ENVIRONMENTAL CLEARANCE

PARIVESH

(Pro-Active and Responsive Facilitation by Interactive, and Virtuous Environment Single-Window Hub)

Government of India
Ministry of Environment, Forest and Climate Change
(Impact Assessment Division)

To,

The GENERAL MANAGER
DURGAPUR STEEL PLANT -STEEL AUTHORITY OF INDIA
ISPAT BHAWAN, DURGAPUR STEEL PLANT,
SAIL,DURGAPUR,,Paschim bardhaman,West Bengal-713203

Subject: Grant of Environmental Clearance (EC) to the proposed Project Activity under the provision of EIA Notification 2006-regarding

Sir/Madam,

This is in reference to your application for Environmental Clearance (EC) in respect of project submitted to the Ministry vide proposal number IA/WB/IND/267283/2020 dated 16 May 2022. The particulars of the environmental clearance granted to the project are as below.

1.	**EC Identification No.**	**EC22A008WB155554**
2.	**File No.**	J-11011/492/2007-IA-II(I)
3.	**Project Type**	Expansion
4.	**Category**	A
5.	**Project/Activity including Schedule No.**	3(a) Metallurgical industries (ferrous & non ferrous)
6.	**Name of Project**	Revised Configuration of Modernisation-cum-expansion (3.5 MTPA to 2.7 MTPA Gross Hot Metal) by M/s Steel Authority of India Limited (SAIL), Durgapur Steel Plant (DSP) located at Durgapur, Faridpur Blo
7.	**Name of Company/Organization**	DURGAPUR STEEL PLANT -STEEL AUTHORITY OF INDIA
8.	**Location of Project**	West Bengal
9.	**TOR Date**	23 Sep 2020

The project details along with terms and conditions are appended herewith from page no 2 onwards.

Date: 29/07/2022

(e-signed)
Dr. R. B. Lal
Scientist E
IA - (Industrial Projects - 1 sector)

Note: A valid environmental clearance shall be one that has EC identification number & E-Sign generated from PARIVESH.Please quote identification number in all future correspondence.

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F. No. J-11011/492/2007-IA-II(I)
Government of India
Ministry of Environment, Forest and Climate Change
(I.A. Division – Industry I sector)
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Indira Paryavaran Bhawan
Vayu Wing, 3rd Floor,
Jor Bagh Road, Aliganj,
New Delhi – 110003

Dated: 29th July, 2022

To,

M/s Steel Authority of India Limited
Ispat Bhawan, Durgapur Steel Plant, Durgapur,
Paschim bardhaman, West Bengal-713203
Email: ecddsp@gmail.com

Project: Revised Configuration of Modernisation-cum-expansion (3.5 MTPA to 2.7 MTPA Gross Hot Metal) by M/s Steel Authority of India Limited (SAIL), Durgapur Steel Plant (DSP), located at Durgapur, Faridpur Block, District Paschim Bardhaman, West Bengal - Grant of Environmental Clearance.

Sir,

This refers to your proposal no. IA/WB/IND/267283/2020 dated 13.04.2022 received through PARIVESH Portal for grant of Environmental Clearance (EC) for the above mentioned project.

2. As per the provisions of the Environment Impact Assessment (EIA) Notification, 2006, the above-mentioned project/activity is covered under category 'A' of item 3(a) Metallurgical Industries (ferrous & non-ferrous), 2(b) Mineral Beneficiation, 4(b) Coke oven plants and 1(d) Thermal Power Plants of the EIA Notification, 2006 and appraised at Central Level.

3. The above-mentioned proposal has been considered in 7th meeting of Expert Appraisal Committee (Industry-1 Sector) held on 13-14th June, 2022. The minutes of the meeting and all the project documents are available on PARIVESH portal which can be accessed at https://parivesh.nic.in

4. The details of the proposal are as per the EIA/EMP report submitted by the proponent. The salient features of the proposal as presented during the above-mentioned meeting of EAC (Industry 1 Sector) are as under: -

S. No.	Particulars	Details
a.	Terms of Reference for undertaking EIA study	23/09/2020
b.	Period of baseline data collection	Summer season 2020 & Sept-Oct 2020
c.	Date of Public Consultation	05.01.2022
d.	Action plan to address the PH issues	An amount of 2.01 core have been earmarked to address the issues raised during public hearing. Detail of activities proposed attached as **Annexure 1.**
e.	Location of the project	Village :Durgapur , District: Paschim Bardhaman , West Bengal
f.	Latitude and Longitude of the project site	**Point** / **Latitude (N)** / **Longitude (E)**: 1 / 23°31'53" / 87°15'55"; 2 / 23°32'07" / 87°15'50"; 3 / 23°32'13" / 87°15'48"

S. No.	Particulars	Details
		4 23°32'35" 87°15'41" 5 23°32'39" 87°15'50" 6 23°32'46" 87°15'46" 7 23°32'47" 87°15'46" 8 23°32'46" 87°15'45" 9 23°32'46" 87°15'44" 10 23°32'47" 87°15'43" 11 23°32'47" 87°15'43" 12 23°32'46" 87°15'42" 13 23°32'48" 87°15'41" 14 23°32'50" 87°15'35" 15 23°33'25" 87°15'17" 16 23°33'26" 87°15'16" 17 23°33'28" 87°15'07" 18 23°33'29" 87°15'03" 19 23°33'30" 87°15'03" 20 23°33'31" 87°15'04" 21 23°33'34" 87°15'05" 22 23°33'35" 87°14'60" 23 23°33'35" 87°14'57" 24 23°33'38" 87°14'59" 25 23°33'40" 87°14'54" 26 23°33'37" 87°14'51" 27 23°33'43" 87°14'19" 28 23°33'42" 87°14'18" 29 23°33'42" 87°14'17" 30 23°33'41" 87°14'17" 31 23°33'33" 87°14'18" 32 23°33'32" 87°14'16" 33 23°33'22" 87°14'16" 34 23°33'07" 87°14'23" 35 23°33'01" 87°14'10" 36 23°32'48" 87°14'17" 37 23°32'27" 87°14'41" 38 23°32'01" 87°15'12" 39 23°31'40" 87°15'39" 40 23°31'38" 87°15'48" 41 23°31'41" 87°15'52" 42 23°31'44" 87°15'54"
g.	Total land	600 ha;
h.	Land acquisition details as per MoEF&CC O.M. dated 7/10/2014	Entire 600 ha is already in procession of DSP
i.	Existence of habitation & involvement of R&R, if any	Project Site: Nil Study Area: Habitation | Distance | Direction DSP Township | ~3 km | NE DTPS Township | ~2 km | SE
j.	Elevation of the project site	Altitude: 74 m to 87 m above MSL
k.	Involvement of Forest land if any.	No Forest Land is involved in the proposed expansion project area.
l.	Water body exists within	Project site: Nil

<table>
<tr><th>S. No.</th><th>Particulars</th><th>Details</th></tr>
<tr><td></td><td>the project site as well as study area</td><td>Study area:
<table>
<tr><td>Water body</td><td>Distance</td><td>Direction</td></tr>
<tr><td>Damodar River</td><td>~1.15 km</td><td>S</td></tr>
<tr><td>Durgapur Barrage</td><td>~7.0 km</td><td>SE</td></tr>
<tr><td>Tamla Nala</td><td>~0.3km</td><td>E</td></tr>
<tr><td>Singaran Nala</td><td>~1.5 km</td><td>W</td></tr>
<tr><td>Barjora Nala</td><td>~6 km</td><td>S</td></tr>
</table></td></tr>
<tr><td>m.</td><td>Existence of ESZ / ESA / national park / wildlife Sanctuary / biosphere Reserve / tiger reserve / elephant reserve etc. if any within the study area</td><td>Nil</td></tr>
<tr><td>n.</td><td>Project cost</td><td>Proposed – INR Rs. 3324 Crores</td></tr>
<tr><td>o.</td><td>EMP cost</td><td>
<table>
<tr><th>Type</th><th>Capital (Rs. in Crores)</th><th>Recurring (Rs. in Crores)</th></tr>
<tr><td>Proposed</td><td>Rs433.51 Crores</td><td>Rs0.79 Crores</td></tr>
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<tr><td>p.</td><td>Employment opportunity</td><td>667 Persons</td></tr>
<tr><td>q.</td><td>Water and Power requirement</td><td>The requirement of make-up water for the project is –5575 m^3/hr (1,33,800 KLD), Power – 245.5 MVA</td></tr>
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Unit configuration and capacity:

Sl. No.	Plant Unit /Particulars	Plant Unit Configuration/Capacity			
		EC 2007 (with amendments)	**Existing / Implemented**	**Present Proposal**	**Final (Existing+ Proposed)**
1.	**EC Capacity**				
a)	Gross Hot Metal (GHM) Production	3.5 MTPA	2.555 MTPA	2.7 MTPA	2.7 MTPA
b)	Crude Steel Production	3.0 MTPA	2.20 MTPA	2.5 MTPA	2.5 MTPA
c)	Finished / Saleable Steel Production	2.8325 MTPA	2.29 MTPA	2.4104 MTPA	2.4104 MTPA
d)	Cold Pigs Production:	214000 TPA	214000 MTPA	No Change	214000 TPA
2.	**Coke Oven Complex**				
a)	**Composition / Availability :**				
	Coke Oven Battery (COB) No. # I	78 Ovens; 4.5 m tall; Top Charge; Wet Quenching Facility	78 Ovens; 4.5 m tall; Top Charge; Wet Quenching Facility	Existing COB # I to be replaced with New COB#I (2x44 Ovens, height 5.5m, Stamp Charge; CDCP).	COB # I (2x44 Ovens, height 5.5m; Stamp Charge; CDCP)
	COBs # II, # III, # IV, #V, # VI	Each 78 Ovens, height 4.45m; Top Charge; Wet Quenching.	Each 78 Ovens, height 4.45m; Top Charge; Wet Quenching.	No Change	Each 78 Ovens, height 4.45m; Top Charge; Wet Quenching)
	Gross Coke Production	**1.7 MTPA**	**1.7 MTPA**	**No Change**	**1.7 MTPA**
b)	CDQ Green Power : 10 MW	-	-	New CDQ Extraction Turbine 12MW; Power Generation 10MW	CDQ Extraction Turbine 12MW; Power Generation 10MW

Sl. No.	Plant Unit /Particulars	Plant Unit Configuration/Capacity			
		EC 2007 (with amendments)	**Existing / Implemented**	**Present Proposal**	**Final (Existing+ Proposed)**
3.	**Byproducts Plant**				
a)	Benzol Plant : Crude Benzol Production	16800 TPA	16800 TPA	No Change	16800 TPA
b)	Ammonium Sulphate Plant	19200 TPA	19200 TPA	No Change	19200 TPA
c)	Tar Plant : Crude Tar Production	72000 TPA	72000 TPA	No Change	72000 TPA
4.	**Sinter Plant Complex :**				
a)	Sinter Plant SP # I (2X143.2 m^2)	1.299 MTPA (To be phased out after installation of SP#III)	1.299 MTPA	Increase in Gross Sinter Production from 1.299 to 1.5 MTPA	1.5 MTPA
b)	Sinter plant SP # II (1X180 m^2)	1.71 MTPA	1.71 MTPA	Increase in Gross Sinter Production from 1.71 to 1.9 MTPA	1.9 MTPA
c)	Sinter plant SP # III New: (1X296 m^2)	3.029 MTPA	Not Installed	No Change	-
d)	**Total Gross Sinter Production :**	**4.739 MTPA**	**3.009 MTPA**	**3.4 MTPA**	**3.4 MTPA**
5.	**Blast Furnace :**				
a)	BF# 1 : 1x1400 m^3; GHM Production	0.945 MTPA	Not Re-constructed	No Change	-
b)	BF# 2 & BF# 3 : 2x1400 m^3, GHM Production	1.61 MTPA	1.61 MTPA	Increase in GHM Production from 1.61 MTPA to 1.755 MTPA	1.755 MTPA
c)	BF# 4 : 1 x 1800 m^3; GHM Production	0.945 MTPA	0.945 MTPA	No Change	0.945 MTPA
d)	**Total GHM Production**	**3.5 MTPA**	**2.555 MTPA**	**2.7 MTPA**	**2.7 MTPA**
e)	BF Gas Cleaning Plant (GCP): BF #2, #3 & BF #4	GCP: BF #2, #3 & BF #4	No Change	No Change	BF Gas Cleaning Plant (GCP) : BF #2, #3 & BF #4
f)	Slag Granulation Plant (SGP):	0.89 MTPA	0.89 MTPA	No Change	0.89 MTPA
g)	Pig Casting Machine	214000 TPA	214000 TPA	No Change	214000 TPA
6.	**Steel Melting Shop & Associated Facilities**				
a)	Hot Metal Mixer	2 x 1300t	2 x 1300t	No Change	2 x 1300t
b)	Hot Metal De-sulphurisation Unit : 1.4 MTPA	1.4 MTPA	Not installed	No Change	-
c)	Charging Ladles 140t for Hot Metal supply from Mixers to BOFs.	140t	140t	No Change	140t
d)	Basic Oxygen Furnaces (BOFs)	3x120t (3x110 m^3): 3/3 Convertor Operation	3x120t (3x110 m^3): 3/3 Convertor Operation	No Change	Basic Oxygen Furnaces (BOFs) 3x120t (3x110 m^3): 3/3 Convertor Operation.
e)	Laddle Furnace (LF)	2x130t (Existing) + 1x130t (New)	3x130t	No Change	3x130t
f)	RH de-gassing unit (new	1X130t	Not installed	No Change	-

Sl. No.	Plant Unit /Particulars	Plant Unit Configuration/Capacity			
		EC 2007 (with amendments)	**Existing / Implemented**	**Present Proposal**	**Final (Existing+ Proposed)**
	envisaged)				
g)	Secondary Refining : Vacuum Arc Degassing (VAD)	1X130t	1X130t	No Change	1X130t
h)	Gas Cleaning Plant (GCP)	83000 Nm^3/hr	83000 Nm^3/hr	No Change	83000 Nm^3/hr
7.	**Casting Facilities**				
a)	Billet Caster	2X6 strand	2X6 strand	No Change	2X6 strand
b)	Bloom Caster	1X4 strand	1X4 strand	No Change	1X4 strand
c)	Bloom-cum-Round Caster	1X4 Strand	1X4 Strand	No Change	1X4 Strand
d)	Ingot Casting	100% Continuous casting replacing Ingot casting – blooming mill route.	Bottom Pouring Ingot Casting for 2.5% liquid steel (for high grade steel for wheels) & rest through continuous casting.	No Change	Bottom Pouring Ingot Casting for 2.5% liquid steel (for high grade steel for wheels) & rest through continuous casting.
	Total Crude Steel Production : 3.0 MTPA	**3.0 MTPA**	**2.20**	**2.5 MTPA**	**2.5 MTPA**
8.	**Rolling Mills**				
a)	Existing Merchant Mill	0.33 MTPA	0.33 MTPA	Increase in Production Capacity from 0.33 MTPA to 0.4 MTPA	0.4 MTPA
b)	New Bar & Rod Mill:	Wire Rod Mill: 0.5 MTPA. New Merchant Mill: 0.8 MTPA	Not installed	New Bar Mill Capacity : 1.0 MTPA	New Bar Mill, Capacity : 1.0 MTPA
c)	Wheel & Axle Plant	0.16 MTPA	0.16 MTPA	Addition of Online Heat Treatment Facility in place of existing 4 nos. reheating furnaces	0.16 MTPA (with Online Heat Treatment Facility)
d)	Skelp Mill	0.22 MTPA	Not in Operation	Not to be in operation	-
e)	Section Mill	0.207 MTPA (Kept Out of Operation)	0.207 MTPA (Kept Out of Operation)	Bring Back in Operation (Capacity 0.207 MTPA) till Full Capacity Utilization of Medium Structural Mill.	Section Mill: Capacity 0.207 MTPA in Operation till Full Capacity Utilization of Medium Structural Mill
f)	New Medium Structural Mill (MSM)	1.0 MTPA	1.0 MTPA	No change	1.0 MTPA
g)	20 Nos. Soaking Pits Ingot-Stripping Facilities & Blooming Mills	Phased Out	Phased Out	No change	-
h)	Billet Mill; Producing 0.23 MTPA. Phased out	Phased Out	Phased Out	No change	-
	Total Finished Steel / Saleable Steel Production :	**2.832 MTPA**	**2.29 MTPA**	**2.4104 MTPA**	**2.4104 MTPA**
9.	**Old Power Plant (OPP)**				
	Dual Fired (Coal & Cokeoven & BF Gas) Boiler	Boiler No. 1, 2, 5 & 6: Dual Fired Gas & Coal (68 TPH each) proposed	Boiler replacement not undertaken	No Change	Dual Fired (Gas & Coal) Boilers No. 1, 2, 5 & 6 (68 TPH each).

Sl. No.	Plant Unit /Particulars	Plant Unit Configuration/Capacity			
		EC 2007 (with amendments)	**Existing / Implemented**	**Present Proposal**	**Final (Existing+ Proposed)**
		to be replaced with Dual Fired (Coal & Gas) Boiler 3X125 TPH.			
	Coke oven & BF Gas Fired Boiler	Three Gas Fired Boiler Nos. 3, 4 & 7 (68 TPH each).	No Change	Replacement of 7th 68 TPH Gas Fired Boiler with 100 TPH Gas Fired Boiler	Three Gas Fired Boilers: No. 3 & 4 (68 TPH each) & New No. 7 (100 TPH).
	Turbo-Alternators	Four Steam driven Turbo-Alternators 4X5 MW. Max. Power Generation 4x5 MW of Category –I Load; To be replaced with 3X20MW (2W+1S) Turbo-Alternator to produce 2x20MW Category –I Power	Replacement not undertaken	No Change	Four Steam driven Turbo-Alternators 4X5 MW with Max. Power Generation 4x5 MW (Category –I Load).
10.	**Associated Facilities**				
a)	Calcined Lime Plant (3X300 t/d)	0.2485 MTPA	0.2485 MTPA	No Change	0.2485 MTPA
b)	Calcined Dolomite Plant (1X300t/d)	0.0694 MTPA	0.0694 MTPA	No Change	0.0694 MTPA
c)	Oxygen Plant: Captive	2x350 TPD	2x350 TPD	• 1x350 TPD continues • 1x350 TPD Phasing out	1x350 TPD
d)	Oxygen Plant : BOO basis	1x700 TPD 1x350 TPD(new)	• 1x700 • 1x350 TPD- Not Installed	• New 1x1250 TPD BOO Basis in place of existing 1x700 TPD	1x1250 TPD (new)
e)	Foundry shop with EAF	Furnace 6t	Furnace 6t	No Change	Furnace 6t
f)	**Raw material Handling Complex**	9.1138 MTPA	7.5321 MTPA	No Change	7.5321 MTPA
g)	Coke Oven Gas Holder	56,000 m^3	56,000 m^3	To be replaced with New Gas Holder of Capacity 70,000 m^3	70,000 m^3
h)	BF Gas Holder	1,00,000m^3	1,00,000m^3	No Change	1,00,000m^3
i)	Existing BOF Gas Holder	40,000m^3	40,000m^3	No Change	40,000m^3
j)	Liquid Oxygen Holder	2,000t	2,000t	No Change	2,000t
k)	Propane Unit (2x200t)	2x200t = 400t	2x200t = 400t	No Change	2x200t = 400t
l)	LPG Storage Facility	4X500t	Not Installed	No Change	-

5. The EAC, in its 7th meeting of Expert Appraisal Committee (Industry-1 Sector) held on 13-14th June, 2022, based on information & clarifications provided by the project proponent and after detailed deliberations recommended the proposal for grant of Environment Clearance subject to stipulation of specific and general conditions as detailed in the point below.

6. The MoEF&CC 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 Sector) hereby decided to grant

Environment Clearance for instant proposal of M/s. Steel Authority of India Limited under the provisions of EIA Notification, 2006 subject to the following specific conditions and general conditions:

A. Specific conditions:

i. The project proponent shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.

ii. The project proponent shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.

iii. The activities and the action plan proposed by the project proponent to address the issues raised during public hearing and socio-economic issues in the study area shall be completed as per the schedule presented before the Committee and as described in the EIA report in letter and spirit.

iv. Three tier Green Belt shall be developed in a time frame of one year with native species all along the periphery of the project site of adequate width and tree density shall not be less than 2500 per ha. Survival rate of green belt developed shall be monitored on periodic basis to ensure that damaged plants are replaced with new plants in the subsequent years. Compliance status in this regard, shall be submitted to concerned Regional Office of the MoEF&CC. Green Belt shall be 40%.

v. Water bodies exists within the study area from the project site. The water bodies shall not be disturbed. Landscaping shall be done on both embankments, with green belt covering 10 m land on both sides. This shall be in addition to the 40% green belt development.

vi. Solid waste utilization

- PP shall install a slag crusher to convert steel slag into aggregate for use in construction industry, fine sand for use as flux in steel plant, sand in brick making and as lime in cement making.
- PP shall recycle/reuse 100 % solid waste generated in the plant.
- Used refractories shall be recycled as far as possible.

vii. Sinter Plant shall be equipped with Sinter cooler waste recovery system and suitable technology for control of dioxins and furans emissions from the plant.

viii. Tar shall be recovered from producer gas and shall be sold to registered processors and phenolic water shall be incinerated in After Burn Chamber (ABC) of DRI kilns.

ix. The new Stamp Charge Battery shall be equipped with Coke Dry Quenching system.

x. Coke Oven Gas shall be desulfurized.

xi. Blast Furnaces shall be equipped with Top Recovery Turbine (capacity more than 450m^3), dry gas cleaning plant, stove waste heat recovery, cast house and stock house ventilation system and slag granulation facility.

xii. Secondary fume extraction system shall be installed on converters of Steel Melting Shop.

xiii. Basic Oxygen Furnace (BOF) gas shall be cleaned dry.

xiv. Electric Arc Furnace shall be closed type with 4th hole extraction system.

xv. 85-90 % of billets shall be rolled directly in hot stage. RHF shall operate using only Light Diesel Oil or Mixed BF/CO gas/Producer gas.

xvi. Cold Rolling Mill (CRM), color coating and galvanizing plants shall have CETP to treat and recycle the treated water from CRM complex. Sludge generated at CRM ETP shall be sent to TSDF.

xvii. PM emissions from new units shall be shall be less than 30 mg/Nm3. All older units shall be modified /retrofitted to achieve 30 mg/Nm3 emissions by Dec. 2023. Coke oven emissions shall be maintained at less than 50 mg/Nm3.

xviii. Online monitoring arrangement shall be provided for PLL, PLD, PLO on all six batteries using time lapse rate cameras with recording facilities.

xix. The net water requirement is estimated to be 5575 m^3/hr (1,33,800 KLD) which is sourced from Durgapur Barrage built on River Damodar after obtaining necessary permission. No ground water abstraction is permitted.

xx. Three tier Green Belt shall be developed in a time frame of one year with native species all along the periphery of the project site of adequate width and tree density shall not be less than 2500 per ha. In addition, PP shall provide 50-meter-wide green belt towards Reserve Forest located at 0.50 km from project site. Survival rate of green belt developed shall be monitored on periodic basis to ensure that damaged plants are replaced with new plants in the subsequent years. Compliance status in this regard, shall be submitted to concerned Regional Office of the MoEF&CC.

xxi. Greening and Paving shall be implemented in the plant area to arrest soil erosion and dust pollution from exposed soil surface.

xxii. Performance test shall be conducted on all pollution control systems every year and report shall be submitted to Regional Office of the MoEF&CC.

xxiii. Rain water harvesting shall be implemented to recharge/harvest water as per the action plan submitted in the EIA/EMP report.

xxiv. The proposed project shall be designed as "Zero Liquid Discharge" Plant. No waste water will be discharged outside the plant boundary.

xxv. The recommendations of the approved Site-Specific Conservation Plan / Wildlife Management Plan shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report to the concerned Regional Office of the MoEF&CC.

xxvi. The coke oven area shall be monitored for Benzene, Toluene, Xylene (BTX) and Polycyclic Aromatic Hydrocarbons (PAHs) concentrations, as all of them are toxic in nature. The concentration shall not be exceeding with permissible limits.

xxvii. The industry should report on the total quantity of suspended particulate matter generated per annum and how much of this captured by the pollution control equipment.

xxviii. A proper action plan must be implemented to dispose of the electronic waste generated in the industry.

B. General conditions:

I. Statutory compliance:

i. The Environment Clearance (EC) granted to the project/ activity is strictly under the provisions of the EIA Notification, 2006 and its amendments issued from time to time. It does not tantamount/ construe to approvals/ consent/ permissions etc., required to be obtained or standards/conditions to be followed under any other Acts/Rules/Subordinate legislations, etc., as may be applicable to the project.

II. Air quality monitoring and preservation

i. The project proponent shall install 24x7 continuous emission monitoring system at process stacks to monitor stack emission as well as 04 Nos. Continuous Ambient Air Quality Station (CAAQS) for monitoring AAQ parameters with respect to standards prescribed in Environment (Protection) Rules 1986 as amended from time to time. The CEMS and CAAQMS shall be connected to SPCB and CPCB online servers and calibrate these systems from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.

ii. The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through laboratories recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.

iii. Sampling facility at process stacks and at quenching towers shall be provided as per CPCB guidelines for manual monitoring of emissions.

iv. 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.

v. The project proponent shall provide leakage detection and mechanized bag cleaning facilities for better maintenance of bags.

vi. Sufficient number of mobile or stationery vacuum cleaners shall be provided to clean plant roads, shop floors, roofs, regularly.

vii. 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.

viii. The project proponent use leak proof trucks/dumpers carrying coal and other raw materials and cover them with tarpaulin.

ix. 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).

x. Land-based APC system shall be installed to control coke pushing emissions.

xi. Monitor CO, HC and O2 in flue gases of the coke oven battery to detect combustion efficiency and cross leakages in the combustion chamber.

xii. 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.

xiii. Wind shelter fence and chemical spraying shall be provided on the raw material stock piles.

xiv. Design the ventilation system for adequate air changes as per prevailing norms for all tunnels, motor houses, Oil Cellars.

III. Water quality monitoring and preservation

i. The project proponent shall 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 recognized 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 recognized under Environment (Protection) Act, 1986 and NABL accredited laboratories.

iii. The project proponent shall provide the ETP 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.

iv. Sewage Treatment Plant shall be provided for treatment of domestic wastewater to meet the prescribed standards.

v. 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.

vi. Tyre washing facilities shall be provided at the entrance of the plant gates.

vii. Water meters shall be provided at the inlet to all unit processes in the steel plants.

IV. Noise monitoring and prevention

i. Noise pollution shall be monitored as per the prescribed Noise Pollution (Regulation and Control) Rules, 2000 and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.

V. Energy Conservation measures

i. Use torpedo ladle for hot metal transfer as far as possible. If ladles not used, provide covers for open top ladles.

ii. Restrict Gas flaring to < 1%.

iii. 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;

iv. Provide LED lights in their offices and residential areas.

v. Ensure installation of regenerative/recuperative type burners on all reheating furnaces.

VI. Waste management

i. 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.

ii. Kitchen waste shall be composted or converted to biogas for further use.

VII. Green Belt

i. The project proponent shall prepare GHG emissions inventory for the plant and shall submit the programme for reduction of the same including carbon sequestration by trees.

ii. Project proponent shall submit a study report within six months on Decarbonisation program, which would essentially consist of company's carbon emissions, carbon budgeting/ balancing, carbon sequestration activities and carbon offsetting strategies. Further, the report shall also contain time bound action plan to reduce its carbon intensity of its operations and supply chains, energy transition pathway from fossil fuels to Renewable energy etc. All these activities/ assessments should be measurable and monitorable with defined time frames.

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.

iii. Occupational health surveillance of the workers shall be done on a regular basis and records maintained.

IX. Environment Management

i. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 30/09/2020.

ii. The company shall have a well laid down environmental policy duly 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.

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, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.

v. The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.

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

vii. The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.

viii. The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.

ix. No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).

x. The PP shall put all the environment related expenditure, expenditure related to Action Plan on the PH issues, and other commitments made in the EIA/EMP Report etc. in the company web site for the information to public/public domain. The PP shall also put the information on the left over funds allocated to EMP and PH as committed in the earlier ECs and shall be carried out and spent in next three years, in the company web site for the information to public/public domain.

xi. 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.

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

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

xiv. 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.

xv. 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.

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

(Dr. R. B. Lal)
Scientist 'E'/Additional Director
Tel: 011-20819346
Email-rb.lal@nic.in

Encl. as above at Annexure –I

Copy to: -

1. The Secretary, Department of Environment, Government of West Bengal, Secretariat Kolkata.
2. The Secretary, Department of Forests, Government of West Bengal, Kolkata.
3. The Director General of Forest, Ministry of Environment, Forest and Climate Change, New Delhi.
4. The Principal Chief Conservator of Forests, Government of West Bengal, Block LA, 10A Sector-III, Salt Lake City, Kolkata-700098.
5. The Deputy Director General of Forests (C), Integrated Regional Office, Ministry of Environment, Forest and Climate Change, IB-198, Sector-II, Salt Lake City, Kolkata – 700106
6. The Chairman, Central Pollution Control Board, CBD-Cum-Office Complex, East Arjun Nagar, New Delhi-110 032.

7. The Chairman, West Bengal State Pollution Control Board, Paribesh Bhawan, 10A- Block LA, Sector –III, Salt Lake City, Kolkata – 700 098.
8. The Member Secretary, Central Ground Water Authority, Jamnagar House, 18/11, Man Singh Road Area, New Delhi 110001.
9. Monitoring Cell, Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi.
10. District Collector, Paschim Bardhaman District, West Bengal.
11. Guard File/Monitoring File/Website/Record File/ Parivesh Portal.

((Dr. R. B. Lal)
Scientist 'E'/Additional Director
Tel: 011-20819346
Email-rb.lal@nic.in

Annexure – 1

Action plan as per MoEF&CC O.M. dated 30/09/2020

S. No.	Physical activity and action plan		Year of implementation (Budget in INR)				Total Expenditure (Rs. in Crores)
	Name of the Activity	Physical Targets	1st	2nd	3rd	Total	
1	Providing an Ambulance Car for the nearby villages including Old Court More and Patsov after discussion with the local State Government Hospital.	No. of Ambulance	1 (0.15)	-	-	1	0.15
2	Repairing of the existing roads of Gulf Nagar in consultation with local Municipality/ Panchayat.	Road length (Kms)	2 (0.4)	2 (0.4)	1 (0.2)	5	1.00
3	Set up a vocational Training Institute near Amrai village in consultation with local Municipality/ Panchayat.	No. of Institutes	-	-	1 (0.2)	1	0.20
4	Organise Eye testing camp in every 6 months in the nearby villages including Patsov village and Arati Gram.	No. of Camps/yr	2 (0.02)	2 (0.02)	2 (0.02) -Will Continue every year thereafter	6	0.06
5	Plantation for 50,000 saplings of fruit bearing plants and Ornamental plants in the A-Zone, Arati Gram and other nearby suitable areas.	Plantation for saplings	20,000 (0.2)	20,000 (0.2)	10,000 (0.1)	50,000	0.50
6	Wheelchairs will be provided to all Differently abled person of Palashdiha Village and nearby areas.	No. of wheelchair	30 (0.06)	20 (0.04)	-	50	0.10
						Total	**2.01**

Signature Not Verified
Digitally signed by Dr. R. B. Lal
Scientist E
Date: 7/29/2022 1:39:19 PM

सत्यमेव जयते

File No.: IA-J-11011/492/2007-IA-II(IND-I)
Government of India
Ministry of Environment, Forest and Climate Change
IA Division
****

Dated **27/09/2023**

To,

M/s. STEEL AUTHORITY OF INDIA
ISPAT BHAWAN, DURGAPUR STEEL PLANT, SAIL, DURGAPUR. , PASCHIM BARDHAMAN, WEST BENGAL, , 713203
ecddsp@gmail.com

Subject: **Modernisation of Durgapur Steel Plant (3,5 MTPA to 2.7 MTPA Gross Hot Metal) by M/s Steel Authority of lndia limited (SAIL), located at Durgapur, Faridpur-Durgapur Block, Durgapur Sub-division , Paschim Bardhaman District, West Bengal –Amendment in Environmental Clearance– regarding.**

Sir/Madam,

This refers to your proposal no. **IA/WB/IND1/438325/2023 dated 27.07.2023** along with Form 4 and addendum EIA report sought for amendment in Environment Clearance accorded by the Ministry vide letter no. IA-J-11011/492/2007-IA-II(I) dated 29.07.2022 w.r.t. amendment in EC Specific Conditions and change in configuration of facilities keeping same production capacities.

2. The particulars of the proposal are as below :

(i) EC Identification No.	EC23A1001WB5980441A
(ii) File No.	IA-J-11011/492/2007-IA-II(IND-I)
(iii) Clearance Type	Amendment in EC
(iv) Category	A
(v) Schedule No./ Project Activity	3(a) Metallurgical Industries (ferrous and non ferrous)
(vi) Sector	Industrial Projects - 1
(vii) Name of Project	Revised Configuration of Modernisation-cum-expansion (3.5MTPA to 2.7MTPA Gross Hot Metal) by M/s Steel Authority of India Limited (SAIL), Durgapur Steel Plant (DSP)
(viii) Location of Project (District, State)	PASCHIM BARDHAMAN, WEST BENGAL
(ix) Issuing Authority	MoEF&CC
(x) EC Date	29/07/2022

(xi) Applicability of General Conditions YES

(xiii) Status of implementation of the project

3. The proposals were considered in the 42nd meeting EAC(Industry-I) held on 17th -18th August, 2023. The minutes of the meeting and all the project documents are available on PARIVESH portal which can be accessed at https://parivesh.nic.in.

Details submitted by the project proponent:

4. M/s Steel Authority of lndia limited (SAIL), Durgapur Steel Plant (DSP) was accorded Environment Clearance by the Ministry vide letter no. F. No. J-11011/492/2007-IA II(I) dated 29.07.2022 for Revised Configuration of Modernisation-cum-expansion (3.5 MTPA to 2.7 MTPA Gross Hot Metal).

5. The instant proposal is for seeking amendment in EC dated 29.07.2022 w.r.t. amendment in EC Specific Conditions and change in configuration of facilities keeping same production capacities. The details are furnished as **Annexure I**

6. There is no change in the production capacity of units in granted EC.

Deliberations by the Committee

7. The Committee noted the following:

(i). M/s Steel Authority of lndia limited (SAIL), Durgapur Steel Plant (DSP) was accorded Environment Clearance by the Ministry vide letter no. F. No. J-11011/492/2007-IA II(I) dated 29.07.2022 for Revised Configuration of Modernisation-cum-expansion (3.5 MTPA to 2.7 MTPA Gross Hot Metal).

(ii). The instant proposal is for seeking amendment in EC dated 29.07.2022 w.r.t. amendment in EC Specific Conditions and change in configuration of facilities keeping same production capacities as detailed in Annexure I.

(iii). The EAC deliberated on the justification provided by the project proponent and found it satisfactory in the instant case.

(iv). The EAC noted that there is no change in capacity of units in granted EC.

(v). The EAC deliberated on the written submission of project proponent and found it satisfactory.

Recommendations of the Committee

8. After deliberations, the Committee recommended the proposal subject to uploading the written submission on portal for amendment in EC granted vide letter F. No. J-11011/492/2007-IA II(I) dated 29.07.2022 w.r.t. amendment in EC Specific Conditions and change in configuration of facilities keeping same production capacities as detailed **in Annexure I**. The other terms and conditions of the EC letter dated 29.07.2022 shall remain the same.

9. The MoEF&CC 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 Sector) hereby decided to grant Amendment in Environment Clearance dated 29th July, 2022 for instant proposal of **M/s Steel Authority of lndia limited (SAIL)** under the provisions of EIA Notification, 2006.

10. The Ministry reserves the right to stipulate additional conditions, if found necessary at subsequent stages and the project proponent shall implement all the said conditions in a time bound manner. The Ministry may revoke or suspend the environmental clearance, if implementation of any of the above conditions is not found satisfactory.

11. Concealing factual data or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of the Environment (Protection) Act, 1986.

12. This issues with approval of the competent authority.

Copy To

1. The Secretary, Department of Environment, Government of West Bengal, Secretariat Kolkata.
2. The Secretary, Department of Forests, Government of West Bengal, Kolkata.
3. The Director General of Forest, Ministry of Environment, Forest and Climate Change, New Delhi.
4. The Principal Chief Conservator of Forests, Government of West Bengal, Block LA, 10A Sector-III, Salt Lake City, Kolkata-700098.
5. The Deputy Director General of Forests (C), Integrated Regional Office, Ministry of Environment, Forest and Climate Change, IB-198, Sector-II, Salt Lake City, Kolkata – 700106
6. The Member Secretary, Central Pollution Control Board, CBD-Cum-Office Complex, East Arjun Nagar, New Delhi-110 032.
7. The Member Secretary, West Bengal State Pollution Control Board, Paribesh Bhawan, 10A- Block LA, Sector –III, Salt Lake City, Kolkata – 700 098.
8. The Member Secretary, Central Ground Water Authority, Jamnagar House, 18/11, Man Singh Road Area, New Delhi 110001.
9. Monitoring Cell, Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi.
10. District Collector, Paschim Bardhaman District, West Bengal.
11. Guard File/Monitoring File/Website/Record File/ Parivesh Portal

Annexure 1

Additional EC Conditions

The other terms and conditions of the EC letter dated 29.07.2022 shall remain the same.

Annexure 2

Amendment Logs

Description	Reference	Existing	Proposed / Amendment	Reason
Amendment	Clause 6.A.vi.	PP shall	PP shall recycle/reuse	DSP proposes to install

Description	Reference	Existing	Proposed / Amendment	Reason
in EC Condition	under Specific conditions	recycle/reuse 100 % solid waste generated in the plant.	100 % solid waste generated in the plant. If required, PP may adopt suitable technology for micro-pelleting / briquetting of all solid waste fines for reuse.	0.2 MTPA Micro-pelleting briquetting unit for reusing re-cycling the Solid Waste fines generated in the plant.
Amendment in EC Condition	Clause 6.A.vii. under Specific conditions	Sinter Plant shall be equipped with Sinter cooler waste recovery system and suitable technology for control of dioxins and furans emissions from the plant.	Sinter Plant shall be equipped with Sinter cooler waste recovery system and suitable technology for control of dioxins and furans emissions from the plant in new units.	In SP II the Sinter cooler waste heat recovery system is already installed and in SP I, the same is technically not feasible due to existing logistics and layout. Will be installed in new Sinter Plant units in future expansion and modernisation.
Amendment in EC Condition	Clause 6.A.x. under Specific conditions	Coke Oven Gas shall be desulfurized.	Coke Oven Gas shall be desulfurized in new coke ovens.	Feasibility of installation of coke oven gas desulphurisation in existing Coke Oven has been examined and found that it is technically not feasible due to existing process configuration, logistics and layout. Will be installed in new Coke Oven batteries.
Amendment in EC Condition	Clause 6.A.xi. under Specific conditions	Blast Furnaces shall be equipped with Top Recovery Turbine (capacity more than 450m3), dry gas cleaning plant, stove waste heat recovery, cast house and stock house ventilation system and slag granulation facility.	New Blast Furnaces shall be equipped with Top Recovery Turbine (capacity more than 450m3), dry gas cleaning plant, stove waste heat recovery, cast house and stock house ventilation system and slag granulation facility. Cast House and Stock House Ventilati	Installation of TRT etc. is technically not feasible in existing old and small furnaces due to low top pressure, existing process configuration, logistics and layout. It will be installed in future expansion. Granulation of slag is already being done.
Amendment in EC Condition	Clause 6.A.xiii. under Specific conditions	Basic Oxygen Furnace (BOF) gas shall be cleaned dry.	Basic Oxygen Furnace (BOF) gas shall be cleaned dry in new BOF units.	Feasibility of dry cleaning of BOF in existing unit is technically not feasible

Description	Reference	Existing	Proposed / Amendment	Reason
				due to existing process configuration, logistics and layout. Dry cleaning will be implemented in new BOF units.
Amendment in EC Condition	Clause 6.A.xv. under Specific conditions	85-90% of billets shall be rolled directly in hot stage. RHF shall operate using only Light Diesel Oil or Mixed BF/CO gas/Producer gas.	85-90% of billets shall be rolled directly in hot stage in future expansions. RHF shall operate using only Light Diesel Oil or Mixed BF / CO gas / Producer gas.	Rolling Mills in existing plant are located far away from Casters therefore hot rolling is technically not possible due to existing process configuration, logistics and layout. Existing RHF use Mixed BF CO gas.
Amendment in EC Condition	Clause 6.A.xvii. under Specific conditions	PM emissions from new units shall be less than 30 mg/Nm3. All older units shall be modified /retrofitted to achieve 30 mg/Nm3 emissions by Dec. 2023. Coke oven emissions shall be maintained at less than 50 mg/Nm3.	PM emissions from new units shall be less than 30 mg/Nm3. All older units shall be modified /retrofitted to achieve 30 mg/Nm3 emissions by Dec. 2024. Coke oven emissions shall be maintained at less than 50 mg/Nm3.	Action plan to bring down stack emission below 30 mg Nm3 in all stacks is under implementation. Some units like Sinter Plant, Calcined Dolomite Plant, Coal Dust Injection unit and Ladle Furnace no.3 may likely go beyond Dec. 2023.
Amendment in EC Configuration	Clause 4. Unit configuration and capacity. Point No. 5.b): BF# 2 & BF# 3 : 2x1400 m3	BF# 2: 1400 m3, BF# 3: 1400 m3,	BF# 2: 1400 m3, BF# 3: 1540 m3,	Proposed major capital Repair of existing BF#3 will increase the useful volume due to copper staves and reduction in refractory lining thickness. No Change in GHM production.
Amendment in EC Configuration	Clause 4. Unit configuration and capacity. Point No. 6.b): Hot Metal De-sulphurisation Unit	Not installed	Hot Metal Desulphurisation unit Capacity: 1.4 MTPA	DSP shall install Hot Metal Desulphurisation unit in SMS to ensure desired quality of steel

Annexure I

Amendment in EC Specific Conditions and change in configuration of facilities keeping same production capacities

(A) Specific Conditions

S.N.	EC Reference Clause	Existing EC Condition (EC 2022)	Proposed Amendment	Reason /Justification by the PP
1	**Clause 6.A.vii. under Specific conditions**	Sinter Plant shall be equipped with Sinter cooler waste recovery system and suitable technology for control of dioxins and furans emissions from the plant.	Sinter Plant shall be equipped with Sinter cooler waste recovery system **in new units** and suitable technology for control of dioxins and furans emissions from the plant.	• DSP has existing two Sinter Plant units (viz. SP I & SP II). • In SP-II, Sinter cooler waste heat recovery system is already installed. • SP-I was commissioned in 1968 without Waste Heat Recovery (WHR) system. • In SP-I, feasibility of installation of heat recovery system was studied by CET and found that it is technically not feasible due to ▪ existing logistics ▪ layout • However, DSP shall implement the same in all new Sinter Plant units in future expansion/modernisation.
2	**Clause 6.A.xi. under Specific conditions**	Blast Furnaces shall be equipped with Top Recovery Turbine (capacity more than 450m^3), dry gas cleaning plant, stove waste heat recovery, cast house and stock house ventilation system and slag granulation facility.	**New** Blast Furnaces shall be equipped with Top Recovery Turbine (capacity more than 450m3), dry gas cleaning plant, stove waste heat recovery, cast house and stock house ventilation system and slag granulation facility.	**Top Recovery Turbine (TRT) & Stove Waste Heat Recovery** • Feasibility of installation of TRT and Stove Waste Heat Recovery has been studied by CET and found that it is technically not feasible due to: ▪ low top pressure ▪ existing process configuration ▪ logistics ▪ layout **Dry gas cleaning plant** • Existing BF gas cleaning plant is designed with wet cleaning. • Feasibility of Dry cleaning of BF gas in the existing process layout is technically not feasible due to ▪ existing process configuration ▪ logistics ▪ layout

S.N.	EC Reference Clause	Existing EC Condition (EC 2022)	Proposed Amendment	Reason /Justification by the PP
				• DSP shall implement TRT, Stove waste heat recovery and Dry gas cleaning in all new BF units in future expansion / modernisation.
3	**Clause 6.A.xvii. under Specific conditions**	PM emissions from new units shall be less than 30 mg/Nm^3. All older units shall be modified / retrofitted to achieve 30mg/Nm^3 emissions **by Dec. 2023**. Coke oven emissions shall be maintained at less than 50 mg/Nm^3.	PM emissions from new units shall be less than 30 mg/Nm^3. All older units shall be modified / retrofitted to achieve 30 mg/Nm^3 emissions by **Dec. 2024**. Coke oven emissions shall be maintained at less than 50 mg/Nm^3.	**Status of implementation of PM emissions below 30mg/Nm^3 in DSP:** Total number of stacks: 37 nos. Stacks completed: 28 nos. Stacks in which project is in progress & likely to be completed by Dec, 2023: 03 nos. Stacks in which project is likely to be completed by Dec, 2024: 06 nos. Detailed status of the 6 stacks to be completed by December, 2024 is enclosed
The EAC deliberated the request of M/s SAIL and the justification/reason provided by them and after detailed deliberations recommended for the amendments in the EC condition.				

(B) Changes in Configuration of facilities in the table for configuration / capacity in EC:

S.N.	Existing Configuration (EC 2022)	Proposed Amendment	Revision and Justifications/Reason for amending of EC configuration
1	4. Sinter Plant Complex	e) New 0.2 MTPA Micro-Pelleting /Briquetting plant to ensure effective reusing/re-cycling solid waste fines generated.	• DSP is proposing 0.2 MTPA Micro-Pelleting /Briquetting unit for effective reusing/re-cycling solid waste fines generated in the plant. • Ensure 100% recycling of BF Flue dust & BF Sludge waste material which contains more than 30% carbon. • Basic purpose: to convert waste materials along with suitable binder into micro-pellet to be gainfully re-utilized through sinter making.

S.N.	Existing Configuration (EC 2022)	Proposed Amendment	Revision and Justifications/Reason for amending of EC configuration
			• Also helps in Reducing Carbon Footprint. • Pollution Control System: Dust suppression facility in all transfer points of solid waste to arrest fugitive emission.
2	5. Blast Furnace b) BF# 2 & BF# 3: 2x1400 m^3, GHM Production: 1.755 MTPA	5. Blast Furnace b) BF# 2: 1400 m^3, **BF# 3: 1540 m^3,** GHM Production: 1.755 MTPA	• The proposed major capital Repair of existing Blast Furnace 3 (BF#3) will include installation of copper staves and reduction in thickness of refractory lining. • BF#3 useful volume will increase to1540 m^3. • GHM production shall remain unchanged at 1.755 MTPA from BF#2 & BF#3. • Total GHM production from Blast Furnace complex shall remain unchanged at 2.7 MTPA.
3	6. Steel Melting Shop and Associated Facilities b) Hot Metal De-sulphurisation Unit: 1.4 MTPA – Not Installed	6. Steel Melting Shop and Associated Facilities b) Hot Metal De-sulphurisation Unit: **1.4 MTPA**	• DSP shall install Hot Metal Desulphurisation unit in SMS. • This shall ensure enhanced process control over desired quality of steel for LHB wheels for Indian Railways. • Low sulphur can be maintained at Hot metal Ladle level instead of Blast Furnace as a whole.
The EAC deliberated the request of M/s SAIL and the justification/reason provided by them and after detailed deliberations recommended for the amendments in the EC configurations.			

Signature Not Verified

Digitally Signed by : Dr R B Lal
Member Secretary, MoEFCC (EC)

Date: 27/09/2023