## Half Yearly Compliance Report 2023 01 Jun(01 Oct - 31 Mar)

# Acknowledgement

Proposal Name	Revised configuration of modernization-cum-expansion of 7.0 MTPA Bhilai Steel Plant by Mis Steel Authority of India Limited (SAIL) located at Bhilai, District Durg, Chhattisgarh- Amendment in Environment Clearance - regarding.
Name of Entity / Corporate Office	Ms.Uma Katoch
Village(s)	N/A
District	DURG

Proposal No.	IA/CG/IND/260774/2022 dtd 11/03/2022.
Plot / Survey / Khasra No.	N/A
State	CHHATTISGARH
MoEF File No.	F. No. IA-J- 1101112812007-IA 11 (I)

Category	Industrial Projects - 1
Sub-District	N/A
Entity's PAN	*****7062F
Entity name as per PAN	STEEL AUTHORITY OF INDIA LTD

# **Compliance Reporting Details**

**Reporting Year** 2023

Remarks (if any)

**Reporting Period** 01 Jun(01 Oct - 31 Mar)

# **Details of Production and Project Area**

Name of Entity / Corporate Office

Ms.Uma Katoch

	Project Area as per EC Granted	<b>Actual Project Area in Possession</b>
Private	3284.75	6286.75
Revenue Land	0	0
Forest	0	0
Others	0	0
Total	3284.75	6286.75

# **Production Capacity**

Sr. no	Product Name	units	Valid Upto	Capacity	Production last year	Capacity as per CTO
--------	-----------------	-------	------------	----------	----------------------	---------------------

# **Conditions**

## **Specific Conditions**

Sr.No.	Condition Type	Condition Details
1	MISCELLANEOUS	Safety mock drill for gas pipeline maintenance shall be conducted every six months and reported to the Regional Office of MoEF&CC. The project proponent shall arrange to provide training to employees on 'behavioral safety'.

#### PPs Submission: Complied

Safety mock drill for gas pipeline maintenance are being conducted every six months (Report enclosed at Flag-A) Training to employees on behavioral safety is being organized regularly (Report enclosed at Flag-B)

Date: 03/07/2024

2 Corporate Environmental Responsibility

All CER activities as committed in the reply to the ADS letter dared 02.01.2019 shall be completed in the financial year 2019-20.

### PPs Submission: Complied

BSP has initiated action for completion of all identified CER activities/projects committed in the reply to the ADS letter dated 02.01.2019. Due to the prevalence of COVID pandemic (Ist wave from March to November-2020 and 2nd wave from March to June-2021) there has been delay in completion of the projects. However, presently the CER projects are progressing well and likely to be completed by March-2024. A detailed status report on CER activities enclosed at Flag-C

Date: 09/07/2024

3 WASTE MANAGEMENT

100 % SMS -Slag utilization shall be ensured after conditioning /steam curing.

#### PPs Submission: Complied

About 55 Percentage the BOF slag is presently being recycled back in to steel making process and also utilized in Road Making and filling of the low lying areas. BSP has also started selling BOF slag to the interested buyers ( Cement Plants and other Construction industries) since April-2021 A pilot scale study on Development of process for steam maturing of BOF slag at BSL was taken up by SAIL. The matured BOF slag can be utilized as an aggregate in cement concrete, as rail track ballast and for road making etc. SAIL came out with the final report, wherein optimum process parameters have been frozen. The proposition for steam maturing facility on commercial scale is under consideration. Number of other R and D efforts are being taken-up by SAIL in association with other agencies, which are still in nascent stage. After the completion of these studies, exploring the options for commercial scale/bulk utilization of BOF slag will be taken-up. BSP has given an assignment to NIT-Raipur for Assessing the suitability of Twin Hearth Furnace(THF)/Steel Slag as pavement material and feasibility of THF/Steel slag in construction of the rural roads. NIT Raipur has submitted the final report in June-2021. The report was submitted to CECB and will be shared with all agencies involved in road making to promote the use of steel slag in Road making and other infrastructure projects.

Date: 03/07/2024

4

**GREENBELT** 

Scheme for decommissioning of SMS-1 and its utilities along with green belt development in that area shall be submitted within six months to the Ministry and Regional Oflice of the MoEF&CC.

#### **PPs Submission:** Complied

SMS-1 phased-out in March-2021 Decommissioning plan along with greenbelt development will be submitted to MoEFCC.

Date: 03/07/2024

5

**GREENBELT** 

Scheme for green belt development in the remaining area for covering 33% of total project area shall be submitted to the Regional office of the MoEF&CC.

### PPs Submission: Complied

BSP has planted 4555680 Nos of trees in an area covering about 1892 hectares till March-2024. In the year 2023-24 BSP has been planted 40680 Trees. 40215 saplings planted at Township and its surrounding area of Bhilai. Work awarded to C.G. Van Vikas Nigam. In the year 2023-24(April-

Date: 03/07/2024

March), BSP has planted 40680 trees within the plant premises and township covering an area of about 20-25 hectares. Further Green belt required to be developed to meet the Percentage criteria is about 280 Hectares. However by excluding the two reservoirs/cooling ponds area of 1100 hectares from the total area of the project, BSP s green belt coverage comes to 36.34 Percentage.

6 AIR QUALITY 6 MONITORING AND PRESERVATION 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,

PPs Submission: Complied

Standard Operating Procedures (SOPs) are developed for performance monitoring of pollution control devices and performance monitoring every year internally Performance monitoring of pollution control devices at every three year through an accredited third party will also be conducted.

Date: 03/07/2024

7 MISCELLANEOUS

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.

PPs Submission: Complied

The policy followed at SAIL for reporting environmental non-compliances and emergencies has already been submitted to MoEF and CC-New Delhi.

Date: 03/07/2024

8 WASTE MANAGEMENT

Corporate Environmental

Responsibility

Solid waste management as committed in the reply to the ADS letter dated 02.01.2019 shall be complied.

PPs Submission: Complied

Solid waste management as committed in the reply to the ADS letter dated 02.01.2019 will be complied.

Date: 03/07/2024

### **General Conditions**

4

Sr.No.	Condition Type	Condition Details	
1	AIR QUALITY MONITORING AND PRESERVATION	Vapour absorption system shall be provided in place of vapour compression system for cooling of coke oven gas in case of recoverage coke ovens	
	abmission: Complied allation of the system shall be expl	ored in future based on feasibility.	Date: 03/07/2024
2	AIR QUALITY MONITORING AND PRESERVATION	Secondary emission control system shall be provided Converters.	led at SMS
	<b>abmission:</b> Complied ry emission control system has bee	en provided for SMS-3 Converters.	Date: 03/07/2024
3	Corporate Environmental Responsibility	Self-environmental audit shall be conducted annua years third party environmental audit shall be carried	
	<b>abmission:</b> Complied mental Audits under EMS:ISO:140 . The Last Audi was carried-out by	001 are being carried-out every year through external	Date: 04/07/2024

All the recommendations made in the Charter on Corporate

Responsibility for Environment Protection (CREP) for the Iron and

<b>PPs</b> S	Submission: Complied ied		Date: 04/07/2024
5	MISCELLANEOUS	The project proponent shall make public the environ clearance granted for their project along with the environment of the conditions and safeguards at their cost by prominently at least in two local newspapers of the District or State shall be in the vernacular language within seven days this shall also be displayed in the project proponent's vernacular	ronmental advertising it e, of which one and in addition
	Submission: Complied ied. Environmental clearance gran	ted to BSP has been placed in the web portal of SAIL.	Date: 04/07/2024
6	MISCELLANEOUS	The copies of the environmental clearance shall be sproject proponents to the Heads of local bodies, Panch Municipal Bodies in addition to the relevant offices of Government who in turn has to display the same for 3 date of receipt	nayats and f the
PPs S	Submission: Complied ied.		Date: 04/07/2024
7	MISCELLANEOUS	The project proponent shall upload the status of comstipulated environment clearance conditions, including monitored data on their website and update the same obasis	g results of
PPs S	Submission: Complied ied.		Date: 04/07/2024
8	MISCELLANEOUS	The project proponent shall monitor the criteria poll namely; PM10, SO2, NOx (ambient levels as well as sor critical sectoral parameters, indicated for the project the same at a convenient location for disclosure to the on the website of the company	stack emission ts and display
Compl place/r		displayed at the Companys main gate and in a public rough large electronic Display Boards. The monitored data	Date: 04/07/2024
9	MISCELLANEOUS	The project proponent shall submit six-monthly repostatus of the compliance of the stipulated environment on the website of the ministry of Environment, Forest Change at environment clearance portal	tal conditions
			Date:
PPs S	Submission: Complied ied.		04/07/2024

PPs S Compli	ubmission: Complied ed.		Date: 04/07/2024
11	MISCELLANEOUS	The project proponent shall inform the Region the Ministry, the date of financial closure and fi project by the concerned authorities, commencial development work and start of production operations.	nal approval of the ng the land
<b>PPs S</b> Compli	ubmission: Complied ed.		Date: 04/07/2024
12	MISCELLANEOUS	The project authorities must strictly adhere to by the State Pollution Control Board and the Sta	
PPs S Compli	ubmission: Complied ed.		Date: 04/07/2024
13	MISCELLANEOUS	The project proponent shall abide by all the correcommendations made in the EIA/EMP report during Public Hearing and also that during their Expert Appraisal Committee	commitment made
PPs S Compli	ubmission: Complied ed.		Date: 04/07/2024
14	MISCELLANEOUS	No further expansion or modifications in the pout without prior approval of the Ministry of Enand climate Change (MoEF&CC)	
	ubmission: Complied Complied/agreed.		Date: 04/07/2024
15	MISCELLANEOUS	Concealing factual data or submission of false result in revocation of this environmental cleara under the provisions of Environment(Protection	nce and attract actio
PPs S Agreed	ubmission: Complied		Date: 04/07/2024
16	MISCELLANEOUS	The Ministry may revoke or suspend the clear implementation of any of the above conditions i	
PPs S	ubmission: Complied		Date: 04/07/2024
17	MISCELLANEOUS	The Ministry reserves the right to stipulate add found necessary. The Company in a time bound implement these conditions	
PPs S Agreed	ubmission: Complied		Date: 04/07/2024
18	MISCELLANEOUS	The Regional Office of this Ministry shall mo the stipulated conditions. The project authorities cooperation to the officer(s) of the Regional Off	s should extend full

		<u> </u>	Date:
PPs S Agreed	Submission: Complied d.		04/07/2024
19	MISCELLANEOUS	The above conditions shall be enforced, inter-alia une provisions of the Water (Prevention & Control of Pollu 1974, the Air (Prevention & Control of Pollution) Act, Environment (Protection ) Act, 1986, Hazardous and o (Management and Transboundary Movement) Rules, 2 Public Liability Insurance Act, 1991 along with their a and Rules and any other orders passed by the Hon'ble of India / High Counts and any other Court of Law relative to the subject matter	ution) Act, 1981, the other Wastes 2016 and the mendments Supreme Cou
PPs S	Submission: Complied d.		Date: 04/07/2024
20	MISCELLANEOUS	Any appeal against this EC shall lie with the Nationa Tribunal, if preferred within a period of 30 days as pre Sction16 of the National Green Tribunal Act,2010	
PPs S	Submission: Complied d.		Date: 04/07/2024
	Computa Environmental	Action plan for implementing EMP and environment along with responsibility matrix of the company shall be shall be duly approved by competent authority. The ye	be prepared a
21	Corporate Environmental Responsibility	earmarked for environmental protection measures shal separate account and not to be diverted for any other p wise progress of implementation of, action plan shall be the Ministry/Regional Office along with the Six Mont Compliance Report.	l be kept in urpose. Year be reported to
Compl prepare	Responsibility  Submission: Complied lied. A detailed action plan for implen	separate account and not to be diverted for any other provide wise progress of implementation of, action plan shall be the Ministry/Regional Office along with the Six Mont	I be kept in urpose. Year be reported to hly Date:
PPs S Compl prepare of action	Responsibility  Submission: Complied lied. A detailed action plan for implemed and progress is being monitored or	separate account and not to be diverted for any other progress of implementation of, action plan shall be the Ministry/Regional Office along with the Six Mont Compliance Report.  mentation of EMPs along allocation of funds has been	l be kept in urpose. Year pe reported to hly  Date: 04/07/2024
PPs 9 Complete prepare of action 222 PPs 9	Responsibility  Submission: Complied lied. A detailed action plan for implemed and progress is being monitored or on plan is enclosed ( Flag-H)  AIR QUALITY MONITORING AND PRESERVATION  Submission: Complied	separate account and not to be diverted for any other provide progress of implementation of, action plan shall be the Ministry/ Regional Office along with the Six Mont Compliance Report.  mentation of EMPs along allocation of funds has been a regular basis. Copy of the progress of implementation  The project proponent shall provide leakage detection	l be kept in urpose. Year pe reported to hly  Date: 04/07/2024
PPs S Compl prepare of action 22 PPs S Diliger	Responsibility  Submission: Complied lied. A detailed action plan for implemed and progress is being monitored or on plan is enclosed ( Flag-H)  AIR QUALITY MONITORING AND PRESERVATION  Submission: Complied	separate account and not to be diverted for any other provide progress of implementation of, action plan shall be the Ministry/ Regional Office along with the Six Mont Compliance Report.  mentation of EMPs along allocation of funds has been a regular basis. Copy of the progress of implementation  The project proponent shall provide leakage detection mechanised bag cleaning facilities for better maintenary.	Date: 04/07/2024  Date: 04/07/2024  Date: 03/07/2024  Date: 03/07/2024
PPs S Comple prepare of action 222  PPs S Diliger  23  PPs S Online Conser	Responsibility  Submission: Complied lied. A detailed action plan for implemed and progress is being monitored or on plan is enclosed (Flag-H)  AIR QUALITY MONITORING AND PRESERVATION  Submission: Complied nt maintenance of Bags is being done  Statutory compliance  Submission: Complied application for Consent to Establish	separate account and not to be diverted for any other p wise progress of implementation of, action plan shall b the Ministry/ Regional Office along with the Six Mont Compliance Report.  mentation of EMPs along allocation of funds has been n regular basis. Copy of the progress of implementation  The project proponent shall provide leakage detection mechanised bag cleaning facilities for better maintenar  and are replaced whenever there are leakages.  The project proponent shall obtain Consent to Establ under the provisions of Air (Prevention & Control of P 1981 and the Water (prevention & Control of Pollution) from the concerned State pollution control Board/ Con thas been submitted to Chhattisgarh Environment The Consent to Establish was granted by CECB Ref.no.	Date: 04/07/2024  Date: 04/07/2024  Date: 03/07/2024  Date: 03/07/2024

		water required for the project.	
	Submission: Complied bund water will be used for the pro-	ject.	Date: 03/07/2024
25	Statutory compliance	The project proponent shall obtain authorization under Hazardous and other Waste Management Rules, 2016 a from time to time.	
BSP has from C		he handling of the Hazardous Waste Generated in the Plant ration Board which is valid up to 16/04/2024. Copy of the	Date: 03/07/2024
26	AIR QUALITY MONITORING AND PRESERVATION	The project proponent shall install 24x7 continuous e monitoring system at process stacks to monitor stack er respect to standards prescribed in Environment (Protect 1986 vide G.S.R 277 {E) dated 31st March 2012(Integra Steel) G.S.R 414 (E) dated 30th May 2008 (Sponge Information to time; S.O. 3305 (E) dated 7th December 2 power Plants) as amended from time to time and conneand CPCB online servers and calibrate these system from time according to equipment supplier specification through the companion of the protection of the companion of the co	mission with etion) Rules ated iron & on) as amend 2015 (Therm ected to SPC) om time to ough labs
31 Nos CPCB to equi	online servers and calibration of the	rering all the process stacks and connected to SPCB and his system is being carried-out from time to time according 19th labs recognized under Environment (Protection) Act,  The project proponent shall monitor fugitive emission premises at least once in every quarter through labs recognized.	
	PRESERVATION	Environment (Protection) Act, 1986.	
	Submission: Complied we emissions are being monitored e	every quarter and report submitted to regulatory agencies.	Date: 03/07/2024
	-	The project proponent shall install system to carryout Ambient Air Quality monitoring for common/criterion relevant to the main pollutants released (e.g- PM10 and reference to PM emission, and SOx and NOx in referen NOx emissions) within and outside the plant area at lea locations (one within and three outside the plant area at 1200 each), covering upwind and downwind directions	t Continuous n parameters d PM2.5 in nce to SO2 a ast at four t an angle of
PPs 4 nos of the pla Ambie Dioxid Arseni	AIR QUALITY MONITORING AND PRESERVATION  Submission: Complied of Continuous Ambient Air Quality ant area covering upwind and down ent Air quality standards-2009, nan de (SO2), Nitrogen Dioxide (NO2)	The project proponent shall install system to carryout Ambient Air Quality monitoring for common/criterion relevant to the main pollutants released (e.g- PM10 and reference to PM emission, and SOx and NOx in reference NOx emissions) within and outside the plant area at least locations (one within and three outside the plant area at	t Continuous n parameters d PM2.5 in nce to SO2 a ast at four t an angle of

			Date:
	Submission: Complied as have been installed at Coke over	ns for recording of battery emissions.	03/07/2024
30	AIR QUALITY MONITORING AND PRESERVATION	Sampling facility at process stacks and at quenching provided as per CPCB guidelines for manual monitoring	
Sampl	Submission: Complied ing facilities at process stacks and a ines for manual monitoring of emis	at quenching towers have been provided as per CPCB ssions.	Date: 03/07/2024
31	AIR QUALITY MONITORING AND PRESERVATION	The project proponent shall submit monthly summar continuous stack emission and air quality monitoring a manual stack monitoring and manual monitoring of air /fugitive emissions to Regional Office of MoEF&CC, CPCB and Regional Office of SPCB along with six-monitoring report,	and results of quality  Zonal office
Copies results		ntinuous stack emission and air quality monitoring and nanual monitoring of air quality /fugitive emissions at Flag-E	Date: 03/07/2024
32	AIR QUALITY MONITORING AND PRESERVATION	Appropriate Air Pollution Control (APC) system sha for all the dust generating points including fugitive dus vulnerable sources, so as to comply prescribed stack en fugitive emission standards.	st from all
Air Po fugitiv		e been provided for all the dust generating points including The stack and fugitive emissions monitored are meeting	Date: 03/07/2024
33	AIR QUALITY MONITORING AND PRESERVATION	Sufficient number of mobile or stationery vacuum cle provided to clean plant roads. shop floors, roofs, regula	
	Submission: Complied m cleaners are being used to clean	plant roads. Shop floor etc., regularly.	Date: 03/07/2024
Vacuu	AIR QUALITY MONITORING AND PRESERVATION	Recycle and reuse Iron ore fines, coal and coke fines such other fines collected in the pollution control device cleaning devices in the process after briquetting/ agglo	ces and vacuu
PPs Iron or device agglor	MONITORING AND PRESERVATION  Submission: Complied re fines, coal and coke fines, lime f s are being recycled back to the pro	such other fines collected in the pollution control device	ces and vacuumeration.  Date:
PPs Iron or device agglor	MONITORING AND PRESERVATION  Submission: Complied re fines, coal and coke fines, lime f s are being recycled back to the propertion plant on BOO basis will be	such other fines collected in the pollution control device cleaning devices in the process after briquetting/ agglo ines and such other fines collected in the pollution control process after appropriate treatment. A briquetting/	Date: 03/07/2024

36	AIR QUALITY MONITORING AND PRESERVATION	Facilities for spillage collection shall be provided for on wharf of coke oven batteries (Chain conveyors, land industrial vacuum cleaning facility)	
	Submission: Complied ies for spillage collection are provided	for coal and coke on wharf of coke oven batteries.	Date: 03/07/2024
37	AIR QUALITY MONITORING AND PRESERVATION	Land-based APC system shall be installed to control emissions	coke pushing
	Submission: Complied pased APC system has been installed to	control coke pushing emissions in Coke oven Battery-	Date: 03/07/2024
38	AIR QUALITY MONITORING AND PRESERVATION	Monitor CO, HC and Oz in flue gases of the coke over detect combustion efficiency and cross leakages in the chamber	
Monito	Submission: Complied or CO, and O2 in flue gases of the coke es in the combustion chamber are being	oven battery to detect combustion efficiency and cross g measured.	Date: 03/07/2024
39	ENERGY PRESERVATION MEASURES	Waste heat recovery systems shall be provided in all the flue gas or process gas exceeds 300oC	units where
	Submission: Complied heat recovery systems have been instal	led at Sinter Plants, Coke ovens, Blast Furnaces, Power	Date: 04/07/2024
40	ENERGY PRESERVATION MEASURES	Explore feasibility to install WHRS at Waste Gases f Sinter Machine; Sinter Cooler, and all reheating firm a feasible shall be installed	
Waste Plants.		led at Sinter Plants, Coke ovens, Blast Furnaces, Power ed in new units under Modernization In future more y.	Date: 04/07/2024
41	ENERGY PRESERVATION MEASURES	Restrict Gas flaring to < 1%	
	Submission: Complied ied/Noted.		Date: 04/07/2024
42	ENERGY PRESERVATION MEASURES	Provide solar power generation on roof tops of buildi light system for all common areas, street lights, parking project area and maintain the same regularly	
2x100	Submission: Complied Kw solar power generation on roof top monitoring and recording of the power	es of Bhilai Niwas has been installed and provision for generation has also been developed.	Date: 04/07/2024
43	ENERGY PRESERVATION MEASURES	Provide LED lights in their offices and residential are	eas

	Submission: Complied ive use of LED lights in their offices and	nd residential areas is being practiced.	Date: 04/07/2024
44	ENERGY PRESERVATION MEASURES	Ensure installation of regenerative type burners on a furnaces	all reheating
	Submission: Complied rative type burners are being used for a	Il reheating furnaces.	Date: 04/07/2024
45	WASTE MANAGEMENT	An attrition grinding unit to improve the bulk densi granulated slag from 1.0 to 1.5 Kg/ I shall be installed river sand in construction industry	
All the when th		is being supplied to Cement Industry. In future if and nt Industry BSP will offer the slag to construction	Date: 04/07/2024
46	WASTE MANAGEMENT	In case of Non-Recovery coke ovens, the gas main gases to the boiler, shall be insulated to conserve heat maximise heat recovery	
	Submission: Complied  BSP the coke ovens are of recovery ty	rpe.	Date: 04/07/2024
47	WASTE MANAGEMENT	Tar Sludge and waste oil shall be blended with coal ovens (applicable only to recovery type coke ovens)	charged in co
At BSP being to		charged in coke ovens and waste lubrication oil is and recycled back after recovery/regeneration. The ers	Date: 04/07/2024
48	WASTE MANAGEMENT	Carbon recovery plant to recover the elemental carb GCP slurries for use in Sinter plant shall be installed	oon present in
Present generat		sludge briquetting plant where all the sludges wever BSP will also explore the process of recovery of	Date: 04/07/2024
49	WASTE MANAGEMENT	Waste recycling Plant shall be installed to recover s and flux for recycling to sinter plant and SMS	crap, metallic
At BSP	Submission: Complied Precovery of scrap, metallic and flux is Mill scales is being recycled to BF and S	being done. The recovered scrap, iron fines, Lime Sinter plants.	Date: 04/07/2024
50	WASTE MANAGEMENT	Used refractories shall be recycled as far as possible	2
PPs S Being o	Submission: Complied done.		Date: 04/07/2024
51	WASTE MANAGEMENT	SMS slag after metal recovery in waste recycling factorioned and used for road making, railway hack tapplications. The project proponent shall install a was facility to recover metallic and flux for recycle to sint	pallast and other

project proponent shall establish linkage for I00% reuse of rejects from Waste Recycling Plant PPs Submission: Complied At BSP SMS/BOF slag is being processed into different size fractions and recycled back to Sinter and BF as replacement of flux. BSP is also exploring methodologies for use of BOF slag for road making, railway ballast and other applications. We are seeking the services of Centre for Construction Development and Research National Council for Cement and Building Materials for exploring alternative applications for BOF slag. BSP has given an assignment to NIT-Raipur for assessing the suitability of steel slag as payement material and feasibility of Steel slag in construction of the rural roads. The final report submitted in June-2021 is being shared with all govt Date: and pvt agencies involved in Construction/road making activities to promote its use as 04/07/2024 construction/pavement material. Other Central R and D initiatives in SAIL for BOF slag and BF Slag utilization: Pilot scale project on steam maturing of BOF Slag at BSL, Bokaro Field trial on assessing suitability of weathered BOF slag as rail track ballasts at BSL, Bokaro Supply of Air Cooled BF slag for construction of road under Four Lining Project of NH-32at WB Feasibility study on suitability of BOF Slag for use in cement industry through The Centre for Construction Development and Research of National Council for Cement and Building Materials (NCCBM), under the administrative control of Ministry of Commerce and Industry, Government of India, Study on use of BOF slag as soil ameliorating agent in agriculture through Indian Agricultural Research Institute (IARI), New Delhi. Use of steel slag in Open Graded Asphalt Friction Courses (OGAFC) through Department of Civil Engineering, IIT Guwahati. 100% utilization of fly ash shall be ensured. All the fly ash shall be provided to cement and brick manufacturers for further utilization 52 WASTE MANAGEMENT and Memorandum of Understanding in this regard shall be submitted to the Ministry's Regional Office **PPs Submission:** Complied Date: 100 Percentage utilization of fly ash as per Fly-ash rules is being followed at BSP. At BSP fly ash 04/07/2024 generation is very less as the boilers are run mostly on By-product gases generated from steel plant operations. The limited quantity of ash generated is being used for reclamation of low lying areas within the plant premises as per the fly-ash rules. Oil Collection pits shall be provided in oil cellars to collect and 53 WASTE MANAGEMENT reuse/recycle spilled oil. Oil collection trays shall be provided under coils on saddles in cold rolled coil storage area Date: PPs Submission: Complied 04/07/2024 Being Complied. The waste oil, grease and other hazardous waste like acidic sludge from pickling, galvanising chrome plating mills etc. shall be disposed 54 WASTE MANAGEMENT of as per the Hazardous & Other waste (Management & Trans boundary Movement) Rules, 2016. Coal tar sludge / decanter shall be recycled to coke ovens PPs Submission: Complied Date: The acid sludge and other hazardous wastes are disposed of as per the Hazardous and Other waste 04/07/2024 (Management and Trans boundary Movement) Rules, 2016. Coal tar sludge / decanter is being recycled to coke ovens or sold to authorized recyclers. Kitchen waste shall be composted or converted to biogas for further 55 WASTE MANAGEMENT use Date: PPs Submission: Complied 04/07/2024 Kitchen waste is composted and used for Horticulture as manure. **GREENBELT** 56 Green belt shall be developed in an area equal to 33% of the plant

PPs S	Submission: Complied		
BSP hathe year surrour March) about 2 is about	as planted 4555680 nos of trees in an a str 2023-24 BSP has been planted 40680 nding area of Bhilai. Work awarded to b, BSP has planted 40680 trees within 20-25 hectares. Further Green belt requit 280 Hectares . However by excluding	orrea covering about 1892 hectares till March-2024. In OTrees. 40215 saplings planted at Township and its C.G. Van Vikas Nigam. In the year 2023-24(Aprilthe plant premises and township covering an area of uired to be developed to meet the 33 Percentage criteria ag the two reservoirs/cooling ponds area of 1100 SP s green belt coverage comes to 36.34 Percentage.	Date: 04/07/2024
57	GREENBELT	The project proponent shall prepare GHG emissions the plant and shall submit the programme for reduction including carbon sequestration including plantation.	
BSP m		and also the emission data is submitted to World Steel mitment as member under Climate Action.	Date: 04/07/2024
58	PUBLIC HEARING	Emergency preparedness plan based on the Hazard ic and Risk Assessment (HIRA) and Disaster Management implemented	
At BSI identifi approv EPP/D	cation and Risk Assessment (HIRA) a ed by Factory Inspector. Regular mocl	own Emergency preparedness plan based on the Hazard and Disaster Management Plan. The documents are k-drills are organized to check the effectiveness of the ck drill review and also based on recommendations safety management of BSP.	Date: 04/07/2024
59	PUBLIC HEARING	The project proponent shall carry out heat stress anal workmen who work in high temperature work zone and Personal Protection Equipment(PPE) as per the norms	d provide
		1-1	of Factory A
Nationathe wor		set-up at BSP regularly carry out heat stress analysis for work zone . All the workmen are mandatorily provided	Date: 04/07/2024
Nationathe working with Pe	al occupation Health Centre (NOHC) s rkmen who work in high temperature	set-up at BSP regularly carry out heat stress analysis for work zone . All the workmen are mandatorily provided	Date: 04/07/2024 on labour ilities such asking water, the form of
Nation: the work with Pe	al occupation Health Centre (NOHC) strkmen who work in high temperature versonal Protection Equipment(PPE) as	set-up at BSP regularly carry out heat stress analysis for work zone. All the workmen are mandatorily provided per the norms of Factory Act.  Provision shall be made for the housing of constructi within the site with all necessary infrastructure and fac fuel for cooking, mobile toilets, mobile STP, safe drink medical health care, crèche etc. The housing may be in temporary structures to be removed after the completic project	Date: 04/07/2024  on labour ilities such asking water, the form of on of the
Nation: the work with Pe	al occupation Health Centre (NOHC) strkmen who work in high temperature versonal Protection Equipment(PPE) as  PUBLIC HEARING  Submission: Complied	set-up at BSP regularly carry out heat stress analysis for work zone. All the workmen are mandatorily provided per the norms of Factory Act.  Provision shall be made for the housing of constructi within the site with all necessary infrastructure and fac fuel for cooking, mobile toilets, mobile STP, safe drink medical health care, crèche etc. The housing may be in temporary structures to be removed after the completic project	Date: 04/07/2024  on labour ilities such asking water, the form of on of the  Date: 04/07/2024
Nation: the work with Pe  60  PPs 9  Comple  61	al occupation Health Centre (NOHC) arkmen who work in high temperature versonal Protection Equipment (PPE) as  PUBLIC HEARING  PUBLIC HEARING  PUBLIC HEARING  Submission: Complied ied (At BSP major expansion job has a public HEARING	set-up at BSP regularly carry out heat stress analysis for work zone. All the workmen are mandatorily provided per the norms of Factory Act.  Provision shall be made for the housing of constructi within the site with all necessary infrastructure and fac fuel for cooking, mobile toilets, mobile STP, safe drink medical health care, crèche etc. The housing may be in temporary structures to be removed after the completic project  already been completed)  Occupational health surveillance of the workers shall	Date: 04/07/2024  on labour illities such asking water, the form of on of the  Date: 04/07/2024

#### PPs Submission: Complied

BSP has initiated action for completion of all identified CER activities/projects committed in the reply to the ADS letter dated 02.01.2019. Due to the prevalence of COVID pandemic there has been delay in completion of the projects. However, presently the CER projects are progressing well and likely to be completed by March-2024. A detailed status report on CER activities enclosed at Flag-C

Date: 04/07/2024

63

Corporate Environmental Responsibility

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

#### **PPs Submission:** Complied

BSP has well laid down environmental policy duly approve by the Board of Directors. An SOP for reporting of the non-compliance / infringements to Board of Directors (BoD) is also being followed. Accordingly, Complying to MoEFCC OM dtd. 26th April 2011, status of statutory compliances is reported to Board on quarterly basis and in case of non-compliance received by statutory authorities it is reported to Board along with action plan in the next board meeting. The Board Meetings are held once every month. All the Environment and related Clearances and status of compliances are shown on companys website. Other information As per the Annexure-IV of the Department of Public Enterprises (DPE) Guidelines on Corporate Governance and Part-A of the Schedule-II of SEBI (Listing Obligations and Disclosure Requirements) Regulations, 2015, detailed information in respect of fatal or serious accidents, dangerous occurrences, any material effluent or pollution problems, is placed before the Board of Directors of SAIL. As per the Part-A of Schedule-III of Securities Exchange Board of India (SEBI)s (Listing Obligations and Disclosure Requirements) Regulations, 2015, occurrence of emergency, accidents, etc., if material in nature, is disclosed to the Stock Exchanges through Board of Directors within 24 hours.

Date: 04/07/2024

64

Corporate Environmental Responsibility

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

#### **PPs Submission:** Complied

BSP has a separate Environmental Department with well-equipped laboratory. Adequate Qualified executive and non-executive personnel have been posted to the department and Lab The department is headed by a senior officer of the rank of General Manger who reports to Executive Director (works). At corporate level a separate environment management Division has been set-up. At corporate level the division is headed by Executive Director who reports to Director (technical)

Date: 04/07/2024

65

AIR QUALITY MONITORING AND PRESERVATION

Pollution control system in the steel plant shall be provided as per the CREP Guidelines of CPCB.

#### PPs Submission: Complied

The Pollution control system as per the guidelines of CREP have been provided. BOD plant for the treatment of effluents of COCCD. Secondary emission control system has been provided for SMS-3 Converters. Cast house Defaming systems have been provided for BF-8 and BF-7.

Date: 03/07/2024

66

AIR QUALITY MONITORING AND PRESERVATION In case concentrated ammonia liquor is incinerated, adopt high temperature incineration to destroy Dioxins and Furans. Suitable NOx control facility shall be provided 10 meet the prescribed standards

Regula	Submission: Complied ar monitoring of coke oven stack empowers are meeting the standards.	issions is being done and The Gaseous emissions from	Date: 03/07/2024
67	AIR QUALITY MONITORING AND PRESERVATION	The coke oven gas shall be subjected to desulphur sulphur content in the coal exceeds 1%.	ization if the
	Submission: Complied P the imported coal has Sulphur cont	tent less than 1 Percentage.	Date: 03/07/2024
68	AIR QUALITY MONITORING AND PRESERVATION	Wind shelter piles. fence and chemical spraying stone on the raw material stock piles	nall be provided
	Submission: Complied sprinklers are installed for control of	f dust at raw material stock piles.	Date: 03/07/2024
69	AIR QUALITY MONITORING AND PRESERVATION	Design the ventilation system for adequate air cha ACGIH document for all tunnels, motor houses, Oil	
Ventila	Submission: Complied ation system for adequate air change llars are installed.	s as per ACGIH document for all tunnels, motor houses,	Date: 03/07/2024
70	AIR QUALITY MONITORING AND PRESERVATION	The project proponent shall install Dry Gas Clean filter for Blast Furnace and-SMS convertor- (to be case basis depending on type and size of plant)	
At BS	Submission: Complied P consultant MECON has recommentors as the Dry Gas Cleaning Plant a	nded wet gas cleaning systems for BFs and SMS are not feasible.	Date: 03/07/2024
71	AIR QUALITY MONITORING AND PRESERVATION	Dry quenching (CDQ) system shall be installed al generation facility from waste heat recovery from h	•
Dry qu	Submission: Complied nenching (CDQ) system along with pass been installed for Coke Oven Batt	power generation facility for waste heat recovery from hotery-11.	Date: 03/07/2024
72	WATER QUALITY MONITORING AND PRESERVATION	The project proponent shall install 24x7 continuous monitoring system with respect to standards prescri Environment (Protection) Rules 1986 vide G.S.R 27 3ts(March 20I2 {Integrated iron & Steel); G.S.R 41 May 2008 (Sponge Iron) as amended from time to t (E) dated 7th December 2015 (Thermal Power Plan from time to time and connected to SPCB and CPC and calibrate these system from time to time accord supplier specification through labs recognised under (Protection) Act 1986 or NABL accredited laborato	bed in 77 (E) dated 4(E) dated 30 ime; S.O. 3305 ts) as amended B online servers ing to equipment r Environment
Contin B and		ave been installed for all three plant outlets Viz Outlet-A, PCB online servers Calibration of the systems is being	Date: 03/07/2024

73	WATER QUALITY MONITORING AND PRESERVATION	The project Proponent shall monitor regularly groun at least twice a year (pre and post monsoon) at sufficie piezometer /sampling wells in the plant and adjacent a labs recognised under Environment (protection) act, 1 accredited laboratories.	ent numbers of reas through
Ground through		te a year (pre and post monsoon) in the adjacent areas (protection) act, 1986 and NABL accredited	Date: 03/07/2024
74	WATER QUALITY MONITORING AND PRESERVATION	The project proponent shall submit monthly summar continuous effluent monitoring and results of manual and manual monitoring of ground water quality to Reg MoEF&CC, Zonal office of CPCB and Regional Office along with six-monthly monitoring report.	effluent testing gional Office o
Monthl	inual monitoring of ground water quali	ent monitoring and results of manual effluent testing ty reports (October-2021 to March-2022) are enclosed	Date: 03/07/2024
75	WATER QUALITY MONITORING AND PRESERVATION	The project proponent shall provide the ETP for cok product to meet the standards prescribed in G.S.R 277 March 2012 (integrated iron & Steel); G-S.R 414 (E)d 2008 (Sponge Iron) as amended from time to time; S.C dated 7e December 2015 (Thermal Power Plants) as a time to time as amended from time to time.	(E) dated 31st ated 30s May D. 3305 (E)
At BSF		ant has been installed and is working effectively and 7 (E) dated 3lst March 2012 (integrated iron and Steel)	Date: 03/07/2024
76	WATER QUALITY MONITORING AND PRESERVATION	Adhere to 'Zero Liquid Discharge'	
BSP ha 5000 m		Outlet-A, B and C). Effluent from outlet-A (About e recycling schemes for Outlet-B (450 m3/hr) and of completion.	Date: 03/07/2024
77	WATER QUALITY MONITORING AND PRESERVATION	Sewage Treatment Plant shall be provided for treatment wastewater to meet the prescribed standards.	ent of domest
A 30 M	Submission: Complied ILD sewage recycling plant has been ited in the Township.	nstalled for treatment of recycling of domestic sewage	Date: 03/07/2024
78	WATER QUALITY MONITORING AND PRESERVATION	Garland drains and collection pits shall be provided pile to arrest the runoff in the event of heavy rains and water pollution due to surface run off	
Garland	Submission: Complied d drains and collection pits have been per pollution due to surface run off.	provided at the Raw Material handling area to check	Date: 03/07/2024
79	WATER QUALITY MONITORING AND	Tyre washing facilities shall be provided at the entra	nce of the plan

<b>PPs</b> : Compl	Submission: Complied ied.		Date: 03/07/2024
80	WATER QUALITY MONITORING AND PRESERVATION	CO2 injection shall be provided in GCP of SMS to recirculating water to ensure optimal recycling of treated converter gas cleaning	
At SM	Submission: Complied S, pH in circulating water of GCPs is be tant. The option of CO2 injection is also	eing maintained through addition of Use of Dispersant o being explored.	Date: 03/07/2024
81	WATER QUALITY MONITORING AND PRESERVATION	The project proponent shall practice rainwater harve maximum possible extent	sting to
At presarea. A Rechar Water S.S Sci 3 near 23, Jayrecharg	approx. 71500 m3 rain water is channeling pits were constructed near 73 existing Harvesting structure were installed at Thool Sector-VII and G.S.S School-V. 5 FSNL, Sector-3 near BTI Hostel, Sectoranti Stadium) with recharge bore well a	from the rooftops of Plate Mill and Machine Shop-II ized to Maroda-I reservoir through storm water drains, ag borewell to arrest the over flow /excess water. Rain A Building, Bhilai Niwas, Bhilai Technical Institute, Recharge ponds were dug in Bhilai Township (Sectorar-5 behind Andhra Bhawan, Hospital Sector near Dat middle bottom of pond at two locations. 1 big made Behind Bhilai Institute of Technology (BIT)	Date: 03/07/2024
82	WATER QUALITY MONITORING AND PRESERVATION	Treated water from ETP of CCIBP shall not be used quenching	for coke
	Submission: Complied B-11 dry quenching system has been in	stalled.	Date: 03/07/2024
83	WATER QUALITY MONITORING AND PRESERVATION	Water meters shall be provided at the inlet to all unit the steel plants	processes in
	Submission: Complied meters are installed at strategic location	as to measure water flow to the process plants.	Date: 03/07/2024
84	WATER QUALITY MONITORING AND PRESERVATION	The project proponent shall make efforts to minimise consumption in the steel plant complex by segregation practicing cascade use and by recycling treated water	
Water for all		reduced through adoption of local recycling systems SMS-3 and BF-8). The effluents from older units are tment for re-use as industrial water.	Date: 03/07/2024
85	Noise Monitoring & Prevention	Noise monitoring and prevention	
Regula		tential high noise generating areas like BFs, Power silencers etc. have been provided at all the high noise	Date: 03/07/2024

86	Noise Monitoring & Prevention	Noise level survey shall be carried as per the pre and report in this regard shall be submitted to Reg Ministry as a part of six-monthly compliance repo	gional Officer of th
Noise 1	Submission: Complied level survey is being carried as per the ped (Flag-G)	prescribed guidelines and report in this regard is	Date: 03/07/2024
87	Noise Monitoring & Prevention	The ambient noise levels should conform to the prescribed under E(P)A Rules. 1986 viz.75 dB(A) and 70 dB(A) during night time	
Regula		ferent locations of township ( Market area, schools, levels are meeting the standards (Flag-G)	Date: 03/07/2024
88	ENERGY PRESERVATION MEASURES	The project proponent shall provide TRTs to rectop gases of Blast Furnaces	cover energy from
	Submission: Complied BF-8, TRTs to recover energy from to	p gases of Blast Furnace has been installed.	Date: 04/07/2024
89	ENERGY PRESERVATION MEASURES	Coke Dry Quenching (CDQ shall be provided for both recovery and non-recovery type coke over	
	Submission: Complied  Coke oven Battaery-11, Coke Dry Qu	on him (CDO) has been installed	Date: 04/07/2024
110 110 11		enching (CDQ) has been installed	
	ENERGY PRESERVATION MEASURES	Waste heat shall be recovered from Sinter Plants Machines	s coolers and Sinte
90  PPs S  Waste	ENERGY PRESERVATION MEASURES  Submission: Complied	Waste heat shall be recovered from Sinter Plants	Date:
90  PPs 3  Waste SP-3.	ENERGY PRESERVATION MEASURES  Submission: Complied	Waste heat shall be recovered from Sinter Plants Machines	Date: 04/07/2024
PPs SWaste SP-3.	ENERGY PRESERVATION MEASURES  Submission: Complied heat recovery systems have been install ENERGY PRESERVATION	Waste heat shall be recovered from Sinter Plants Machines  led for Sinter Plants coolers and Sinter Machines of  Use torpedo ladle for hot metal transfer as far as not used, provide covers for open top ladles	Date: 04/07/2024 s possible. If ladles Date:
90  PPs: Waste SP-3.  91  PPs: At new	ENERGY PRESERVATION MEASURES  Submission: Complied heat recovery systems have been install ENERGY PRESERVATION MEASURES  Submission: Complied	Waste heat shall be recovered from Sinter Plants Machines  led for Sinter Plants coolers and Sinter Machines of  Use torpedo ladle for hot metal transfer as far as not used, provide covers for open top ladles	Date: 04/07/2024 s possible. If ladles Date: 04/07/2024
90  PPs 3 Waste SP-3.  91  PPs 3 At new	ENERGY PRESERVATION MEASURES  Submission: Complied heat recovery systems have been install  ENERGY PRESERVATION MEASURES  Submission: Complied by BF-8, torpedo ladle is being used for heat recovery	Waste heat shall be recovered from Sinter Plants Machines  led for Sinter Plants coolers and Sinter Machines of  Use torpedo ladle for hot metal transfer as far as not used, provide covers for open top ladles  not metal transfer.  Use hot charging of slabs and billets/blooms as	Date: 04/07/2024  s possible. If ladles  Date: 04/07/2024  far as possible  Date:
90  PPs 3 Waste SP-3.  91  PPs 3 At new	ENERGY PRESERVATION MEASURES  Submission: Complied heat recovery systems have been install  ENERGY PRESERVATION MEASURES  Submission: Complied v BF-8, torpedo ladle is being used for h  ENERGY PRESERVATION MEASURES  Submission: Complied	Waste heat shall be recovered from Sinter Plants Machines  led for Sinter Plants coolers and Sinter Machines of  Use torpedo ladle for hot metal transfer as far as not used, provide covers for open top ladles  not metal transfer.  Use hot charging of slabs and billets/blooms as	Date: 04/07/2024  s possible. If ladles  Date: 04/07/2024  far as possible  Date:
90  PPs; Waste SP-3.  91  PPs; At new  92  PPs; Hot ch	ENERGY PRESERVATION MEASURES  Submission: Complied heat recovery systems have been install  ENERGY PRESERVATION MEASURES  Submission: Complied v BF-8, torpedo ladle is being used for h  ENERGY PRESERVATION MEASURES  Submission: Complied	Waste heat shall be recovered from Sinter Plants Machines  led for Sinter Plants coolers and Sinter Machines of  Use torpedo ladle for hot metal transfer as far as not used, provide covers for open top ladles  not metal transfer.  Use hot charging of slabs and billets/blooms as a single done at Rolling mills.	Date: 04/07/2024 s possible. If ladles Date: 04/07/2024 far as possible

**Note:** This acknowledgement is as per the details submitted by project proponent. In no way is this document to be considered as conclusion on any action on the compliance of the project. This is strictly for the project proponent's reference purpose.