

Singhal Enterprises Pvt. Ltd.

• SPONGE • POWER • STEEL •

Ref No.

15th December 2018.....

Director (Industry-1)
Ministry of Environment, Forest & Climate Change,
Indira Paryavaran Bhavan,
Jorbagh, New Delhi – 110003

Sub : Environmental clearance for our mini steel plant in Raigarh, Chhattisgarh –
Request for issue of amendment in EC under clause 7 (ii) – Reg.

Ref : i. EC issued by Ministry for the Expansion proposal vide No. J-
11011/195/2007- IA.II (I) dated 23rd July, 2018
ii. Our proposal submitted vide proposal no. IA/CG/IND/53125/2016 dt. 30th
Aug. 2018
iii. EDS generated on 1st October 2018

Dear Sir,

We are very grateful to the Ministry for according Environmental Clearance vide reference cited above for Expansion of Mini Steel Plant at Taraimal Village, Gharghoda Tehsil, Raigarh District, Chhattisgarh state.

We have submitted our proposal to manufacture 90,000 TPA of TMT Bars/Structural steels through hot charging instead of manufacturing of 96,000 TPA of Billets and issue amendment to Environmental clearance under 7 (ii) category vide dt. 30th August 2018.

Accordingly, EDS has been generated vide referred above, requesting us to make application under clause 7 (ii) of EIA notification in the MoEF&CC web portal.

In view of the above we are here with submitting the our proposal under clause 7 (ii) of EIA notification in the MoEF&CC web portal.

Thanking you sir,

Yours sincerely

For SINGHAL ENTERPRISES PVT. LTD.


Director

Singhal Enterprises Pvt. Ltd.

• SPONGE • POWER • STEEL •

25th August, 2018

Date:

Ref. No Director. (Industry-1)

Ministry of Environment, Forest & Climate Change,
Indira Paryavaran Bhavan,
Jorbagh
New Delhi – 110003

Sub : Environmental clearance for our mini steel plant in Raigarh, Chhattisgarh –
Request for issue of amendment in EC under clause 7 (ii) – Reg.

Ref : EC issued by Ministry for the Expansion proposal vide No. J-11011/195/2007-
IA.II (I) dated 23rd July, 2018

Dear Sir,

We are very grateful to the Ministry for according Environmental Clearance vide reference cited above for Expansion of Mini Integrated Steel Plant at Taraimal Village, Gharghoda Tehsil, Raigarh District, Chhattisgarh state. Copy enclosed as **Annexure-1** for the following vide letter dated 23rd July 2018 for the following capacities:

S.No.	Details	Existing production Capacities Prior to issue of EC in 2008 [1]	Expansion for which EC Obtained on 19 th Feb. 2008, and amended on 21 st Dec. 2010 & 22 nd March 2011 [2]	Total Capacity after EC expansion after EC dated Feb 2008 and its amendments (TPA) [3]	Status of Implementation of Expansion Project for which EC accorded in Feb 2008 & amendments thereof [4]	Total Capacity in operation as on Current Date [1] + [4]	Units to be Implemented for EC sought [3] - [5]
1.	DRI Kiln for Production of Sponge Iron	1,93,500 TPA	90,000 TPA	2,83,500 TPA	60,000 TPA	2,53,500 TPA in Operation	30,000 TPA
2.	Induction furnace with CCM	48,000 TPA	1,68,000 TPA	2,16,000 TPA	48,000 TPA	96,000 TPA in operation	1,20,000 TPA

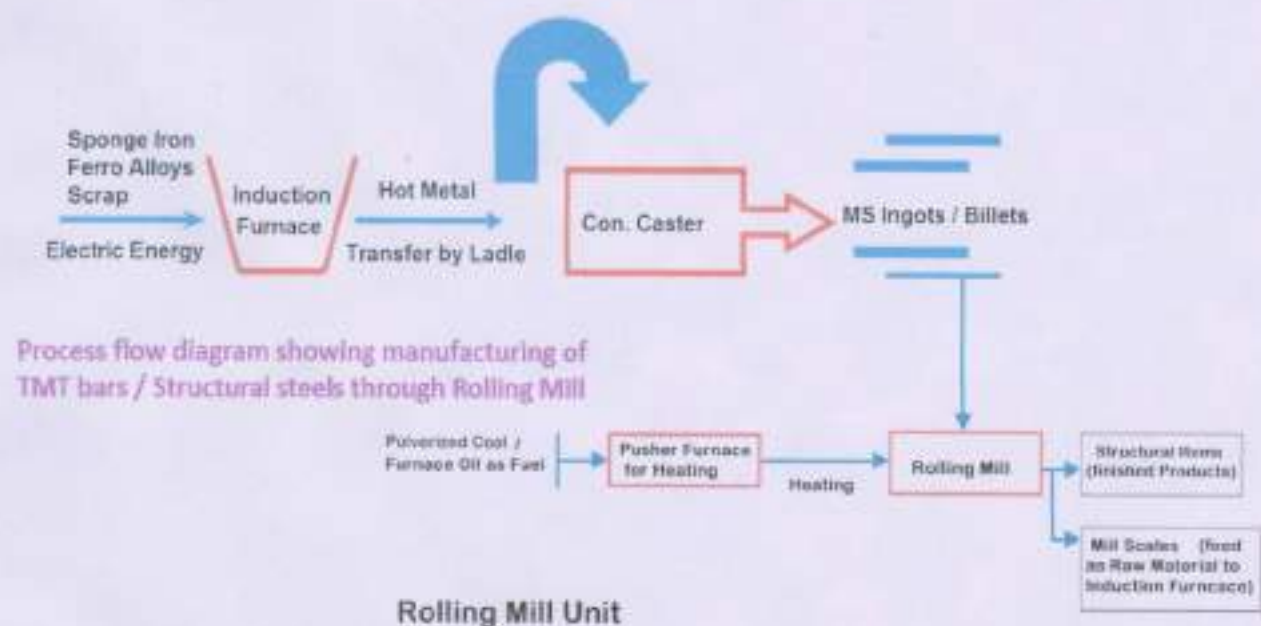
	& LRF						
3.	Rolling Mill	-----	90,000 TPA	90,000 TPA	---	Not implemented	-----
4.	Ferro Alloy plant for production of Si-Mn	-----	10,800 TPA	10,800 TPA	10,800 TPA	10,800 TPA	-----
5.	Sinter Plant	-----	2,59,200 TPA (1 x 50 M ²)	2,59,200 TPA (1 x 50 M ²)	---	Not implemented	2,59,200 TPA (1 x 50 M ²)
6.	Blast Furnace for production of Pig Iron	-----	87,500 TPA (1 x 125 M ³)	87,500 TPA (1 x 125 M ³)	---	Not implemented	87,500 TPA (1 x 125 M ³)
7.	Coal Washery	-----	1,50,000 TPA	1,50,000 TPA	---	1,50,000 TPA Applied for CTO	1,50,000 TPA
8.	Power Plant through WHRB	8 MW	8 MW	16 MW	---	8 MW in Operation	8 MW
9.	Power Plant through FBC Boiler	---	8 MW	8 MW under Operation & Installation of 1 x 18 MW is under construction	1 x 22 MW		

We would like to bring to your kind notice that in the EC accorded to us in the year 2008 Rolling Mill to produce 90,000 TPA of TMT Bars/ Structural steels has been permitted. This Rolling Mill could not be implemented within the validity period of Environmental Clearance. The same has not been considered in the EC accorded to us on 23rd July, 2018.

Now we request your goodselfs to kindly permit us to establish a Rolling Mill of 90,000 TPA capacity (for which EC was valid till 2013) through hot charging but without reheating furnace. Now the proposal will be as following:

As per the EC accorded to us on 23rd July, 2018 we have been permitted to establish 1,20,000 TPA of Billets through Induction furnace. Now we propose to go for hot charging of hot metal into Rolling mill directly to produce TMT Bars/ Structural steels of 90,000 TPA capacity. Out of 1,20,000 TPA, 96,000 TPA of hot metal will be taken to Rolling Mill to produce 90,000 TPA of TMT Bars/ Structural steels and remaining 24,000 TPA will used for Billet manufacturing.

Process flow diagram showing manufacturing of Rolled Products through reheating process



Proposed Process technology (Direct Hot Charging)

In this process the melt will be tapped at approximately 1660-1670 Deg C and transferred to the continuous casting machine quickly without any significant heat loss and is poured into mould at around 1590 Deg. C. The melt is solidified and cooled down to a temperature of 1050 to 1100 Deg C by PLC controlled indirect demineralised water cooling and secondary direct spray cooling. The solidifying billet is cut immediately and is passed to the rolling mill, ensuring a minimal heat loss.

The temperature optimisation during rolling process by hot charging to the rolling plant can reduce energy and environment losses. This can thus be considered a green technology.

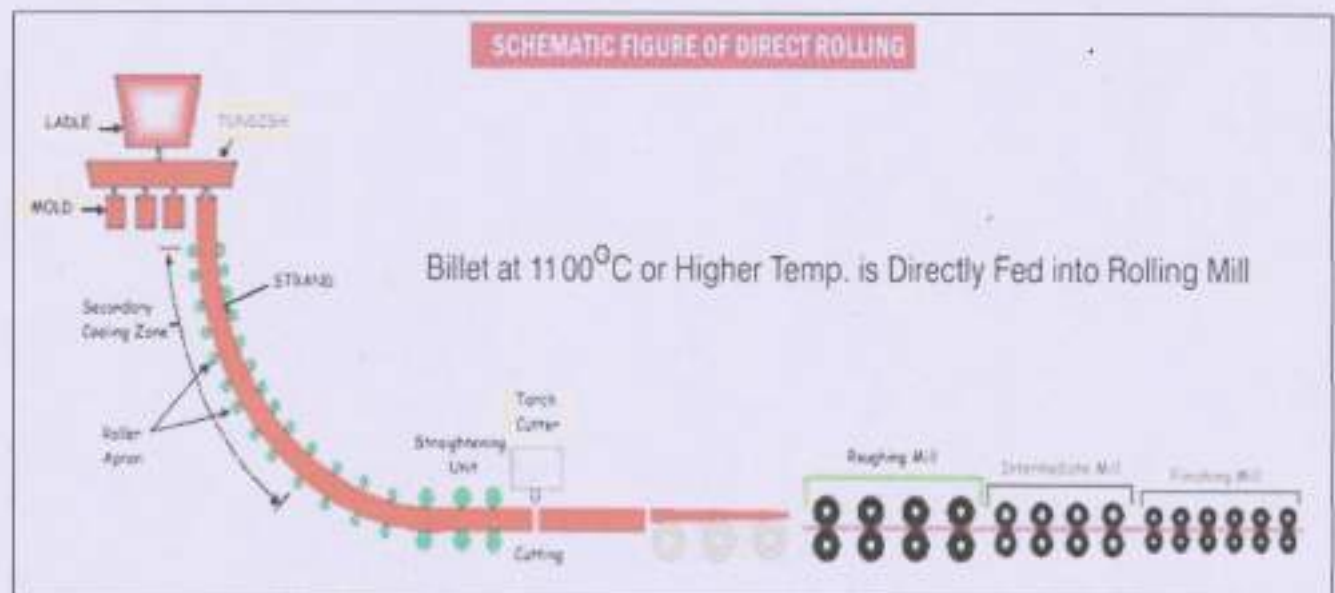
Energy Conservation Measures proposed

- It is a green technology of Direct Rolling of hot continuous cast billet to produce TMT bars and therefore, completely avoided usage of Furnace Oil in reheating furnace. This would save about 3000 KL of Furnace Oil and reduce around 9,000 tons of CO₂ per annum.
- Cast billet Temperature of around 1100 degree C.
- Modification in the caster as compared to the conventional caster are: speed of casting, water pressure & temperature, cooling zone, water circulation system etc. including PLC based complete automation and control system for operation of CCM.
- High speed billet conveyor with VFD drives with insulated cover.
- VFD for Water pumps in TMT system to reduce power consumption.

Environmental advantages are

- Energy conservation by eliminating the cooling of hot metal and making of Billets.
- Energy conservation as Reheating of Billets is eliminated
- No requirement for reheating furnace. Hence fuel conservation.
- As no reheating furnace and no fuel, there will be no air emissions from the fuel burning.

Hence this is an environmentally very beneficial technology. Hence request to kindly permit to produce 90,000 TPA of Rolled products through Rolling Mill without reheating furnace.



COMPARISON OF ENVIRONMENTAL PARAMETERS

The following is the comparison of environmental parameters of Billet manufacturing through IF & Rolled product manufacturing through Hot charging.

Environmental Parameter	Billet Manufacturing through IF (for 96,000 TPA)	Rolled Product Manufacturing through Hot charging for 90,000 TPA (without Reheating Furnace)	Remarks
Water requirement	80 KLD	60 KLD	25% less water consumption
Wastewater	Closed circuit cooling system will be adopted. Hence no wastewater discharge.	Oils separator and Settling tank will be provided as ETP to treat the wastewater generated. Closed circuit cooling system will be adopted. Mill scales generated will be reused in the SMS. Hence no wastewater discharge.	
Heat loss	Heat loss due to cooling of Billets	No heat loss as hot metal from IF will be directly taken to the Rolling Mill without Reheating Furnace.	No heat loss due to the present proposal.
Solid waste disposal	Slag will be crushed	Mill scales will be reused into	No solid waste

Environmental Parameter	Billet Manufacturing through IF (for 96,000 TPA)	Rolled Product Manufacturing through Hot charging for 90,000 TPA (without Reheating Furnace)	Remarks
	and after recovery of metallic content it will be given to brick manufacturers.	SMS.	disposal issue w.r.t solid waste disposal.
Particulate Emission load	5.4 Kg/hr	No additional Particulate emission as no Reheating furnace is proposed.	---
Any additional Land acquisition	Not Applicable	No additional land acquisition is envisaged for Rolling mill and will be established within the existing plant premises.	---

Certified compliance report issued by the RO, MOEF&CC is enclosed as **Annexure-2** for your kind perusal.

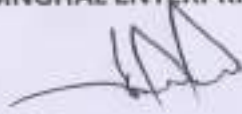
Updated Form-1 also enclosed as **Annexure-3** for your kind perusal.

In view of the above we request your goodselfs to kindly permit us to manufacture 90,000 TPA of TMT Bars/Structural steels through hot charging instead of manufacturing of 96,000 TPA of Billets and issue amendment to Environmental clearance under 7 (ii) category.

Thanking you sir,

Yours sincerely

For **SINGHAL ENTERPRISES PVT. LTD.**



Director