

F. No. J-11011/28/2007-IA-II(I)
Government of India
Ministry of Environment, Forest and Climate Change
(Impact Assessment Division)

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Dated: 24th May, 2019

To

Ms. Uma Katoch,
Deputy General Manager,
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Ispat Bhawan, Bhilai Steel Plant
Bhilai, District Durg,
Chhattisgarh - 490001

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Subject: Revised configuration of modernization-cum-expansion of 7.0 MTPA Bhilai Steel Plant by M/s. Steel Authority of India Limited at Bhilai, District Durg, Chhattisgarh – **Environmental Clearance – reg.**

Madam,

1. This refers to the application of M/s. Steel Authority of India Limited made vide proposal no. IA/CG/IND/67974/2017 dated 10th August 2018 along with copies of EIA/EMP report and Form 2 seeking environmental clearance under the provisions of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at Sl. No. 3(a) Metallurgical Industries (Ferrous and Non-ferrous) under Category "A" of the schedule of EIA Notification, 2006 and the proposal is appraised at Central level.
2. The proposal was considered in the 1st meeting of the Reconstituted Expert Appraisal Committee held on 26-28th November, 2018 and further reconsidered in the 5th meeting of the Reconstituted Expert Appraisal Committee held on 27-29th March, 2019. The EAC proceedings of the proposal cited above is given as below.

Details submitted by the Project Proponent

3. The proposal for revised configuration of 7.0 MTPA Modernization-Cum-Expansion of Bhilai Steel Plant along with Captive power plant of M/s Steel Authority of India Limited (SAIL) located in Bhilai, Tehsil Durg, District Durg, State Chhattisgarh was initially received in the Ministry on 06th September, 2017 for obtaining Terms of Reference (ToR) as per EIA Notification, 2006. The project was appraised by the Expert Appraisal Committee (Industry) [EAC(I)] during its 24th meeting held during 13th – 15th November, 2017 and prescribed ToRs to the project for undertaking detailed EIA study for obtaining environmental clearance. Accordingly, the Ministry of Environment, Forest and Climate Change had prescribed ToRs to the project on 29th November, 2017 vide Letter No.F. No. J-11011/28/2007-IA-II(I).

Environmental Clearance for the revised configuration of modernization-cum-expansion of 7.0 MTPA Bhilai Steel Plant by M/s. Steel Authority of India Limited at Bhilai, District Durg, Chhattisgarh.

4. The project of M/s. SAIL-BSP is located in Bhilai, Durg Tehsil, Durg District, Chhattisgarh State is for revised configuration of 7.0 MTPA Modernization-Cum-Expansion of Bhilai Steel Plant for production of 7.0 Million Tonnes Per Annum (million TPA) of Crude Steel Production. The existing project was accorded environmental clearance vide letter.no. J-11011/28/2007-IAII(I) dated 31.03.2008. The Status of compliance of earlier EC was obtained from Regional Office, Nagpur vide Lr. Nos. 5-249/2009(Env)3463 dated 2nd April, 2018 and 5-249/2009(Env)4372 dated 26th September, 2018. Presently, there are no non-compliances reported by Regional Officer. The table showing present configuration (7.0 MTPA project configuration as per EC 2008 and its subsequent amendments), proposed configuration and final project configuration after grant of EC is as below:

proposed configuration and final project configuration after grant of EC is as below.					
S. No	7.0 MTPA Plant Configuration (EC 31.03.2008 & amendments	Present Proposal under Revised Configuration for grant of EC	7.0 MTPA Plant Configuration After Grant of EC		Remarks
			1 st Three years	After Three Years <u>FINAL CONFIGURATION</u>	
1	Sinter Plant Complex				
	Sinter Plant-1 (4 x 50 m ²) Phased out	No Change	-	-	No Change
	Sinter Plant-2 (3x75 m ² +1x 80 m ²)	No Change	Sinter Plant-2 (3x75 m ² +1x80 m ²)	Sinter Plant-2 (3x75 m ² +1x 80 m ²)	No Change
	Sinter Plant-3 : Machine 1 (1x 320 m ²)	No Change	Sinter Plant-3 : Machine 1 (1x 320 m ²)	Sinter Plant-3 : Machine 1 (1x 320 m ²)	No Change
	Sinter Plant-3 : Machine 2 (1x 360 m ²) (Mc. 2 : Production : 3.168 MTPA)	Sinter Plant-3, Machine 2 (1x 360 m ²) : Increase in Sinter Production from 3.168 MTPA to 3.705 MTPA (+ 0.537 MTPA)	Sinter Plant-3, Machine 2 (1x 360 m ²) : Production Capacity : 3.705 MTPA	Sinter Plant-3, Machine 2 (1x 360 m ²) : Production Capacity : 3.705 MTPA	Change
	Total Sinter Production = 9.235 MTPA	Total Sinter Production = 9.772 MTPA	Total Sinter Production = 9.772 MTPA	Total Sinter Production = 9.772 MTPA	Change
2	Coke Oven Complex				
	Composition: 8 Nos. - 65 Oven 4.3 m tall battery i.e. Battery No. 1, 2, 3, 4, 5, 6, 7 & 8 and 3 Nos. - 67 Ovens, 7 m tall batteries, i.e.	Composition : No Change	Composition: 8 Nos. - 65 Oven 4.3 m tall battery and 3 Nos. - 67 Oven 7 m tall battery	Composition: 8 Nos. - 65 Oven 4.3 m tall battery and 3 Nos. - 67 Oven 7 m tall battery	Composition: No Change

S. No	7.0 MTPA Plant Configuration (EC 31.03.2008 & amendments)	Present Proposal under Revised Configuration for grant of EC	7.0 MTPA Plant Configuration After Grant of EC		Remarks
			1 st Three years	After Three Years <u>FINAL CONFIGURATION</u>	
	Coven Battery No. 9, 10 & 11.				
	Operation Regime: 8 Battery Operation. - At any time 3 Coke Oven batteries will be shut-down for cold repair and rebuilding cycle.	Operation Regime: 9 Battery Operation. - At any time 2 batteries will be shut-down for cold repair and rebuilding cycle. - Running one extra battery, keeping coke production same.	Operation Regime: 9 Battery Operation. - At any time 2 batteries will be shut-down for cold repair and rebuilding cycle.	Operation Regime: 9 Battery Operation. - At any time 2 batteries will be shut-down for cold repair and rebuilding cycle.	Change
	Total Gross Coke Production = 3.94 MTPA	No Change	Total Gross Coke Production = 3.94 MTPA	Total Gross Coke Production = 3.94 MTPA	No Change
3	Blast Furnace Complex				
	BF 1 with CDI (1033 m ³) - to be gradually progressively phased out	BF 1 with CDI (1033 m ³) in operation for three years for undertaking sequential capital repair of BF 4, 5 & 6 along with stabilisation of BF 8.	BF 1 with CDI (1033 m ³) in operation for three years	Phased Out	Will be in operation for 3 years and then phased out.
	BF 2 with TIS (1033 m ³) - Phased Out	No Change	-	-	No Change

Environmental Clearance for the revised configuration of modernization-cum-expansion of 7.0 MTPA Bhilai Steel Plant by M/s. Steel Authority of India Limited at Bhilai, District Durg, Chhattisgarh.

S. No	7.0 MTPA Plant Configuration (EC 31.03.2008 & amendments)	Present Proposal under Revised Configuration for grant of EC	7.0 MTPA Plant Configuration After Grant of EC		Remarks
			1 st Three years	After Three Years FINAL CONFIGURATION	
	BF 3 with TIS (1033 m ³) - Phased Out	No Change	-	-	No Change
	BF 4, 1719 m ³	BF 4, 1719 m ³ Capital Repair	BF 4, 1719 m ³	BF 4, 1719 m ³	No Change
	BF 5, 1719 m ³	BF 5, 1719 m ³ Capital Repair	BF 5, 1719 m ³	BF 5, 1719 m ³	No Change
	BF 6, 1719 m ³	BF 6, 1719 m ³ Capital Repair	BF 6, 1719 m ³	BF 6, 1719 m ³	No Change
	BF 7, 2363 m ³	No Change	BF 7, 2363 m ³	BF 7, 2363 m ³	No Change
	BF 8, 4060 m ³ with TRT	No Change	BF 8, 4060 m ³ with TRT	BF 8, 4060 m ³ with TRT	No Change
	Total Hot Metal = 7.5 MTPA	No Change	Total Hot Metal = 7.5 MTPA	Total Hot Metal = 7.5 MTPA	No Change
4	Steel Making & Casting Units				
	SMS I 4x 500t Twin Hearth Furnace - to be gradually progressively phased out	SMS I 4x 500t Twin Hearth Furnace in operation for three years till stabilization of SMS III & BF 8).	SMS I 4x 500t Twin Hearth Furnace in operation for three years	SMS I Phased Out	SMS I Will be in operation for 3 years and then phased out.
	SMS II 3x120t BOF	SMS II No Change	SMS II 3x120t BOF	SMS II 3x120t BOF	SMS II No Change
	2X120t LF	No Change	2X120t LF	2X120t LF	No Change
	3x120t RH	No Change	3x120t RH	3x120t RH	No Change
	1x120t VD	No Change	1x120t VD	1x120t VD	No Change
	Hot metal Desulphirisation	No Change	Hot metal Desulphirisation	Hot metal Desulphirisation	No Change
	3x1 strand Slab Casters (MC#1, 2, 3)	No Change	3x1 strand Slab Casters (MC#1, 2, 3)	3x1 strand Slab Casters (MC#1, 2, 3)	No Change

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S. No	7.0 MTPA Plant Configuration (EC 31.03.2008 & amendments)	Present Proposal under Revised Configuration for grant of EC	7.0 MTPA Plant Configuration After Grant of EC		Remarks
			1 st Three years	After Three Years FINAL CONFIGURATION	
	Combi-Caster: Bloom (3 strand) cum Slab (1 strand) Caster (mc#4)	No Change	Combi-Caster: Bloom (3 strand) cum Slab (1 strand) Caster (mc#4)	Combi-Caster: Bloom (3 strand) cum Slab (1 strand) Caster (mc#4)	No Change
	1x4 strand Bloom Caster (MC#5)	No Change	1x4 strand Bloom Caster (MC#5)	1x4 strand Bloom Caster (MC#5)	No Change
	1x1 slab caster (mc#6)	No Change	1x1 slab caster (mc#6)	1x1 slab caster (mc#6)	No Change
	SMS III	SMS III	SMS III	SMS III	SMS III
	3x160 t BOF	No Change	3x160 t BOF	3x160 t BOF	No Change
	3x160 t LFs	No Change	3x160 t LFs	3x160 t LFs	No Change
	1x 160 t RH-OB	No Change	1x 160 t RH-OB	1x 160 t RH-OB	No Change
	1 x vacuum tank degassing unit (Space provision)	No Change	1x vacuum tank degassing unit (Space provision)	1x vacuum tank degassing unit (Space provision)	No Change
	Hot metal Desulphurisation	No Change	Hot metal De-sulphurisation	Hot metal De-sulphurisation	No Change
	-	New 3x160t Argon Rinsing Unit (ARU) envisaged	New 3x160t Argon Rinsing Unit (ARU)	New 3x160t Argon Rinsing Unit (ARU)	Change
	2x6 strand Billet Casters	No Change	2x6 strand Billet Casters	2x6 strand Billet Casters	No Change
	1x6 strand Bloom cum Billet Casters	No Change	1x6 strand Bloom cum Billet Casters	1x6 strand Bloom cum Billet Casters	No Change
	1x3 strand Beam Blank Caster	Modification of 1x3 strand Beam Blank Caster into 1x3 strand Bloom-cum-Beam blank Caster of same capacity	1x3 strand Bloom-cum-Beam blank Caster	1x3 strand Bloom-cum-Beam blank Caster	Change
	Total Crude Steel	No Change	Total Crude Steel	Total Crude Steel Production : 7.0 MTPA	No Change

Environmental Clearance for the revised configuration of modernization-cum-expansion of 7.0 MTPA Bhilai Steel Plant by M/s. Steel Authority of India Limited at Bhilai, District Durg, Chhattisgarh.

S. No	7.0 MTPA Plant Configuration (EC 31.03.2008 & amendments)	Present Proposal under Revised Configuration for grant of EC	7.0 MTPA Plant Configuration After Grant of EC		Remarks
			1 st Three years	After Three Years FINAL CONFIGURATION	
	Production : 7.0 MTPA		Production : 7.0 MTPA		
6	Rolling Mills				
	Blooming and Billet Mill (2.149 MTPA) - to be gradually progressively phased out.	Blooming and Billet Mill (2.149 MTPA) in operation for three years till stabilization of SMS III & BF 8.	Blooming and Billet Mill (2.149 MTPA) in operation for three years	-	Will be in operation for 3 years and then phased out.
	Universal Beam Mill (1.0 MTPA): Not coming	No Change	-	-	No Change
	2.2 MTPA Rail & Structural Complex with Universal Rail Mill (URM)	No Change	2.2 MTPA Rail & Structural with Universal Rail Mill (URM)	2.2 MTPA Rail & Structural with Universal Rail Mill (URM)	No Change
	Plate Mill (1.65 MTPA)	New Quenching & Tampering facility in Plate Mill	Plate Mill : 1.65 MTPA with Quenching & Tampering facility	Plate Mill : 1.65 MTPA with Quenching & Tampering facility	Change
	Bar & Rod Mill (0.90 MTPA)	No Change	Bar & Rod Mill 0.90 MTPA	Bar & Rod Mill 0.90 MTPA	No Change
	Merchant Mill (0.85 MTPA)	No Change	Merchant Mill (0.85 MTPA)	Merchant Mill (0.85 MTPA)	No Change
	Wire Rod Mill (0.7 MTPA)	No Change	Wire Rod Mill (0.7 MTPA)	Wire Rod Mill (0.7 MTPA)	No Change
	Total Finished Steel = 6.30 MTPA	No Change	Total Finished Steel = 6.30 MTPA	Total Finished Steel = 6.30 MTPA	No Change
7.	Power Blowing Station & Turbo-generators				
	6 x 150 tph boiler	No Change	6 x 150 tph boiler	6 x 150 tph boiler	No Change
	1 x 150 tph boiler	No Change	1 x 150 tph boiler	1 x 150 tph boiler	No Change

Environmental Clearance for the revised configuration of modernization-cum-expansion of 7.0 MTPA Bhilai Steel Plant by M/s. Steel Authority of India Limited at Bhilai, District Durg, Chhattisgarh.

S. No	7.0 MTPA Plant Configuration (EC 31.03.2008 & amendments)	Present Proposal under Revised Configuration for grant of EC	7.0 MTPA Plant Configuration After Grant of EC		Remarks
			1 st Three years	After Three Years FINAL CONFIGURATION	
	3 x 12 MW	No Change	3 x 12 MW	3 x 12 MW	No Change
	1 x 15 MW	No Change	1 x 15 MW	1 x 15 MW	No Change
	2 x 150 tph BF gas fired boiler	No Change	2 x 150 tph BF gas fired boiler	2 x 150 tph BF gas fired boiler	No Change
	1 x 25 MW	No Change	1 x 25 MW	1 x 25 MW	No Change
	1390 tph steam, Power Generation 76 MW	No Change	1350 tph steam, Power Generation 76 MW	1350 tph steam, Power Generation 76 MW	No Change
	TRT Power Generation 14 MW	No Change	TRT Power Generation 14 MW	TRT Power Generation 14 MW	No Change
	CDCP Power Generation 4 MW	No Change	CDCP Power Generation 4 MW	CDCP Power Generation 4 MW	No Change
8.	Refractory Material Plant (RMP) : Lime & Dolo plant				
	RMP I to be gradually/ progressively phased out.	RMP I in operation along with SMS-1 for three years till stabilization of SMS III & BF 8	RMP I in operation for three years	-	Will be in operation for 3 years and then phased out.
	RMP - II • 2x330 tpd + 1 x 144 tpd Lime kiln	No Change	RMP-II • 2x330 tpd + 1 x 144 tpd Lime kiln	RMP-II • 2x330 tpd + 1 x 144 tpd Lime kiln	No Change
	RMP III 5x450 tpd lime and dolo kiln for SMS-III	No Change	RMP III 5x450 tpd lime and dolo kiln for SMS-III	RMP III 5x450 tpd lime and dolo kiln for SMS-III	No Change
	Refractory Material = 1.58 MTPA	No Change	Refractory Material = 1.58 MTPA	Refractory Material = 1.58 MTPA	No Change
9.	Oxygen Plant : • 3 x 550 tpd and • 1 x 700 tpd	No Change	Oxygen Plant : • 3 x 550 tpd and • 1 x 700 tpd	Oxygen Plant : • 3 x 550 tpd and • 1 x 700 tpd	No Change
10.	Other Auxiliary facilities	No Change	Other Auxiliary facilities	Other Auxiliary facilities	No Change

S. No	7.0 MTPA Plant Configuration (EC 31.03.2008 & amendments)	Present Proposal under Revised Configuration for grant of EC	7.0 MTPA Plant Configuration After Grant of EC		Remarks
			1 st Three years	After Three Years <u>FINAL CONFIGURATION</u>	
	(Matching facilities for achieving production)		(Matching facilities for achieving production)	(Matching facilities for achieving production)	

5. The summary of the proposed capacity / modernizations / modifications for different units/products of revised configuration of 7.0 MTPA Modernization-Cum-Expansion of Bhilai Steel Plant under present proposal for environmental clearance is as below:

SN	Name of unit	New units / Modernisation / Modification requested
1.	SMS-III	Addition of new 3x160 t Argon Rinsing Unit (ARU)
		Modification of 1x3 strand Beam Blank caster in to 1x3 Strand Bloom-cum-Bean Blank caster of same capacity
2.	Plate Mill	Addition of new Quenching and tempering facility
3.	Coke Oven Complex	Bringing in of one more Coke Oven Battery in operation to achieve the desired coke production (3.94 MTPA) for 7.0 MTPA Crude Steel production.
4.	Sinter Plant-III (Machine-2)	Increase of total sinter production from sinter plant complex (from 9.235 MTPA to 9.772 MTPA) by operational optimization.
5.	Blast Furnace-1 (BF-1)	In operation during the sequential capital repair of BF-4, BF-5 & BF-6 & BF8 Stabilisation / coming in to full production. Expected time required is 3 years.
6.	Steel Melting Shop-I (SMS-I)	In operation till SMS-III Stabilisation / coming in to full production & BF8 Stabilisation / coming in to full production. Expected time required 3 years.
7.	Refractory Material Plant-I (RMP-I)	
8.	Blooming & Billet Mill (BBM)	

6. The proposed project under revised configuration of BSP 7.0 MTPA modernization-cum-expansion is proposed within the already acquired existing premises of BSP and no additional land will be required. The project area of SAIL-BSP is 3284.75 ha. SAIL-BSP is having total 6286.75 ha (15534 acre) of land under its possession. No forest land involved. The entire land has been acquired for the project earlier during the setting up of Bhilai Steel Plant which had initial capacity of 1.0 MTPA Crude Steel production. No River passes through the project area. However, it has been reported that two artificial water reservoirs, namely Maroda -I and Maroda-II, for industrial water cooling and storage of raw water exist within the project boundary.
7. The topography of the area is flat and reported to lie between 21°11'to 21°13'N Latitude and 81°22' to 81°24'E Longitude in Survey of India topo sheet No. F44P08, at an average elevation of 290 m AMSL. No ground water is being used either for the existing project or

being envisaged for the proposed project. Additionally, SAIL-BSP has constructed rain water harvesting systems in several units within plant premises and identified buildings of Bhilai Township, wherein the rain water system has been established to recharge ground water through recharges pits.

8. 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 form corridor for Schedule-I fauna.
9. The proposed project is envisaged for techno-economic advantage during project operation. While there will be no change in Hot Metal, Crude Steel and Finished Steel production and Power Generation, which will remain same as per the EC accorded in 2008, i.e. 7.5 MTPA Hot Metal, 7.0 MTPA Crude Steel and 6.3 MTPA Finished Steel.
10. The targeted production capacity of the Bhilai Steel Plant is 7.0 Million TPA Crude Steel (same as per the EC accorded in 2008). The ore for the plant would be procured from captive mines of SAIL. The ore transportation is done through rail and road.
11. The quantity of raw materials required for revised configuration of 7.0 MTPA Bhilai steel plant and the mode of transportation is given as below:

S.no	Raw Material Description	Existing 7.0 MTPA Integrated Steel Plant of BSP			Additional for proposed Project (t/yr)	Total after Proposed Revised 7.0 MTPA Project Configuration		
		Source	Gross Quantity (t/yr)	Transportation Mode		Source	Raw Material Requirement (t/yr)	Transportation Mode
1	Iron ore fines	Dalli, Rajhara / Rowghat	72,87,000	Rail	412250	Dalli, Rajhara / Rowghat	7,699,250	Rail
2	Iron Ore lumps	Dalli, Rajhara / Rowghat	43,78,000	Rail	No change	Dalli, Rajhara / Rowghat	4,378,000	Rail
3	Limestone	Nandini, Kuteshwar & Jaisalmer	18,47,000	Rail / Road	No change	Nandini, Kuteshwar & Jaisalmer	1,847,000	Rail / Road
4	Dolomite	Hirri & Belha / Hirri	11,14,700	Rail	No change	Hirri & Belha / Hirri	1,114,700	Rail
5	Quartzite	Muripar	1,04,600	Rail	No change	Muripar	104,600	Rail
6	Coking Coal	Imported / Indigenous	5,679,000	Rail	No change	Imported / Indigenous	5,679,000	Rail
7	Pellet	At mines	6,40,500	Rail	No change	At mines	640,500	Rail
8	Coal for injection in BF's (CDI Coal)	Imported	9,74,000	Rail	No change	Imported	974,000	Rail

Environmental Clearance for the revised configuration of modernization-cum-expansion of 7.0 MTPA Bhilai Steel Plant by M/s. Steel Authority of India Limited at Bhilai, District Durg, Chhattisgarh.

S.no	Raw Material Description	Existing 7.0 MTPA Integrated Steel Plant of BSP			Additional for proposed Project (t/yr)	Total after Proposed Revised 7.0 MTPA Project Configuration		
		Source	Gross Quantity (t/yr)	Transportation Mode		Source	Raw Material Requirement (t/yr)	Transportation Mode
	Total		2,20,24,800		4,12,250		2,20,24,800	

12. No additional water requirement is envisaged for the proposed project under the present proposal of revised configuration of 7.0 MTPA Modernization-cum-Expansion (EC 2008). The existing total water requirement is 15981 m³/hr (5.0 TMC ft/y). Presently the Water Resources Department (WRD), Chhattisgarh has accorded supply of 4.0 TMCft/y water through Tandula canal vide agreement dated 19th April, 2006 and BSP has requested WRD for supply of additional 1.0 TMCft/y water vide Lr. No. GM/WMD/2018/233 dated 8th March, 2018 to meet the water demand at 7.0 MTPA capacity. Permission for water abstraction of 1.0 TMCft/y is yet to be obtained.
13. The power requirement of the 7.0 MTPA project is estimated as 468MW. Only critical power and total process steam will be generated through the captive power plant. The balance power requirement will be met from outside sources.
14. Baseline Environmental Studies were conducted during Post Monsoon 2017 season i.e. from 1st October, 2017 to 31st December, 2017. Ambient air quality monitoring has been carried out at 8 locations during October to December, 2017 and the data submitted indicated: PM₁₀ (39 to 83 µg/m³), PM_{2.5} (18 to 43 µg/m³), SO₂ (4.8 to 23.1 µg/m³) and NO_x (14.5 to 31.9 µg/m³). The results of the modeling study indicates that the maximum increase of GLC for the proposed project is 2.75 µg/m³ with respect to the PM₁₀, 2.0 µg/m³ with respect to the SO₂ and 2.0 µg/m³ with respect to the NO_x and this increase will be only for the initial three years.
15. Presently, under the 7.0 MTPA Integrated Steel Plant of BSP, about 95-97% of raw materials and products are transported through Indian Railways. Only 3-5 % of raw materials and products are dispatched through roads. The proposed project envisages increase in sinter production which will require additional quantity of iron ore fines. The requirement of iron ore fines will increase from the existing 72,87,000 t/yr (7.0 MTPA project) to 76,99,250 t/yr (revised configuration). The increase in iron ore fines is to the tune of 4,12,250 t/yr. The present source of iron ore fines is from Dalli, Rajhara / Rowghat and is being transported through rail. It is envisaged that the proposed requirement of iron ore fines will be from the same source and through same mode of transportation. Thus no impact of transportation of material is anticipated on the air environment due to the proposed units. Over and above, it will be ensured that all transport vehicles are in good working condition, properly tuned and maintained to keep emission within the permissible limits and engines turned off when not in use to reduce pollution. Vehicles would be regularly maintained so that emissions conform to standards of Central Pollution Control Board (CPCB).
16. In the proposed project as there is no change in the hot metal and crude steel production, therefore the finished products are same as per the 7.0 MTPA configuration stage. The

quantity of different Finished/Saleable/By-products for the 7.0 MTPA Integrated Steel Plant of BSP and its mode of transportation is furnished as below:

11	Products	Existing 7.0 MTPA Plant (t/yr)	Revised Plant configuration (t/yr)	Mode of transport ation
1	Rails and Structural	22,00,000	No change	Rail
2	Blooms	10,000	No change	
3	Normalized Plates & Finished Plates	16,50,000	No change	
4	Billets	2,11,800	No change	
5	Merchant Products	8,50,000	No change	
6	Wire Rods	7,00,000	No change	
7	Bars and rods	9,00,000	No change	
8	Pig iron	2,05,000	No change	
9	Slabs	9,000	No change	
	Total	67,56,000	No change	

Thus no additional impact of transportation of finished products is anticipated on the air environment due to the proposed units.

17. Ground water quality has been monitored in 8 locations in the study area and analysed. pH: 7.25 to 7.82, Total Hardness: 156 to 292 mg/l, Chlorides: 15.43 to 63.64 mg/l, Fluoride: 0.22 to 0.48 mg/l. Heavy metals are within the limits. Surface water samples were analysed from 9 locations. pH: 7.55 to 8.12; DO: 5.3 to 6.4 mg/l and BOD: 1 to 4 mg/l.
18. Noise levels are in the range of 36.2 to 72.4 dB(A) for daytime and 34.2 to 55.7 dB(A) for night time.
19. It has been reported that in the proposed project additional about 283618T/yr of air cooled processed slag from BF#1 will be generated, out of which about 30% will be used in road making/construction material/ sale to slag wool manufacturers and remaining will be stocked in the earmarked slag yard during the operation of BF#1. The earmarked slag yard has sufficient space to stock the remaining air cooled processed slag generated during the operation of BF#1. Project proponent has also reported that efforts are being made for further enhancing the air cooled processed slag. Green belt developed within and around the BSP project area is 1711.33 ha with about 4,192,144 trees planted up to 2016-17. In 2017-18, 35190 trees were planted covering about 14 hectares. Green belt developed around the project site will attenuate the noise levels and trap the dust generated due to the project development activities.
20. It has been reported that the Consent to Operate from the Chhattisgarh Environment Conservation Board (CECB) obtained vide Lr.No 4690/TS/CECB/2018 dated 31.08.2018 (for 7.0 MTPA MODEX units and existing 4.0 MTPA units) and consent is valid up to 29.08.2019. Proponent has also reported that the above consent thus covers all operating units of Bhilai Steel Plant.
21. The Public hearing of the project was held on 8th June, 2018 at Nehru Sanskritik Bhavan, Sector -1, Bhilai Nagar, Tehsil-Durg-Bhilai, Dist-Durg (C.G.) under the chairmanship of Shri Sanjay Agarwal, Additional District Magistrate, for revised configuration of 7.0

Million TPA Modernization-Cum-Expansion of Bhilai Steel Plant along with captive power plant of M/s Steel Authority of India Limited (SAIL) located in Bhilai, Tehsil Durg, District Durg, State Chhattisgarh.

22. An amount of 226 Lakhs (0.83% of project cost) has been earmarked for Enterprise Social Commitment based on public hearing issues.
23. The capital cost of the project is Rs. 273 Crores and the capital cost for environmental protection measures has already been considered under already implemented Modernization-cum-Expansion 7.0 MTPA project.
24. It was informed that, Green belt developed within and around the BSP project area is 1711.33 ha with about 4,192,144 trees planted up to 2016-17. Greenbelt along plant boundary (in available space) has already been developed, which will be further re-strengthened. Local and native species will be planted with a density of 2500 trees per hectare. In the next five years for further strengthening the green cover / plantation in BSP project area and in surrounding about 107500 saplings will be planted and nurtured in an area of about 45.25 ha.
25. The proponent has mentioned that there is no court case or violation under EIA Notification to the project or related activity.
26. EIA Consultant: Mecon Limited, Ranchi. [S.No. 103, List of Accredited Consultant Organizations (Alphabetically) Rev. 74, March 07, 2019].
27. The proposal was considered in the 1st meeting of the Reconstituted Expert Appraisal Committee held on 26-28th November, 2018 and further reconsidered in the 5th meeting of the Reconstituted Expert Appraisal Committee held on 27-29th March, 2019. After detailed deliberations, the Committee recommended the project cited above for grant of environmental clearance under the provisions of EIA Notification, 2006 subject to environmental safeguards.
28. 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 *"Revised configuration of modernization-cum-expansion of 7.0 MTPA Bhilai Steel Plant by M/s. Steel Authority of India Limited at Bhilai, District Durg, Chhattisgarh"* under the provisions of EIA Notification, 14th September, 2006, as amended, subject to strict compliance of the following Specific and General Conditions:
- A. Specific conditions:**
- i. Safety mock drill for gas pipeline maintenance shall be conducted every six months and reported to Regional Office of MoEF&CC. Project proponent shall arrange to provide training to employees on 'behavioural safety'.
 - ii. All CER activities as committed in the reply to the ADS letter dated 02/01/2019 shall be completed in financial year 2019-20.
 - iii. 100 % SMS Slag utilisation shall be ensured after conditioning /steam curing.

- iv. Scheme for decommissioning of SMSI and its utilities along with green belt development in that area shall be submitted within six months to the Ministry and Regional Office of the MoEF&CC.
- v. Scheme for greenbelt development in the remaining area for covering 33% of total project area shall be submitted to the Regional Office of the MoEF&CC.
- vi. Standard Operating Procedures (SOPs) shall be developed for performance monitoring of pollution control devices and performance monitoring should get conducted every year internally and every third year through accredited third party.
- vii. In the Environmental Policy the hierarchy of reporting environmental non-compliances and emergencies should be clearly mentioned and submitted to the Regional Office of the MoEF&CC.
- viii. Solid waste management as committed in the reply to the ADS letter dated 02/01/2019 shall be complied.

B. General conditions:

I. Statutory compliance:

- i. The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State Pollution Control Board/Committee.
- ii. The project proponent shall obtain the necessary permission from the Central Ground Water Authority, in case of drawl of ground water / from the competent authority concerned in case of drawl of surface water required for the project.
- iii. The project proponent shall obtain authorization under the Hazardous and other Waste Management Rules, 2016 as amended from time to time.

II. Air quality monitoring and preservation

- i. The project proponent shall install 24x7 continuous emission monitoring system at process stacks to monitor stack emission with respect to standards prescribed in Environment (Protection) Rules 1986 vide G.S.R 277 (E) dated 31st March 2012(Integrated iron & Steel); G.S.R 414 (E) dated 30th May 2008 (Sponge Iron) as amended from time to time; S.O. 3305 (E) dated 7th December 2015 (Thermal Power Plants)as amended from time to time and connected to SPCB and CPCB online servers and calibrate these system 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 labs recognized under Environment (Protection) Act, 1986.

- iii. The project proponent shall install system to carryout Continuous Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM₁₀ and PM_{2.5} in reference to PM emission, and SO₂ and NO_x in reference to SO₂ and NO_x emissions) within and outside the plant area at least at four locations (one within and three outside the plant area at an angle of 120° each), covering upwind and downwind directions.
- iv. The cameras shall be installed at suitable locations for 24X7 recording of battery emissions on the both sides of coke oven batteries and videos shall be preserved for at least one-month recordings.
- v. Sampling facility at process stacks and at quenching towers shall be provided as per CPCB guidelines for manual monitoring of emissions.
- vi. The project proponent shall submit monthly summary report of continuous stack emission and air quality monitoring and results of manual stack monitoring and manual monitoring of air quality /fugitive emissions to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.
- vii. 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.
- viii. The project proponent shall provide leakage detection and mechanised bag cleaning facilities for better maintenance of bags.
- ix. Secondary emission control system shall be provided at SMS Converters.
- x. Pollution control system in the steel plant shall be provided as per the CREP Guidelines of CPCB.
- xi. Sufficient number of mobile or stationery vacuum cleaners shall be provided to clean plant roads, shop floors, roofs, regularly.
- xii. 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.
- xiii. The project proponent use leak proof trucks/dumpers carrying coal and other raw materials and cover them with tarpaulin.
- xiv. Facilities for spillage collection shall be provided for coal and coke on wharf of coke oven batteries (Chain conveyors, land based industrial vacuum cleaning facility).
- xv. Land-based APC system shall be installed to control coke pushing emissions.
- xvi. Monitor CO, HC and O₂ in flue gases of the coke oven battery to detect combustion efficiency and cross leakages in the combustion chamber.
- xvii. Vapor absorption system shall be provided in place of vapour compression system for cooling of coke oven gas in case of recovery type coke ovens.

- xviii. In case concentrated ammonia liquor is incinerated, adopt high temperature incineration to destroy Dioxins and Furans. Suitable NOx control facility shall be provided to meet the prescribed standards.
- xix. The coke oven gas shall be subjected to desulphurization if the sulphur content in the coal exceeds 1%.
- xx. Wind shelter fence and chemical spraying shall be provided on the raw material stock piles.
- xxi. Design the ventilation system for adequate air changes as per ACGIH document for all tunnels, motor houses, Oil Cellars.
- xxii. The project proponent shall install Dry Gas Cleaning Plant with bag filter for Blast Furnace and SMS converter. *(to be decided on case to case basis depending on type and size of plant)*
- xxiii. Dry quenching (CDQ) system shall be installed along with power generation facility from waste heat recovery from hot coke

III. Water quality monitoring and preservation

- i. The project proponent shall install 24x7 continuous effluent monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 vide G.S.R 277 (E) dated 31st March 2012 (Integrated iron & Steel); G.S.R 414 (E) dated 30th May 2008 (Sponge Iron) as amended from time to time; S.O. 3305 (E) dated 7th December 2015 (Thermal Power Plants) as amended from time to time and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognised under Environment (Protection) Act, 1986 or NABL accredited laboratories.
- ii. 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 recognised under Environment (Protection) Act, 1986 and NABL accredited laboratories.
- iii. The project proponent shall submit monthly summary report of continuous effluent monitoring and results of manual effluent testing and manual monitoring of ground water quality to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.
- iv. The project proponent shall provide the ETP for coke oven and by-product to meet the standards prescribed in G.S.R 277 (E) dated 31st March 2012 (Integrated iron & Steel); G.S.R 414 (E) dated 30th May 2008 (Sponge Iron) as amended from time to time; S.O. 3305 (E) dated 7th December 2015 (Thermal Power Plants) as amended from time to time as amended from time to time;
- v. Adhere to 'Zero Liquid Discharge'.
- vi. Sewage Treatment Plant shall be provided for treatment of domestic wastewater to meet the prescribed standards.

- vii. 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.
- viii. Tyre washing facilities shall be provided at the entrance of the plant gates
- ix. CO₂ injection shall be provided in GCP of SMS to reduce pH in circulating water to ensure optimal recycling of treated water for converter gas cleaning.
- x. The project proponent shall practice rainwater harvesting to maximum possible extent.
- xi. Treated water from ETP of COBP shall not be used for coke quenching.
- xii. Water meters shall be provided at the inlet to all unit processes in the steel plants.
- xiii. The project proponent shall make efforts to minimise water consumption in the steel plant complex by segregation of used water, practicing cascade use and by recycling treated water.

IV. Noise monitoring and prevention

- i. Noise level survey shall be carried as per the prescribed guidelines and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.
- ii. The ambient noise levels should conform to the standards prescribed under E(P)A Rules, 1986 viz. 75 dB(A) during day time and 70 dB(A) during night time

V. Energy Conservation measures

- i. The project proponent shall provide TRTs to recover energy from top gases of Blast Furnaces.
- ii. Coke Dry Quenching (CDQ) shall be provided for coke quenching for both recovery and non-recovery type coke ovens;
- iii. Waste heat shall be recovered from Sinter Plants coolers and Sinter Machines.
- iv. Use torpedo ladle for hot metal transfer as far as possible. If ladles not used, provide covers for open top ladles.
- v. Use hot charging of slabs and billets/blooms as far as possible.
- vi. Waste heat recovery systems shall be provided in all units where the flue gas or process gas exceeds 300°C.
- vii. Explore feasibility to install WHRS at Waste Gases from BF stoves; Sinter Machine; Sinter Cooler, and all reheating furnaces and if feasible shall be installed.
- viii. Restrict Gas flaring to < 1%.

- ix. 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;
- x. Provide LED lights in their offices and residential areas.
- xi. Ensure installation of regenerative type burners on all reheating furnaces.

VI. Waste management

- i. An attrition grinding unit to improve the bulk density of BF granulated slag from 1.0 to 1.5 Kg/l shall be installed to use slag as river sand in construction industry.
- ii. In case of Non-Recovery coke ovens, the gas main carrying hot flue gases to the boiler, shall be insulated to conserve heat and to maximise heat recovery.
- iii. Tar Sludge and waste oil shall be blended with coal charged in coke ovens (applicable only to recovery type coke ovens).
- iv. Carbon recovery plant to recover the elemental carbon present in GCP slurries for use in Sinter plant shall be installed.
- v. Waste recycling Plant shall be installed to recover scrap, metallic and flux for recycling to sinter plant and SMS.
- vi. Used refractories shall be recycled as far as possible.
- vii. SMS slag after metal recovery in waste recycling facility shall be conditioned and used for road making, railway track ballast and other applications. The project proponent shall install a waste recycling facility to recover metallic and flux for recycle to sinter plant. The project proponent shall establish linkage for 100% reuse of rejects from Waste Recycling Plant.
- viii. 100% utilization of fly ash shall be ensured. All the fly ash shall be provided to cement and brick manufacturers for further utilization and Memorandum of Understanding in this regard shall be submitted to the Ministry's Regional Office.
- ix. Oil Collection pits shall be provided in oil cellars to collect and reuse/recycle spilled oil. Oil collection trays shall be provided under coils on saddles in cold rolled coil storage area.
- x. The waste oil, grease and other hazardous waste like acidic sludge from pickling, galvanising, chrome plating mills etc. shall be disposed of as per the Hazardous & Other waste (Management & Transboundary Movement) Rules, 2016. Coal tar sludge / decanter shall be recycled to coke ovens
- xi. Kitchen waste shall be composted or converted to biogas for further use.

VII. Green Belt

- i. Green belt shall be developed in an area equal to 33% of the plant area with a native tree species in accordance with CPCB guidelines. The greenbelt shall inter alia cover the entire periphery of the plant
- ii. 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. 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.
- iv. Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.

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 1st May 2018, as applicable, regarding Corporate Environment Responsibility.
- ii. The company shall have a well laid down environmental policy duly approve 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 to the head of the organization.
- iv. Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose.

Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report.

- v. Self-environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.
- vi. All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Iron and Steel plants shall be implemented.

X. Miscellaneous

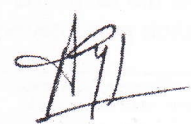
- i. The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language 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 environment 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. AR/
- 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.
- iv. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
- v. 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.

- viii. 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).
- ix. 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.
- x. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- xi. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
- xii. 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.
- xiii. 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 and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.
- 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.
25. This issues with the approval of the Competent Authority.


 (A.K. Agrawal)
 Director

Copy to:-

1. **The Secretary**, Department of Environment, Government of Chhattisgarh,
2. **The Chairman**, Central Pollution Control Board, Parivesh Bhawan, CBD-cum office complex, East Arjun Nagar, Delhi-110032
3. **The Chairman**, Chhattisgarh Environment Conservation Board, Nanak Niwas, Civil Lines, Raipur, Chhattisgarh
4. **The Additional Director General(C)**, Ministry of Environment, Forest and Climate Change, Regional Office (WCZ), Ground Floor, East Wing, New Secretariat Building, Civil Lines, Nagpur - 440001.
5. **The Member Secretary**, Central Ground Water Authority, West Block -II, Wing -3, Sector I, R.K.Puram, New Delhi - 110086.
6. **The District Collector**, Durg District, Chhattisgarh
7. **Guard File/Record File/Monitoring File**
8. **MoEF&CC website.**


 (A.K. Agrawal)
 Director

Notice

Ministry of Environment Forests & Climate change (MoEFCC) has granted Environmental Clearance (EC) for the "Revised Configuration of Modernization-cum-Expansion of 7.0 MTPA Bhilai Steel Plant, Bhilai". The entire copy of the clearance, which consists of conditions & Safeguards, has been displayed at the official web site of Steel Authority of India Ltd at sail.co.in. The Environmental Clearance (EC) granted to Bhilai Steel Plant is also available with Chhattisgarh Environment Conservation Board (CECB), Raipur.

नोटिस

पर्यावरण वन और जलवायु परिवर्तन मंत्रालय (MoEFCC) ने "7.0 MTPA भिलाई इस्पात संयंत्र, भिलाई के आधुनिकीकरण-सह-विस्तार के संशोधित कॉन्फिगरेशन" के लिए पर्यावरणीय मंजूरी (EC) प्रदान की है। क्लियरेंस की पूरी प्रति, जिसमें शर्तें और सुरक्षा उपाय शामिल हैं, को **sail.co.in** पर Steel Authority of India Ltd की आधिकारिक वेब साइट पर प्रदर्शित किया गया है। भिलाई इस्पात संयंत्र को दी गई पर्यावरणीय मंजूरी (ईसी) छत्तीसगढ़ पर्यावरण संरक्षण मंडल (सीईसीबी) के पास भी उपलब्ध है।

(4)
Amendment- 2019 EC
@ 2022
Flag-B-2

F. No. IA-J-11011/28/2007-IA II (I)
Government of India
Ministry of Environment, Forest and Climate Change
(I.A. Division – Industry I sector)

Indira Paryavaran Bhawan
JorBagh Road, Aliganj,
New Delhi – 110003

E-mail: r.sundar@nic.in
Tel: 011-20819378

Dated: 28th April, 2022

To

Smt. Uma Katoch,
Deputy General Manager,
M/s Steel Authority of India Limited,
Ispat Bhawan, Bhilai Steel Plant
Chhattisgarh – 490001
Email: bspenvironment@sail-bhilaisteel.com; Tel: No. 9407981777

Subject: Revised configuration of modernization-cum-expansion of 7.0 MTPA Bhilai Steel Plant by **M/s Steel Authority of India Limited (SAIL)** located at Bhilai, District **Durg, Chhattisgarh– Amendment in Environment Clearance – regarding.**

Sir,

This has reference to online application I.M/s. Steel Authority of India Limited (SAIL) has made online application vide proposal no. IA/CG/IND/260774/2022 dated 11/03/2022 along with addendum EIA/EMP report, and Form 4 seeking amendment in the Environment Clearance accorded by the Ministry vide letter no. J-11011/28/2007-IA-II(I) dated 24/05/2019 under the provisions of the EIA Notification, 2006 for the project mentioned above.

2. The proposal cited above was considered in the 2nd meeting of Expert Appraisal Committee (industry-I sector) held on 22-23rd March, 2022. The EAC proceeding of said meeting is furnished as below.

Details submitted by Project proponent

3. The existing project of M/s. SAIL was granted environmental clearance from Ministry vide letter no. J-11011/28/2007-IA-II(I) dated 24/05/2019 for Revised configuration of modernization-cum-expansion of 7.0 MTPA Bhilai Steel Plant at Bhilai, District Durg, Chhattisgarh.
4. As mentioned in the said EC, the older production units BF-1, SMS1, BBM & RMP-1 are to be phased-out gradually within three years from the grant of EC. It was envisaged by M/s. SAIL BSP that the above units are required to be in operation till the stabilization of new units like BF-8, SMS-III installed under expansion plan there by meeting the hot metal, flux & steel requirements of Steel making units & rolling mills. As per the configuration envisaged in the EC, BSP has phased-out the older production units SMS-1 & BBM by March-2021, earlier than permitted period. During the period i.e., from 2019 to 2022, BSP planned sequential capital repairs of BF-4, 5, 6 & the three kilns of RMP-II, to maintain the health of the furnaces and kilns for sustained production. As per the EC configuration, BSP also planned to phase-out Blast Furnace-1 & Refractory Material Plant-1 by May-2022.

O/C

Amendment Sought in EC dated 24/05/2019:

5. The present proposal of M/s. SAIL is for seeking amendment in EC for extension of time period for operation of BF-1 and RMP-1 for another three years i.e. up to May, 2025 as sequential capital repair of BF-6 could not be taken-up due to restrictions imposed owing to the COVID-19 pandemic. Travel restriction of foreign experts, restricts in import of carbon blocks and some other spares from border sharing countries (China and other countries) as per GoI guidelines, led to adding further delay in carrying out the repairs.
6. The implementation status of the proposed units envisaged in the EC dated 24/05/2019 along with the amendment sought is given as below:

SN.	Units	As per EC dated 24/05/2019		Amendment sought as per present proposal	Remarks
		1st Three years	After Three Years		
A	Blast Furnace				
1	BF 1 with CDI (1033 m ³) in operation for three years for undertaking sequential capital repair of BF 4,5 & 6 along with stabilization of BF 8	BF 1 with CDI (1033 m ³) in operation for three years.	Phased out	Will be in operation for another 3 years to sustain production till May'2025.*	Time extension for another three years for operation of BF-1 to sustain production during repairs of capital repairs of BF-6 and other repairs of BF-4,5,7. Sequential capital repair of BF-6 could not be taken-up due to restrictions imposed owing to the COVID-19 pandemic. Travel restriction of foreign experts, restricts in import of carbon blocks and some other spares from border sharing countries (China and other countries) as per GoI guidelines, led to adding further delay in carrying out the repairs.
	BF 2 with TIS (1033 m ³) - Phased Out	Phased Out	Phased Out	No Change	Phased Out
	BF 3 with TIS (1033 m ³) - Phased Out	Phased Out	Phased Out	No Change	Phased Out
	BF 4, 1719 m ³ Capital Repair	BF 4, 1719 m ³	BF 4, 1719 m ³	No Change	Considering the limited repairs carried out in Blast furnaces-4 & 5 during the COVID period, there will be requirement of further repairs of BF-4 to maintain the health and sustain production after the capital repairs of BF-6. These repairs are likely to be completed by May-2025.

SN.	Units	As per EC dated 24/05/2019		Amendment sought as per present proposal	Remarks
		1st Three years	After Three Years		
	BF 5, 1719 m ³ Capital Repair	BF 5, 1719 m ³	BF 5, 1719 m ³	No Change	Considering the limited repairs carried out in Blast furnaces-5 during the COVID period, there will be requirement of further repairs of BF- 5 to maintain the health and sustain production after the capital repairs of BF-6. These repairs are likely to be completed by May-2025.
	BF 6, 1719 m ³ Capital Repair	BF 6, 1719 m ³	BF 6, 1719 m ³	No Change	Capital Repair planned in 2022-2023 (Oct'2022 to Sep'2023)
	BF 7, 2363 m ³	BF 7, 2363 m ³	BF 7, 2363 m ³	No Change	-
	BF 8, 4060 m ³ with TRT	BF 8, 4060 m ³ with TRT	BF 8, 4060 m ³ with TRT	No Change	-
	Total Hot Metal = 7.5 Million Tonnes Per Annum			No Change	-
<i>* Production as per EC 2019 is 7.5 Million tonnes per annum of Hot Metal. Yearly Hot metal production will not exceed is 7.5 Million tonnes</i>					
B	RMPs				
	RMP I in operation alongwith SMS-I for three years till stabilization of SMS III & BF 8	RMP I in operation for three years	-	Will be in operation for another 3 years to sustain production till May'2025. (Will be operated intermittently to meet the shortfall in flux supply from RMP-2 during repairs of the kilns)**	Request for time extension for operation of RMP-1 to sustain production during repairs of kilns at RMP-2
	RMP - II • 2x 330 TPD + 1 x 144 TPD Lime kiln	RMP-II • 2x 330 TPD + 1 x 144 TPD Lime kiln	RMP-II • 2x 330 TPD + 1 x 144 TPD Lime kiln	No Change	-
	RMP III 5x450 TPD lime and dolo kiln for SMS-III	RMP III 5x450 TPD lime and dolo kiln for SMS-III	RMP III 5x450 TPD lime and dolo kiln for SMS-III	No Change	-
	Refractory Material = 1.58 MTPA			No Change	-
<i>**Production as per EC 2019 is 1.58 Million tonnes per annum of Refractory Material. Yearly production will not exceed is 1.58 Million tonnes</i>					

7. The various environmental projects under EMP being implemented at BSP for reduction of emissions are
- Replacement of Multi-cyclones (wet scrubbers) by ESPs at Sinter Plant-II for control of Stack emission.
 - ESP based de-dusting system at SP-II for work-zone/fugitive emission control

- c. Up-gradation of waste gas ESP of M/c-1 of SP-III for control of Stack emission.
 - d. Cast house De-fuming system in Blast Furnace-7 for control of work-zone emissions in cast house
 - e. Replacement of wet scrubbers with Bag-filters at RMP-II for control of Stack emissions
 - f. Installation of secondary Emission control system/Dog-House for Convertors at Steel Melting Shop-II
8. PP has reported that green belt developed within and around the BSP project area is 1840 ha with about 4,412,182 trees planted up to 2021. Greenbelt along plant boundary (in available space) has already been developed, which will be further re-strengthened. Local and native species are planted with a density of 2500 trees per hectare. In the next five years for further strengthening the green cover / plantation in BSP project area and in surrounding about 50000 saplings will be planted and nurtured in a surrounding area.
 9. It has been reported by PP that, there is no violation under EIA Notification, 2006/court case/show cause/direction related to the project under consideration.
 10. During the meeting, project proponent submitted written submission on the following points:
 - a. The total Hot metal production from Blast Furnaces shall not exceed 7.5 Million tons/Annum as per the existing Environmental clearance
 - b. The total flux production from RMPs shall not exceed 1.58 Million tons/Annum as per the existing Environmental Clearance
 - c. The emissions from these units shall not exceed the prescribed stack emission norms of 50 mg/Nm³.

Observations of the Committee

8. The Committee noted the following:
 - i. M/s. SAIL has obtained environmental clearance from Ministry vide letter dated 24/05/2019 for Revised configuration of modernization-cum-expansion of 7.0 MTPA Bhilai Steel Plant at Bhilai, District Durg, Chhattisgarh.
 - ii. In the instant proposal M/s. SAIL requested to ministry for extension of time period to operate BF-1 and RMP-1 for another three years (i.e. up to May, 2025) as mentioned at para. 6 above.
 - iii. The EAC deliberated on the written submissions submitted by the proponent and found it satisfactory.

Recommendations of the Committee

9. In view of the foregoing and after detailed deliberations, the committee recommended for amendment in EC dated 24/05/2019 as mentioned at para.6 above with following additional specific conditions. All other terms and condition shall remain the same as mentioned in EC letter no. J-11011/28/2007-IA-II(I) dated 24/05/2019.
 - i. PP shall not exceed the overall capacity of Blast furnaces i.e.7.5 MTPA and Refractory Material Plant i.e. 1.58 MTPA as mentioned in EC dated 24/05/2019.
 - ii. Emissions from BF- 1 and RMP-1 units shall not exceed the prescribed stack emission norms.

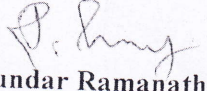
Decision of MoEF&CC

10. The undersigned is directed to inform that 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 for

amendment in the conditions of EC dated 24/05/2019 as mentioned in table at paragraph no. 9 above.

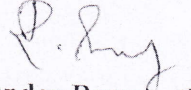
11. All other terms and conditions mentioned in the Environment Clearance letter number. AI-J-11011/28/2007-IA-II(I) dated 24/05/2019 shall remain unchanged.
12. The project proponent shall obtain fresh Environment Clearance in case of change in scope of the project if any.
13. This issues with the approval of the Competent Authority.

Yours faithfully,


(Sundar Ramanathan)
Scientist 'E'

Copy to: -

1. Secretary, Department of Environment, Government of Chhattisgarh.
2. Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-cum office complex, East Arjun Nagar, Delhi-110032.
3. Chairman, Chhattisgarh Environment Conservation Board, Nanak Niwas, Civil Lines, Raipur, Chhattisgarh.
4. Regional Officer, Ministry of Environment, Forest and Climate Change, Integrated Regional Office, Aranya Bhawan, North Block, Sector-19 Naya Raipur, Atal Nagar, Chhattisgarh - 492002.
5. Member Secretary, Central Ground Water Authority, A2, W3 Curzon Road Barracks, K.G. Marg, New Delhi-110001.
6. Chief Wildlife Warden, Govt. of Chattisgarh, Aranya Bhavan, Jail Road, Fafadih Chowk, Raipur - 492001.
7. District Collector, Durg, District, Chhattisgarh.
8. Guard File/Record File/Monitoring File.
9. MoEF&CC website.


(Sundar Ramanathan)
Scientist 'E'