Nos)	7000 nos per annum	CTDF में निस्तारण		
6. कार्य/कार्य/उत्पत्ति							
खनन पट्टे का क्षेत्रफल (हे.)	1200 Ha						
खनन विधि	Mechanical Open Cast & Underground Mining						
उत्पादन क्षमता	6.15 Million tones per annum of Lead - Zinc Ore production (EC)						
खनन पट्टे की वैधता	20 Yrs validity upto 13-03-2020						
कार्य प्रारम्भ की तिथि	25 March 1991						
7. पर्यावरण प्रभाव							
स्थान	अवधि/अवधि/अवधि						
मौसम	अवधि/अवधि/अवधि						
मौसम	अवधि/अवधि/अवधि						
मौसम	अवधि/अवधि/अवधि						
निस्तारण पानी का गुणवत्ता	निस्तारण						
पानी	पानी की सख्त						
अवधि/अवधि/अवधि	अवधि/अवधि/अवधि						

Display board at Main gate

Name of Industry & Address		Rampura Agucha Mine Hindustan Zinc Ltd. Agucha-311029, Distt. Bhilwara (Raj.)						
Name of person responsible for handling Hazardous Waste & Pollution Control System		Head (Environment)						
Details of Hazardous Materials handled								
Name	Quantity Stored/Handled	Nature Toxic/Inflammable/Reactive/Explosive/Toxic						
Sodium Cyanide	75 MT							
C. Waste Water Details :								
Nature Domestic/Industrial	Quantity (KLD)	Treatment Provided/Not Provided/Not Required	Inland Surface Water /Irrigation /Sewer	Prescribed Standards	Status of Compliance	Parameters Prescribed BOD/COD/TSS/etc.	Allowed Discharge (KLD)/discharge on land for irrigation)	Disposal of treated effluent
Industrial	Nil	Not Required	Zero discharge	-	Complied	Not Required	Zero discharge	Reuse in process
D. Air Emissions :								
Source	Stack height	Standard Prescribed	SPM (mg/Nm ³)	Pollution Control Measures Provided/not provided/not required	Status of compliance			
Primary Crusher Stack(s)	33 m	SPM : 150 mg/Nm ³	25.77	Provided	Complied			
Sec/Tert. Crusher Stack	39 m	SPM : 150 mg/Nm ³	24.74	Provided	Complied			
PCH (New)	34 m	SPM : 150 mg/Nm ³	22.04	Provided	Complied			
E. Hazardous Waste Details :								
Type of hazardous Waste	Category of hazardous Waste	Quantity generated per month	Quantity stored up to previous month	Storage Capacity	Waste Disposal			
Used oil	5.1, Sch. 1	6.15 (MT)	6.15 (MT)	700 KLA	Sale			
Decontaminated empty sodium cyanide drums	33.3 Sch. 1	4.14 (Nos)	4.14 (Nos)	7000 nos. per annum	Disposed at CTDF, Udaipur			
F. Environmental Information								
Mining lease Area (in Ha)	1200 Ha							
Method of Mining	Mechanical Open Cast & Underground Mining							
Production Capacity	6.15 Million tones per annum of Lead - Zinc Ore production (EC)							
Lease Duration :	20 Yrs validity upto 13-03-2020							
Date of commencement of work	25 March 1991							
G. Environmental Monitoring Data								
Location	Ambient Air Monitoring Station							
Main Gate	28.4	21.4	21.4					
Mine Site	24.7	24.7	24.7					
Mine Tow	22.0	22.0	22.0					
Blast Vibration (mm/Sec.)								
1.66 - 3.62								
Year	Nos. of Plants		Area Covered (ha)					
2016	3/6/16		2400					



Oil & Grease trap photo



HZL/RAM/Env/2020-2021/940

September 22, 2020

Member secretary
Raj. Pollution Control Board
4, Institutional Area
Jhalan Doongri
JAIPUR

Sub : Environment Statement of Rampura Agucha Mine for year 2019-2020.


Ref: CTO granted vide order No 2019-2020/Mines/9959 dated 25/06/2019.
CTO granted vide order No 2019-2020/CPM/5547 dated 22/10/2019.
EC granted vide letter No J-11015/267/2008-IA.II (M) dated 11.12.2009

Sir/Madam,

Please find enclosed herewith the environmental statement for financial year ending on 31st March 2020.

Thanking you

Yours truly,


22/09/2020
(Sujal Kumar Shah)
Director (SBU)
RA Mine
Director - Agucha SBU
Hindustan Zinc Limited
Rampura Agucha Mine
PO- Agucha
Distt - Bhilwara (Raj.)

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

The Director,
Ministry of Environment and Forests,
5th Floor, Kendriya Bhawan
Lucknow


Hindustan Zinc Limited
Rampura Agucha Mines, P.O. Agucha, Dist. Bhilwara (Rajasthan) - 311 022
M +91-9001294956-57, F +91-1483 229012 www.hzindia.com

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

Form V



SMILE ON WHEELS

QUARTERLY PROGRESS REPORT

(26-March-2020 to 25- June 2020)



Submitted to:

**Hindustan Zinc-Vedanta
Zinc and Silver of India**

Submitted by:

**Smile Foundation
Smile on Wheels**

BACKGROUND OF THE PROJECT

Smile Foundation is a national level not for profit development organization formed in the year 2002 and it is currently benefitting more than 750,000 underprivileged children & youth directly through more than 200 welfare projects through initiatives in education, healthcare, livelihood, women empowerment, and advocacy across 25 states of India.

Under health intervention, Smile Foundation aims to improve access to essential health services through delivering doorstep medical care facilities to vulnerable and marginalized section and thereby providing accessible health services to the target population, aiming to attain a holistic healthy society. Considering the lagging health status of rural and urban slum population of India, Smile Foundation initiated **Smile on Wheels** program in 2006.

Smile on Wheels is a multi- centric project with an objective of providing a comprehensive range of health care services to under-privileged community in remote rural areas and slums through an equipped mobile medical van. The programme is based on innovative concept of “Community centric sustainable health delivery model”.

Project Highlights

- *1385 beneficiaries were treated through 62 OPDs.*
- *606 of the beneficiaries were Male and 642 beneficiaries were Females and the rest 137 beneficiaries were children.*
- *Overall 745 survey calling done by Agucha team during month of Apr. 2020 due to Lockdown*
- *1 Community Meetings conducted to increase community participation in issues concerning health.*

PROJECT HIGHLIGHTS -

Mobile Health Clinics (OPD)

The mobile Health Clinics provide OPD- curative services for common ailments, Ante and Postnatal services, counseling on immunization (mother and child), dressing, Rapid Test (blood & urine), referral services for secondary care , free distribution

Sr. No.	Month	No. Of camps	No. Of beneficiaries
1.	April	0	0
2.	May	13	241
3.	June	49	1144
TOTAL		62	1385

of medicines and IEC activities to the targeted population particularly women and children in need. Details on each above mentioned activity is showcased in following section of the report.

BENEFICIARIES DETAILS:

The main goal of Smile on Wheels is to serve the most underprivileged section of the community. The work does not end by reaching the most under-served area, rather starts and thus keeping into mind the domains of accessibility and affordability for the community, Smile on Wheels serves the 30 villages located in Rampura Agucha Mines.

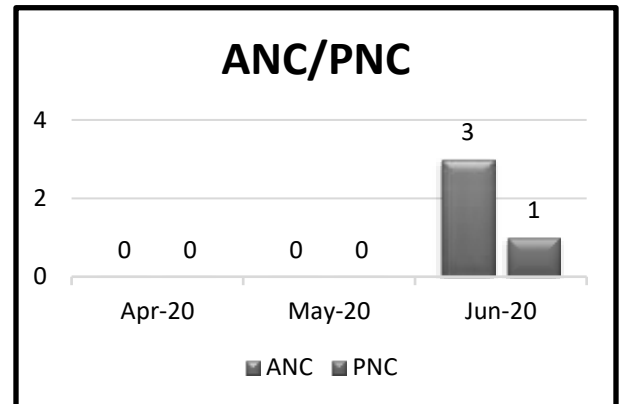
Below are the table and graph showing the detailed beneficiaries covered during the reporting period comprises **total 1385 Beneficiaries** in which **606 are Adult Male and 642 are Adult Female & 137 are children and 0 are Transgender.**

Beneficiaries Details					
Month/Location	Adult Male	Adult Female	Children	TG	Total
April/HZL Agucha	0	0	0	0	0
May/ HZL Agucha	110	107	24	0	241
June / HZL Agucha	496	535	113	0	1144
Total	606	642	137	0	1385

Note: In month of Apr. 2020 OPD not done due to Lockdown

ANC/PNC Details:

Access to antenatal care (ANC) and postnatal care (PNC) services has a great deal of impacts on major causes of infant death and significantly affects trends of mortality in a population. Antenatal care may play an indirect role in reducing maternal mortality by encouraging women to deliver with assistance of a skilled birth attendant or in a health facility.



<i>Sr.No</i>	<i>Name</i>	<i>Age</i>	<i>ANC/ PNC</i>	<i>Month of Pregnancy</i>	<i>Month of Visit</i>	<i>Date of Visit</i>	<i>Trimester</i>	<i>Current Status</i> <i>1. Tracking</i> <i>2. Delivery</i> <i>3. MTP</i> <i>4. Other(Specify)</i>
1	<u>Noorjha</u>	23 Years	ANC	8	Jun-20	26-06- 20	Pregnancy 3rd Trimester	Tracking
2	<u>MirazBanu</u>	25 Years	ANC	8	Jun-20	19-06- 20	Pregnancy 3rd Trimester	Tracking
3	<u>Manju</u>	20 Years	PNC	9	Jun-20	19-06- 20	Lactation Amenorrhea	Tracking
4	<u>Sita</u>	30 Years	ANC	8	Jun-20	09-06- 20	Pregnancy 3rd Trimester	Tracking

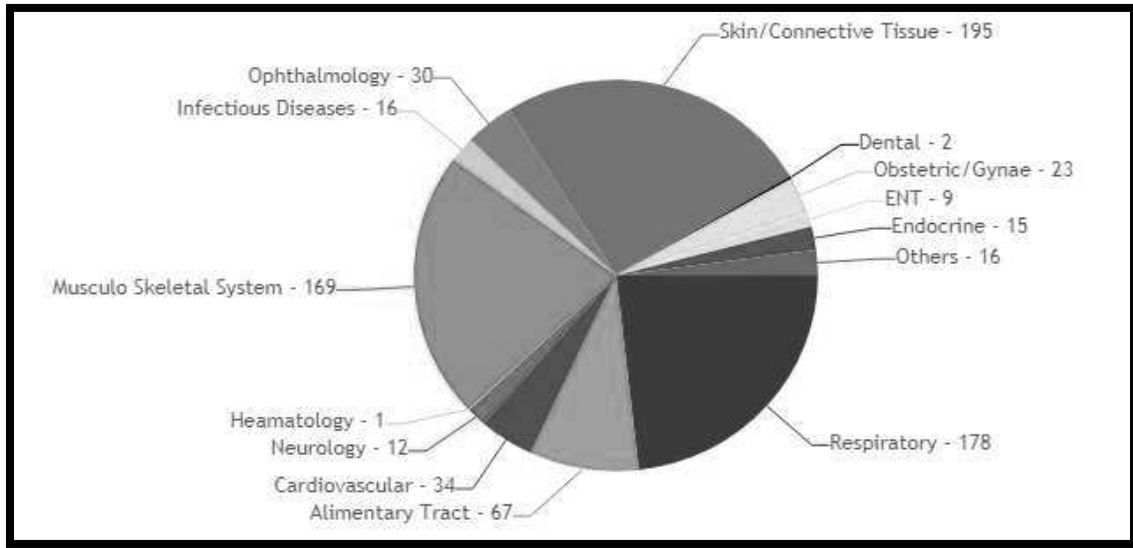
📌 **Lactation amenorrhea, also called postpartum infertility, is the temporary postnatal infertility that occurs when a woman is amenorrhea and fully breastfeeding.**

Month	No. of ANC Cases covered in 1st Trimester	No. of ANC Cases covered in 2nd Trimester	No. of ANC Cases covered in 3rd Trimester	No. of Drop out ANC
Apr-20	0	0	0	0
May-20	0	0	0	0
June-20	0	0	3	0

STATUS	Apr-20	May-20	June-20	Total
No. of Old ANC/PNC	0	0	1	1
No. of New ANC/PNC	0	0	3	3
Total ANC/PNC	0	0	4	4
Home Delivery	0	0	0	0
Private Hospital	0	1	0	0
Govt Hospital	0		0	0
Total Institutional Deliveries	0	0	0	0
Medical Termination of Pregnancy	0	0	0	0
Live Birth	0	0	1	0
Still Birth	0	0	0	0

Quarterly Progress Report - Smile Foundation

Disease Pattern:



Alimentary Tract	Acid Peptic Disease(APD)
	Aphthous ulcers
	Acute Stomatitis
	Functional Constipation
	Hemorrhoids
	Pain Abdomen under evaluation
	Amoebic Dysentery
	Pica
	Chronic Constipation
	Acute Dysentery
	Anorexia under evaluation
	Cardiovascular
Dental	Gingivitis
Dental	Dental Caries
Endocrine	Diabetes Mellitus (type I)
	Diabetes Mellitus Type 2
Cardiovascular	Hypertension
Dental	Gingivitis
	Dental Caries
Endocrine	Diabetes Mellitus (type I)
	Diabetes Mellitus Type 2
ENT	Otitis Media Externa
	Hearing Impairment
	Acute Pharyngitis

	Otitis Media Interna
Infectious Diseases	Viral fever
	Infected Wound
	Cellulites
Muscular Skeletal System	Osteoarthritis
	Muscular Skeletal Pain Under Evaluation
	Rheumatoid Arthritis
	Temporal Mandible Joint Syndrome
	Cervical Spondylosis
	Lower backache Under Evaluation
Neurology	Vertigo Under Evaluation
	Headache under evaluation
	Tremors
	Burning Feet
Obstetric/Gynae	Vaginitis
	Secondary amenorrhea
	Dysfunctional Uterine Bleeding(DUB)
	Pregnancy 3rd Trimester
	Pregnancy 2nd Trimester
	Primary Dysmenorrheal
Ophthalmology	Stey(Left Eye)
	Kerato conjunctivitis
	Allergic Conjunctivitis
	Cataract
	Infective Conjunctivitis
Respiratory	Acute Respiratory Infection(ARI)
	LRI(Lower Respiratory Infection)
	Bronchial Asthma
Skin/Connective Tissue	Acne
	Urticaria
	Scabies
	Breast Lump
	Multiple Boils
	Burn (first degree)
	Dermatitis
	Multiple Boils, Abscess
	Eczema
Urology	Urinary Tract Infection(UTI)

There were various major diseases which were prevailing on ground and have been treated by SOW during this reporting period, the limpidity towards the prevailing diseases and their symptoms during particular period or season are noticeable, which gives the fair idea to bring sensitivity and awareness in the targeted urban slums in all the project locations. Initially it was found that people are less aware or not at all aware towards the disease pattern but with the help of the data which is given below in the table initiated us to bring awareness in the group of society to help them be precautious and raise sensitivity towards preventive health care. Disease pattern also helps us to mark out the medicines flow at particular period or season at the location areas.

(Download excel from MIS to add readymade table)

*****Provide Analysis of the Disease Pattern***

REFERRALS:

An effective referral system ensures a close relationship between all levels of the health system and helps to ensure people receive the best possible care closest to home. A good referral system can help to ensure: patients receive optimal care at the appropriate level, hospital facilities are used optimally.

Referred for	Apr-20	May-20	June-20	Total
Allergic Conjunctivitis	0	0	3	3
Cataract	0	1	11	12
Dysfunctional Uterine Bleeding(DUB)	0	0	2	2
Eczema	0	0	1	1

Hearing Impairment	0	0	1	1
Muscular Skeletal Pain Under Evaluation	0	0	1	1
Otitis External Left Ear	0	0	1	1
Secondary amenorrhrea	0	0	1	1
Stey(Left Eye)	0	0	1	1

Month	Total no. of beneficiary referred to Higher Health care Facility	Total no. of Beneficiary reported back their status at SoW	Total no. of Beneficiary "Treated"	Total no. of Beneficiary "Treatment On Going"	Total no. of Beneficiary "Not visited"	Total no. of Beneficiary "Status not known"
Apr-20	0	0	0	0	0	0
May-20	1	0	1	0	0	0
June-20	22	22	9	12	0	1

IECs:

Smile Foundation organizes Information, Education and Communication (IEC) activities under Smile on Wheels mobile hospital programme with the aim to increase the 'health seeking behavior'

It is important to hear from those whom we serve, because it is they are the ones that should know the means to come out with the solutions for the problem they are in. With the help of SOW team we are achieving the goal through different levels of community meetings, Health Talks.

No. of IEC activity conducted	No. of participants	Topic covered
1	78	Awareness about Corona Virus
1	78	Total



Session on Awareness about Corona Virus with MNREGA workers

On 15.06.2020, Smile on Wheel, an Awareness program was organized at Munji KaKhera NAREGA site, wherein Dr. Girdhari Lal Jat gave detailed information about the symptoms and prevention of Skin Infection and COVID - 19 to the villagers ,78 people participated in this program.

Tele-Counseling was initiated at HZL supported Agucha 30 Villages project.

Team which includes Project coordinator, Doctor, Nurse & Community Mobilize lead the tele counseling session entire Week for 745 existing beneficiaries from the project. The purpose is to connect with existing beneficiaries and sensitize them about the preventions, precautions, safety measures and counseled them about the stress management during the time of quarantine. The Week feedback from 588 beneficiaries was very positive; they appreciated the intervention and responded with their health status and how they are keeping themselves safe during the covid-19 pandemic.

The brief details on Week data statistics are as follows:

Brief details of call list

S.NO.	Date	Total number of calls successful (out of 745 calls in 5 days)	Total number of calls Temporary out of services	Total number of calls switched off/ringing	Total number of calls not in use
S.No 1-150(11/4/2020)	11 th April,2020	82	13	15	10
Serial No 61 -90 & 151-400(13/4/2020)	13 th April,2020	184	49	32	11
Serial No.401-550(Date 14/4/20)	14 th April,2020	104	23	19	4
Serial No.551 to700(15/4/20)	15 th April,2020	108	21	18	3
Serial No.701 to749(16/4/20)	16 th April ,2020	38	4	5	2
Grand Total		516	516	110	89
(Follow Up) call those 229 mobile Numbers who is Temporarily out services,Switchoff,Ringing,NetworkBusy,Not in Use(In Last 5 days)	17 th April ,2020	72	87	45	25
Final Grand Total		588	588	197	134

Glimpses of the Reporting period:



Community Awareness for COVID-19



New Initiative OPD at NAREGA Site



OPD with Social Distancing



Home visit OPD

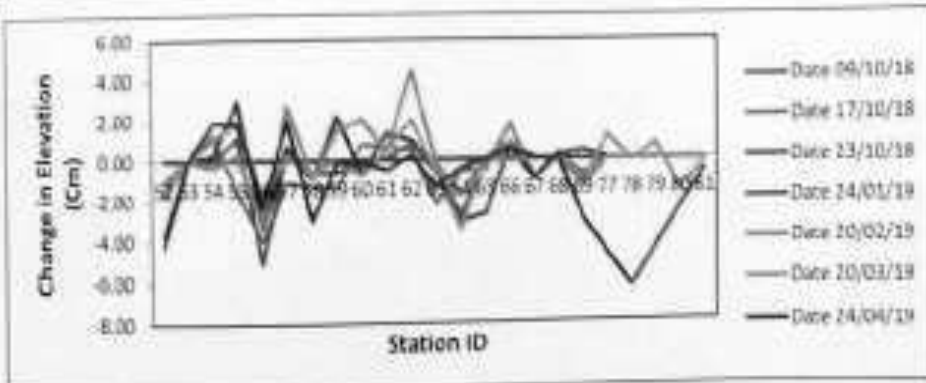
Thank You

FINAL REPORT

Project No: SSP/N/293/2018-19

EVALUATION OF WASTE DUMP STABILITY THROUGH SLOPE MONITORING AT RAMPURA-AGUCHA OPENCAST MINE

For: M/S HINDUSTHAN ZINC LIMITED (VEDANTA), UDAIPUR



CSIR-CENTRAL INSTITUTE OF MINING & FUEL RESEARCH
(Council of Scientific & Industrial Research)
Regional Centre, 17/C, Telenkhedi Area, Civil Lines, Nagpur - 440 001

June, 2019

CIMFER Dump stability report

Annexure -XXII



Truck mounted cavum road sweeper

Annexure-XXIII

Blast vibration data (Monitoring at UG)							
S.no	Date	Blast Location(stope)	Monitoring location	Radial distance (m)	MCPD (kg)	PPV (mm/s)	Frequency (Hz)
1	03-May-20	-280L_N337	-230L_N240	140	120	2.32	80.0
2	05-May-20	-205L_S127A	-205L_S426	290	132	2.11	74.8
3	09-May-20	-255L_N442	-230L_N240	200	120	4.20	87.9
4	14-May-20	-255L_N487	-230LN240	260	114	3.30	121.7
5	14-May-20	-5L_N592	-230L_N240	305	130	1.58	117.9
6	21-May-20	-130L_N22	-230L_N240	240	125	2.54	102.9
7	29-May-20	-80L_N472	-255L_N165	305	168	2.07	56.6
8	11-Jun-20	-255L_N67	-180L_N NWS	175	168	3.27	76.5
9	17-Jun-20	-155L_S225	-205L_S	208	115	1.63	85.2
10	24-Jun-20	-155L_S225	-205L_S	208	120	2.58	147.6
11	05-Jul-20	-55L_N577	-230L_N MP	414	20	0.39	81.8
12	06-Jul-20	-180L_S22	-230L_N MP	240	132	4.89	81.2
13	08-Jul-20	-80L_N517	-230L_N MP	340	114	4.46	70.5
14	08-Jul-20	-180L_S67C	-230L_N MP	292	120	4.22	70.1
15	16-Jul-20	-255L_N532	-230L_N MP	320	66	3.74	80.0
16	06-Aug-20	-80L_487	-230L_N MP	470	66	1.92	82.4
17	07-Aug-20	-255L_N352	-230L_N MP	160	144	2.87	80.8
18	08-Aug-20	-5L_N697	-230L_N MP	490	24	0.42	80.3
19	09-Aug-20	-205L_S112	-230L_N MP	320	138	3.46	80.0
20	11-Aug-20	-255L_N562	-230L_N MP	360	114	3.23	73.8
21	7-Sep-20	-205L_N472	-230L_N MP	265	72	1.20	60.0
22	9-Sep-20	-255L_S22	-230L_N MP	236	148	1.30	140.0
23	9-Sep-20	-5L_N607	-230L_N MP	490	120	0.72	80.0
24	16-Sep-20	-80L_N457	-230L_N MP	265	138	0.50	61.0
25	19-Sep-20	-280L_N37	-230L_N MP	193	145	2.30	77.0
26	23-Sep-20	-230L_N502 B	-230L_N MP	295	126	1.40	101.0

Peak particle velocity



Member Secretary

भारत सरकार
केन्द्रीय भूमि जल प्राधिकरण
जल संसाधन मंत्रालय

Government of India
Central Ground Water Authority
Ministry of Water Resources

CGWA/IND/Proj/2013-5-R

No.21-4(2)/WR/CGWA/2005- 1205

Dated :-

08 JUL 2013

To,
M/s Hindustan Zinc Ltd.,
Rampur Agucha Mine
PO Agucha, District Bhilwara-311029
Rajasthan

Sub:- Renewal of NOC for ground water withdrawal to M/s Hindustan Zinc Ltd., in respect of their existing mining project at Rampura Agucha Mine, Kotri Block, District Bhilwara, Rajasthan – reg

Sir,

Kindly refer to letter No. HZL/RAM/ENV/2013 dated 25.2.2013 on the above cited subject. Based on recommendations of Regional Director, CGWB, Western Region, Jaipur vide his office letter No. TS/21B(5)/CGWA/WR/05-07-119-30 dated 22.3.2013 and subsequent letter dated 2.5.2013 and further deliberations on the subject, the further renewal of NOC issued vide this office letter of even no. dated 13.5.2008, is hereby accorded to M/s Hindustan Zinc Ltd., in respect of their existing mining project at Rampura Agucha Mine, Kotri Block, District Bhilwara, Rajasthan. The renewal is however subject to the following conditions:-

1. The firm may continue to abstract 11,700 m³/day of ground water through existing radial wells/tubewells only. No additional ground water abstraction structures to be constructed for this purpose without prior approval of the CGWA.
2. Monitoring of the ground water extraction through wells to be continued through water meter by the industry at its own cost on regular basis, at least once in a month. The ground water quality to be monitored twice in a year during pre monsoon and post monsoon periods
3. M/s Hindustan Zinc Ltd., shall, in consultation with the Regional Director, Central Ground Water Board, Western Region, Jaipur implement ground water recharge measures as proposed for augmenting the ground water resources under intimation to this office.

West Block - 2, Wing - 3, Sector - 1, R.K. Puram, New Delhi - 110066
Tel : 011-26175362, 26175373, 26175379 • Fax : 011-26175369
Website : www.cgwb.gov.in, www.mowr.gov.in

स्वच्छ सुरक्षित जल - सुन्दर सुरक्षित कल

CONSERVE WATER - SAVE LIFE

CGWA NOC



vedanta

transforming elements
HZL/RAM/ENV/2018-19/26



Date: April 4, 2018

To,

The Regional Director,
Central Ground Water Board,
Western Region,
6-A, Jhalana Doongri,
JAIPUR.

Sub: Request for renewal of Ground water withdrawal from existing Radial well at Banas River bed for M/s Hindustan Zinc Limited Rampura Agucha Mine.

Ref: CGWA letters dated 08/07/2013 regarding renewal of NOC vide No. 21-4(2)/WR/CGWA/2005-1205 dated 08/07/2013.


Sir,

As per the condition No. 9 of the above mentioned NOC, "the renewal is valid for five years from date of issuance of the letter. Upon review of status of compliance of the conditions after five years, decision for revalidation of approval to be considered."

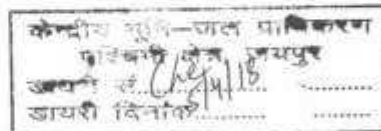
Accordingly, renewal form and compliance status of the conditions are attached herewith. It is to submit further that compliance of all the conditions stipulated in the NOCs is ensured.

Therefore it is humbly requested that this renewal for existing permission of drawl of 11700m³ /day ground water from the existing radial well to enable us to run our mine and beneficiation plant. We have deposited the processing fees of Rs. 500/- through "bharatkosh.gov.in" vide transaction reference No. 0404180001535 dated 04.04.2018. Copy of the same is attached herewith.

Your Faithfully


(Rajendra Prasad Dashora)
Site President

CC to: Member Secretary,
Central Ground Water Authority
West Block-2, Wing-3
Sector-1, R.K. Puram,
NEW DELHI-110066



O/c Env.

Hindustan Zinc Limited

Rampura Agucha Mines, P.O. Agucha, Dist. Bhilwara (Rajasthan) - 311 022
M +91-9001294956-57, F +91-1483 229012 www.hzllindia.com

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

CGWA renewal application



Digital Display

Member Secretary



भारत सरकार
केंद्रीय भूमि जल प्राधिकरण
जल संसाधन मंत्रालय

Government of India
Central Ground Water Authority
Ministry of Water Resources

CGWA/IND/Proj/2013-6-R

No.21-4(2)/WR/CGWA/2005-1204

Dated :-

08 JUL 2013

To,
M/s Hindustan Zinc Ltd.,
Rampur Agucha Mine
PO Agucha, District Bhilwara-311029
Rajasthan

Sub:- **Renewal of NOC for ground water withdrawal to M/s Hindustan Zinc Ltd., in respect of their existing mining project at Rampura Agucha Mine, Village Agucha, Tehsil Hurda, District Bhilwara, Rajasthan - reg**

Sir,

Kindly refer to letter No. HZL/AM/ENV/2013 dated 25.2.2013 on the above cited subject. Based on recommendations of Regional Director, CGWB, Western Region, Jaipur vide his office letter No. TS/21B(5)/CGWA/WR/05-07-119-30 dated 22.3.2013 and subsequent letter dated 2.5.2013 and further deliberations on the subject, the further renewal of NOC issued vide this office letter of even no. dated 6.8.2008, is hereby accorded to **M/s Hindustan Zinc Ltd., in respect of their existing mining project at Rampura Agucha Mine, Hurda Block, District Bhilwara, Rajasthan.** The renewal is however subject to the following conditions:-

1. The firm may continue to abstract 250 m³/day of ground water from mine pit. No additional ground water abstraction structures to be constructed for this purpose without prior approval of the CGWA.
2. Monitoring of the ground water extraction through wells to be continued through water meter by the industry at its own cost on regular basis, at least once in a month. The ground water quality to be monitored twice in a year during pre monsoon and post monsoon periods.
3. **M/s Hindustan Zinc Ltd.,** shall, in consultation with the Regional Director, Central Ground Water Board, Western Region, Jaipur implement ground water recharge measures as proposed for augmenting the ground water resources under intimation to this office.
4. The firm shall continue to execute ground water regime monitoring programme in and around the project area through piezometers on regular basis in consultation with the Central Ground Water Board, Western Region, Jaipur.

West Block - 2, Wing - 3, Sector - 1, R.K. Puram, New Delhi - 110066
Tel : 011-26175362, 26175373, 26175379 • Fax : 011-26175369
Website : www.cgwb.gov.in, www.mowr.gov.in

संरक्षित जल सुरक्षित जीवन
CONSERVE WATER - SAVE LIFE

CGWA NOC



Ref.: HZL/RAM/Env/2016-17/

April 28, 2016

Handwritten initials

To,
The Regional Director,
Central Ground Water Board,
Western Region, 6A, Jhalana Doongari, Jaipur- 17

Sub.: Renewal of NOC for Ground water intersection from mine pit.

Ref: CGWA renewal letter No 21-4(2)/WR/CGWA/2005-1204 dated 08/07/2013 for ground water intersection & withdrawal of 250 m³/day ground water from the mine pit.

Sir,

Please find herewith the renewal application for NOC of ground water intersection & withdrawal of 250 m³/day from the mine pit.

Thanking you,

Yours Sincerely,

Handwritten signature
(Praveen Jain)
Location Head (R.K. Mine)
VP & Location Head
Cc: Member Secretary
Central Ground Water Authority
West Block-2 (Wing 3 Raj.)
Sector-I, R.K. Puram,
NEW DELHI-110066

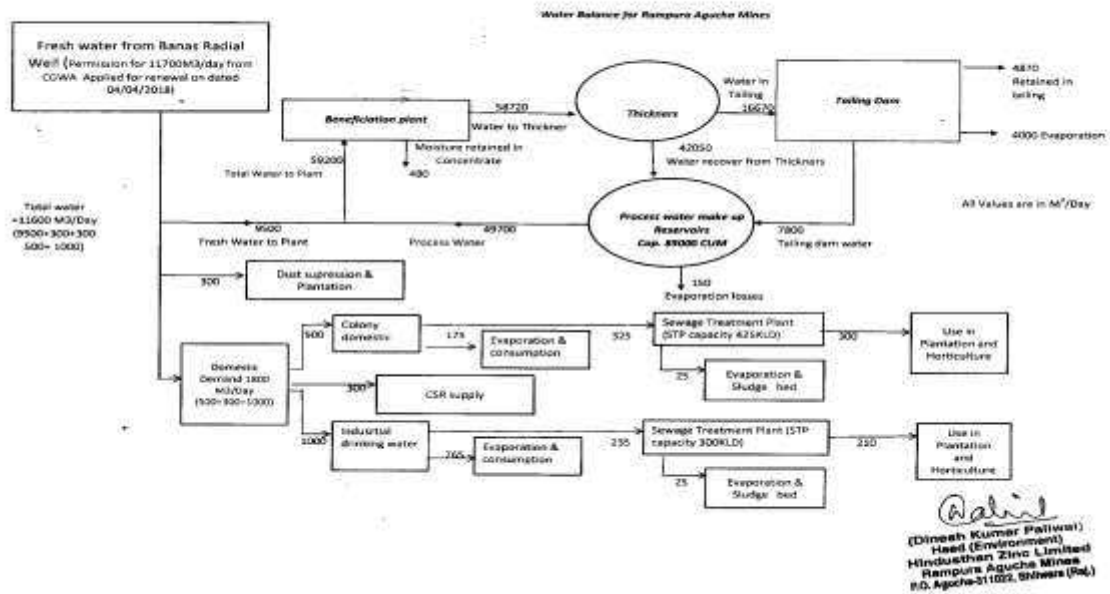
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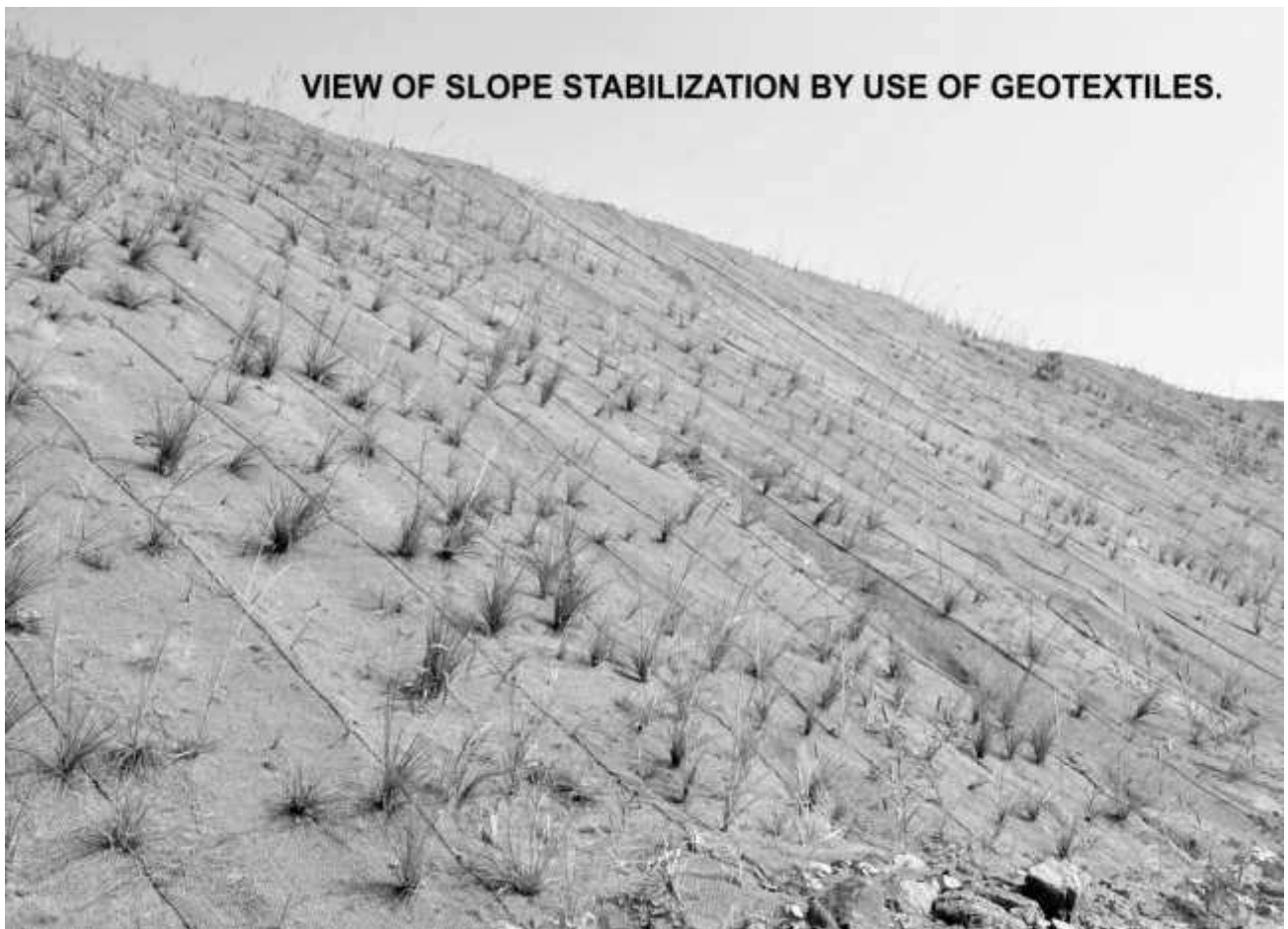
Hindustan Zinc Limited

Rampura Agucha Mine, P. O. Agucha, Dist-Bhilwara - 311029
Tel.: (91-01483)225837,229018 Fax: (91-01483)229012, www.hzindia.com
Registered Office: Yashad Bhawan, Udaipur (Rajasthan) - 313 004

CGWA renewal application



Water Balance



Geotextiles



Mine code: 270020

RA Mine/VTC/F.18/2020 / 2399-2401

Dated: 24.01.2020

To

1. The Director General of Mines Safety
Office of DGMS
Barwa Road
DHANBAD
JHARKHAND
PIN: 826001

2. The Dy Director General of Mines Safety
Office of DGMS, North Zone
Room No 201-3, Block -B, CGO Complex
HAPUR ROAD, KAMLA NEHRU NAGAR
GAZIABAD - UP
PIN: 201002

3. The Director of Mines Safety
Office of DGMS
Anasagar Link Road
AJMER, RAJASTHAN
PIN: 305001

Sub. : Submission of Annual Return in Form "T" for the year 2019

Sir,

Please find enclosed the Annual Return Form "T" for the year ending 31st December- 2019, in respect of Rampura Agucha Mines of Hindustan Zinc Limited.

Enclosed as above

Thanking you

Sincerely yours


(Vinod Jangir)
"Mine Manager"
Mine Manager
Hindustan Zinc Limited
Rampura Agucha
Lead and Zinc Underground Mines
Post-Agucha-311022
Distt.-Bhilwara (Raj.)

Hindustan Zinc Limited

Rampura Agucha Mines, P.O. Agucha, Dist. Bhilwara (Rajasthan) - 311 022
M +91-9001294956-57; F +91-1483 229012 www.hzindia.com

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

Copy of DGMS return

[FORM - T]

[See Rule 29P (i)]

Annual Return for the year ending on the 31st December - 2019

1. Name of Mines Rampura Agucha Mines.
2. Postal address of Mines M/S Hindustan Zinc Limited,
Rampura Agucha Mines
P.O. Agucha - 311022
Dist. Bhilwara (RAJ.)
3. Date of opening of Mine 15.01.2010
4. Date of closing (if closed) Not applicable
5. Situation of Mine (District/State) Bhilwara/Rajasthan
6. Name of Owner, Postal address Sh. Sunil Duggal
CEO & Whole time Director.
Hindustan Zinc Limited
Yashad Bhawan,
UDAIPUR - 313004


7. Number of person medically examined:

Type of ME	Number of persons required to be Medically examined during 2019		Number of persons Medically examined during 2019	
	OWN	CONT	OWN	CONT
IME	As per requirement		0	948
PME	162	654	162	654

8. Number of persons declared Medically unfit NIL
9. Categorization of the persons Declared unfit NIL

Certified that the information has been given above, is correct to the best of my knowledge.

Date: 24.01.2020

Signature: 
Name : (Vinod Jangir)

Designation: "Mine Manager"
Hindustan Zinc Limited
Rampura Agucha
Lead and Zinc Underground Mines
Post-Agucha-311022
Distt.-Bhilwara (Ra.)



Covered conveyer belt



HZL/RAM/ENV/2020-21/789

Dated : 28.08.2020



To,
The Director,
Ministry of Environment, Forest and Climate Change,
Regional Office (Central Region),
Kendriya Bhawan,
5th Floor, Sector "H", Aliganj,
Lucknow – 226024

Subject: Submission of study report in in compliance of the EC amendment No: J-11015/267/2008-IA.II(M) dated 28.02.2020 of M/s Hindustan Zinc Limited in the mine lease area of 1200 Ha located in village Agucha, Tehsil Hurda, District Bhilwara, Rajasthan.

Sir,

Additional specific condition No. 3 in the above mentioned amendment letter is read as below:

“PP shall engage suitable agency for conducting subsidence study for increasing the depth of working from 1000mbgl to 1500mbgl. The report shall be submitted to Ministry within 6 months.”

In compliance of this condition, study has been conducted by Central Institute for Mining & Fuel Research (CSIR-CIMFR). Copy of the study report “Numerical Modelling Studies for Subsidence Prediction at Rampura Agucha Mine, HZL” is attached herewith for perusal please.

Thanking You,

Yours faithfully,

(Signature)
 (Sudal Shobh)
 SBU Director,
 Director, Agucha SBU
 Hindustan Zinc Limited
 Rampura Agucha Mine
 PO- Agucha
 Distt. - Bhilwara (Raj.)

CC: **The Member Secretary,**
IA – Division (Non-Coal Mining)
Vayu Block, 3rd Floor, Indira Paryavaran Bhawan,
Ministry of Environment, Forest & Climate Change
Jorbagh Road, New Delhi-110003.

Hindustan Zinc Limited

Rampura Agucha Mines, P.O. Agucha, Dist. Bhilwara (Rajasthan) - 311 022
 M +91-9001294956-57, F +91-1483 229012 www.hzllindia.com

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

O/c Env.

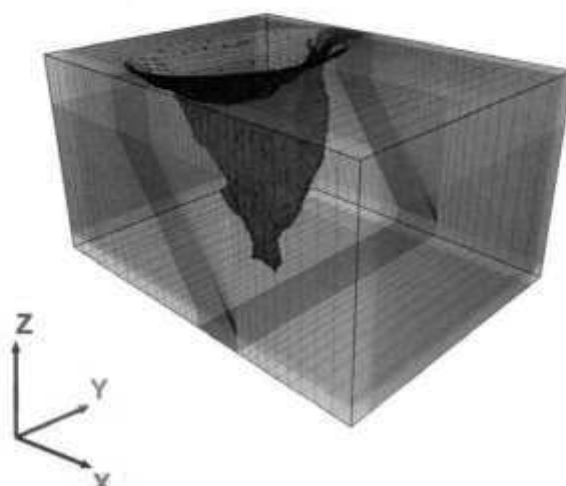


CENTRAL INSTITUTE OF MINING & FUEL RESEARCH
(Council of Scientific & Industrial Research)
Barwa Road, Dhanbad – 826 001, Jharkhand
Nagpur Research Center, Unit-1
17/C, Telenkhedi Area, Civil Line, Nagpur 440001, Maharashtra

Report on

**Numerical Modelling Studies for Subsidence Prediction at Rampura Agucha
Mine, HZL**

PO No.: 2353084587 / 5100027984 Date:07.04.2020



Proj. No. SSP/N/493/2020-2021

July – 2020

Subsidence study report cover page



Rajasthan State Pollution Control Board
 4, Institutional Area, Jhalana Doongari, Jaipur-302 004
 Phone: 0141-5159600,5159695 Fax: 0141-5159697
 website: www.rpcb.nic.in

Registered

File No F(Mines)/Bhilwara(Hurda)/1(1)/2009-2010/ 4792

Order No 2009-2010/Mines/401

Date: 21/1/2010

M/s Hindustan Zinc Limited
 (Rampura Agucha Mine), P.O.- Agucha, Bhilwara,
 District :Bhilwara

Sub: Grant of Consent to Establish under section 21(4) of Air (Prevention & Control of Pollution) Act, 1981 and under section 25/26 of Water (Prevention & Control of Pollution) Act, 1974 for your **Major Mineral Mine** at near Village-Agucha, Tehsil-Hurda, District- Bhilwara (M.L.No.-1/2000).

Ref: (i) Your applications dated 22/11/2009
 (ii) Received on 27/11/2009

Sir,

In view of the details submitted vide your above referred applications/ documents, the **Consent to Establish** under section 21(4) of Air (Prevention & Control of Pollution) Act,1981 and under section 25/26 of Water (Prevention & Control of Pollution) Act, 1974 is hereby granted for carrying mining activities. This consent is subject to the following stipulations:-

- 1 That this consent is being granted in favour of **M/s. Hindustan Zinc Limited**, a Mine of **Major Mineral** having **M.L.No.-1/2000** in an area measuring 1200 Hectares at/near Village-Agucha, Tehsil-Hurda, District-Bhilwara.
- 2 That this consent is valid for a period from **18/01/2010** to **17/01/2013**, or **commencement of production whichever is earlier**.
- 3 That this consent is valid for following mining activities :-

Mineral	Permitted Mining Capacity
1 LEAD ZINC ORE MINING	6.150 MILLION TONNES PER ANNUM
2 BENEFICIATION PLANT FOR LEAD - ZINC ORE	6.500 MILLION TONNES PER ANNUM

- 4 That you shall achieve following standards in ambient air in mine area / mining activities.

Pollutant	Standards for Ambient Air	Standards for mining activity
SPM	500 µg/M ³	SPM = 600 µg/M ³ (To be measured between 3 to 10 meters from mining activity)
SO _x	120 µg/M ³	
NO _x	120 µg/M ³	
CO	5000 µg/M ³	



Rajasthan State Pollution Control Board
4, Institutional Area, Jhalana Doongari, Jaipur-302 004
Phone: 0141-5159600,5159695 Fax: 0141-5159697
website: www.rpcb.nic.in
Registered

File No F(Mines)/Bhilwara(Hurda)/1(1)/2009-2010/

Order No 2009-2010/Mines/401

Date:

- 5 That the Mining unit shall maintain zero discharge status of waste water from the premises. No trade effluent shall be discharged inside/outside mine premises.
- 6 That the occupier/operator of mine shall ensure that all the conditions imposed in the Environmental Clearance granted by the **Ministry of Environment & Forests, Government of India**, vide letter No J-11015/267/2008-IA.II (M) dated 11/12/2009 shall be strictly complied with.
- 7 That the occupier/operator of mine shall ensure that all the conditions imposed in the permission of Central Ground Water Authority granted vide its letter No **21-4(2)/WR/CGWA/2008-632 & 21-4(2)/WR/CGWA/05-417** dated **06/08/2008 & 13/05/2008** shall be strictly complied.
- 8 That you shall not operate the mine without obtaining **Consent to Operate** from the Board.
- 9 That this **Consent to Establish** is for mining of product as mentioned above in **M.L.No.-1/2000** and a separate **Consent to Establish** is required to be taken for Mineral Separation Plant/process if any and for any addition/ modification/ alteration or change in process.
- 10 That the lessee shall develop plantation in atleast 33% of the total lease area to maintain ambient air quality around the mine and the Action Plan for plantation submitted by you, shall be implemented.
- 11 That you will implement all the pollution control measures as per EIA/EMP Report.
- 12 That the top soil shall be stored at earmarked site only shall be utilized for plantation on reclaimed OB dumps.
- 13 The overburden generated during mining shall be stacked at earmarked site as per Approved Mining Plan & as per recommendations of Central Institute of Mining & Fuel Research, Dhanbad. The over burden dump shall be reclaimed by plantation of suitable native plant species.
- 14 Catch drains/ Siltations ponds of appropriate size shall be constructed to arrest silt and sediments flows from mine pits & overburden dumps. Garland drains of adequate size, properly designed shall be constructed around the mine pit & dump yard. Garland drain should be provided with siltation pond.
- 15 Regular monitoring of subsidence, vibration shall be carried out & if any subsidence is observed appropriate measures be undertaken to avoid any loss of life and material and be reported to Board.
- 16 That the HZL shall carryout conditioning of mined ore with water to mitigate fugitive dust emission.
- 17 That Ore Beneficiation plant effluent shall be treated upto prescribed standards & tailing slurry shall be transported in close pipe line to tailing dam.
- 18 That all other general conditions (1 to 21) enclosed as **Annexure** shall be strictly complied with.



Rajasthan State Pollution Control Board
4, Institutional Area, Jhalana Doongari, Jaipur-302 004
Phone: 0141-5159600,5159695 Fax: 0141-5159697
website: www.rpcb.nic.in

Registered

File No F(Mines)/Bhilwara(Hurda)/1(1)/2009-2010/

Order No 2009-2010/Mines/401

Date:

19 That this Consent is subject to the conditions as stated above and general conditions as stated in Annexure. Further, the mining unit will comply with the provisions of the Air (Prevention & Control of Pollution) Act, 1981 & Water (Prevention & Control of Pollution) Act, 1974 and any such conditions as may be specified from time to time by the State Board under the provisions of the aforesaid Acts.

This bears approval of the competent authority.

Encl: As Above

Yours Sincerely


Group Incharge-Mines

Copy To:-

- 1 Director, Department of Mines & Geology, Government of Rajasthan, Udaipur..
- 2 Mining Engineer, Department of Mines & Geology, Government of Rajasthan, Bhilwara.
- 3 Regional Officer, Regional Office, Rajasthan State Pollution Control Board, Bhilwara- please ensure compliance of Consent Conditions.
- 4 Master File, Consent to Establish, Group Mine, Rajasthan State Pollution Control Board, Jaipur.

Group Incharge-Mines



राजस्थान राज्य प्रदूषण नियंत्रण मण्डल RAJASTHAN STATE POLLUTION CONTROL BOARD

Annexure

Consent to Establish under Air & Water Acts - Mining Units

General Conditions:-

1. That this consent shall be subject to the condition that you shall operate the mining activities in the area as per the mining right allowed by the Mining Department in the Mining Lease only.
2. That this consent shall be subject to the directions/orders passed in various Mining/Environment related Writ Petitions by Hon'ble High Court and the Hon'ble Supreme Court.
3. That you shall provide the necessary infrastructure facilities including equipment for the monitoring of ambient air in accordance with the directions given to you by the Pollution Control Board's officials from time to time.
4. That Mining Unit shall undertake the phased restoration, reclamation and rehabilitation of lands as per established practices & procedures (provisions of Mine Closure Plan in case of Major Minerals) affected by prospecting or mining operations and shall complete this work before the conclusion of such operations and the abandonment of prospects or mines.
5. That overburden shall be stored in a systematic manner that it does not obstruct the natural drainage pattern of the area. It may be used for back filling. The land shall be identified for disposal of overburden at environmentally compatible site.
6. That Mining unit shall strictly comply with the Mining Plan and Eco Friendly Mining Plan as submitted to & approved by the competent authority. (Eco Friendly Mining Plan for Minor Mineral & mining plan for Major minerals & marble, Granite Mines).
7. That the water spray and sprinkling system so installed should always be maintained in order to utilize the same for dust suppression.
8. That the domestic effluent if any, shall be treated and disposed of with properly designed septic tank followed by soak pit as per prescribed standard.
9. That Air Emissions shall conform to the standards prescribed under the Environment (Protection) Act, 1986.
10. That noise level shall be kept as detailed below and under no circumstances, it shall exceed the prescribed limit:-
 - a. Day time (6.0 AM to 9.0 PM) - 75 dB A (leq)
 - b. Night time (9.0 PM to 6.0 AM) - 65 dB A (leq)
11. That this consent should not be treated as NOC or approval for mining in forest area, if any, falling in the lease and relevant permission under provisions of the Forest (Conservation) Act, 1980 shall be obtained from the competent authority.

4, इन्स्टीट्यूशनल एरिया, झालाना डूंगरी, जयपुर
4, Institutional Area, Jhalana Doongri, Jaipur
Phone : 2709980, 2705731, 2707285 PBX 2711263, 2711329, 2711831, 2707938
Fax : 2710647, 2709980, 2704578

12. That for Diesel Generator Set, acoustic enclosure/acoustic treatment shall be provided to meet the prescribed norms w.r.t. noise as per the Gazette Notification of Ministry of Environment & Forests dated 02.01.99. Adequate stack height with D.G. Sets shall also be provided and maintained. Noise from the Diesel Generator Sets shall be controlled by providing an acoustic enclosure or by treating the room acoustically. The acoustic enclosure/acoustic treatment of room should be designed for minimum 25 dB (A) Insertion Loss or for meeting the ambient noise standards, whichever is on the higher. The measurement for Insertion Loss may be done at different points at 0.5 metre from the acoustic enclosure/room and then averaged. The Diesel Generator Sets should also be provided with proper exhausts muffler with Insertion Loss of minimum 25 dB (A). The stack height for the Diesel Generator Sets shall be as notified under the EP Act, 1986.
13. That the Industry shall comply with provisions of the Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 and the Hazardous Waste (Management & Handling) Rules, 1989 and related amendments, as applicable.
14. That this consent is valid, subject to fulfillment of all the other statutory requirements in other Law/Acts/Rules as applicable.
15. That the industry shall submit quarterly compliance of all the above stated conditions to this office.
16. That the unit shall submit Water Cess returns in case the water consumption is more than 10 KLD under provisions of the Water (Prevention & Control of Pollution) Cess Act, 1977 and as amended from time to time.
17. That notwithstanding anything contained in this letter of consent, the State Board hereby reserves to it, the right and power under section 21(6) of the Air (Prevention & Control of Pollution) Act, 1981 & under section 27(2) of the Water (Prevention & Control of Pollution) Act, 1974 to review anyone/or all the conditions imposed here-in-above and to make such variations as deemed fit for the purpose of Air Act & Water Act.
18. That this consent, under no circumstances, be construed as conferment of any property or any interest in the lease area. It is only confined for the purpose of regulation of provisions of the Air Act & Water Act
19. That any incorrect information submitted in the consent application form shall make the industry liable for legal action under section 38 of the Air Act & under section 43 of the Water Act.
20. That in case of failure to comply with any of the consent conditions stated as above, the consent issued to the industry shall automatically stand revoked without any notice.
21. That this Consent will not exempt you from any legal action for the past violations, if any, of the Act/Rules/Notifications/Circulars etc.


(Group Incharge-Mines)



Head Office (Mines)
Rajasthan State Pollution Control Board
4, Institutional Area, Jhalana Doongari, Jaipur-302 004
Phone: 0141-5159600,5159695 Fax: 0141-5159697



Registered

File No F(Mines)/Bhilwara(Hurda)/12(1)/2015-2016/1229-1233

Order No 2019-2020/Mines/9959

Date: 25/06/2019

Unit Id : 11,060

M/s Hindustan Zinc Limited

(Rampura Agucha Mine), P.O.- Agucha, Bhilwara,

District: Bhilwara

Sub: Grant of Consent to Operate under section 21(4) of Air (Prevention & Control of Pollution) Act, 1981 and under section 25/26 of Water (Prevention & Control of Pollution) Act, 1974 for your Major Mineral Mine at near Village-Agucha, Tehsil-Hurda, District- Bhilwara (M.L.No-1/2000).

Ref: (i) Your applications dated 30/10/2017
(ii) Received on 30/10/2017

Sir,

In view of the details submitted vide your above referred applications/ documents, the Consent to Operate under section 21(4) of Air (Prevention & Control of Pollution) Act, 1981 and under section 25/26 of Water (Prevention & Control of Pollution) Act, 1974 is hereby granted for carrying mining activities. This consent is subject to the following stipulations:-

- 1 That this consent is being granted in favour of M/s. Hindustan Zinc Limited, a Mine of Major Mineral having M.L.No.- 1/2000 in an area measuring 1200.0000 Hectares at/near Village-Agucha, Tehsil-Hurda, District-Bhilwara.
- 2 That this consent is valid for a period from 01/03/2018 to 28/02/2023
- 3 That this consent is valid for following mining activities :-

Mineral	Permitted Mining Capacity
1 Lead & Zinc Ore Mining	6.1500 MILLION TONNES PER ANNUM

- 4 That the project proponent will comply with the Standard as prescribed vide the Ministry of Environment, Forest and Climate Change notification no. GSR 826(E) dated 16th November, 2009 with respect to National Ambient Air Quality standards.



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- 5 That this consent to establish/consent to operate is only for carrying out mining of mineral/ore and not for any processing/beneficiation or crushing/grinding of ore/mineral for which a separate application for consent to establish and/or consent to operate should be submitted. The project proponent is required to obtain separate consent to establish and consent to operate for carrying out mining of other minerals(s), if any or processing/beneficiation of such mineral(s) and for any addition/modification/alteration or change in process.
- 6 That this Consent to Operate is for mining / processing / beneficiation of product as mentioned above in M.L.No.-1/2000 and a separate Consent to Operate is required to be obtained for any other Mineral mining/ processing/ beneficiation Plant/process if any and for any addition/ modification/ alteration or change in process.
- 7 That the mine shall comply with all the conditions of the Environmental Clearance letter no. J-11015/267/2008-IA.II (M) dated 11/12/2009 issued by Ministry of Environment and Forest, Government of India.
- 8 That this consent to operate is valid for Lead & Zinc Ore Mining @ 6.15 million TPA. For any change in product and/or increase in capacity/lease area, the mine has to seek fresh Environmental Clearance, consent to establish & consent to operate.
- 9 That plantation shall be developed so as to cover at least 33% of the total land use for mining and allied activities as given in Approved Mining Plan and shall be maintained at all the time to maintain ambient air quality around the mine.
- 10 That mining operations shall be restricted to above ground water table and should not intersect ground water table. In case of working below the ground water table, prior approval of the Ministry of Environment, Forest & Climate Change and Central Ground Water Authority shall be obtained.
- 11 That the Mine shall comply with all the conditions of NOC granted by CGWA vide letter no. 21-4(258)WR/CGWA/2008-472 dated 28.04.2011.
- 12 That haul roads should be regularly graded and compacted. Regular water sprinkling should be carried out on haul roads to minimize dust generations.
- 13 That adequate measure shall be taken for control of fugitive emissions from the areas prone to air pollution.
- 14 That the total water consumption shall not exceed 2200 KLD without prior consent of the Board and permission from CGWA.
- 15 That the mine shall dispose its domestic waste water in scientific manner to avoid water pollution in and around the lease area.

Signature valid
25/06/2019
11:06:00



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- 16 That no discharge of effluent shall be made within or outside the premises.
- 17 That the mine shall install suitable flow measuring devises/meters on the intake sources of the water and daily record of ground water abstraction and water consumption shall be maintained.
- 18 That the mine shall comply with provision of Hazardous Waste (Management, Handling & Transboundary Movement) Rules, 2008.
- 19 That the mine shall install adequately designed rain water harvesting structure for prevention and recharge of ground water in and around the lease area.
- 20 That the mine shall not allow making any obstacles to any natural water flow i.e. natural nallah/stream carrying rain water to any water body.
- 21 That the mine shall not allow unauthorized disposal of any solid waste on land inside or outside the premises.
- 22 That this consent to operate shall be subject to compliance of direction/order passed by Courts of Law in the matter, if any.
- 23 That all other general conditions enclosed as Annexure shall be strictly complied with.
- 24 That this Consent is subject to the conditions as stated above and general conditions as stated in Annexure. Further, the mining unit will comply with the provisions of the Air (Prevention & Control of Pollution) Act, 1981 & Water (Prevention & Control of Pollution) Act, 1974 and any such conditions as may be specified from time to time by the State Board under the provisions of the aforesaid Acts.
- 25 That the grant of this Consent to Operate is issued from the environmental angle only, and does not absolve the project proponent from the other statutory obligations prescribed under any other law or any other instrument in force. The sole and complete responsibility, to comply with the conditions laid down in all other laws for the time-being in force, rests with the industry/ unit/ project proponent.
- 26 That the grant of this Consent to Operate shall not, in any way, adversely affect or jeopardize the legal proceedings, if any, instituted in the past or that ~~could be~~ instituted against you by the State Board for violation of the provisions of the ~~Act~~ or the Rules made thereunder.



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Unit Id : 11,060

This bears approval of the competent authority.

Encl: As Above

Yours Sincerely

Group Incharge-Mines

Copy To:-

- 1 Director, Department of Mines & Geology, Government of Rajasthan, Shastri Circle, Udaipur.
- 2 Regional Officer, Regional Office, Rajasthan State Pollution Control Board, Bhilwara - please ensure 100 percent compliance or standard norms and monitor time to time
- 3 Mining Engineer, Department of Mines & Geology, Government of Rajasthan, Bhilwara
- 4 Master File .

Signature
Group Incharge-Mines

Valid Mine CTO



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Registered

File No : F(CPM)/Bhilwara(Hurda)/2(1)/2019-2020/2498-2500

Order No: 2019-2020/CPM/5547

Date: 22/10/2019

Unit Id : 11060

M/s Hindustan Zinc Limited

(Rampura Agucha Mine), P.O.- Agucha, Bhilwara, ,

District:Bhilwara

Sub: Consent to Operate under section 25/26 of the Water (Prevention & Control of Pollution) Act, 1974 and under section 21(4) of Air (Prevention & Control of Pollution) Act, 1981.

Ref: Your application for Consent to Operate dated 30/10/2017 and subsequent correspondence.

Sir,

Consent to Operate under the provisions of section 25/26 of the Water (Prevention & Control of Pollution) Act, 1974 (hereinafter to be referred as the Water Act) and under section 21 of the Air (Prevention & Control of Pollution) Act, 1981. (hereinafter to be referred as the Air Act) as amended to date and rules & the orders issued thereunder is hereby granted for your Lead Zinc Ore Beneficiation plant situated at PO- Agucha, District- Bhilwara Agucha Tehsil: Hurda District: Bhilwara, Rajasthan, subject to the following conditions:-

1. That this Consent to Operate is valid for a period from 01/03/2018 to 28/02/2023.
2. That this Consent is granted for manufacturing / producing following products / by products or carrying out the following activities or operation/processes or providing following services with capacities given below.

Particular	Type	Quantity with Unit
Beneficiation for Lead Zinc Ore	Activity	6.50 MILLION TONNES PER ANNUM

3. That this consent to operate is for existing plant, process & capacity and separate consent to establish/operate is required to be taken for any addition / modification / alteration in process or change in capacity or change in fuel.
4. That the sources of air emissions along with pollution control measures and the emission standards for the prescribed parameters shall be as under:

Sources of Air Emissions	Pollution Control Measures	Prescribed	
		Parameter	Standard

Signature valid



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Order No : 2019-2020/CPM/5547

Date: 22/10/2019

Unit Id : 11060

Primary Crusher New(750TON/HR)	ADEQUATE STACK HEIGHT , Bag Filter , WATER SPRAYERS , WET SCRUBBER , WITH ADEQUATE STACK HEIGHT	Particulate Matter	150 mg/Nm ³
Primary Crusher Old(700TON/HR)	ADEQUATE STACK HEIGHT , Bag Filter , WATER SPRAYERS , WET SCRUBBER , WITH ADEQUATE STACK HEIGHT	Particulate Matter	150 mg/Nm ³
Secondary Crusher(500TON/HR)	ADEQUATE STACK HEIGHT , Bag Filter , WATER SPRAYERS , WET SCRUBBER , WITH ADEQUATE STACK HEIGHT	Particulate Matter	150 mg/Nm ³
Two DG Sets(5MW EACH)	ACOUSTIC ENCLOSURE ,SAFE STACK HEIGHT AS PER ER IV	CO Particulate Matter NOx NMHC	150 mg/NM ³ 75 mg/NM ³ 710 ppm 100 mg/NM ³

5 That the Lead Zinc Ore Beneficiation plant will comply with the standards as prescribed vide MOEF notification No. GSR 826(E) dated 16th November, 2009 with respect to National Ambient Air Quality Standards:

Signature of




Head Office (CPM)

Rajasthan State Pollution Control Board

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- 6 That this consent to operate is valid for operation of Lead Zinc Ore Beneficiation plant of 6.5 Million Ton Per Annum capacity. The industry has to seek fresh consent to establish for any change in product/by product/process/service/activity and modification/alteration.
- 7 That total capital investment as on 30.09.2017 as per the C.A. certificate submitted by you is Rs. 846.09 Crore which includes the cost of Land, Building, Plant & Machinery and miscellaneous assets.
- 8 That the industry shall comply with all the conditions of Environmental Clearance (E.C.) issued by the Ministry of Environment, Forest & Climate Change (MoEF&CC), Government of India, vide letters no. J-11015/267/2008-IA.II(M) dated 11.12.2009.
- 9 That Hazardous Waste as defined under schedule IV of Hazardous & others Waste (Management, and Transboundary Movement) Rules, 2016 shall not be used as raw material without obtaining prior registration & authorization from the State Board.
- 10 That total water consumption/requirement for lead Zinc Ore Beneficiation Plant shall not exceed to 9500 KLD which will be met from Banas Radial Wells.
- 11 That the industry shall comply with all the conditions of CGWA permission/NOC issued by Central Ground Water Authority, Ministry of water resource Govt of India vide letter no. 21-4(2)/WR/CGWA/2005-1205 dated 08.07.2013.
- 12 That water flow meters shall be provided and maintained at all suitable points to measure quantity of water received from Banas radial wells and water consumption for different purposes. Record of the same shall be maintained on daily basis.
- 13 That waste water generated from tailing dam will be reused/recycled completely in mill/process.
- 14 That the industry shall take utmost precaution to cater seepage from tailing dam and ensure complete recycle of seepage water in process only.
- 15 That the industry shall explore & carry out some scientific and technical study with reputed experienced organization in the field for catering of seepage from tailing dam.
- 16 That the industry shall get renewed NOC for abstraction of ground water from CGWA and submit to the State Board.
- 17 That the industry shall re-circulate the decanted water from the tailing dam and shall maintain Zero Discharge Status from tailing dam.
- 18 That the effluent from the ore beneficiation plant shall be treated to conform to the prescribed standards and the tailing slurry shall be transported through a closed pipeline to the tailing dam.
- 19 That the industry shall maintain the stability and safety of the tailing dam as assessed by CWPRS and NIRM.

Signature valid
Signature
Date



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- 20 That no waste water (domestic & trade effluent) will be discharged inside or outside the factory premises in to a stream or well or sewer or on land in any case and complete zero discharge status shall be maintained.
- 21 That separate energy meter & hour meter shall be provided and maintained at all the air pollution control measures and record of daily running hours of pollution control measures and daily energy consumption shall be maintained in log book.
- 22 That for the control of fugitive emission guidelines / code of practice as issued by CPCB will be followed.
- 23 That at least four ambient air quality monitoring stations shall be established and maintained for PM-10, PM- 2.5, SO_x & NO_x monitoring.
- 24 That the industry shall maintain stack of adequate height at crusher and air pollution control measures shall be operated regularly and efficiently to achieve the prescribed emission standards as per condition no.4.
- 25 That adequate infrastructure facility for stack emission monitoring shall be maintained at the stack of crushers.
- 26 That stack of adequate height as per norms and acoustic enclosure shall be maintained with two DG Sets of 5 MW KVA each.
- 27 That no additional source of air emission shall be installed without prior consent from the State Board.
- 28 That all the raw materials and products shall be stored in closed sheds.
- 29 That cemented roads shall be provided and maintained properly inside the premises to minimize fugitive emissions due to vehicular movement.
- 30 That water sprinkling and cleaning of haul roads by vacuum cleaner shall be done regularly to control the fugitive emissions generated due to vehicular movement.
- 31 That dust suppression system shall be maintained to minimize fugitive dust emission in Lead Zinc Ore handling area & at various transfer points and closed conveyor belts shall be used for the transfer of material to reduce the fugitive emissions.
- 32 That the industry shall maintain dust collection and extraction system to control fugitive dust emissions at all the transfer points & loading/unloading areas.
- 33 That regular monitoring of ground water particularly in respect to heavy metals shall be carried out by establishing adequate numbers of peizeometric well around tailing dam.
- 34 That adequate arrangements shall be made to avoid flow of pollutants along with rain water.

Signature void
Date: 22/10/2019
By: [Signature]



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- 35 That the industry shall carryout effluent sampling/stack monitoring/ambient air quality monitoring and submit quarterly analysis report from the State Board laboratory/laboratory recognized by Ministry of Environment, Forests & Climate Change (MoEF&CC), Government of India.
- 36 That industry shall comply with the provisions of Hazardous Waste (Management, Handling and Transboundary Movement) Rules, 2016 & Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 (as notified under Environment (Protection) Act, 1986 and record of daily hazardous waste generation and its disposal shall be maintained.
- 37 That the precautions/measures shall be taken for minimization of exposure to the workers involved in handling/processing of the lead and lead bearing material.
- 38 That the unit shall periodically examine their workers at least once in year for lead level in blood as well as urine. Persons with higher lead levels (greater than 40 µg/dl) should be shifted immediately to non-lead activity areas and given special medical treatment till the lead levels come back to acceptable level.
- 39 That the industry shall install and maintain adequately designed rain water harvesting structure for recharge of ground water in and around the area.
- 40 That the plantation of local species in the 33% of total area of the project shall be carried out & maintained.
- 41 That the industry shall get policy renewed from time to time under Public Liability Insurance Act (PLIA) and submit its copy to the Board.
- 42 That the industry shall obtain Environmental Clearance from competent authority under EIA Notification dated 14.09.2006 before establishing any such activity which attracts Environmental clearance under EIA Notification dated 14.09.2006.
- 43 That the industry shall submit the quarterly compliance report of all the above conditions to the State Board.
- 44 That, not withstanding anything provided hereinabove, the State Board shall have power and reserves its right as contained under section 27(2) of the Water Act and under section 21(6) of the Air Act to review anyone or all the conditions imposed here in above and to make such variation as it deemed fit for the purpose of Air Act & Water Act.
- 45 That the grant of this Consent to Operate is issued from the environmental angle only, and does not absolve the project proponent from the other statutory obligations prescribed under any other law or any other instrument in force. The sole and complete responsibility to comply with the conditions laid down in all other laws for the time-being in force, rests with the industry/ unit/ project proponent.



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46 That the grant of this Consent to Operate shall not in any way, adversely affect or jeopardize the legal proceeding, if any, instituted in the past or that could be instituted against you by the State Board for violation of the provisions of the Act or the Rules made thereunder.

This Consent to Operate shall also be subject, besides the aforesaid specific conditions, to the general conditions given in the enclosed Annexure. The project proponent will comply with the provisions of the Water Act and Air Act and to such other conditions as may, from time to time, be specified, by the State Board under the provisions of the aforesaid Act(s). Please note that, non compliance of any of the above stated conditions would tantamount to revocation of Consent to Operate and project proponent / occupier shall be liable for legal action under the relevant provisions of the said Act(s).

This bears the approval of the competent authority.

Yours Sincerely

Group Incharge[CPM]

(A): Copy To:-

1. Regional Officer, Regional Office, Rajasthan State Pollution Control Board, Bhilwara to inspect the unit and verify the compliance of consent conditions and submit the complete report with water analysis report of piezometric well including all parameters and all metals within 30 days.
2. Master File.

Group Incharge[CPM]

Signature valid
22/10/2019

Valid Beneficiation plant CTO



Tailing close pipe line