

**F. No. J-11011/478/2017-IA-II(I)**  
Government of India  
Ministry of Environment, Forest and Climate Change  
(Impact Assessment Division)

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Dated: 19<sup>th</sup> February, 2018

To,

**The Director**

M/s JMD Alloys Ltd. (JMDAL)  
Village Deokuli, NH-30 Bihta,  
District Patna, Bihar  
Tel No.: 06115 286294

**Subject: Expansion of Re-rolling mill by installation of new 30 T Rolling Mill Furnace (from 13000 TPA to 180500 TPA) by M/s JMD Alloys Ltd. (JMDAL) located at Village Deokuli, Bihta, District Patna, Bihar—Environmental Clearance regarding.**

Sir,

This has reference to your online application vide **proposal no. IA/BR/IND/67762/2017** dated **29<sup>th</sup> August 2017** along with the copies of EIA/EMP seeking Environmental Clearance under the provisions of the EIA Notification, 2006 for the above mentioned proposed project. The proposed project activity is listed at Sl. No. 3(a) Metallurgical industries (ferrous & non-ferrous) under Category "B" EIA Notification, 2006 and due to non-existence of the SEIAA in the state of Bihar the proposal is appraised at Central level.

2.0 The proposed Rolling Mill and Induction Furnace project of M/s JMD Alloys Ltd., is located near Village Deokuli, Block Bihta, Dist. Patna, State Bihar, was initially received in SEIAA, Bihar on 11<sup>th</sup> February 2017 for obtaining Terms of Reference (ToR) as per EIA Notification, 2006. The project was appraised by the State Expert Appraisal Committee [Bihar] during its meeting held on 07<sup>th</sup> March 2017 and prescribed ToRs to the project for undertaking detailed EIA study for obtaining environmental clearance. Accordingly, SEIAA, Bihar had prescribed ToRs to the project on 16.03.2017 vide Lr. Ref. No. 570.

3.0 The present proposal of M/s JMD Alloys Ltd., is for enhancement of production of MS/TMT Bar from 13000 tonnes per annum (TPA) to 180500 tonnes per annum (TPA). The project is located near Village Deokuli, Block Bihta, Dist. Patna, State Bihar. The existing project was established in the year 1994 and at present installed capacity of 22500 TPA MS Ingot Production and Rolling Mill of 13000 TPA. Secondary metallurgical processing industry was not listed in the Schedule I of EIA Notification 1994 for obtaining Environment Clearance (EC). Therefore, environmental

*EC for the proposed expansion of Re-rolling mill by installation of new 30 T Rolling Mill Furnace (from 13000 TPA to 180500 TPA) by M/s JMD Alloys Ltd. (JMDAL) at Village Deokuli, Bihta, District Patna, Bihar*

clearance was not required for existing project. The Bihar State Pollution Control Board has granted Consent Order for the existing unit vide Ref. No. T-7937 dt: 06.10.2016 & Ref. No. T-7936 dt: 06.10.2016 for the period of 3 years and valid up to 31.12.2018.

4.0 Now, it is proposed to expand the production capacity of Re-rolling mill from 13000 TPA to 180500 TPA and proposed to discontinue the operations of Induction furnace. The capacity of the plant after proposed expansion is as follows:

Manufacturing Facilities	Product	Existing capacity	Proposed Expansion	Total Capacity
Induction Furnace	MS Ingot/Billet	22500 MT/Annum	No Expansion (Plant is not under operation)	Plant is closed and operation will be discontinued
Re-rolling Mill Furnace	TMT Bars/Rods	13000 MT/Annum	167500 MT/Annum	180500 MT/Annum

5.0 The total land required for the project is 6.44 Acres, which is owned by project proponent. No forestland involved. The entire land has been acquired for the project. No River passes through the project area. It has been reported that no water body exist around the project and modification/diversion in the existing natural drainage pattern at any stage has not been proposed. Land Utilization detail for proposed expansion is as under:

Sl	Land utilization	Existing (Ha.)	For Expansion (Ha.) (From existing land)	Total after Expansion (Ha.)
1	Main Plant	0.513	0.31	0.820
2	Storage area	0.505	0.10	0.606
3	Utilities and Office Area	0.230	0.00	0.230
4	Green Belt Area	0.343	0.51	0.861
5	Unused Vacant Space	1.010	0.08	0.085
	Total	2.602		2.602

6.0 The topography of the area is flat and reported to lies between 25°36'3.63"N to 25°36'12.25"N Latitude and 84°51'54.82"E to 84°52'0.01"E Longitude in Survey of India topo sheet No. 72 C/14 at an elevation of 51 m AMSL. The ground water table reported to ranges between 2.53 – 3.24 m. below the land surface during the post-monsoon season and 3.05 – 4.42 m. below the land surface during the pre-monsoon season. Based on the hydro-geological study, it has been reported that the radius of influence of pumped out water will be 500 m. Further, the stage of groundwater development is

reported to be 55% in core and buffer zone and thereby these are designated as safe areas.

7.0 No National Park / Wildlife Sanctuary / Biosphere Reserve / Tiger Reserve / Elephant Reserve etc. are reported in the core and buffer zone of the project. The area also does not report to from corridor for Schedule-I fauna.

8.0 The production facilities inter alia include Induction Furnace (MS Ingot / Billet); and Re-rolling Mill (TMT Bar/Rods). Product wise raw materials requirement for the proposed project, source of raw materials & its transportation is mentioned in table below:

Raw Material	Existing raw material requirement (TPA)	Proposed raw material requirement (TPA)	Source	Mode of transport
MS Ingot / Billet	13780	181583	From local MS Ingot / Billet manufactures at Patna and from Jharkhand	Through Road in Closed Trucks
Indonesian Coal	1200	16500	From Kolkata Port	Through Road in closed trucks

9.0 The targeted production capacity of the project is 180500 TPA. The raw materials for the plant would be procured from local suppliers in Bihar & Jharkhand. The transportation of raw materials will be done through Road.

10.0 The water requirement of the project is estimated as 20 m<sup>3</sup>/day, which will be obtained from the borewells inside premises. Applied for permission for drawl of groundwater from CGWB vide Application No. 21-4/306/BR/IND/2017 dated 28.07.2017.

11.0 The power requirement of the project is estimated as 21000 KVA, which will be obtained from the BSEB Grid.

12.0 Baseline Environmental Studies were conducted during pre-monsoon season i.e. from March to May'2017. Ambient air quality monitoring has been carried out at 8 locations during March to May'2017 and the data submitted indicated: PM<sub>10</sub> (48.3 µg / m<sup>3</sup> to 140.9µg / m<sup>3</sup>), PM<sub>2.5</sub> (32.3 to 85.4µg/m<sup>3</sup>), SO<sub>2</sub> (11.2 to 37.0µg/m<sup>3</sup>) and NO<sub>x</sub> (31.4 to 64.7µg/m<sup>3</sup>). The results of the modelling study indicated that the maximum increase of GLC for the proposed project is 3.86µg/m<sup>3</sup> with respect to the PM<sub>10</sub>.

13.0 Ground water quality has been monitored in 8 locations in the study area and analysed. pH: 6.64 to 7.86, Total Hardness: 196.0 to 312.0 mg/ l, Chlorides: 10 to 32 mg/ l, Fluoride: 0.18 to 0.42 mg/l. Heavy metals are within the limits except Arsenic concentration of 0.015 & 0.018 mg/l.

Surface water samples were analysed from 2 locations. pH: 7.12 to 7.18; DO: 5.4 to 5.8 mg/ l and BOD: 2.0 to 2.5 mg/ l. COD from 8.0 to 12.0 mg/l.

14.0 Noise levels are in the range of 42.2 to 60.3 dB(A) for daytime and 33.8 to 45.0 dB(A) for night-time.

15.0 It has been reported that there are no people in the core zone of the project. No R&R is involved. It has been envisaged that no families to be rehabilitated as the project site is located within existing industry.

16.0 It has been reported that a total of 10050 tons of waste will be generated due to the project, which will be recycle and reused back in process for production of MS Ingot/Billet within existing plant premises. It has been envisaged that an area of 0.86 ha will be developed as green belt around the project site to attenuate the noise levels and trap the dust generated due to the project development activities.

17.0 The Public hearing of the project was held on 29<sup>th</sup> Jul.'2017 at PWD Inspection Bungalow at Bihta, Dist. Patna, State Bihar under the chairmanship of Sri Sanjiv Kumar, Sub-Divisional Officer, Danapur (nominated representative of DM Patna), District: Patna (Bihar) for production of 180500 TPA MS/TMT Bars. The issues raised during public hearing inter alia include Air, Water and Noise pollution; employment generation; development of green belt; etc.

18.0 An amount of 61.45 Lakhs (2.5 % of Project cost) has been earmarked for Enterprise Social Commitment based on public hearing issues. The details of Enterprise Social Commitment based on public hearing issues are as given below:

Sl	ESC Activities	Amount in Lakhs					Total
		Upto Dec.' 2018	Upto Dec.' 2019	Upto Dec.' 2020	Upto Dec.' 2021	Upto Dec.' 2022	
1	Scholarship award to unprivileged Students	1.00	1.00	1.25	1.00	1.25	5.50
2	LED Lighting in streets of nearby Villeges	1.00	1.50	1.50	1.00	1.00	6.00
3	Hand pump setting up in community areas	1.50	2.00	2.00	2.00	1.50	9.00
5	Arrangement of separate Toilet and urinals for boys and girls in schools	5.00	5.00	5.00	5.00	5.00	25.00
6	Arrangement of Skill development programs for youths	2.00	3.00	3.00	4.00	3.95	15.95
	<b>TOTAL AMOUNT</b>	10.50	12.50	12.75	13.00	12.70	61.45

19.0 The capital cost of the project is Rs. 24.58 Crores and the capital cost for environmental protection measures is proposed as Rs. 85 Lakhs. The annual recurring cost towards the environmental protection measures is proposed as Rs. 15 Lakhs. The employment generation from the proposed expansion project is 50 nos. (indirect manpower).

Sl	Particulars	Amount in INR, Lakhs
One Time Installation Cost		
1	Installation of Air Pollution Control System	85.00
2	Green Belt Development	15.00
	<b>Total Capital cost</b>	<b>100.00</b>
Recurring Cost / Annum		
3	Annual recurring cost	15.00

20.0 Greenbelt has been developed in 0.86 Ha which is about 33% of the total acquired area. Local and native species have been planted with a density of 2500 trees per hectare. Total no. of 1000 saplings will be planted and nurtured within premises in 5 years.

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

22.0 The Project Proponent along with EIA Consultant, **M/s Consulting Engineers Group Ltd. (CEG)** (Sl. No. 28 of Rev. 57 Sep 05, 2017) made detailed presentation on the proposal.

23.0 The proposal was considered by the Expert Appraisal Committee (Industry-I) during its 23<sup>rd</sup> meeting held during 9<sup>th</sup> - 10<sup>th</sup> October, 2017; 24<sup>th</sup> meeting held during 13<sup>th</sup> - 15<sup>th</sup> November, 2017 and further considered in the 27<sup>th</sup> meeting held during 3<sup>rd</sup> to 5<sup>th</sup> January, 2018. After detailed deliberations, the committee recommended the project for environmental clearance subject to Specific and General conditions in addition to any other conditions stipulated by the Ministry during the processing of application.

24.0 The Ministry of Environment, Forest and Climate Change has considered the application based on the recommendations of the Expert Appraisal Committee (Industry-I) and hereby decided to grant Environmental Clearance for the proposed expansion of Re-rolling mill by installation of new 30 T Rolling Mill Furnace (from 13000 TPA to 180500 TPA) by M/s JMD Alloys Limited under the provision of EIA Notification dated 14<sup>th</sup> September, 2006, as amended, subject to strict compliance of the following Specific and General conditions:

**A. SPECIFIC CONDITION:**

1. An amount of Rs 61.45 Lakhs proposed towards Enterprise Social Commitment (ESC) shall be utilized as capital expenditure in project

mode. The project shall be completed in concurrence with the implementation of the expansion and estimated on the basis of Scheduled Rates.

2. Green belt shall be developed in 1.00 Ha with a native tree species in accordance with CPCB guidelines. The greenbelt shall inter alia cover the entire periphery of the plant.
3. The Capital cost Rs. 85.00 Lakhs and annual recurring cost Rs. 15.00 Lakhs towards the environmental protection measures shall be earmarked separately. The funds so provided shall not be diverted for any other purpose.
4. Kitchen waste shall be composted or converted to biogas for further use.

**B. GENERAL CONDITIONS:**

1. The project proponent shall (Air Quality Monitoring):
  - a. install 24x7 continuous emission monitoring system at all the stacks to monitor stack emission with respect to parameters prescribed in G.S.R 414 (E) dated 30<sup>th</sup> May 2008 as amended from time to time and connected to CPCB online;
  - b. monitor fugitive emissions in the plant premises;
  - c. carryout Continuous Ambient Air Quality monitoring as per National Ambient Air Quality Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16<sup>th</sup> November, 2009 (as amended from time to time) within and outside the plant area at least at four locations covering upwind and downwind directions at an angle of 120° each; and
  - d. submit monitoring report to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.
2. The project proponent shall (Water Quality Monitoring):
  - a) install 24x7 continuous effluents monitoring system at all the discharge points to monitor treated effluents with respect to parameters prescribed in G.S.R 414 (E) dated 30<sup>th</sup> May 2008 as amended from time to time;
  - b) monitor regularly ground water through sufficient numbers of piezometers in the plant and adjacent areas; and
  - c) submit monitoring report to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.
3. The project proponent shall (Air Pollution Control):
  - a) provide appropriate Air Pollution Control (APC) system for all the dust generating points including fugitive dust from all vulnerable sources;

- b) design suitable capacity of bag filters to handle gas/air shall be 150% of the normal flow from process/ from suction hoods to achieve particulate emission to less than 30 mg/Nm<sup>3</sup>;
  - c) provide leakage detection and mechanized bag cleaning facilities for better maintenance of bags;
  - d) provide sufficient number of mobile or stationery vacuum cleaners to clean plant roads, shop floors, roofs regularly;
  - e) 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;
  - f) use leak proof trucks/dumpers carrying coal and other raw materials and cover them with tarpaulin;
  - g) provide covered sheds for raw materials like scrap and sponge iron, lump ore, coke, coal, etc.;
  - h) provide primary and secondary fume extraction system at all melting furnaces; and
  - i) design the ventilation system for adequate air changes as per ACGIH document for all tunnels, motor houses, Oil Cellars.
4. The project proponent shall (Water Pollution Control):
- a) adhere to 'zero liquid discharge';
  - b) provide Sewage Treatment Plant for domestic wastewater; and
  - c) Provide ETP for removal of all rolling mills.
5. The project proponent shall (Water Conservation):
- a) practice rainwater harvesting to maximum possible extent; and
  - b) make efforts to minimise water consumption in the steel plant complex by segregation of used water, practicing cascade use and by recycling treated water.
6. The PP shall (Energy Conservation):
- a) provide waste heat recovery system (pre-heating of combustion air) at the flue gases of reheating furnaces.
  - b) practice hot charging of slabs and billets/blooms as far as possible;
  - c) ensure installation of regenerative type burners on all reheating furnaces;
  - d) 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; and
  - e) Provide the project proponent for LED lights in their offices and residential areas.
7. Used refractories shall be recycled as far as possible.

8. Sufficient number of colour coded waste collection bins shall be constructed at the shop floors in each shop to systematically segregate and store waste materials generated at the shop floors (other than Process waste) in designated coloured bins for value addition by promoting reuse of such wastes and for good housekeeping.
9. Oily scum and metallic sludge recovered from rolling mills ETP shall be mixed, dried, and briquetted and reused melting Furnaces.
10. The PP shall prepare GHG emissions inventory for the plant and shall submit the programme for reduction of the same including carbon sequestration including plantation.
11. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
12. The PP 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.
13. The PP shall adhere to the corporate environmental policy and system of the reporting of any infringements/ non-compliance of EC conditions at least once in a year to the Board of Directors and the copy of the board resolution shall be submitted to the MoEF&CC as a part of six-monthly report.
14. All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Induction/ Electric Arc Furnace and Rolling Mills shall be implemented.
15. A dedicated environmental cell with qualified personnel shall be established. The head of the environment cell shall report directly to the head of the organization.
16. 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.
17. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
18. 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).
19. The waste oil, grease and other hazardous waste shall be disposed of as per the Hazardous & Other waste (Management & Transboundary Movement) Rules, 2016.
20. The ambient noise levels should conform to the standards prescribed under EPA Rules, 1989 viz. 75 dB(A) during day time and 70 dB(A) during night time.
21. Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.



22. The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA/EMP report.

23. The project proponent shall (Post-EC monitoring):

- a. send a copy of environmental clearance letter to the heads of Local Bodies, Panchayat, Municipal bodies and relevant offices of the Government;
- b. put on the clearance letter on the web site of the company for access to the public.
- c. inform the public through advertisement within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB and may also be seen at Website of the Ministry of Environment, Forests and Climate Change (MoEF&CC) at <http://envfor.nic.in>.
- d. upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same periodically;
- e. monitor the criteria pollutants level namely; PM<sub>10</sub>, 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;
- f. submit six monthly reports on the status of the compliance of the stipulated environmental conditions including results of monitored data (both in hard copies as well as by e-mail) to the Regional Office of MoEF&CC, the respective Zonal Office of CPCB and the SPCB;
- g. 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;
- h. inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of commencing the land development work.

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

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

27.0 The PP shall abide by all the commitments and recommendations made in the EIA/EMP report and that during their presentation to the EAC. The commitment made by the project proponent to the issue raised during Public Hearing shall be implemented by the proponent.

28.0 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.

29.0 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.

This issues with the approval of Competent Authority.

*Sharath*  
*19/2/18*  
**(Sharath Kumar Pallerla)**  
**Scientist 'F' / Director**

**Copy to:-**

1. **The Secretary**, Department of Environment, Government of Bihar, Secretariat, Patna.
2. **The Additional Principal Chief Conservator of Forests(C)**, Ministry of Environment, Forest and Climate Change, Regional Office (ECZ), Bungalow No. A-2, Shyamali Colony, Ranchi – 834002.
3. **The Chairman**, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi-110032.
4. **The Chairman**, Bihar State Pollution Control Board Beltron Bhawan, Shastri Nagar Jawahar Lal Nehru Marg Patna (Bihar) - 800 023
5. **The Member Secretary**, Central Ground Water Authority, A-2, W3, Curzon Road Barracks, K.G. Marg, New Delhi-110001.
6. **The District Collector, Patna District**, Bihar.
7. **Guard File / Record file / Monitoring file.**
8. **MOEF&CC Website.**

*Sharath*  
*19/2/18*  
**(Sharath Kumar Pallerla)**  
**Scientist 'F' / Director**