

F. No. J-11011/4/2020-IA-II(I)
Government of India
Ministry of Environment, Forest and Climate Change
(Impact Assessment Division)

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Dated: 1st February, 2021

To

Shri. Rahul,
Vice President,
M/s. Ramkrishna Forging Limited (Plant V),
Village Baliguma, P.O.Kolabira,
Thana – Saraikela, District Saraikela-Kharswan
Jharkhand - 832109
Tel: 0657-2326900; E-mail: rk_bagaria@rediffmail.com

Subject: Enhancement of production capacity of various Forged, Machined & Finished products from 80,000 TPA to 130,000 TPA by addition of forging Press Lines 1 x 2000T, 1 x 2500T, 1 x 6300T and Hollow Spindle Line along with installation of matching Machining and Finishing facilities by **M/s. Ramkrishna Forgings Limited (Plant V)** located at Village: Bholadih, P.O: Kolabira, **Dist: Saraikela-Kharsawan, Jharkhand – Environment Clearance** – regarding.

Sir,

1. This refers to the online application of **M/s. Ramkrishna Forgings Limited (Plant V)** made vide proposal no. IA/JH/IND/183069/2014 dated 14/12/2020 along with copy of EIA/EMP report and Form – 2 seeking Environment Clearance (EC) under the provisions of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at 3(a) Metallurgical industries (ferrous & non-ferrous) under Category “B1” of the schedule of the EIA Notification, 2006. The project is located within 5 km distance from the Severely Polluted Area namely, Saraikela Jharkhand and therefore being appraised at Central Level (*As per MoEF&CC office memorandum dated 31.10.2019 any project or activity specified in Category# B1 will be appraised at central level if located in whole or part within 5 km from Severely Polluted area*).
2. The aforesaid proposal was considered in the 27th meeting of the EAC (Industry -1) held on 30-31st December, 2020. The proceedings of the said meetings are furnished as below.

Details submitted by the project proponent

3. The detail of the ToR is furnished as below:

Date of application	Consideration	Details	Date of accord
31/12/2019	15 th meeting held on 16 th –17 th of January, 2020	Terms of Reference	24/01/2020

Environmental Clearance for “Enhancement of production capacity of various Forged, Machined & Finished products from 80,000 TPA to 130,000 TPA by addition of forging Press Lines 1 x 2000T, 1 x 2500T, 1 x 6300T and Hollow Spindle Line along with installation of matching Machining and Finishing facilities by M/s. Ramkrishna Forgings Limited (Plant V) located at Village: Bholadih, P.O: Kolabira, Dist: Saraikela-Kharsawan, Jharkhand”.

Date of application	Consideration	Details	Date of accord
07/06/2020	20 th meeting held on 25 th -26 th of June, 2020	Amendment in ToR	14/07/2020

4. The project of M/s Ramkrishna Forgings Limited (Plant V) located in village: Bholadih, Tehsil: Kolabira, District: Saraikela-Kharsawan, Jharkhand is for enhancement of production of various Forged, Machined & Finished products from 0.08 million TPA to 0.13 million TPA by addition of forging Press Lines 1 x 2000T, 1 x 2500T, 1 x 6300T and Hollow Spindle Line along with improvement in operational parameters.
5. The existing project was accorded environmental clearance vide Ir. No. EC/SEIAA/2014-15/516/2014/1929 dated on 23.11.2015. It has been reported that the Consent to Operate from the Jharkhand State Pollution Control Board is obtained vide Lr. No. JSPCB/HO/RNC/CTO-1031235/2017/382 dated on 11.04.2017 and consent is valid up to 30.09.2021.

6. The following are the existing and proposed plant configuration and production capacity:

Units	Existing Units		Proposed Units		Final Configuration	
	Unit	Production TPA	Unit	Production TPA	Unit	Production TPA
Various Forged, Machined & Finished Components						
Press Line	1x12500 T 1x4500 T 1x3150 T 1x6300 T	80,000 (Various Forged, Machined & Finished Product)	1x2000T 1x2500T 1x6300T	50,000 Various Forged, Machined & Finished Product	1x12500 T 1x4500 T 1x3150 T 1x2000T 1x2500T 2x6300T	130,000 (Various Forged, Machined & Finished Product)
Hollow Spindle Line	-	-	1x800T & 1x1250T		1x800T & 1x1250T	
<ul style="list-style-type: none"> Machining and finishing facilities (Phosphating & Painting) will be expanded to match with additional production Existing Shot Blasting & Heat Treatment facilities will be augmented, if required, for the enhance production 						

7. The project will be installed in the existing plant area of 10.02 ha. Project does not envisage additional land for the project. No forest land is involved. The entire land (10.02 ha) is already under possession of project proponent. No river passes through the project area. It has been reported that no water body exists around the project and modification/diversion in the existing natural drainage pattern at any stage has not been proposed.
8. The topography of the area is flat and reported to lies between 22°47'44.1"N to 22°47'58.4"N Latitude and 86°1'28.5"E to 86°1'42.4"E Longitude in Survey of India topo sheet No. 73 J/1, 73 J/2, 73 F/13 & 73 F/14, at an elevation of 160 m AMSL. The groundwater table reported to ranges between 12.20 mbgl to 5.23 mbgl during pre-monsoon season and 0.89 to 5.60 mbgl during post-monsoon season.

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9. 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 have corridor for Schedule-I fauna. The authenticated list of Flora and Fauna provided through the DFO Saraikela district reported no schedule-I Fauna in the study area.

10. The major raw material required for the project is as follows:

S. No.	Raw Material	Quantity required per annum			Source	Mode of Transportation
		Existing	Expansion	Total		
Press Lines						
1.	Steel billets / rounds / various	109,824 Tons	68,176 Tons	178,000 Tons	Tata Steel/JSW /SAIL	Road
Consumable						
1.	Propane Gas	2,750 kl	2,450 kl	5,200 kl	-	-
2.	Oil for Quenching	125 kl	75 kl	200 kl	-	-
3.	Polymer for	250 kl	150 kl	400 kl	-	-

11. The targeted production capacity after expansion will be 0.13 MTPA. The steel billets/ blooms/ rounds used as raw material for the plant would be procured from the Tata Steel/JSW/SAIL. The transportation of the billets to the plant will be done through the road.

12. The water requirement of the project is estimated as 492.8 m³/day. Water requirement will be fulfilled from groundwater through 5 number of Bore wells. Permission for withdrawal of 495 KLD of groundwater is obtained from CGWA vide NOC No. CGWA/NOC/IND/REN/1/2019/5564 (valid up to 25/11/2020). Application for renewal of NOC is submitted to CGWA on 30.10.2020 which is under process.

13. The power requirement of the project is estimated as 20 MW. Power shall be taken from JUSCO. Company has the permission for 15.5 MW, necessary permission for the additional 4.5 MW shall be obtained for JUSCO.

14. Baseline Environmental Studies

Period	1 st December to 29 th February, 2020
AAQ parameters at eight locations	PM _{2.5} = 20.4 to 54.0 µg/m ³ PM ₁₀ = 51.0 to 86.2 µg/m ³ SO ₂ = 7.8 to 23.4 µg/m ³ NO _x = 11.4 to 36.5 µg/m ³
AAQ modelling	PM ₁₀ = 0.5855 µg/m ³ SO ₂ = 0.8347 µg/m ³ NO _x = 0.6973 µg/m ³
Ground water quality at eight locations	pH: 7.25 to 7.58, Total Hardness: 234.12 to 285.10 mg/l, Chlorides: 57.15 to 121.42 mg/l, Fluoride: 0.64 to 1.31mg/l. Heavy Metals are within the limit.
Surface water quality at eight locations	pH: 7.24 to 7.74, DO: 4.1 to 5.8 mg/L and BOD: 8.0 to 14.25 mg/L, COD: 28.0 to 51.10 mg/l.
Noise levels	54.5 to 69.5 dB(A) for the day time and 49.2 to 61.5 dB(A) for the Night time.

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15. It has been reported that no R&R is involved in the project as the expansion is to be done within the existing plant premises.

16. It has been reported that a total of 63,683 TPA of solid waste and 35 kl/year of waste quenching oil will be generated due to the project, out of which 63,000 TPA of solid waste will be given to Steel Industries, 500TPA will be given to Ferrous Sulphate Plants and 183TPA of Sludge and 35kl of Waste Quenching oil will be given to the Cement company for co-processing in Cement kiln. It has been envisaged that an area of 3.30 ha will be developed as greenbelt around the project site to attenuate the noise levels and trap the dust generated due to the project development activities.

Sl. No.	Type of Waste	Generation in Tons per year		Management
		Existing	Total after Expansion	
1.	Sludge from Phosphating Process	15	90	Will be dried in sludge bed and packed in HDPE bags. Will be given to the <u>ACC Cement Plant, Chaibasa Cement Works</u> for co-processing in their kiln
2.	Sludge from Spray Painting Booth	60		
3.	ETP Sludge	65	93	
4.	Quenching Sludge	20	35	
5.	Used Oil	2 kl	3.5 kl	Will disposed through registered recyclers

17. The Public Hearing for the aforesaid project was held on 12/10/2020 at Birbans Panchayat Bhawan, Village: Birbans, Tehsil: Kolabira, Distt: Saraikela-Kharsawan, Jharkhand under the chairmanship of Deputy Development Commissioner. The issues raised during public hearing are the Employment for Locals, Construction of a School, Staircase at the pond, separate Toilet for male & Female and boundary wall of the existing school in Baliguma village. An amount of Rs. 851.41 lakhs (1.44% of the Project Cost) has been embarked to address the issues raised during public consultation.

S. No.	Name & Village of Participant	Issues Raised	Action plan		
			Commitment	Time Frame	Proposed Budget
1.	1. Smt. Panno Devi, Bholadih 2. Shri Ganesh Tudu, Gram Pradhan, Bholadih 3. Shri Mukesh Verma, Bholadih	To Open a school in the village. To construct boundary wall of the existing school in village	<ul style="list-style-type: none"> School will be constructed in Gopidih village Boundary wall of the existing school will be constructed 	24 months	Budget of Rs. 704.13 lakhs are kept for the construction of new school in the village.
2.	1. Shri Raghunath, Hembhram Chaura 2. Shri Mukesh Verma, Bholadih	To construct Separate toilet for male and female in the School.	<ul style="list-style-type: none"> Separate toilets for male and female will be constructed in the village 	10 months	Budget of Rs. 4.46 lakhs will be allocated for the construction.

S. No.	Name & Village of Participant	Issues Raised	Action plan		
			Commitment	Time Frame	Proposed Budget
		To construct Stairs at the nearby pond for bathing purpose	school Stair construction at two different locations will be done at the village pond		of Toilets Stair construction at the pond will be done spending Rs. 1.07 lakhs.
3.	1. Smt, Vishakha Devi, Bholadih 2. Shri Ganesh Tudu, Gram Pradhan, Bholadih	To construct a Hospitals and enhance the existing medical facility in the village Bholadih	Construction of hospital will be done in Baliguma village	18 months	Budget of Rs 125 lakhs shall be spent on the construction of Hospital.

18. The capital cost of the project is Rs. 591.18 crores and the capital cost for the environmental protection measures is proposed as Rs. 345.6 lakhs. The annual recurring cost towards the environmental protection measures is proposed as Rs. 41.4 lakhs. The employment generation from the proposed expansion is 302 Nos.

19. The details of cost for environmental protection measures is as follows:

Sl. No.	Environmental Protection Measures	Capital Cost Rs. In Lakhs	Recurring Cost Rs. In Lakhs/Yr.
1.	Air Pollution Control Measures	50.0	5.0
2.	Water Pollution Control Measures and Rainwater Harvesting	205.0	10.0
3.	Solid Waste / Hazardous Waste Management	35.0	14.0
4.	Greenbelt Development	30.6	2.4
5.	Firefighting & Safety Measures	25.0	10.0
TOTAL		345.6	41.4
Budget for implementation of commitments made to address the issues raised during the public hearing		851.41	
TOTAL EMP BUDGET		1197.01	

20. As per the specific TOR point (vii) in additional TOR granted by MoEF&CC on 14.07.2020, greenbelt development plan covering 40% of the total area to be furnished. Accordingly, 4.01 ha area has to be covered under greenbelt out of 10.02 ha total plant area. Out of this 4.01ha of area, 3.30 ha is available and is already developed as greenbelt within the plant premises. M/s Ramkrishna Forgings Limited has done agreement for purchase of an additional land of 1.169 ha (2.89 Acres) area located at Mouza: Domjuria, P.S.: Saraikela, District: Saraikela-Kharsawan, Jharkhand for greenbelt development. This patch of land is located at the distance of approx. 4km in WSW direction from the plant site. A total budget of Rs. 30.60 lakhs is allocated for the development of greenbelt by planting 3200 number of plants in the total area of 4.469 ha (3.30 ha within the plant premises and 1.169 ha near to plant area).

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 the EIA consultant: M/s Vardan Environet [S.No. 39, List of ACOs with their Certificate / Extension Letter no. Rev. 05, Dec. 18, 2020].

Observations of the Committee

23. The Committee noted the following:
- i. The Committee noted that the EIA/EMP report was in order reflecting the present environmental concerns and the projected scenario for all the environmental components. The Committee has also found that the baseline data reported and incremental GLC due to the proposed project are within NAAQ standards.
 - ii. The Committee satisfied with the compliance status of the existing EC conditions as reported by the RO except for green belt development.
 - iii. The Committee also deliberated on the public hearing issues as well as action plan to address the issues raised during public hearing and found it satisfactory.

Recommendations of the Committee

24. In view of the foregoing and after 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

25. 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 expansion proposal of M/s Ramkrishna Forgings Limited (Plant V)** 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. All roads shall be made Pucca and a vacuum cleaner shall be used to clean the roads.
- ii. Propane gas shall be used for heat treatment
- iii. Particulate Matter emissions from the stacks shall be less than 30mg/Nm³.
- iv. Existing ETP shall be upgraded to treat the additional effluent from expansion
- v. Rainwater Harvesting shall be done to recharge 100 % of annual water consumption.
- vi. Treated effluent from the plant shall be reused and recycled.
- vii. Since the project falls within 5 kms of Severely Polluted Area, green belt shall be planted in 40 % of the total plant area with a density of 2500 trees per ha of land. Further, as proposed by the PP, 1.169 ha of land outside project boundary which has been acquired by the PP shall be used only for the plantation purpose.

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

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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. Adhere to 'Zero Liquid Discharge'.
- iii. 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.

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. 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 and also estimate carbon sequestration by the plantations.

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

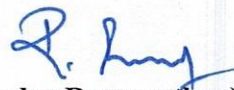
- i. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 30/09/2020.
- ii. The company shall have a well laid down environmental policy duly approved by the Board of Directors. The environmental policy should prescribe for standard 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, NO_x (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

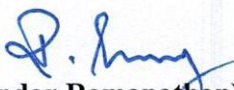
- portal.
- vi. The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
 - vii. The project 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.

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


(Sundar Ramanathan)
Scientist 'E'

Copy to:-

1. Secretary, Department of Environment, Government of Jharkhand, Secretariat, Ranchi.
2. Regional Officer, 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, Saraikela Kharsawan District, Jharkhand.
7. Guard File / Record File / Monitoring File.
8. MoEF&CC Website.


(Sundar Ramanathan)
Scientist 'E'