

**Steel Authority of India Limited**  
**IISCO Steel Plant**

**Sub : Expansion of IISCO Steel Plant (ISP) (0.55 MTPA to 2.50 MTPA), Rebuilding of Coke Oven Battery No. 10 and setting up of a Captive Power Plant (87.5 MW) and other facilities at Burnpur, Asansol, Burdwan, West Bengal by M/s Steel Authority of India Limited (SAIL) – Environmental Clearance**

Ref : F. No. J-11011/348/2005 – IA II (I), dated 7<sup>th</sup> August, 2007 & F. No. J-11011/348/2006 – IA II (I), dated 22<sup>nd</sup> November, 2007 & F. No. J-11011/348/2005-IA II (I) dated 14<sup>th</sup> November, 2013 of Ministry of Environment & Forests, Government of India, Paryavaran Bhawan, C.G.O. Complex, Lodi Road, New Delhi – 110003

Status report of the compliance to the conditions: April, 2017 - September, 2017.

Condition of MOEF&CC	Status / Compliance
<b>A. Specific Conditions :</b>	
i) The gaseous emissions from various process units shall conform to the load/mass based standards notified by this Ministry on 19 <sup>th</sup> May, 1993 and standards prescribed from time to time. The West Bengal Pollution Control Board (WBPCB) may specify more stringent standards for the relevant parameters keeping in view the nature of the industry and its size and location. At no time, the emission level shall go beyond the prescribed standards. Interlocking facilities shall be provided so that process can be automatically stopped in case emission level exceeds the limit.	These features are taken care of in Design & Engineering. Efforts are made considering necessary factor of safety that at no time, the emission level shall go beyond the prescribed standards. However, due to technological limitation and safety & hazards requirements of different units of the plant interlock facilities cannot be provided for automatically stopping.
ii) Low NO <sub>x</sub> burners shall be provided in re-heating furnace and boilers to control NO <sub>x</sub> emissions. Continuous stack monitoring facilities for all the major stacks and adequate air pollution control systems shall be provided to control air emissions within 50 mg/Nm <sup>3</sup> and reports submitted to the WBPCB & CPCB.	These features are taken care of in Design & Engineering. Emission is maintained within norm.
iii) Ambient air quality monitoring stations shall be set up per statutory requirement in consultation with the WBPCB. Ambient air quality including ambient noise levels shall not exceed the standards stipulated under EPA or by the State authorities. Monitoring of ambient air quality and shall be carried out regularly in consultation with WBPCB and data submitted to the CPCB and WBPCB regularly. The instruments used for ambient air quality monitoring shall be calibrated time to time.	Monitoring stations already exist. Calibration being done regularly. Online ambient air monitoring station is set up at Township and Plant.
iv) In-plant control measures for checking fugitive emissions from all the vulnerable sources shall be provided. ESP to the new sinter plant, ventury scrubber to BOF shop, pulse jet type bag filter to lime and dolomite plant and bag filters in material handling areas and material transfer points shall be provided. A fume extraction system comprising suction hood, associated duct, cyclone / scrubber shall be provided to control dust generated during secondary refining. De-dusting system shall be provided	Control measures considered in the Design & Engineering and installed.

Condition of MOEF&CC	Status / Compliance
at different material transfer points. Tar, NH <sub>3</sub> shall be cleaned in the process and H <sub>2</sub> S recovery from the coke oven shall be ensured. By-product fuel gases shall be used for steam and power generation.	
v) Dry fog dust suppression system shall be provided to control fugitive emissions. Further, specific measures like water sprinkling around the coal stockpiles and asphaltting or concreting of the roads shall be done to control fugitive emissions. Secondary fugitive emissions shall be controlled within the prescribed limits, regularly monitored and records maintained. Guidelines / Code of Practice issued by the CPCB in this regard shall be followed.	Dry fog dust suppression system and water sprinkling systems installed.
vi) Total requirement of the water from River Damodar shall not exceed 23 MGD and prior 'permission' – for the total water requirement shall be obtained from the concerned Department before commissioning the project. Effluent Treatment Plant (ETP) shall be installed for the treatment of process water. During the rebuilding of coke oven battery, BOD plant shall be provided for the disposal of liquid effluent. The wastewater generated from blast furnace (BF) shall be treated in clarifier and reused in the system. Blow down from BF re-circulation system shall be reused in SGP as make up water. Blow down from BOF re-circulation system shall be reused in new SMS slag yard. Reverse Osmosis plant shall be installed. All the wastewater generated shall be treated, recycled and reused either in the process or for dust suppression or green belt development. No wastewater shall be discharged outside the factory premises and 'Zero' discharge shall be adopted. Domestic effluent shall be treated in sewage treatment plant (STP).	These features are taken care of in Design & Engineering. Process water is recycled. Construction of STP is under progress. Septic Tank have been made for domestic effluent. Consultant has been engaged for zero discharge. Water audit will be conducted.
vii) All the BF slag shall be either sold or used for road construction. BF sludge and BOF sludge shall be partly used in sinter plant and partly dumped. BOF slag shall be reused in BF, sinter plant as well as ballast. All the BF fume dust, BOF scale, Mill scales, Lime dust, Dolo dust, Burnt lime, Pig casting machine sludge etc. shall be reused in sinter plant. All the mill scrap and skull / scrap shall be reused in BOF plant. Blast furnace gas, Coke oven gas, BOF gas, Liquid Oxygen, LPG, shall be used in the power plant, Tar sludge, BOD plant sludge and waste oil shall be generated during the rebuilding of coke oven battery shall be properly disposed off as per the Hazardous Waste (Management & Handling) Rules, 1989 and subsequent amendments.	These features are taken care of in Design & Engineering.
viii) The prescribed emission standards for coke oven plants as notified vide notification no. GSR 46 (E) dated 3 <sup>rd</sup> February, 2006 shall be complied with.	Agreed
ix) All the environment management measures given in the EIA/EMP shall be implemented and complied with.	Agreed
x) Out of total 1,165.58 ha., green belt shall be developed in 260 ha. area in addition to existing 43 ha within and around the plant premises as per the CPCB guidelines in consultation with DFO.	Development of green belt is done in and around the plant premises as per the CPCB guidelines.
<b>B. General Conditions :</b>	
i) The project authority shall adhere to the stipulation made by West Bengal Pollution Control Board (WBPCB) and State Government.	Being adhered to.
ii) No further expansion or modification of the plant shall be carried out without prior approval of this Ministry.	Agreed

Condition of MOEF&CC	Status / Compliance
iii) The overall noise levels in and around the plant area shall be kept well within the standards (85 dBA) by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under Environmental (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).	Taken care of.
iv) Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.	Being done
v) All the recommendations mentioned in the Corporate Responsibility for Environmental Protection (CREP) of CPCB issued for the steel plants shall be implemented.	Implemented
vi) The company shall undertake eco-development measures including community welfare measures in the project area.	Being done on regular basis under corporate social responsibility. Discussed with West Bengal Bio Diversity Board on this aspect.
vii) The company shall develop rain water harvesting structures to harvest the rain water for utilization in the lean season besides recharging the ground water table.	Rain water harvesting structure has been designed by consultant for different buildings shall be implemented.
viii) Proper housekeeping and adequate occupational health programmes shall be taken up.	Being done on regular basis
ix) A separate environmental management cell to carry out various management and monitoring functions shall be set up under the control of Senior Executive.	Already exists
x) As mentioned in the EIA/EMP, Rs. 480.00 Crores and Rs. 36.60 Crores allocated towards the capital cost and recurring cost / annum environmental pollution control measures shall be judiciously used to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government. The funds so provided shall not be diverted for any other purpose.	Allocated amount being utilized for environmental measures.
xi) The Regional Office of this Ministry at Bhubaneswar / CPCB / WBPCB shall monitor the stipulated conditions. A six monthly compliance report and the monitored data along with statistical interpretation shall be submitted to them regularly.	Monitoring Reports along with statistical interpretation are submitted regularly.
xii) The Project Authorities shall inform the Regional Office as well as Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of commencing the land development work.	Land development work is done since November, 2007. Status report submitted on six monthly basis.
xiii) The Project Proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the W.B. Pollution Control Board / Committee and may also be seen at Website of the Ministry of Environment and Forests at <a href="http://envfor.nic.in">http://envfor.nic.in</a> . This should be advertised within seven days from the date of issue of the clearance letter at least in two local newspaper that are widely circulated in the region of which one shall be in the vernacular language of the locally concerned and a copy of the same shall be forwarded to the Regional Office at Bhubaneswar.	Done

## MONITORING DATA

**AMBIENT AIR QUALITY ( UNIT : µg/Cu.M )    24 hrs. Monitoring**

LOCATION

MONTH NORM	CHOTODIGHARI (PUMP HOUSE)				CENTRAL TOWN (TOWN OFFICE)				RANGAPARA (SECURITY OFFICE)				KUILAPUR (L&T SITE)				NAKRASOTA (ABB SITE)				DHRAMPUR (McNally Bharat Site)							
	SPM	RPM	SO2	NOx	SPM	RPM	SO2	NOx	SPM	RPM	SO2	NOx	SPM	RPM	SO2	NOx	SPM	RPM	SO2	NOx	SPM	RPM	SO2	NOx				
		100	80	80		100	80	80		100	80	80		100	80	80		100	80	80		100	80	80		100	80	80
17-Apr	259	97	13	14	325	105	13	14	132	86	10	11	218	105	12	14	344	97	10	11	168	92	9	12				
17-May	161	98	13	14	389	99	13	13	118	81	10	10	139	82	12	14	172	96	9	12	165	94	10	12				
17-Jun	157	98	12	13	318	98	13	14	115	78	9	10	133	80	11	14	166	92	9	12	167	92	9	12				
17-Jul	156	96	11	13	265	91	12	14	112	78	9	10	137	81	12	13	174	97	10	12	161	92	9	14				
17-Aug	152	99	12	11	256	93	14	13	114	76	10	11	132	83	10	12	169	93	9	11	165	96	12	13				
17-Sep	164	96	14	15	293	97	18	21	118	86	11	11	145	85	13	14	180	97	10	12	168	95	11	13				
AVG.	175	97	13	13	308	97	14	15	118	81	10	11	151	86	12	14	201	95	10	12	166	94	10	13				
MAX.	259	99	14	15	389	105	18	21	132	86	11	11	218	105	13	14	344	97	10	12	168	96	12	14				
MIN.	152	96	11	11	256	91	12	13	112	76	9	10	132	80	10	12	166	92	9	11	161	92	9	12				

## NOISE MONITORING DATA

**AMBIENT NOISE**

**dB(A)**

**Unit: dB(A)**

Month NORM	CHOTODIGHARI (GATE)		SCOB GATE		VEHICLE GATE		TUNNEL GATE		CENTRAL TOWN (TOWN OFFICE)		DHRAMPUR (McNally Bharat Site)		KUILAPUR (L&T SITE)		NAKRASOTA (ABB SITE)	
	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night
17-Apr	59	58	56	48	73	56	61	58	62	56	57	55	64	51	61	54
17-May	61	57	58	52	69	62	61	55	62	57	61	54	53	52	59	51
17-Jun	65	52	58	51	69	53	62	54	63	60	60	52	54	51	59	53
17-Jul	64	50	58	50	67	53	59	56	58	57	60	53	54	52	56	50
17-Aug	58	50	58	47	63	54	63	54	65	56	62	53	57	48	60	50
17-Sep	58	54	60	49	61	52	54	52	60	54	55	51	53	48	63	55
AVG.	61	54	58	50	67	55	60	55	62	57	60	53	54	50	59	52
MAX.	65	58	60	52	73	62	63	58	65	60	62	54	57	52	63	55
MIN.	58	50	56	47	61	52	54	52	58	54	55	51	53	48	56	50