

F. No. IA-J-11011/74/2013-IA-II(I)
Government of India
Ministry of Environment, Forest and Climate Change
(Impact Assessment Division)

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Dated: 23rd June, 2021

To

✓ **Shri. D. S. Kalra,**
General Manager,
M/s. Vardhman Special Steels Limited,
C-58, C-59m Focal Point, Dhandari Kalan/Phase III,
Jamalpur, Ludhiana (East), Ludhiana – 141 010
Email: vardhmansteel18@gmail.com ; Tel: 161 2670707

Subject: Expansion of steel plant from 2,00,000 TPA of Rolled Steel to 2, 80,000 TPA of Rolled Steel by **M/s. Vardhman Special Steels Limited** located at Village Dhandari Kalan/ Jamalpur, Tehsil & **District Ludhiana, Punjab– Environment Clearance** – regarding.

Sir,

1. This refers to the online application of M/s. Vardhman Special Steels Limited has made vide proposal no. IA/PB/IND/212720/2019 dated 21/05/2021 along with copy of EIA/EMP report and Form– 2 seeking Environment Clearance (EC) under the provisions of the EIA Notification, 2006. The proposed project activity is listed at schedule no. 3(a) Metallurgical industries (ferrous & nonferrous) under Category 'B' of the schedule of the EIA Notification, 2006. However, due to the applicability of general condition i.e, the project site is located in a Focal Point Industrial Area Ludhiana which is a critically polluted area. Hence, the project is appraised at the central level as Category 'A'.
2. M/s.Vardhman Special Steel Limited has earlier made an online application vide proposal no. IA/PB/IND/190704/2013 dated 31/12/2020. The proposal was considered by the EAC (Industry 1) in its 28th meeting of the Re-constituted EAC (Industry-I) held on 18–20th January, 2021. After detailed deliberations, the Committee recommended to return the proposal in present form. Subsequently, the project proponent submitted revised application on 12/04/2021 which was considered by the EAC (Industry 1) in its 35th meeting held on 30th April, 2021. The Committee recommended to return the proposal in its present form as the project proponent has not submitted the revised EIA report by incorporating the observations made by the EAC in its meeting held on 18–20th January, 2021. Thereafter, proponent again submitted an online application vide proposal no. IA/PB/IND/212720/2019 dated 21/05/2021. The proposal was considered by the EAC (Industry 1) in its 37th meeting held on 31st May - 1st June, 2021. The proceedings of the said meetings are as given below:

Details submitted by Project proponent

3. The details of the ToR are furnished as below:

Date of Application	Consideration	Details	Date of Accord
24/09/2019	12 th meeting of EAC held on 22/10/2019	Terms of Reference	03/02/2020

4. The project of M/s. Vardhman Special Steels Limited located at Village Dhandari Kalan/ Jamalpur, Tehsil & District Ludhiana, Punjab is for expansion of steel plant from 2,00,000 TPA of Rolled Steel to 2,80,000 TPA of Rolled Steel.

5. Environmental Site Settings:

SNo	Particulars	Details
i.	Total land	11.23 ha/ 27.74 acres
ii.	Land acquisition details as per MoEF&CC O.M. dated 7/10/2014	Land is already acquired by VSSL
iii.	Existence of habitation & involvement of R&R, if any.	The proposed project is located in the existing site and hence does not involve Rehabilitation and Resettlement Plan(R&R).
iv.	Latitude and Longitude of the project site.	Latitude 30°53'12.60" N to 30°53'11.46" N Longitude 75°54'17.57" E to 75°54'19.77" E
v.	Elevation of the project site.	250 m
vi.	Involvement of Forest land if any.	Nil
vii.	Water body exists within the project site as well as study area	Project site: There is no natural nala or stream passing through the project site. Study area (1) Buddha Nala, 3.2 km, NNE (2) Sidhwan Canal (Sidhwan Branch), 4.7 km, SW (3) Sidhwan Canal (Abohar Branch), 10.9 km, S (4) Satluj River, 12.2 km, NNW
viii.	Existence of ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve etc. if any within the study area	Nil. However, the project falls in Critically Polluted Area (CPA).

6. The existing project was accorded environmental clearance vide lr.no. J-11011/74/2013-IA II (I) dated 30th June 2015. Consent to Operate for the existing unit was accorded by Punjab Pollution Control Board for (a) Water having consent no. CTOW/ Renewal/ LDH1/2021/15022260, with validity up to 31/03/2022 (b) Application for renewal of Air consent is pending which was submitted to PPCB on 30/01/2021 and is under process.

7. Implementation status of the existing EC:

S No	Facilities	Units	As per EC dated 30/06/2015	Status as on 24/04/2021	Production as per CTO
1.	Productivity Improvement Through Technological Upgradation of the Steel Melting Shop with Electric Arc Furnace from 1, 25,000 TPA to 2, 00,000 TPA	-	2,00,000 TPA	2,00,000 TPA	2,00,000 TPA

8. The unit configuration and capacity of existing and proposed unit are given as below:

S No	Facility and units	Existing capacity as per EC granted	Proposed enhancement	Cumulative capacity – post project scenario
1	Rolled steel production	2,00,000 TPA	80,000 TPA	2,80,000 TPA
2	Electrical Arc Furnace capacity (EAF)	33 T (30 T Nominal capacity)	5 T (Nominal Capacity)	40 T (35 T Nominal Capacity)
3	Ladle Refining Furnace capacity (LRF)	30 T	35 T	1x30 T + 1x35 T
4	Vacuum Degassing facility (VDF)	30 T (steam-based system)	35 T (Mechanical degassing system)	35 T (after up-gradation)
5	Continuous Casting Machine (CCM)	2 Strand	3 Strand will be installed	3 Strand (after Up-gradation of existing CCM)
6	Reheating Furnace (RF)	33 T/hr (Walking Hearth type)	45 T/hr (Walking Beam Type)	1x45 T/hr (1x33 T/hr will be dismantled)
7	Rolling Mill (RM)	180,686 TPA of rolled products	99,314 TPA of Rolled products	280,000 TPA rolled product
8	Fume Extraction System (FES) With Pulse Jet Cloth Bag Filter (Primary + Secondary)	4,60,000 Am ³ /h Common for EAF and LRF	Existing Fumes extraction and dust collection system (4,60,000 Am ³ /h) will be used exclusively for EAF system and new fumes extraction and dust collection system (1,55,000 Am ³ /h) for LRF	Existing Fumes extraction and dust collection system (4,60,000 Am ³ /h) will be used exclusively for EAF system and new fumes extraction and dust collection system (1,55,000 Am ³ /h) for LRF

9. The details of the raw material requirement for the proposed project/ expansion cum proposed project along with its source and mode of transportation is given as below:

S No	Raw Material	Quantity required TPA			Source	Distance from site (Km)	Mode of Transportation
		Existing	Expansion	Total			
1.	Purchased Scrap+ other Scrap	98,000	152,484	2,50,842	UK, USA, Europe, South Africa	1400	Trucks
2.	DRI	112,800	79,917	32,883	Maharashtra, Dubai	1700	Trucks
3.	Pig iron	5846	27,037	32,883	Chhattisgarh, Punjab, West Bengal	1500	Trucks
4.	Lime	20,000	3,280	23,280	Rajasthan	700	Trucks

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S No	Raw Material	Quantity required TPA			Source	Distance from site (Km)	Mode of Transportation
		Existing	Expansion	Total			
5.	Carburizers	3,000	1074	4074	Jharkhand, Gujarat, Madhya Pradesh	1500	Trucks
6	Refractories (SMS)						
6.1	Bricks	5000	1696	6693	China, Orissa	1500	Trucks
6.2	Ramming Mass	700	231	469	Uttar Pradesh	900	Trucks
6.3	Gunning Mass	300	230	530	Orissa	1500	Trucks
7	Refractories Rolling Mill	200	33	233	Maharashtra, Madhya Pradesh, West Bengal	1700	Trucks
8	Fuel & HSD						
8.1	Fuel Oil & HSD for SMS	2200	0	0	Uttar Pradesh	900	Trucks
8.2	Fuel Oil & HSD for Bar Mill	7000	0	0	Uttar Pradesh	900	Trucks
9	Graphite Electrodes	660	597	1257	Madhya Pradesh, West Bengal, Maharashtra	1500	Trucks
10	Process Gases						
10.1	Argon (1.786 kg/cum)	179	164	343	Punjab	200	Trucks
10.2	LPG (1.965 kg/cum)	315	829	1144	Punjab	200	Trucks
10.3	PNG (109,76,000 SCM/annum)	0	7464	7464	GAIL	200	Pipeline
11	Ferro-Alloys	6000	2148	8148	Chhattisgarh, Orissa, Maharashtra, West Bengal, Punjab	800	Trucks
12	Lancing Pipe	280	127	407	(Near Mumbai) Maharashtra	1700	Trucks
13	Other misc. items like T.C. Tips, Positherm Tips etc.	200	92	292	Noida (U.P.)	900	Trucks

10. The existing facility is utilizing 767 m³/day of fresh water for the entire facility as against the consented EC dated 26.06.2015 quantity of 773 m³/day of fresh water. After expansion, the water demand will come down marginally to 766 m³/day. The specific fresh water consumption in the facility will be reduced from current level of 1.34 m³/T of steel to 0.95 m³/T of steel during the post project scenario. The application for extraction of groundwater has been applied to PWRDA, Punjab region vide letter dated 04/03/2021 and the application is under process presently. No additional power is needed. The connected demand will be 36 MVA.

11. Baseline Environmental Studies:

Period	October -December 2019
AAQ parameters at 9 locations	PM _{2.5} = 46.0 to 84.6µg/m ³ PM ₁₀ = 99.5 to 179.3µg/m ³ SO ₂ = 13.1to25.2µg/m ³ NO _x =16.2 to 35.6µg/m ³ CO = 540 to790 mg/m ³
AAQ modelling	PM= <0.01µg/m ³ SO ₂ =11.3µg/m ³ NO _x = 10.3µg/m ³
Ground water quality at 7 locations	pH: 7.4 to 7.8, Total Hardness: 272.9 to 455.0mg/l, Chlorides: 49.1 to 85.7mg/l, Fluoride: 0.48 to 0.79mg/l. Heavy metals are within the limits.
Surface water quality at 4 locations	pH: 7.3 to7.8; DO:1.9 to 5.3mg/l and BOD: 2.2 to 52.7 mg/l COD from 14.7 to 281.2mg/l.
Noise levels	47.6 dB(A) to 58.9 dB (A) for the day time and 40.0 dB(A) to 54.1 dB(A) for the Night time.
Traffic assessment study findings	Total PCUs in the NH-44 and NH-95 are 8635 and 8946 respectively whereas the design capacity of each NH is 20000 PCU per day.
Flora and fauna	No Schedule-I fauna is found in the study area.

12. The details of solid and hazardous waste generation along with its mode of treatment/disposal is furnished as below:

S No	Item	Source	Quantity (TPA)	Pollution Control & Disposal
1.	Steel Melt Shop			
1.1.	EAF Slag	Melting of various raw materials used in EAF like Steel Scrap, Revert Scrap, Gas based DRI, Coal based DRI, Pig Iron	30700	Whole quantity (EAF & LRF) to be sold to M/s Lafarge Holcim (India) group- ACC cement PPC
1.2.	LRF Slag	Ladle Refining Furnace	4656	
1.3.	CCM scale	Cooling of continuous cast billets in CCM	1746	Sold to M/s TK Enterprises , in turn goes to Sinter Plants in Gujarat and Vishakhapatnam
1.4.	Fine dust from waste gases	From EAF & LRF	4365	Dust is packed in HDPE bags and handed over to TSDF, Nimbua, Derabassi, approved agency

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S No	Item	Source	Quantity (TPA)	Pollution Control & Disposal
1.	Steel Melt Shop			
2.	Rolling Mill			
2.1	Mill scale	From Reheating furnace & Rolling mill	4074	Sold to M/s Singhvi Traders link LLP, in turn goes to Sinter Plants in Gujarat and Vishakhapatnam
3.	C & D Waste	Construction and demolition waste within the plant	5343	Metal scrap used in house as raw material Partly used within the premises Remaining quantity handed over to petty contractors

13. Public Consultation:

Details of advertisement given	10/10/2020
Date of public consultation	10/11/2020
Venue	MCL Park, Near Gate No.2 of VSSL", District - Ludhiana, Punjab
Presiding Officer	Sh. Amarjit Bains, Additional Deputy Commissioner (Gen), Ludhiana
Major issues raised	<p>i. The industry shall clarify as to whether there will be any job opportunities with the expansion of the project.</p> <p>ii. The industry shall clarify as to whether there will be any additional water requirement with the expansion of the project.</p> <p>iii. The industry shall clarify as to whether there will be any job opportunities with the expansion of the project as he is a daily wage earner and his current work is seasonal.</p> <p>iv. The industry shall take a pledge to continue the plantation work after expansion in the same manner as is being done at present.</p> <p>v. Appreciated the efforts done by the industry towards Society under CSR initiatives and expansion of the project will create employment opportunities for all local people.</p> <p>vi. The industry shall clarify as to whether there will be any job opportunities for the women with the expansion of the project.</p> <p>vii. The industry shall clarify as to whether any maintenance and development of the road in surrounding areas can be initiated by it under CSR.</p>

Action plan as per MoEF&CC O.M. dated 30/09/2020

Detail of query/ statement/ information/ clarification sought by the person present at the venue of hearing	Reply of the query / statement / information / clarification given by the project proponent	Cost	Time of compliance
The industry shall clarify as to whether there will be any job opportunities with the expansion of the project.	The project proponent informed that the employment will be generated with the expansion of the project and vacancies shall be filled as per project.	Included in Project Cost	As per expansion requirement

Detail of query/ statement/ information/ clarification sought by the person present at the venue of hearing	Reply of the query / statement / information / clarification given by the project proponent	Cost	Time of compliance
	the requirement & as per qualification of the persons.		
The industry shall clarify as to whether there will be any additional water requirement with the expansion of the project.	The project proponent informed that no additional water will be required in the expansion project and arrangements have been made to utilize the industrial wastewater @300 KLD of the pickling units after treatment from J.B.R. Technologies.	Included in Project Cost	After getting EC
The industry shall clarify as to whether there will be any job opportunities with the expansion of the project as he is a daily wage earner and his current work is seasonal.	The project proponent informed that the employment will be generated with the expansion of the project and vacancies shall be filled as per the requirement & as per qualification of the persons. He further informed that even trainings shall be imparted to the newly recruited persons under Corporate Social Responsibility Rules as per the roles assigned to them.	Included in Project Cost	As per expansion requirement
The industry shall take a pledge to continue the plantation work after expansion in the same manner as is being done at present.	The project proponent informed that the plantation shall be carried out as per the Social Forestry Program in the villages, Schools and other areas allocated by the Local bodies.	20,00,000	5 years
He appreciated the efforts done by the industry towards Society under CSR initiatives and expansion of the project will create employment opportunities for all local people.	The project proponent informed that their company shall continue to give support to the society under the CSR.	-	5 years
The industry shall clarify as to whether there will be any job opportunities for the women with the	The project proponent informed that the employment will be generated with the expansion of the project and vacancies shall be filled as per the requirement & as per	Included in Project Cost	As per expansion requirement

Environmental Clearance for "Expansion of steel plant from 2,00,000 TPA of Rolled Steel to 2,80,000 TPA of Rolled Steel by M/s. Vardhman Special Steels Limited located at Village Dhandori Kalan, Jamanpur, Tehsil & District Ludhiana, Punjab."

Detail of query/ statement/ information/ clarification sought by the person present at the venue of hearing	Reply of the query / statement / information / clarification given by the project proponent	Cost	Time of compliance
expansion of the project.	qualification of the persons which shall include the both. He further informed that even trainings shall be imparted to the newly recruited persons under Corporate Social Responsibility as per the roles assigned to them.		
The industry shall clarify as to whether any maintenance and development of the road in surrounding areas can be initiated by it under CSR.	The project proponent informed that the maintenance and construction of the roads under CSR can only be done with due permission of the Local Bodies/ Govt. Departments.	20,00,000	5 years

14. The capital cost of the project is Rs. 169 Crores and the capital cost for environmental protection measures is proposed as Rs. 27.88 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs 5.81 Crores. The estimated manpower after completion of the project shall be 1435 personnel comprising administrative, technical, nontechnical, Skilled & un-skilled work force. The details of cost for environmental protection measures is as follows:

Aspect	CAPEX (Rs. Lakhs)	OPEX (Rs. Lakhs)
Upgrading the existing FES for meeting the PM level of <30 mg/Nm ³ in the EAF gas streams	250	170
Installing of dedicated FES and bag filter system for LRF gas stream	300	120
Installation of additional dust collection systems at raw material handling and material transfer areas	50	5
Various fugitive dust control systems such as dry fog system, water sprinkler, road dust vacuum cleaning systems etc.	180	20
Replacing the existing fuel oil fired boiler with mechanical pin vacuum pump for steel mill vacuum degassing facility	1000	180
Installing new STP and Upgrading the internal pipe network for recycling treated sewage within the plant + Extension of sewerage line	50	5
Installation of 100 m ³ /day RO plant for recycling treated sewage and ETP water	200	53
Developing additional greenbelt within the facility and also community plantation	40	2
Extending air quality management and plantation programs outside the facility in association with Nagar Palika under CSR programs	150	5
Building additional storage facilities and disposal of industrial solid waste such as slag and scales	30	0

Aspect	CAPEX (Rs. Lakhs)	OPEX (Rs. Lakhs)
Building additional storage facilities and disposal of industrial hazardous waste such as FES dust to TSDF facility	10	0
Continuous emission monitoring an ambient air quality monitoring system	100	4
Domestic waste management programs as per MSW Rules 2016	10	3
Noise abatement programs	0.45	6
Rain water additional harvesting programs and local watershed development activities under CSR activities	84	2
Installation of piezometric wells and water flow meters as per CGWB guidelines and Jal Sakthi notification	10	0.5
3 No Rain Water Harvesting Pits inside the Plant	24	1.5
1200 KL treated Water underground storage Tank	150	2
Extension of Drainage line + Rain water / Storm Water storage	150	2
Total	2788.45	581

15. Greenbelt/ Plantation will be developed in 3.7 ha which is about 33.17% of the total project area including existing Plantation in the project site. A 4 m wide green belt, consisting of at least 3 tiers around plant boundary will be developed as green belt and green cover to the extent possible as per CPCB/ MoEF&CC, New Delhi guidelines. In addition, for completing 40% of tree plantation, plantation will be done in additional 2 acres of acquired land within Focal Point.

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

17. Name of EIA consultant: M/s. GreenC India Consulting Pvt. Ltd. [S.No.152, Certificate no. NABET/ EIA/1922/ RA 0159 and valid up to 27/10/2022; Rev. 10, May 13, 2021].

18. Control measures proposed to mitigate the anticipated pollution level:

A. Air quality management

- i. Reducing the PM emissions from 50 mg/Nm³ to less than 30 mg/Nm³
- ii. Phasing out FO fired boiler to avoid SO₂, NO_x and PM emissions
- iii. Utilizing clean fuel (PNG) for heating purposes in line with Regional Air Quality Management Strategy of Punjab Pollution Control Board
- iv. Additional fugitive dust control measures: vacuum cleaning of roads; dust extraction system for RMHS; and dry fog dust suppression system for material storage yard
- v. Predicted GLCs of PM₁₀ is Below Detectable Limits

Parameter	Current scenario	Post expansion scenario	Net Reduction	% change from current scenario
Fuel oil consumption (KL/Annum)	9200	Nil	(9200)	(100%)
Natural gas (MSCM/Annum)	Nil	11.0	-	100% cleaner fuel
PM (kg/day)	455.2	357.5	(97.7)	(21.5%) Reduction

Parameter	Current scenario	Post expansion scenario	Net Reduction	% change from current scenario
SO ₂ (kg/day)	2496.5	846.7	(1649.8)	(66.0%) Reduction
NO _x (kg/day)	276.8	207.3	(69.5)	(25%) Reduction
Water consumption (m ³ /day)	767.0	766.0	1	(0.13%) Reduction

B. Water management

- Specific water consumption will be significantly reduced by elimination of steam based Vacuum Degassing.
- Installation of STP and RO unit for recycling of wastewater and sewage
- Reuse of indirect contact water blow down for direct contact water System
- Commitment to use 300 KLD treated effluent from J.B.R. Technologies(CETP), Ludhiana
- ZLD will be implemented

C. Solid waste management

- Hazardous Waste Management disposal practices will be continued as per Hazardous and Other Waste (Management and Trans-boundary Movement) Rules 2016, as amended to date.
- MOU signed with ACC Cement plant to utilize 100% of the slag generated

D. Greenbelt

- Fully grown 2070 trees are existing in the greenbelt covering area of 3.01 Acres within the plant boundary
- Additional 5000 long plantation will be done in additional 6.19 Acres land within the plant boundary to comply with 33% Greenbelt requirement
- 2 Acres of land within Focal Point - for greenbelt to meet 40% requirement.
- High Air Pollution Tolerance Index (APTI) species such as Ficus religiosa (Peepal), Ficus benghalensis (Banyan), Ficus glomerata (Gular), Azadirachta indica (Neem), Albizia lebeck (Siris), Moringa oleifera (Mungna), Tamarindus indica (Tamarind) and Holoptelea integrifolia (Indian Elm) selected for plantation.

Certified compliance report from Regional Office:

19. The Status of compliance of earlier EC was obtained from Northern Regional Office, Chandigarh vide letter no.5-452/2013-RO (NZ)/87, dated 06.02.2020 in the name of M/s. Vardhman Special Steels Limited. As per the report, the unit is complying with the stipulated EC conditions.

Observations of the Committee

20. The Committee observed the following:

- The EAC found that the revised EIA/EMP report is in order reflecting the present environmental concerns and the projected scenario for all the environmental components arising out of the proposed project with respective mitigation measures.
- The EAC also noted that PP is switching over the fuel from Furnace oil to PNG in order to reduce the emission levels.
- The EAC also deliberated on the certified compliance report from RO, public hearing issues as well as action plan to address the issues raised during public hearing and

found it satisfactory.

Recommendations of the Committee

21. In view of the foregoing and after detailed deliberations, the committee recommended the instant proposal for grant of Environment Clearance under the provisions of EIA Notification, 2006 subject to the stipulation of specific conditions and general conditions as per the Ministry's Office Memorandum No. 22-34/2018-III dated 9/8/2018 based on project specific requirements.

Decision of MoEF&CC

22. The Ministry of Environment, Forest and Climate Change has examined the proposal in accordance with the Environment Impact Assessment (EIA) Notification, 2006 & further amendments thereto and after accepting the recommendations of the Expert Appraisal Committee (Industry-1) hereby decided to grant Environment Clearance for instant proposal of M/s. Vardhman Special Steels Limited under the provisions of EIA Notification, 2006 subject to the following specific conditions and general conditions as per the Ministry's Office Memorandum No. 22-34/2018-III dated 9/8/2018 based on project specific requirements:

A. Specific conditions

- i. Overall emissions of PM, SO₂ and NO_x shall not exceed the values [PM = 357.5 kg/day; SO₂ = 846.7 kg/day and NO_x = 207.3 kg/day] as committed by the proponent post expansion.
- ii. Use of Furnace Oil as a fuel will be prohibited for the existing and expansion project post expansion. Project proponent shall use PNG for heating purposes in line with Regional Air Quality Management Strategy of Punjab Pollution Control Board.
- iii. Particulate Matter emissions from all the stacks shall be less than 30mg/Nm³.
- iv. Specific water consumption after expansion shall maintained at 0.95 m³/ T of steel as committed by the PP.
- v. 300KLD treated water from CETP of M/s. JBR technologies shall be used in expansion project.
- vi. All roads shall be made Pucca and a vacuum cleaner shall be used to clean the roads.
- vii. Community Rain Water Harvesting (RWH) shall be taken up to recharge 230000 KLA of water which is more than the annual consumption of the plant.
- viii. Green belt inside the plant at present is only 3.01 Acres. Additional 6.19-acre land inside the plant shall be covered under green belt to make it 35 %. Two-acre land adjacent to the plant in the Focal Point has been given by authorities, which shall be planted and maintained by project proponent. Total green belt after this shall be 40 % of the total project area.
- ix. 100 % slag generated in the facility shall be utilized.
- x. All stockyards shall be having impervious flooring and shall be equipped with water spray system for dust suppression. Stock yards shall also have garland drains to trap the run off material.

B. General conditions

I. Statutory compliance:

- i. The Environment Clearance (EC) granted to the project/ activity is strictly under the provisions of the EIA Notification, 2006 and its amendments issued from time to time. It does not tantamount/ construe to approvals/ consent/ permissions etc., required to be obtained or standards/conditions to be followed under any other Acts/Rules/Subordinate legislations, etc., as may be applicable to the project.

II. Air quality monitoring and preservation

- i. The project proponent shall install 24x7 continuous emission monitoring system at process stacks to monitor stack emission as well as Continuous Ambient Air Quality Station (CAAQS) for monitoring AAQ parameters with respect to standards prescribed in Environment (Protection) Rules 1986 as amended from time to time. The CEMS

- and CAAQMS shall be connected to SPCB and CPCB online servers and calibrate these systems from time to time according to equipment supplier specification through labs recognized 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 recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.
 - iii. Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed stack emission and fugitive emission standards.
 - iv. The project proponent shall provide leakage detection and mechanized bag cleaning facilities for better maintenance of bags.
 - v. The project proponent shall ensure covered transportation and conveying of ore, coal and other raw material to prevent spillage and dust generation.
 - vi. The project proponent shall provide primary and secondary fume extraction system at all heat treatment furnaces.
 - vii. Wind shelter fence and chemical spraying shall be provided on the raw material stock piles.
 - viii. Design the ventilation system for adequate air changes as per prevailing norms for all tunnels, motor houses, Oil Cellars.

III. Water quality monitoring and preservation

- i. 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 recognized under Environment (Protection) Act, 1986 and NABL accredited laboratories.
- ii. 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.
- iii. Sewage Treatment Plant shall be provided for treatment of domestic wastewater to meet the prescribed standards.
- iv. 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.

IV. Noise monitoring and prevention

- i. Noise quality shall be monitored as per the prescribed Noise Pollution (Regulation and Control) Rules, 2000 and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.

V. Energy Conservation measures

- i. Energy conservation measures may be adopted such as adoption of solar energy and provision of LED lights etc., to minimize the energy consumption.

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 in melting Furnaces.
- iii. Kitchen waste shall be composted or converted to biogas for further use.

VII. Green Belt

- i. 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. Occupational health surveillance of the workers shall be done on a regular basis and records maintained.

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 30/09/2020.
- ii. The company shall have a well laid down environmental policy duly approved 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 report to the head of the organization.

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 environmental 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, SO2, NOx (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.
- 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 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.
- ix. 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).
- x. 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.
- xi. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- xii. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
- xiii. 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.
- xiv. 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.

23. This issues with the approval of the Competent Authority.


(Sundar Ramanathan)
Scientist 'E'

Copy to:-

1. The Secretary, Science, Technology and Environment Department, Government of Punjab, Punjab Civil Secretariat, Chandigarh.
2. Regional Officer, Ministry of Environment, Forests and Climate Change, Integrated Regional Office, Bays No. 24-25, Sector 31-A, Dakshin Marg, Chandigarh-160 030.
3. Chief Wildlife Warden, Govt. of Punjab, Tower No. 2, IInd Floor, Forest Complex Sec-68, Mohali-160068.
4. Chairman, Central Pollution Control Board, Parivesh Bhavan, CBD-cum-Office complex, East Arjun Nagar, New Delhi-1100032.
5. Member Secretary, Central Ground Water Authority, A-2, W3, Curzon Road Barracks, K.G. Marg, New Delhi-110001.
6. Chairman, Punjab Pollution Control Board, Vatavaran Bhawan, Nabha Road, Patiala, Punjab-147 001.
7. District Collector, Ludhiana District, Punjab.
8. Guard File//Record File/Monitoring File
9. MoEF&CC website.


(Sundar Ramanathan)
Scientist 'E'