



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

To,

The Executive Assistant to MD
SHYAM SEL AND POWER LIMITED
S S Chamber, 5 CR Avenue, Kolkata-700072,,Kolkata,West Bengal-
700072

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/6700/2008 dated 29 Sep 2021. The particulars of the environmental clearance granted to the project are as below.

- | | |
|--|---|
| 1. EC Identification No. | EC21A008WB117492 |
| 2. File No. | J-11011/887/2007-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 | Proposed Integrated Steel Plant |
| 7. Name of Company/Organization | SHYAM SEL AND POWER LIMITED |
| 8. Location of Project | West Bengal |
| 9. TOR Date | N/A |

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

(e-signed)
Sundar Ramanathan
Scientist E
IA - (Industrial Projects - 1 sector)

Date: 16/11/2021

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.

This is a computer generated cover page.



This refers to your proposal no. **IA/WB/IND/6700/2008 dated 29/09/2021** through Parivesh Portal for grant of **Environmental Clearance (EC)** for the project mentioned above.

2. As per the provisions of the Environment Impact Assessment (EIA) Notification, 2006, the above-mentioned project/activity is listed at schedule no. 3 (a) Metallurgical industries (Ferrous & non-ferrous), 1 (d) Thermal Power Plants and 4 (b) Coke Oven Plant under Category "A" of the schedule of the EIA notification, 2006 and appraised at Central level.
3. Accordingly, the above-mentioned proposal has been considered by the **Re-constituted EAC (Industry-I)** in its **46th meeting held on 11th – 12th October, 2021**. 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 report submitted by the proponent. The salient features of the expansion proposal as presented during the above-mentioned meeting of EAC (Industry 1) are as under: -

S.No.	Particulars	Details
a.	Terms of Reference for undertaking EIA study	11/11/2020
b.	Period of baseline data collection	1 st October, 2020 – 31 st December, 2020
c.	Date of Public Consultation	09/03/2021
d.	Action plan to address the PH issues	In addition to EMP budget of Rs. 192.84 Crores (capital cost), an amount of Rs. 441 lakhs have been earmarked to address the issues raised during public consultation and an amount of Rs. 371 lakhs to address the need based issues based on Social Impact Assessment (SIA) conducted.
e.	Location of the project	Village Dhasna, P.S. Jamuria, P.O. Bahadurpur, District Paschim Burdwan, West Bengal.
f.	Latitude and Longitude of the project site	Latitude: 23°40'02.06"N to 23°41'50.13"N Longitude: 87°07'00.06"E to 87°07'53.20"E
g.	Total land	284.09 ha (existing land)
h.	Land acquisition details as per MoEF&CC O.M. dated 7/10/2014	Total land is 284.09 ha and is under the possession of the company.
i.	Existence of habitation & involvement of R&R, if any	No R&R involved.
j.	Elevation of the project site	341.2 feet (104 meters) AMSL
k.	Involvement of Forest land if any.	No Forest Land is involved
l.	Water body exists within the project site as well as study area	Project site: 8 numbers Water bodies and 1 number Nallah Study area: AjayRiver-7.0Km in NE direction
m.	Existence of ESZ / ESA / national park / wildlife Sanctuary / biosphere Reserve / tiger reserve / elephant reserve etc. if any within the study area	NIL
n.	Project cost	INR 1987.36 Crores
o.	EMP cost	INR 192.84 Crores (Capital Cost) INR 18.42 Crores (RecurringCost)

S.No.	Particulars	Details
p.	Employment opportunity	2750 Nos
q.	Water and Power requirement	Water – 16706 m ³ /day (overall project after expansion) Power – 472 MW (overall project after expansion)

Unit configuration and capacity:

S No	Name of Unit	Capacity as per EC		Units under Operation	Units under Implementation / To be Implemented	Proposed Project	Ultimate Capacity
		Capacity	Ultimate Capacity				
1	Sinter Plant	0.85 MTPA	0.85 MTPA	-	0.85 MTPA*	Capacity Enhancement from 0.85 MTPA to 1.11 MTPA	1.11 MTPA*
2	Pellet Plant 1	0.6 MTPA	1.8 MTPA (1800000 TPA)	0.6 MTPA*	-	Capacity Enhancement from 0.6 MTPA to 0.9 MTPA	0.9 MTPA*
	Pellet Plant 2	0.6 MTPA		0.6 MTPA*	-	Capacity Enhancement from 0.6 MTPA to 0.9 MTPA	0.9 MTPA*
	Pellet Plant 3	0.6 MTPA		-	0.6 MTPA*	Capacity Enhancement from 0.6 MTPA to 1.2 MTPA	1.2 MTPA*
3	Blast Furnace	0.6 MTPA (1x450 m ³)	0.6 MTPA (600000 TPA)	-	0.6 MTPA* (1x450 m ³)	Capacity Enhancement from 450 m ³ to 550 m ³	0.77 MTPA* (1x550 m ³)
4	Direct Reduced Iron (DRI) Plant	2 x 100 TPD	0.89 MTPA (890000 TPA)	2x100 TPD*	-	Capacity Enhancement from 100 TPD to 150 TPD	2x150 TPD* (0.09 MTPA)
		3 x 300 TPD		3x300 TPD*	-	Capacity Enhancement from 300 TPD to 450 TPD	3x450 TPD* (0.445 MTPA)
		2 x 90 TPD		2x90 TPD*	-	Capacity Enhancement from 90 TPD to 150 TPD	2x150 TPD* (0.09 MTPA)
		4 x 350 TPD		1x350 TPD*	3x350 TPD*	Capacity Enhancement from 350 TPD to 450 TPD	3X450 TPD* (0.445 MTPA)
						Capacity Enhancement from 350 TPD to 700 TPD	1x700 TPD* (0.231 MTPA)
-	-	-	-	4x700 TPD (New)	4x700 TPD(New) (0.924 MTPA)		
5	Ferro Alloys Plant	3 X 9 MVA 2 x 4.5 MVA	0.1 MTPA	0.1 MTPA	-	-	0.1 MTPA (3 X 9 MVA 2 x 4.5 MVA)
6	Steel Melting Shop (SMS) (Induction Furnace route)	12x18 T	1.51 MTPA (1.11 MTPA + 0.4 MTPA)	4x18 T	8x18 T	2 x 8 T (New) 20 x 20 T (New) [1.37 MTPA]	12x18 T
		2x15 T		2x15 T	-		2x15 T
		4x5 T		4x5 T	-		4x5 T
		8x8T		8x8T	-		8 x 8T
	SMS (Electric Arc Furnace route)	1 x 45 T (0.4 MTPA)	-	-	1 x 45 T (0.4 MTPA)	-	1 x 45 T (0.4 MTPA)

S No	Name of Unit	Capacity as per EC		Units under Operation	Units under Implementation / To be Implemented	Proposed Project	Ultimate Capacity
		Capacity	Ultimate Capacity				
7	Rolling Mill 1 - Structural	0.15 MTPA	1 MTPA (1000000 TPA)	0.15 MTPA*	-	Capacity Enhancement From 0.15 MTPA to 0.2 MTPA	0.2 MTPA*
	Rolling Mill 2 - TMT Bars	0.15 MTPA		0.15MTPA	-	-	0.15 MTPA
	Rolling Mill 3 - Wire Rods	0.2 MTPA		0.2MTPA*	-	Capacity Enhancement from 0.2 MTPA to 0.3 MTPA	0.3 MTPA*
	Rolling Mill 4 - Long Product	0.3 MTPA		-	0.3 MTPA*	Capacity Enhancement from 0.3 MTPA to 0.5 MTPA	0.5 MTPA*
	Rolling Mill 5 - Long Product	0.2 MTPA		-	0.2 MTPA	-	0.2 MTPA
	Cold Rolling Mill 6 - Long Product	-		-	-	0.3 MTPA - New	0.3 MTPA - New
8	Coke Oven Plant	0.3 MTPA	0.3 MTPA (300000 TPA)	-	0.3 MTPA*	Capacity Enhancement from 0.3 MTPA to 0.45 MTPA	0.45 MTPA* (450000 TPA)
9	DI Pipe Plant	0.1 MTPA	0.1 MTPA (100000 TPA)	-	0.1 MTPA*	Capacity Enhancement from 0.1 MTPA to 0.25 MTPA	0.25 MTPA* (250000 TPA)
10	Captive Power Plant	WHRB - 93 MW CFBC - 43 MW	136 MW	WHRB - 48 MW CFBC - 43 MW	WHRB - 45 MW	WHRB - 86 MW (New) CFBC - 94 MW (New)	WHRB - 179 MW CFBC - 137 MW Total : 316 MW
11	Cement Grinding Unit	1.2 MTPA	1.2 MTPA	-	1.2 MTPA	-	1.2 MTPA
12	Producer Gas Plant	36,000Nm ³ /Hr (12 Nos. x 3000 Nm ³ /Hr)	36,000Nm ³ /Hr (12 Nos. x 3000 Nm ³ /Hr)	36,000Nm ³ /Hr (12 Nos. x 3000 Nm ³ /Hr)	-	48,000Nm ³ /Hr (12 Nos. x 4000 Nm ³ /Hr) - New	84,000Nm ³ /Hr (12 Nos. x 3000 Nm ³ /Hr) + 12 Nos. x 4000 Nm ³ /Hr
13	L D Convertor Plant	-	-	-	-	0.48 MTPA 60 Ton/ Heat - New	0.48 MTPA 60 Ton/ Heat - New
14	Oxygen Plant	-	-	-	-	10000 M ³ / Day - New	10000 M ³ / Day - New
Note: * Denotes Capacity enhancement of units under operation / units under implementation / units to be implemented for which EC has already been granted.							

- The Re-constituted EAC (Industry-I) EAC in its 46th meeting held on 11-12th October, 2021, 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 paragraph given below.
- 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) hereby decided to grant Environment Clearance for instant expansion proposal of **M/s. Shyam Sel and Power Limited** under the provisions of EIA Notification, 2006 subject to the following specific conditions and general conditions:

A. Specific conditions

- i. Four Continuous Ambient Air Quality monitoring stations under installation shall be commissioned and connected to the SPCB/CPCB server by end of October, 2021. Compliance status in this regard shall be submitted to the Ministry and Regional Office of the MoEF&CC.
- ii. The nallah passing through the project site shall not be disturbed. Landscaping shall be done on both embankments, with green belt covering 10 m land on both sides of the nallah.
- iii. Green Belt shall be developed in 97 hectares of land (34 % of total land) with tree density of 2500 trees per ha by 31/12/2024 all along the periphery of the project site. This shall include, gap filling which shall be done in existing green belt developed area wherever tree density is less than 2500 trees per ha. In addition to this, 18.4 hectares (45.5 acres) of land outside the project premises located adjacent to the main plant shall also be brought under green belt development as committed by the PP.
- iv. Project proponent shall conserve eight water bodies exist in the project site by developing green belt development all along the boundary of the water body.
- v. Solid waste utilization
 - Maximum 90 days of slag storage area shall be permitted inside the plant.
 - PP shall recycle/reuse 100 % solid waste generated in the plant.
 - Used refractories shall be recycled.
- vi. Sinter Plant shall be equipped with sinter cooler waste recovery system to generate process steam or power.
- vii. BF shall be equipped with Top Recovery Turbine, dry gas cleaning plant, stove waste heat recovery, cast house and stock house ventilation system and slag granulation facility.
- viii. Secondary fume extraction system shall be installed on converters of Steel Melting Shop.
- ix. Basic Furnace (BF) and LD gas shall be cleaned dry.
- x. Submerged Arc Furnace and Electric Arc Furnace shall be closed type with 4th hole extraction system.
- xi. 85-90 % of billets/slabs shall be rolled directly in hot stage. Only 10-15 % rolling shall be done through RHF using only Light Diesel Oil or BF gas.
- xii. Particulate matter emission from all the stacks shall not exceed 30 mg/Nm³.
- xiii. Performance test shall be conducted on all pollution control systems every year and report shall be submitted to Regional Office of the MoEF&CC.
- xiv. Cold Rolling Mill (CRM) shall have ETP to treat and recycle the treated water from CRM complex. Sludge generated at CRM ETP shall be sent to TSDF.
- xv. DI plant shall have the following provisions:
 - a. Wet scrubbers for Volatile Organic Compounds in annealing furnace.
 - b. Bag filter for Zn coating and Mg converter area.
 - c. Wet scrubbers in paint and bitumen coating area.
 - d. Bag Filter in Cement lining area.
 - e. PTFE dipped bags shall be used in the plant.
 - f. PM emissions from BF in Zinc coating area shall be 5 mg/Nm³.
 - g. ETP with recycling facility shall be included. All scrubber effluent shall be treated in ETP.

- xvi. Parking area for trucks/dumpers shall be provided within the plant. No truck/dumper shall be parked outside the plant premises.
- xvii. Water requirement for the plant shall be met from Ajay River bed and Asansol Municipal Development Authority. Ground water abstraction is not permitted.

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 with respect to standards prescribed in Environment (Protection) Rules 1986 as amended from time to time. The CEMS 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 stationary 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. Wind shelter fence and chemical spraying shall be provided on the raw material stock piles.
- xiii. 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 for coke oven 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;
- 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 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.

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 approved 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, 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.
- 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. 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.
- xi. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- xii. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
- xiii. 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.
- 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.

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


(Sundar Ramanathan)
Scientist 'E'

Copy to:-

1. Secretary, Department of Environment, Government of West Bengal, Secretariat Kolkata.
2. Secretary, Department of Forests, Government of West Bengal, Kolkata.
3. Regional Officer, Ministry of Environment, Forest and Climate Change, Integrated Regional Office, IB – 198, Sector-III, Salt Lake City, Kolkata - 700106.
4. Chairman, Central Pollution Control Board, CBD-Cum-Office Complex, East Arjun Nagar, New Delhi-110 032.
5. Chairman, West Bengal State Pollution Control Board, Paribesh Bhawan, 10A- Block LA, Sector –III, Salt Lake City, Kolkata – 700 098.
6. Member Secretary, Central Ground Water Authority, A2, W3 Curzon Road Barracks, K.G. Marg, New Delhi-110001.
7. District Collector, Paschim Burdwan District, West Bengal.
8. Guard File/Record File/Monitoring File.
9. MoEF&CC website


(Sundar Ramanathan)
Scientist 'E'