

F. No. J-11011/245/2008-IA.II(I)  
Government of India  
Ministry of Environment, Forest and Climate Change  
(Impact Assessment Division)

Indira Paryavaran Bhawan  
Jor Bagh Road, Aliganj,  
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Tel: 011-24695368

Dated: 7<sup>th</sup> August, 2019

To

The Vice President  
M/s Balasore Alloys Ltd.  
Balgopalpur Industrial Estate, Balgopalpur  
Balasore – 756020, Orissa.

**E-mail: [mail@balasorealloys.com](mailto:mail@balasorealloys.com) ; Fax No. 06782-275724**

**Subject:** Enhancement of Ferro Alloys Plant (145000 TPA to 160000 TPA) by M/s. Balasore Alloys Limited through process optimization within existing plant premises at Balgopalpur Industrial Estate, Balgopalpur, District- Balasore (Odisha) – **Environmental Clearance – Expansion under para 7(ii) of the EIA Notification, 2006.**

Sir,

1. This refers to the application of M/s. Balasore Alloys Limited made vide proposal no. IA/OR/IND/79886/2018 dated 13<sup>th</sup> October 2018 seeking environmental clearance under para 7(ii) of EIA Notification, 2006 for enhancement of Ferro Alloys Plant (145000 TPA to 160000 TPA) through process optimization within existing plant premises at Balgopalpur Industrial Estate, Balgopalpur, District- Balasore (Odisha). 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 proposal cited above was considered during the 1<sup>st</sup> meeting of Reconstituted Expert Appraisal Committee [REAC] (Industry-I) held on 26-28<sup>th</sup> November, 2018. The EAC proceedings of the proposal cited above is given as below.

**Details submitted by the Project Proponent:**

3. Environmental Clearance for the existing plant was issued by MoEF&CC, New Delhi vide letter no. J-11011/245/2008-IA II (I) dated 25<sup>th</sup> August, 2008, and revalidated on 3<sup>rd</sup> March, 2016. Consent to Operate vide letter number 15883/IND-I-CON-1616 dated 31<sup>st</sup> Oct., 2016 has already been obtained by the company.
4. The existing furnaces along with its capacity is furnished as below:

S.No.	Details of furnaces	Capacity (MVA)	Product slate
i.	Furnace No.1	18	Fe-Cr: 1,45,000 TPA (OR)
ii.	Furnace No.2	15	

*Environmental Clearance for expansion of Ferro Alloys Plant (145000 TPA to 160000 TPA) by M/s. Balasore Alloys Limited through process optimization within existing plant premises at Balgopalpur Industrial Estate, Balgopalpur, District- Balasore (Odisha).*



S.No.	Details of furnaces	Capacity (MVA)	Product slate
iii.	Furnace No.3	15	Si-Mn: 1,45,000 TPA (OR) Fe-Mn: 1,45,000 TPA
iv.	Furnace No.4	18	
v.	Furnace No.5	18	
	Total	84 MVA	

5. The proposed product enhancement is given as below:

Product	Existing (TPA)	Proposed (TPA)	Total (TPA)	Remarks
Ferro Alloy Plant (Fe-Cr/Si-Mn/Fe-Mn)	1,45,000	15,000	1,60,000	Enhancement by process optimization

6. Certified compliance for the existing EC was obtained from Eastern Regional Office of MoEF&CC, Bhubaneswar vide letter number 101-456/EPI/3485 dated 12th Dec., 2017 and closure report of all the observations made during the issuance of certified compliance report via letter no. 101-456/EPE/496 dated 20th Feb., 2018.

7. The detailed design engineering undertaken after the grant of environmental clearance, it was inferred that the production quantity can be increased without incurring any change in the existing facility or any extra pollution load due to the cumulative result of effective furnace operation, consistency in feed raw material quality, monitoring of process parameters, preventive maintenance, zero breakdown & automation of furnace operation achieving by adopting various efficiency measures like Six Sigma & TPM. For this proposed enhancement there will be no change in the existing plant and machinery and no additional requirement of land and water. Proposed enhancement will be done by

- Process optimization within existing plant facility.
- Improvement in power factor from 0.82 to 0.87 - by optimizing the furnace operation
- Improvement in the load factor from 0.90 to 0.92 - by improving the maintenance practices
- Improvement in operating load factor from 0.93 to 0.96 - by introducing automation and controls
- By sourcing good quality sized ore
- By increasing the number of working days from 338 to 342 days/annum.

8. Moreover, this is a part of the organizations policy to produce more from less thus, the Specific consumption of raw material will come down because of increased scale of production. Also, there will be no additional pollution load. However specific power consumption per ton of power is decreasing from 3.47 to 3.45 MWH. Therefore, with the increase in number of operating days from 338 to 342 days/ annum and process optimization the company will be able to achieve enhanced capacity (from 145000 TPA to 160000 TPA).

9. The project has environmental benefits as well. There will be no change in water consumption however specific power consumption per ton of power is decreasing from 3.47 to 3.45 MWH. Further the company commits to voluntarily reduce emissions from 100 mg/Nm<sup>3</sup> (as per last granted EC) to 60 mg/Nm<sup>3</sup> by changing the filter cloth. For this there will be no change in the capital expenditure but will come into revenue expenditure. This will further reduce the stack emissions to more than 30%.



**Observations of the Committee: -**

10. The project proponent has made a detailed presentation which brought the following to the notice of the Committee:

- The proposal involves change in the raw material quality to optimize power consumption, reduce water consumption and consumption of raw materials, while increasing the production by about 10%, thereby resulting in to reduced capacity of power plant from 3.47 MWh to 3.45 MWh; reduction in stack emission from 100 mg/Nm<sup>3</sup> to 60 mg/Nm<sup>3</sup> and no change in water consumption i.e. 900 KLD. The pollution load is also expected to come down as the carbon and water foot print reduced. It also follows that the specific consumption of water and energy and also the specific pollution load would also come down.
- In view of above, the proposed changes are welcome from the environmental point of view and merit consideration under para 7(ii) of the EIA Notification, 2006. However, the Committee also noted that the project proponent had not gone for public hearing while the current EC was granted as condition of PH was not mandatory at that point of time. The Committee deliberated the matter at length. Normally, in cases where PH has not been gone through in the past, fresh public hearings are prescribed. But PH would require preparation of fresh EIA report which may take at least 6 months to one-year time. On the other hand, the PP proposes to reduce the required quantum of raw material, energy and water and also proposes to reduce the pollution load. These estimated reductions are not only in specific terms (per ton of production) but also in absolute terms. In such a situation, asking them to go for fresh EIA report and PH would amount to asking the PP continue to operate at higher pollution and resource consumption levels and these demands serious consideration.

**Recommendations of the Committee: -**

11. The Committee, after detailed deliberations as mentioned above, suggests that the MoEF&CC may consider accepting the proposal without necessity of EIA/EMP and PH.


**Decision of MoEF&CC**

12. 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 accord environmental clearance for enhancement of Ferro Alloys Plant (145000 TPA to 160000 TPA) through process optimization within existing plant premises at Balgopalpur Industrial Estate, Balgopalpur, District- Balasore (Odisha) under para 7(ii) of the EIA Notification, 2006 subject to following additional conditions:

- i. All other terms and conditions prescribed in environmental clearance vide File No. J-11011/245/2008-IA.II (I) dated 25/08/2008 shall remain unchanged.

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

14. This issues with the approval of Competent Authority.

  
(A.K. Agrawal)  
Director



**Copy to:-**

1. **The Secretary**, Department of Environment, Government of Odisha, Secretariat Bhubaneswar.
2. **The Deputy Director General(C)**, Ministry of Environment, Forest and Climate Change, Regional Office (EZ), A/3, Chandersekharapur, Bhubaneswar – 751023.
3. **The Chairman**, Odisha State Pollution Control Board, Parivesh Bhawan, A/118 Nilakantha Nagar, Unit-VIII, Bhubaneswar-751012.
4. The Member Secretary, Central Ground Water Authority, West Block –II, Wing -3, Sector I, R.K.Puram, New Delhi – 110086.
5. **The District Collector**, Balasore District, State of Odisha.
6. **Guard File / Record file / Monitoring file.**
7. **MOEF&CC Website.**



**(A.K. Agrawal)**  
**Director**



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Government of India  
Ministry of Environment, Forest and Climate Change  
(I.A. Division)

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New Delhi - 110003  
E-mail: [satish.garkoti@nic.in](mailto:satish.garkoti@nic.in)  
Tel: 011- 24695316

Dated: 3<sup>rd</sup> March, 2016

To

**M/s Balasore Alloys Ltd**  
Balgopalpur Industrial Estate,  
Balasore, Odisha

**Email:** [mail@balasorealloys.com](mailto:mail@balasorealloys.com); **Fax No. – 06782 275724**

**Subject:- Expansion of Ferro Alloy Plant (95000 TPA to 145000 TPA) at Balgopalpur Industrial Estate, Balasore, Odisha by M/s Balasore Alloys Ltd Extension of validity of EC regarding.**


Sir,

This has reference to your online application No. -IA/OR/IND/30245/2008 dated 20.8.2015 along with updated Form-I requesting Ministry for extension of validity of the Environmental Clearance (EC) for the project mentioned above. The Environmental Clearance for the project was granted by the Ministry vide letter No. J-11011/245/2008-IA.II(I) dated 25.08.2008.

2.0 The Ferro alloy Plant of M/s Balasore Alloys Ltd. located at Balgopalpur Industrial Estate, Balasore was accorded Environmental Clearance by the Ministry for enhancement in production capacity from 95000TPA to 1,45,000TPA, with increase of Furnace Transformer capacity from 57 MVA to 84 MVA. It has been mentioned that the company could not take up the enhancement programme due to recession in global and domestic market within validity period. Now, with increasing demand of Ferro Alloys both in local as well as international market, the Company has decided to commence the plant operation for enhanced capacity as mentioned above and therefore, as per amendment Notification dated 29.4.2015, an online application dated 20.8.2015 has been submitted to MoEFCC. It was requested by the project proponent to extend the validity of EC for further period of 3 years up to 24<sup>th</sup> August, 2018.

3.0 The above proposal was considered by the Expert Appraisal Committee (Industry-I) during its 1<sup>st</sup> meeting held on 18<sup>th</sup> – 20<sup>th</sup> November, 2015. The committee after detailed deliberation recommended the proposal of extension of validity of EC dated 25<sup>th</sup> August 2008 for further period of 3 years i.e. up to 24<sup>th</sup> August, 2018.

4.0 The Ministry accepts the recommendation of the EAC (Industry) and hereby extend the validity of the Environmental Clearance J-11011/245/2008-IA.II (I) dated 25.08.2008 for further period of 3 years i.e. upto 24.08.2018 under the provisions of EIA Notification, 2006, as amended.





5.0 All the conditions stipulated in the environmental clearance letter No. J-11011/245/2008-IA.II(I) dated 25.08.2008 shall remain the same.

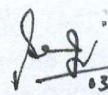
6.0 The company shall obtain fresh environmental clearance in case of any change in the scope of the project.

This issues with the approval of the Competent Authority.

**(Dr.Satish C.Garkoti)**  
**Scientist 'F'**

**Copy to:-**

1. The Secretary, Department of Environment, Government of Odisha.
2. The Chairman, Central Pollution Control Board, Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, New Delhi, 110 032.
3. The Additional Principal Chief Conservator of Forests (C), Ministry of Environment, Forest and Climate Change, Regional Office (EZ), A/3, Chandersekharpur, Bhubaneswar - 751023
4. The Chairman, Orissa Pollution Control Board, "Paribesh Bhawan, A/118, Nilakantha Nagar, Unit-VIII, Bhubaneswar-751012.
5. Guard File / Record File/Monitoring file.

  
**(Dr.Satish C.Garkoti)**  
**Scientist 'F'**

F. No. J-11011/245/2008- IA II (I)  
**Government of India**  
**Ministry of Environment and Forests**  
**(I.A. Division)**

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 New Delhi – 110 003

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 Telefax : 011: 2436 7668

Dated 25<sup>th</sup> August, 2008

To, ✓  
 M/s. Balasore Alloys Limited  
 Balgopalpur Industrial Estate,  
 Balasore, Orissa

E-mail : [mail@balasorealloys.com](mailto:mail@balasorealloys.com) ; Fax No. : 06782-275724

**Subject : Expansion of Ferro Alloy Plant (95,000 TPA to 1,45,000 TPA) at Balgopalpur Industrial Estate, Balasore, Orissa by M/s. Balasore Alloys Limited – Environment clearance reg.**

**Ref. : Your letter no. BAL/MoEF/18MVA/1860 dated 6<sup>th</sup> March, 2008.**

Sir,

This has reference to your letter no. BAL/MoEF/18MVA/1860 dated 6<sup>th</sup> March, 2008 alongwith application in Form I, draft Terms of Reference and EIA/EMP and subsequent clarifications furnished by you vide your letter dated 6<sup>th</sup> March, 2008, 17<sup>th</sup> April, 2008, 28<sup>th</sup> June, 2008 and 3<sup>rd</sup> July, 2008 for environmental clearance on the above mentioned project.

2.0 The Ministry of Environment and Forests has examined the application. It is noted that proposal of M/s Balasore Alloys Limited has proposed to expand its existing Ferro Alloy Plant at Balgopalpur Industrial Estate, Balasore, Orissa. The total land allotted by Orissa Industrial Infrastructure Development Corporation (IDCO) is 45.205 acres and proposed expansion will be within the existing plant premises. No national parks/wild life sanctuary/reserve forest is located within 10 km radius. Total cost of the project will be Rs. 90.00 Crores. Proposed expansion involves the upgradation of existing furnaces to 18 MVA as per details given below:

Furnace No.	Existing capacity	Capacity after expansion
I	12 MVA	18 MVA
II	15 MVA	15 MVA
III	15 MVA	15 MVA
IV	7.5 MVA	18 MVA
V	7.5 MVA	18 MVA
Total MVA	57 MVA	84 MVA
Total Production	95,000 TPA	1,45,000 TPA

Following will be manufactured :

S. N.	Products	Existing capacity	Proposed capacity	Total capacity after expansion
1.	Ferro Chrome	95,000 TPA	50,000 TPA	1,45,000TPA
2.	Silico Managanese	95,000 TPA	50,000 TPA	1,45,000TPA
3.	Ferro Manganese	95,000 TPA	50,000 TPA	1,45,000TPA

2.0 Bag filters will be provided to the furnaces to control emissions less than 100 mg/Nm<sup>3</sup>. Dust suppression system involving water sprinkling will be adopted to control fugitive emissions. Total ground water requirement will be 355 KLD. Water will be recycled in a closed circuit. No process effluent will be generated. Metal will be recovered from the slag in metal recovery plant and slag falling will be properly disposed off. Fume dust will be fed into briquette plant for reuse.

3.0 No public hearing/ consultation is required due to project being located in notified notified Balgopalpur Industrial Estate, Balasore, Orissa as per Section (iii), Stage (3), Para (i)(b) of EIA Notification, 2006.

4.0. The Ministry of Environment and Forests hereby accords environmental clearance to the above project under the provisions of EIA Notification dated 14<sup>th</sup> September, 2006 subject to strict compliance of the following specific and general conditions:

**A. SPECIFIC CONDITIONS:**

- i) Continuous monitoring facilities for all the stacks and sufficient air pollution control equipments viz. fume extraction system with bag filters, 1 D fan and stack of adequate height to submerged arc furnace shall be provided to control emissions below 100 mg/Nm<sup>3</sup>. The Orissa Pollution Control Board may specify more stringent standards for the relevant parameters keeping in view the nature of the industry and its size and location. At no time, the emission level shall go beyond the prescribed standards. Interlocking facilities shall be provided so that process can be automatically stopped in case emission level exceeds the limit.
- ii) Fume extraction system with bag filters shall be provided to control the gaseous emissions from submerged arc furnace and shall be discharged into the atmosphere through stacks of adequate height as per CPCB guidelines. The outlet dust emission shall not exceed 100 mg/Nm<sup>3</sup>. Dust suppression system like water spraying shall be provided at unloading and raw material handling areas to control fugitive dust emissions to meet the OPCB norms. Water spraying shall also be done to prevent the dust emanation due to vehicular movement.
- iii) Secondary fugitive emissions from all the sources shall be controlled within the latest permissible limits issued by the Ministry and regularly monitored. Guidelines / Code of Practice issued by the CPCB shall be followed.



- iv) Vehicular pollution due to transportation of raw material and finished product shall be controlled. Proper arrangements shall also be made to control dust emissions during loading and unloading of the raw material and finished product.
- v) Total ground water requirement shall not exceed 355 m<sup>3</sup>/day. Closed circuit cooling system shall be adopted to reduce water consumption. Cooling under blow down shall be treated and all the treated wastewater shall be used for dust suppression, green belt development and other plant related activities within the plant premises. No wastewater shall be discharged outside the factory premises and 'Zero' discharge shall be adopted.
- vi) Prior permission for the drawl of 355 m<sup>3</sup>/day ground water from the Central State Ground Water Board / Ground Water Authority (SGWB/CGWA) shall be obtained.
- vii) Proper handling, storage, utilization and disposal of all the solid waste shall be ensured and regular report regarding toxic metal content in the waste material and its composition, end use of solid/hazardous waste shall be submitted to the Ministry's Regional Office at Bhubaneswar, OPCB and CPCB.
- viii) Chromate slag shall be used for road making only after passing through Toxic Chemical Leachability Potential (TCLP) test. Otherwise, Ferro chrome shall be recovered from the slag and output waste shall be disposed in secured landfill as per CPCB guidelines.
- ix) Product fines, fume dust shall not be dumped anywhere else but reused in the process. SAF slag shall not be dumped but reused as per the alternate action plan submitted. Slag produced in Ferro Manganese (Fe-Mn) production shall be used in manufacture of Silico Manganese (Si-Mn). Dust from bag filters shall be collected in silo by pneumatic conveying and reused for briquetting and shall be charged to furnaces clay with the raw material. All the other solid waste shall be properly disposed off in environment-friendly manner. No hazardous materials shall be spilled out and good house keeping practices shall be adopted. Used oil shall be sold to recyclers / reprocessors.
- x) As proposed, green belt shall be developed in 33 % area within and around the plant premises as per the CPCB guidelines in consultation with DFO.
- xi) All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Ferro Chrome Units shall be strictly implemented.

#### **B. GENERAL CONDITIONS:**

- i. The project authorities must strictly adhere to the stipulations made by the Orissa Pollution Control Board (OPCB) and the State Government.
- ii. No further expansion or modifications in the plant should be carried out without prior approval of the Ministry of Environment and Forests.
- iii. At least four ambient air quality monitoring stations shall be established in the downward direction as well as where maximum ground level concentration of SPM,

SO<sub>2</sub> and NO<sub>x</sub> are anticipated in consultation with the OPCB. Data on ambient air quality and stack emissions should be regularly submitted to this Ministry including its Regional Office at Bhubaneswar and the OPCB / CPCB once in six months.

- iv. In-plant control measures for checking fugitive emissions from all the vulnerable sources shall be provided. Fume and dust extraction system with bag filters shall be provided at the transfer and discharge points to control fugitive emissions. Further, specific measures like water sprinkling around the raw material storage areas and asphaltting or concreting of the roads shall be done to control fugitive emissions.
- v. Industrial wastewater shall be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19<sup>th</sup> May, 1993 and 31<sup>st</sup> December, 1993 or as amended from time to time. The treated wastewater shall be utilized for plantation purpose.
- vi. The company shall develop rain water harvesting structures to harvest the rain water for utilization in the lean season besides recharging the ground water table.
- vii. The overall noise levels in and around the plant area shall be kept well within the standards (85 dBA) by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels should conform to the standards prescribed under EPA Rules, 1989 viz. 75 dBA (daytime) and 70 dBA (nighttime).
- viii. Occupational Health Surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- ix. The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA/EMP report. Further, the company must undertake socio-economic development activities in the surrounding villages like community development programmes, educational programmes, drinking water supply and health care etc.
- x. As proposed, Rs. 3.00 Crores and Rs. 5.0 Lakhs/annum earmarked towards capital cost and recurring cost/annum for the environment pollution control measures shall be judiciously utilized to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government. The funds so provided shall not be diverted for any other purpose.
- xi. The Regional Office of this Ministry at Bhubaneswar / CPCB / OPCB shall monitor the stipulated conditions. A six monthly compliance report and the monitored data along with statistical interpretation shall be submitted to them regularly.
- xii. The Project Proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the OPCB and may also be seen at Website of the Ministry of Environment and Forests at <http://envfor.nic.in>. This shall be advertised 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 of the locality concerned and a copy of the same shall be forwarded to the Regional office at Bhubaneswar.



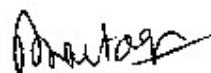
- xiii. Project authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of commencing the land development work.

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

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

7.0. Any appeal against this environmental clearance shall lie with the National Environment Appellate Authority, if preferred within a period of 30 days as prescribed under Section 11 of the National Environment Appellate Act, 1997.

8.0. The above conditions will 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 Wastes (Management and Handling) Rules, 2003 and the Public (Insurance) Liability Act, 1991 along with their amendments and rules.

  
(Dr. P. B. Rastogi)  
Director

Copy to:-

1. The Secretary, Department of Environment, Govt. of Orissa, Bhubaneswar, Orissa.
2. Chairman, Central Pollution Control Board, Parivesh Bhavan. CBD-cum-Office Complex, East Arjun Nagar, New Delhi - 110 032.
3. Chairman, Orissa Pollution Control Board, Parivesh Bhavan, A/1-8, Neelkanthnagar, Unit-8, Bhubaneswar - 751 012, Orissa.
4. The Chief Conservator of Forests (Eastern), Regional Office (EZ), A/3, Chandrasekharpur, Bhubaneswar - 751 023, Orissa.
5. adviser IA-II (I), Ministry of Environment and Forests, Paryavaran Bhavan, CGO Complex, New Delhi.
6. Monitoring Cell, Ministry of Environment and Forests, Paryavaran Bhavan, CGO Complex, New Delhi.
7. Monitoring Cell
8. Guard File.
9. Record File.

  
(Dr. P. B. Rastogi)  
Director