

F. No. J-11011/417/2017-IA. II(I)  
Government of India  
Ministry of Environment, Forest and Climate Change  
(Impact Assessment Division)

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Dated: 24<sup>th</sup> January, 2020

To

Shri. Ankit Kedia,  
Director,  
M/s. Venkatesh Iron and Alloys Private Limited,  
village Lapanga, P.O. Bhadaninagar,  
District Ramgarh,  
Jharkhand.  
E-mail: [venkateshiron2017@gmail.com](mailto:venkateshiron2017@gmail.com);

Subject: Expansion of 4×100 TPD DRI Unit by addition of 2x12 T (245 TPD) Induction Furnaces, 240 TPD Billet Caster, 16 MW CPP based on 4x9 TPH WHRB & 50TPH AFBC along with 26 TPD Briquette plant by **M/s. Sri Venkatesh Iron & Alloys (India) Limited** located at village Lapanga, P.O. Bhadaninagar, **District Ramgarh, Jharkhand – Environment Clearance - regarding.**

Sir,

1. This refers to the application of **M/s. Sri Venkatesh Iron & Alloys (India) Limited** made vide proposal no. IA/JH/IND/83979/2004 dated 24<sup>th</sup> January, 2019 along with copies of EIA/EMP report and Form – 2 seeking environmental clearance under the provisions of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at Sl. No. 3(a) Metallurgical Industries (Ferrous and Non-ferrous) under Category “A” EIA Notification, 2006 and the proposal is appraised at Central level.
2. The aforesaid proposal was considered in the 5<sup>th</sup> meeting of the Reconstituted Expert Appraisal Committee meeting held during 27-29<sup>th</sup> March, 2019 and further re-considered in the 12<sup>th</sup> meeting of the Reconstituted Expert Appraisal Committee meeting held during 21-23<sup>rd</sup> October, 2019. The EAC proceedings of the proposal is given as below:

**Details submitted by the project proponent**

3. The proposed expansion project of M/s Sri Venkatesh Iron & Alloys (India) Limited is located at Village: Lapanga, P.O. Bhadaninagar, Dist: Ramgarh, Jharkhand initially applied in the Ministry on 17.08.2017 for obtaining Terms of Reference (ToR) as per EIA Notification, 2006. The project was appraised by the Expert Appraisal Committee (Industry-1) during its 22<sup>nd</sup> meeting held on 11<sup>th</sup> September, 2017 and accordingly, the MoEF&CC had prescribed ToR to the project on 19.09.2017 vide Lr.No. J-11011/417/2017-IA. II (I).

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*Environmental Clearance for the project titled “Expansion of 4×100 TPD DRI Unit by addition of 2x12 T (245 TPD) Induction Furnaces, 240 TPD Billet Caster, 16 MW CPP based on 4x9 TPH WHRB & 50TPH AFBC along with 26 TPD Briquette plant by M/s. Sri Venkatesh Iron & Alloys (India) Limited located at village Lapanga, P.O. Bhadaninagar, District Ramgarh, Jharkhand”.*



4. The project of M/s Sri Venkatesh Iron & Alloys (India) Limited located in Village: Lapanga, P.O. Bhadaninagar, Dist: Ramgarh, Jharkhand is for setting up of a new unit for production of 72,000 TPA Billets through 2 nos. of 12 Ton Induction Furnaces & 2x6/11 m Continuous Casting Machine (CCM) along with Captive Power Plant (CPP) of 16 MW. The existing project for production capacity of 120,000 TPA sponge iron through 4x100 TPD DRI Kiln was installed in 2005 (prior to the EIA Notification 2006), environmental clearance as per EIA Notification, 1994 was not required as the project cost was less than 100 crores and the plant was setup after obtaining CTE from JSPCB vide letter No. N-432 dated 16.07.2005 and subsequently CTO from JSPCB. The compliance of CTO conditions was submitted by the Jharkhand State Pollution Control Board (JSPCB), Ranchi.

5. The proposed capacity for different products for site are as below:

Units	Facilities	Production (TPD)	No. of days of operations	Production (TPA)
<b>Existing Units</b>				
Sponge Iron unit	4x100 T DRI Kiln	400	300	1,20,000
<b>Proposed Units</b>				
Steel Melting Shop (SMS)	2x12 T Induction Furnace	245	300	73,500
	Billet Caster (2 strand)	240	300	72,000
Captive Power Plant (CPP)	WHRB AFBC	8 MW 8 MW	300	16 MW
Briquette Plant	Briquette Plant	26	300	7850

6. No additional land shall be acquired for the project and the entire project shall be installed within existing plant area of 5.82 ha. No R&R is involved as no land has been acquired for the project. No forestland is involved. It has been reported that no water stream/ water body exist around the project and modification/diversion in the existing natural drainage pattern at any stage has not been proposed.

7. The topography of the area is Gently undulating and reported to lies between  $23^{\circ}38'25.235''$  to  $23^{\circ}38'33.062''$  N Latitude and  $85^{\circ}23'45.472''$  to  $85^{\circ}23'56.318''$  E Longitude in Survey of India topo sheet 73 E/6 at an elevation of 338 m AMSL. The ground water table reported to ranges between 1.6 to 5.9 mbgl during the post-monsoon season and 2.25 to 11.19 mbgl during the pre-monsoon season.

8. No national park/wildlife sanctuary/biosphere reserve/tiger reserve/elephant reserve etc. are reported to be located in the core and buffer zone of the project. The area also does not report to form corridor for Schedule-I fauna. List of flora & fauna issued by Ramgarh Forest Division mentions that there are no endangered flora and fauna or Schedule-1 species in the region.

9. The raw materials requirement for the proposed expansion is furnished as below:

Sl. No.	Item	Per MT of Product	Requirement (TPD)	Requirement (TPA)	Source
<b><i>BRIQUETTE PLANT (26 TPD – 7850 TPA) – PROPOSED</i></b>					
1	Iron Ore Fines	0.64	16.7	5000	In house
2	Bag Filter Dust	0.35	9.1	2730	In-house
3	Bentonite	0.01	0.4	120	Purchase from Gujarat
<b><i>TOTAL</i></b>		<b>100</b>	<b>26.2</b>	<b>7850</b>	
<b><i>SPONGE IRON PLANT (400 TPD – 120,000 TPA) – EXISTING</i></b>					
1	Iron Ore	1.54	614	1,84,200	Purchase from Mines in Odisha
2	Pallet	0.06	26	7,850	In-house
3	Non-Coking Coal	1.3	520	1,56,000	Purchased from various mines of CCL and e-auction
4	Limestone/Dolomite	0.03	12	3,600	From Uttar Pradesh-by road
<b><i>TOTAL</i></b>		<b>2.93</b>	<b>1,172</b>	<b>3,51,600</b>	
<b><i>INDUCTION FURNACE PLANT (245 TPD – 73,500 TPA) – PROPOSED</i></b>					
1	Sponge Iron	1.0	245	73,500	In-house
2	Pig Iron, Purchased & Return Steel Scrap	0.24	58.33	17,500	In-house + Purchased
<b><i>TOTAL</i></b>		<b>1.24</b>	<b>298.33</b>	<b>91,000</b>	
<b><i>CONTINUOUS CASTING MACHINE (240 TPD – 72,000 TPA) – PROPOSED</i></b>					
1	Liquid Steel	1.0	245	73,500	In-house
<b><i>TOTAL</i></b>		<b>1.0</b>	<b>245</b>	<b>73,500</b>	
<b><i>CAPTIVE POWER PLANT - 16 MW (PROPOSED)</i></b>					
<i>AFBC Boiler – 8 MW</i>					
1	Char (CV – 2000 kcal/kg)	0.40/Unit	100	30000	In-house
2	Coal (CV – 3600 kcal/kg)	0.60/Unit	150	45000	Purchased
<b><i>TOTAL</i></b>		<b>1.0/Unit</b>	<b>250</b>	<b>75000</b>	
<i>WHRB – 8 MW</i>					
1	DRI Gas	4 x 25000 Nm <sup>3</sup> /hr		In-house	

The raw materials will be transported through rail and road. The finished products will be transported through roads which are well connected with SH-2.

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10. The water requirement of the project is estimated as 1410 m<sup>3</sup> /day requirement will be obtained through Damodar River. Permission for drawl of 0.604 MCM/year (1655 m<sup>3</sup>/day) surface water from Damodar River has been granted by Central Water Commission, DVRRC Unit on 01.07.2019.

11. The power requirement of the project is estimated 15.80 MW out of which 14.4 MW will be obtained from the Captive power plant and remaining balance power of 1.4 MW will be sourced from the Power Grid.

12. Baseline Environmental Studies were conducted during Post Monsoon Season i.e. from 01.10.2017 to 31.12.2017. Ambient air quality monitoring has been carried out at 8 locations during study period indicates: PM<sub>10</sub> (52.00 to 87.60 µg/m<sup>3</sup>), PM<sub>2.5</sub> (22.10 to 48.70 µg/m<sup>3</sup>), SO<sub>2</sub> (10.20 to 26.90 µg/m<sup>3</sup>) and NO<sub>x</sub> (4.60 to 11.30 µg/m<sup>3</sup>). The results of the modeling study indicate that the maximum increase of GLC for the proposed project is 3.80 µg/m<sup>3</sup> with respect to the PM<sub>10</sub>, 22.31 µg/m<sup>3</sup> with respect to SO<sub>2</sub> and 1.37 µg/m<sup>3</sup> with respect to the NO<sub>x</sub>.

13. Ground water quality has been monitored in 8 locations in the study area and analyzed. pH: 7.46 to 8.08, Total Hardness: 198.20 to 332.20 mg/l, Chlorides: 75.53 to 143.00 mg/L, Fluoride: 0.82 to 1.43 mg/L. Heavy metals are within the limits. Surface water samples were analyzed from 5 locations. pH: 7.75 to 8.10, DO: 5.30 to 7.60 mg/l and BOD: <5 to 21.57 mg/l. COD from 10.63 to 81.14 mg/l.

14. Noise levels are in the range of 51.35 to 64.63 dB (A) for day time and 41.45 to 54.27 dB (A) for night time.

15. The solid waste generation due to the proposed expansion is furnished as below:

<b>Solid Waste</b>	<b>Generation</b>	<b>Utilization</b>	<b>Sold</b>	<b>Remarks</b>
<i>Sponge Iron Plant (Existing)</i>				
Dolo-Char (TPA)	30,000	30,000	-	Shall be used in AFBC Boiler
Iron ore fines (TPA)	5,000	5,000	-	Shall be used in proposed Briquette Plant
Coal Fines(TPA)	4,000	4,000	-	Used in DRI Kilns
<i>Power Plant</i>				
Fly-ash from WHRBs (TPA)	21,000	--	21,000	Shall be sold to Fly ash Brick / Blocks making company and Cement Plant
Fly-ash from AFBC Boilers (TPA)	20,400	--	20,400	Shall be sold to Fly ash Brick / Blocks making company and Cement Plant
Bottom Ash (TPA)	5,100	-	5,100	Given free of cost to nearby Brick Kilns for use in Kiln as fuel
Coal Fines	4,000	4,000	--	Shall be used in AFBC Boiler

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<b>Solid Waste</b>	<b>Generation</b>	<b>Utilization</b>	<b>Sold</b>	<b>Remarks</b>
from Coal handling area (TPA)				
<i>Steel Melting Shop (Induction Furnace and CCM)</i>				
Slag (TPA)	13,200	1,320	11,880	Metal recovery is approx. 10 %, shall be used in process. Remaining slag shall be crushed and used as aggregates as construction material.
Bag filter dust (TPA)	2,730	2,730	-	Shall be used in the proposed Briquette Plant.
Scale (TPA)	500	-	500	Shall be sold to the nearby Sinter Plants
<b>TOTAL</b>	<b>105,930</b>	<b>46,930</b>	<b>58,880</b>	<b>Reuse approx. 44.3 %, Sold/Disposed 55.4%</b>

16. It has been reported that the latest Consent to Operate from the Jharkhand State Pollution Control Board was obtained vide Lr. No. JSPCB/HO/RNC/CTO-2618475/2018/1663 dated 25.10.2018 and consent is valid up to 31.12.2019.

17. The Public hearing of the project was held on 09.06.2018 at Middle School of Bhadaninagar, District Ramgarh, Jharkhand under the supervision of Mrs. Jyotsana Singh (Director-DRDA Ramgarh, an ADM Rank officer) for the expansion proposal. The issues raised during public hearing are regarding employment, pollution, CSR activities by the plant, potable drinking water, land requirement for the project.

18. Total cost of the existing sponge iron plant and proposed facilities (including Briquette Plant) will be 132.49 Crs., which include cost of the existing plant Rs. 41.82 Crs. Details of the total cost of proposed and existing plant is given below:

<b>Sl. No.</b>	<b>Details</b>	<b>Existing Rs. (In Crores)</b>	<b>Proposed Rs. (In Crores)</b>
1	Land and Site development incl. Boundary	0.20	-
2	Office Building, Infrastructure, Shed Civil etc.	4.90	2.50
3	Plant & Machinery (including Briquette Plant)	36.72	80.30
4	Contingencies	-	7.87
<b>Total</b>		<b>41.82</b>	<b>90.67</b>
<b>Total Cost (Existing + Proposed)</b>		<b>132.49</b>	
Budget for Corporate Environment Responsibility (CER)		0.95	
<b>Project Cost including CER</b>		<b>91.62</b>	

The employment generation from the proposed project of expansion is 150 Nos.

19. An amount of Rs 95Lakhs has been earmarked for CER based on public hearing / Socio-economic issues. The details are as follows:

Sl. No.	Area of Concern	Name of the Village	Action Plan	Budget Allocated (in Lakhs)	Time Frame
1	Employment	Lapanga Chikor Chaingara Hehal Bhurkunda	<ul style="list-style-type: none"> <li>Vocational Training Center for;</li> <li>1. Skill development for self-employment like Sewing, candle making, embroidery, handicraft etc.</li> <li>2. Industrial training for youth</li> </ul>	15	6 months
2	Health Care	Lapanga Hehal Nimi	<ul style="list-style-type: none"> <li>Ambulance facility (24x7) at Hehal and Lapanga villages</li> <li>Cost of an Ambulance- Rs.5 lakhs x 2 villages = 10 lakhs</li> <li>Setup of Generic Medicine Shop at Lapanga and Nimi villages= Rs.5 lakhs x 2 villages = Rs.10 lakhs</li> </ul>	20	10 months
33	Educational Development	Sirki Hehal Bhurkunda Chaingara	<ul style="list-style-type: none"> <li>Construction of Toilets in Primary Schools of Hehal, Chaingara, Sirki and Bhurkunda.</li> <li>Cost of Toilet construction – Rs.2.0 lakh x 4 villages= Rs. 8 lakhs</li> <li>Infrastructure development in schools (school furniture, drinking water facility etc.) – Rs. 4 lakhs.</li> </ul>	16	10 months

*(A)*  
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Sl. No.	Area of Concern	Name of the Village	Action Plan	Budget Allocated (in Lakhs)	Time Frame
			<ul style="list-style-type: none"> <li>Development of Playgrounds at primary schools of Chaingara and Sirki villages – Rs.2 lakhs x 2 villages = Rs.4 lakhs</li> </ul>		
4	Drinking Water Facility	Lapanga, Bhadaninagar, Sirki Chikor	<ul style="list-style-type: none"> <li>Installation of Hand Pumps, 3 nos. at each villages of Lapanga, Bhadaninagar, Sirki, Chikor = Rs.1 lakhs x 3 x 4 villages = Rs.12 lakhs</li> </ul>	12	18 months
5	Infrastructure Facility	Lapanga	<ul style="list-style-type: none"> <li>Construction of road at Hehal, Lapanga &amp; Saki villages = Rs. 11 lakhs</li> <li>Providing LED bulbs and fans to public buildings at Lapanga, Hehal and Saki villages = <math>300 \times 100 + 600 \times 70 + 28000 = \text{Rs. 1 lakh}</math></li> <li>Construction of cattle sheds in Saki, Hehal and Lapanga villages = Rs.2 lakhs x 3 villages = Rs. 6 lakhs</li> </ul>	18	18 months
6	Community Development	Bhurkundam Hehal Sirki Nimi Saki	<ul style="list-style-type: none"> <li>Rain Water harvesting Ponds in Bhurkunda, Hehal, Sirki, Nimi and Saki village</li> <li>Estimated cost = 5 villages x Rs.2</li> </ul>	14	18 months

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Sl. No.	Area of Concern	Name of the Village	Action Plan	Budget Allocated (in Lakhs)	Time Frame
			<p>lakhs = approximately Rs. 10 lakhs</p> <ul style="list-style-type: none"> <li>Step up of Transformers at Nimi and Saki villages. Estimated cost = Rs.2 lakhs x 2 villages = Rs.4 lakhs</li> </ul>		
<b>Total</b>				<b>95</b>	<b>18 months</b>

20. Greenbelt will be developed in 1.93 Ha which is about 33% of the total acquired area. A 10 m wide greenbelt, consisting of at least 3 tiers around plant boundary will be developed as greenbelt and green cover as per CPCB/MoEF&CC, New Delhi guidelines. Local and native species will be planted with a density of 2500 trees per hectare. Total numbers of plants required to cover 1.93 ha area is 4,800.

21. The proponent has mentioned that there is no court case or violation under EIA Notification to the project or related activity.

22. Name of Environment Consultant – M/s Vardan Environet. [S.L. No. 158, List of Accredited Consultant Organizations (Alphabetically) Rev. 81, October, 2019].

**Recommendations of the Committee:**

23. After detailed deliberations, the committee recommended the project for grant of Environmental Clearance under the provisions of EIA Notification, 2006 subject to subject to the following specific conditions in addition to the applicable general conditions as per the Ministry's Office Memorandum No. 22-34/2018-III dated 9/8/2018.

i. No groundwater drawl is permitted.

ii. Zero liquid discharge shall be adopted.

iii. 100 % waste utilization shall be followed.

iv. Particulate emission levels from the stacks shall be limited to 30 mg/Nm<sup>3</sup>.

**Decision of MoEF&CC**

24. The Ministry of Environment, Forest and Climate Change (MoEF&CC) has considered the application based on the recommendations of the Expert Appraisal Committee (Industry-I).

25. The proposal was further examined in light of the O.M. No. 22-23/2018-IA.III (pt) dated 31/10/2019 pertaining to the mechanism for consideration of projects located in Critically Polluted Areas (CPAs)/ Severely Polluted Areas (SPAs). It is hereby decided to accord

environmental clearance for project cited above as per the provisions of the EIA Notification, 2006 subject to the following specific and applicable general conditions prescribed in the O.M. No. 22-34/2018-IA.III dated 9<sup>th</sup> August, 2018 for Induction Furnace and Rolling Mills as well as other additional conditions prescribed as per the Ministry's O.M. dated 31/10/2019.

#### **A. Specific Conditions**

- i. No groundwater drawl is permitted.
- ii. Zero liquid discharge shall be adopted.
- iii. 100 % waste utilization shall be followed.
- iv. Particulate emission levels from the stacks shall be limited to 30 mg/Nm<sup>3</sup>.
- v. Green belt shall be developed in 40% of the total area and the compliance status shall be furnished to the Regional Office of the MoEF&CC along with the six monthly compliance report.
- vi. Monitoring of compliance of EC conditions shall be submitted with third party audit every year.
- vii. Amount earmarked towards Corporate Environmental Responsibility (CER) shall be enhanced from INR 95 lakhs to INR 136 lakhs (1.5 times of the slabs given in the O.M. dated 1/05/2018) as the project is located in Severely Polluted Area (SPA). Compliance status in this regard shall be furnished to the Regional Office of the MoEF&CC along with the six monthly compliance report.

#### **B. General Conditions**

##### **I. Statutory compliance:**

- i. The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State Pollution Control Board/ Committee.
- ii. The project proponent shall obtain the necessary permission from the Central Ground Water Authority, in case of drawl of ground water / from the competent authority concerned in case of drawl of surface water required for the project.
- iii. The project proponent shall obtain authorization under the Hazardous and other Waste Management Rules, 2016 as amended from time to time.

##### **II. Air quality monitoring and preservation**

- i. The project proponent shall install 24x7 continuous emission monitoring system at process stacks to monitor stack emission with respect to standards prescribed in Environment (Protection) Rules 1986 vide G.S.R 277 (E) dated 31<sup>st</sup> March 2012 (applicable to IF/EAF) as amended from time to time; S.O. 3305 (E) dated 7<sup>th</sup> December 2015(Thermal Power Plants) as amended from time to time) and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification

through labs recognised under Environment (Protection) Act, 1986 or NABL accredited laboratories.

- ii. The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through laboratories recognised under Environment (Protection) Act, 1986 or NABL accredited laboratories.
- iii. The project proponent shall install system carryout Continuous Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM<sub>10</sub> and PM<sub>2.5</sub> in reference to PM emission, and SO<sub>2</sub> and NOx in reference to SO<sub>2</sub> and NOx emissions) within and outside the plant area (at least at four locations one within and three outside the plant area at an angle of 120° each), covering upwind and downwind directions.
- iv. The project proponent shall submit monthly summary report of continuous stack emission and air quality monitoring and results of manual stack monitoring and manual monitoring of air quality / fugitive emissions to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.
- v. Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources.
- vi. The project proponent shall provide leakage detection and mechanized bag cleaning facilities for better maintenance of bags.
- vii. Sufficient number of mobile or stationery vacuum cleaners shall be provided to clean plant roads, shop floors, roofs, regularly.
- viii. Recycle and reuse iron ore fines, coal and coke fines, lime fines and such other fines collected in the pollution control devices and vacuum cleaning devices in the process after briquetting/ agglomeration.
- ix. The project proponent shall use leak proof trucks/dumpers carrying coal and other raw materials and cover them with tarpaulin.
- x. The project proponent shall provide covered sheds for raw materials like scrap and sponge iron, lump ore, coke, coal, etc.
- xi. The project proponent shall provide primary and secondary fume extraction system at all melting furnaces.
- xii. Design the ventilation system for adequate air changes as per ACGIH document for all tunnels, motor houses, Oil Cellars.

### **III. Water quality monitoring and preservation**

- i. The project proponent shall install 24x7 continuous effluent monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 vide G.S.R 277 (E) dated 31st March 2012 (applicable to IF/EAF) as amended from time to time; S.O. 3305 (E) dated 7th December 2015 (Thermal Power Plants) as amended from time to time) and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognised under Environment (Protection) Act, 1986 or NABL accredited laboratories.

- ii. The project proponent shall monitor regularly ground water quality at least twice a year (pre and post monsoon) at sufficient numbers of piezometers/sampling wells in the plant and adjacent areas through labs recognised under Environment (Protection) Act, 1986 and NABL accredited laboratories.
- iii. The project proponent shall submit monthly summary report of continuous effluent monitoring and results of manual effluent testing and manual monitoring of ground water quality to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.
- iv. Adhere to 'Zero Liquid Discharge'.
- v. Sewage Treatment Plant shall be provided for treatment of domestic wastewater to meet the prescribed standards.
- vi. The project proponent shall provide the ETP for effluents of rolling mills to meet the standards prescribed in G.S.R 277 (E) 31st March 2012 (applicable to IF/EAF) as amended from time to time.
- vii. Garland drains and collection pits shall be provided for each stock pile to arrest the run-off in the event of heavy rains and to check the water pollution due to surface run off
- viii. The project proponent shall practice rainwater harvesting to maximum possible extent.
- ix. The project proponent shall make efforts to minimize water consumption in the steel plant complex by segregation of used water, practicing cascade use and by recycling treated water.

#### **IV. Noise monitoring and prevention**

- i. Noise level survey shall be carried as per the prescribed guidelines and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.
- ii. The ambient noise levels should conform to the standards prescribed under E(P)A Rules, 1986 viz. 75 dB(A) during day time and 70 dB(A) during night time.

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#### **V. Energy Conservation measures**

- i. The project proponent shall provide waste heat recovery system (pre-heating of combustion air) at the flue gases of reheating furnaces.
- ii. Practice hot charging of slabs and billets/blooms as far as possible.
- iii. Ensure installation of regenerative type burners on all reheating furnaces.
- iv. Provide solar power generation on roof tops of buildings, for solar light system for all common areas, street lights, parking around project area and maintain the same regularly.
- v. Provide the project proponent for LED lights in their offices and residential areas.

## **VI. Waste management**

- i. Used refractories shall be recycled as far as possible.
- ii. Oily scum and metallic sludge recovered from rolling mills ETP shall be mixed, dried, and briquetted and reused melting Furnaces
- iii. 100% utilization of fly ash shall be ensured. All the fly ash shall be provided to cement and brick manufacturers for further utilization and Memorandum of Understanding in this regard shall be submitted to the Ministry's Regional Office.
- iv. The waste oil, grease and other hazardous waste shall be disposed of as per the Hazardous & Other waste (Management & Transboundary Movement) Rules, 2016.

## **VII. Green Belt**

- i. Green belt shall be developed in an area equal to 40% of the plant area with a native tree species in accordance with CPCB guidelines. The greenbelt shall inter alia cover the entire periphery of the plant.
- ii. The project proponent shall prepare GHG emissions inventory for the plant and shall submit the programme for reduction of the same including carbon sequestration including plantation.

## **VIII. Public hearing and Human health issues**

- i. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
- ii. The project proponent shall carry out heat stress analysis for the workmen who work in high temperature work zone and provide Personal Protection Equipment (PPE) as per the norms of Factory Act.
- iii. 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.
- iv. Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.

## **IX. Corporate Environment Responsibility**

- i. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 1<sup>st</sup> May 2018, as applicable, regarding Corporate Environment Responsibility.
- ii. The company shall have a well laid down environmental policy duly approve by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest / wildlife norms / conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest /

wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.

- iii. A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.
- iv. Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report.
- v. Self-environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.
- vi. All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the plants shall be implemented.

#### **X. Miscellaneous**

- i. The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.
- ii. The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
- iii. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
- iv. The project proponent shall monitor the criteria pollutants level namely; PM10, SO<sub>2</sub>, NO<sub>x</sub> (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.
- v. The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
- vi. The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.

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vii. The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.

viii. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.

ix. The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.

x. No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).

xi. Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.

xii. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.

xiii. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.

xiv. The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.

xv. The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.

xvi. Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

26. The PP shall obtain fresh environmental clearance in case of change in scope of the project if any.

27. This issues with the approval of Competent Authority.

Yours faithfully,

  
(A.K. Agrawal)  
Director

Copy to: -

1. Secretary, Department of Environment, Government of Jharkhand, Secretariat, Ranchi.
2. Deputy Director General (C), Ministry of Environment and Forest, Regional Office (ECZ), Bungalow No. A-2, Shyamali Colony, Ranchi-834002.
3. Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi-110032.
4. Chairman, Jharkhand State Pollution Control Board, T.A. Division Building (Ground Floor), HEC Campus, P.O. Dhurwa, Ranchi - 834004, Jharkhand.
5. Member Secretary, Central Ground Water Authority, West Block -II, Wing -3, Sector I, R.K.Puram, New Delhi – 110086.
6. District Collector, Ramgarh District, Jharkhand.
7. Guard File / Record File / Monitoring File.
8. MoEF&CC Website.



(A.K. Agrawal)  
Director