

To,
Director
I. A. Division (Industry)
Ministry of Environment, Forests & Climate Change
Indira Paryavaran Bhavan
Jor Bagh Road, Aliganj,
New Delhi – 110003

TBSL / HSE / MoEF / 107
Date: 22nd May' 2017

Your Ref: F. No. J-11011/271/2007-IA II (I)
Sub: Half Yearly Compliance Report

Sir,

This is in reference to Ministry of Environment & Forests letter no. F. No. J-11011/271/2007-IA II (I) dated 24th August 2007 and Jharkhand Pollution Control Board Letter No. JA/2655/W/332 dated 01st Feb 2007 to M/s Tata BlueScope Steel Limited for Environment Clearance with certain conditions to establish factory premises for Metal Coating and Colour Coating Line at Bara, East Singhbhum, Jamshedpur (Jharkhand).

Please find enclosed the half yearly compliance report {H2 (FY16-17)} for your kind information.

Thanking you

Sincerely yours

For Tata BlueScope Steel Limited



(Factory Manager – Coated Steel Business)

Encl: As Above

Copy to:-

1. The Secretary, Jharkhand State Pollution Control Board, Town Administration Division Building (Ground Floor), H. E. C., Dhurwa, Ranchi - 834004, Jharkhand
 2. The Chairman, Central Pollution Control Board, Parivesh Bhavan CBD-cum-Office Complex, East Arjun Nagar, New Delhi - 110032
 3. The Chairman, Jharkhand State Pollution Control Board, Town Administrative Division Building (Ground Floor) H.E.C., Dhruwa, Ranchi – 824004, Jharkhand
 4. The Chief Conservator of Forests (Eastern), Regional Office (EZ), A/3, Chandrasekharpur, Bhubaneswar – 751023, Orissa.
 5. The Joint Director, Government of India, Ministry of Environment & Forests, Eastern Regional Office (EZ), A/3, Chandrasekharpur, Bhubaneswar – 751023, Orissa.
 6. The Additional Director Monitoring Cell, Ministry of Environment, Forests & Climate Change Indira Paryavaran Bhavan, Jor Bagh Road, Aliganj, New Delhi – 110003
- : Chief Resident Executive, Tata Steel Limited, Jeevan Bharti Building, Tower # 1, 10th Floor, 124 Cannaught Circus, New Delhi (110001)

(A) SPECIFIC CONDITIONS

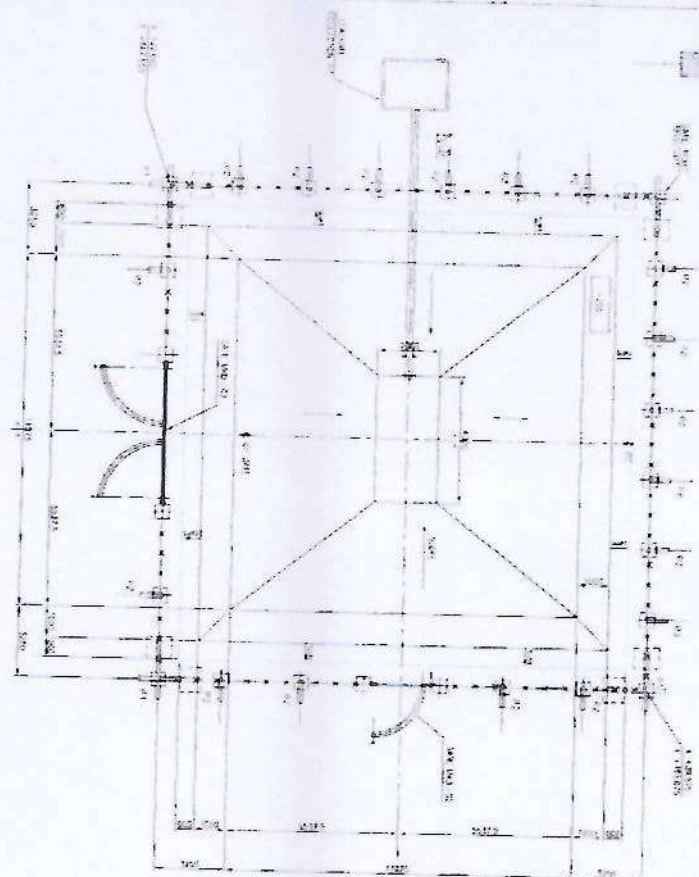
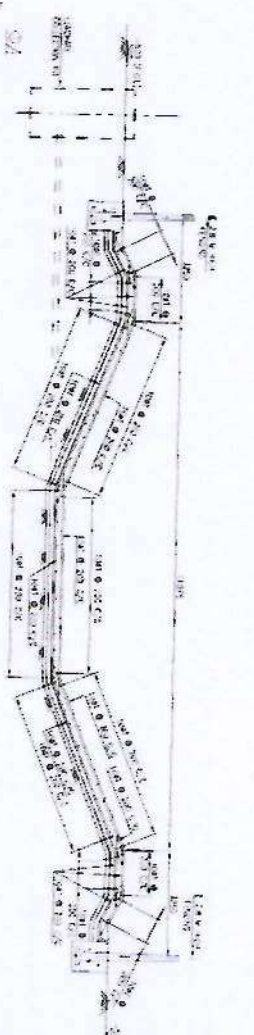
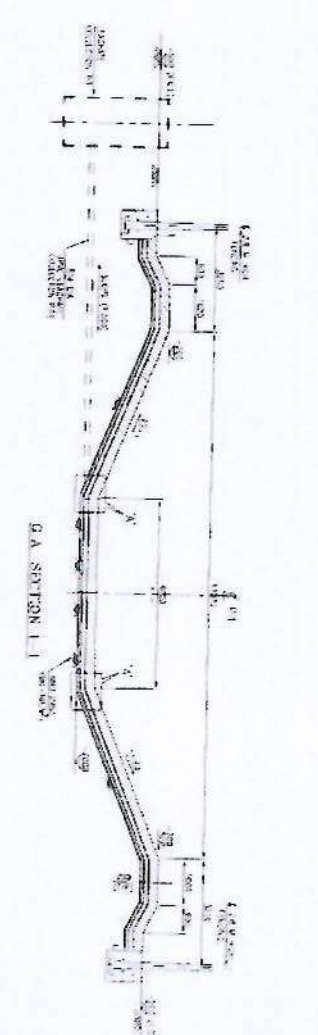
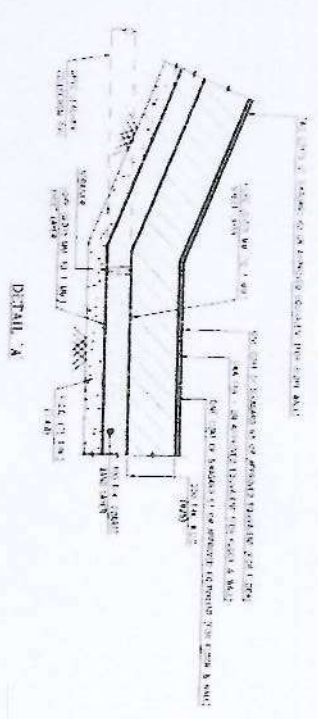
Sl. No.	Conditions	Compliance
1	<p>a. Total Water requirement from River Subarnarekha shall not exceed 2,160 m³/day and</p> <p>b. Waste water generation shall not exceed 1106 m³/day respectively.</p> <p>c. Effluent Treatment plant passivation section shall be treated separately to reduce Cr+6 into Cr+3 and its proper storage after dewatering in separate secured landfill (SLF).</p> <p>d. Closed circuit cooling water system shall be adopted in cooling towers to reduce consumption of water.</p> <p>e. All the treated effluent shall be monitored for pH, TSS, TDS, volatile dissolved solids, COD, BOD, heavy metals and other relevant parameters like presence of solvents etc. and used for horticulture purposes or secondary usage.</p>	<p>a. Present water consumption (Industrial + Domestic) per day is 672.18 Cub M/Day.</p> <p>b. Waste water generation per day average 330.53 Cub M / Day</p> <p>c. Expected treatment plant has been installed and it is in operation. After treatment of Cr+6, Cr+3 sludge is being stored in the leaching pond called SLF after dewatering.</p> <p>d. Close circuit cooling tower has been installed.</p> <p>e. Expected parameter are being monitored. Treated water being used for horticulture.</p>
2	<p>The ground water quality in and around the unit and the hazardous waste disposal site / secured landfill (SLF) shall be regularly monitored and the data recorded to ensure that there is no contamination of the ground water.</p>	<p>A design detail of the secured land fill (SLF) according to which it has been implemented at site is attached as Annexure - I. Layout showing location of SLF vis-à-vis we are taking sample of ground water from nearest bore well from SLF. Ground and Surface water quality test report as annexure XI A, XI B & XI C.</p>
3	<p>a. Hazardous waste (Chrome sludge, Trivalent Chromium) shall be disposed off in secured landfill (SLF).</p> <p>b. Spent paint shall be provided to the paint manufacturers.</p> <p>c. Aluminum and Zinc metal dross shall be sold to authorised entrepreneurs only. And</p> <p>d. Incinerator shall be installed to incinerate ETP sludge, waste paint, oil wastes etc. and waste heat recovered shall be used in the process. air emissions from the incinerator shall be controlled by installing proper air pollution control equipment's to meet the CPCB standards and guidelines. the destructive efficiency of the incinerator shall be assessed time to time by approved agency and a report submitted to the ministry.</p>	<p>a. Hazardous waste (Chrome sludge, Trivalent Chromium) being disposed off in secured landfill (SLF).</p> <p>b. Spent Paint is incinerated as per compliance of 3d.</p> <p>c. Vendors has been developed who buy the Al & Zn dross.</p> <p>d. Incinerator has been installed and ETP sludge, waste paint (mixed with waste cotton) are being incinerated. Hot flue gas is being emitted after necessary quenching to environment and air emission being monitored as per CPCB standard. The Destructive efficiency measurement of the incinerator is under progress. Online stack monitoring system planned.</p>
(B). GENERAL CONDITIONS		
i)	<p>The plant authorities shall strictly adhere to the stipulations made by the Jharkhand State Pollutions Control Board (JSPCB) and the State Government.</p>	<p>TBSL is committed to adhere stipulations made by the Jharkhand State Pollutions Control Board (JSPCB) and the State Government. JSPCB had issued Consent to Establish (NOC) vide ref NO JA/ 2655/w/332. Dated 01.02.07 and Consent to Operate vide ref NO PC/JSR/Air/T-64/11/G.922. Dated 28.12.2015. Hazardous Waste Authorization has been obtained from JSPCB. All clearances of JSPCB attached as Annexure - II, Annexure IIA, and IIB.</p>
ii)	<p>No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment and Forests.</p>	<p>Shall follow the Norms</p>
iii)	<p>The gaseous emissions from various process units shall conform to the load mass based standards notified by this Ministry on 19th may 1993 and standards prescribed from time to time. The state Board may specify more stringent standards for the relevant parameters keeping in view the nature of the industry and its size and locations. 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.</p>	<p>The plant design includes fumes extractor, fumes will be burnt in the incinerator before it goes to air through stacks. Gaseous emission from MCL is designed as per MoEF standards and maintained. Emission from the MCL stack is being designed as per standards (Air - Prevention & Control of Pollution Act, 1981) and is as follows:</p> <p>Particulate matter : 50 mg/Nm³ Max NOx emission : <200 mg/Nm³ SOx emission : <20 mg/Nm³ VOC emission : <50 mg/Nm³</p>

xiii)	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 should conform to the standards prescribed under EPA Rules, 1989 viz. 75 dBA (daytime) and 70 dBA (nighttime).	All equipment are designed in accordance with EPA Rules for control of noise levels. Acoustic enclosures for DG sets, Air compressors etc. Done. Noise Monitoring Report attached as Annexure -IX.
xiv)	Recommendations made in the Corporate Responsibility for Environment Conservation (CREP) issued for the steel plants shall be implemented.	Details of the equipments installed and practices put in place or proposed for compliance of CREP attached as Annexure - VII.
xv)	Occupational health surveillance of the workers shall be done on regular basis and records maintained as per the Factories Act.	Currently we have some crane operators who work under contractor whose occupational health is being monitored and we are attaching details of health check-up till date. We are attaching our future scheme provision and plans to be done under occupational Health. We are attaching details as annexure III. And IIIA & IIIB.
xvi)	The plant proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA / EMP report.	Being complied
xvii)	The company must undertake socio-economic developments activities in the surrounding villages like community development programmes, educational programmes. Drinking water supply and health care etc.	Tabular details of CSR done and envisaged is attached as Annexure - VI.
xviii)	The Regional Office of this Ministry at Bhubaneswar / CPCB / SPCB will monitor the stipulated conditions. A six monthly compliance report and the monitoring data along with statistical interpretation shall be submitted to them regularly.	Implemented .Statistical interpretation of environmental data being submitted with this report . AAQR report including Monitoring of PM2.5 and other parameters from sl.5 to sl. 12 as specified in the notification GSR 826 (E) dater 16.11.2009 as Annexure .Report for month of Oct-16 as Annexure VIII,Report of Nov-16 as Annexure VIIIA,Report of Dec-16 as Annexure VIIIB,Report of Jan-17 as annexure VIIIC,report of Feb-17 as annexure VIID,report of March-17 as VIIIE.Statical analysis of AAQR is attached as Annexure VIIIF.We are submitting Noise Level Report as Annexure IX. Report of stack emission is being attached as Annexure X,XA,XB,XC,XD.Ground water Quality Report as XI,effluent water quality report as annexure XIA,Surface water quality test report as XIB & XIC and Soil Analysis report as annexure XII.
xix)	The Plant 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 JSPCB / Committee and may also be seen at Website of the Ministry of Environment and Forests at http://envfor.nic.n . this shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the regional office.	Complied
xx)	Plant authorities should inform the Regional Offices as well as the 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.	Complied

iv)	Fume extraction system shall be provided to collect solvent vapors (VOCs) and shall be incinerated in incinerator to mitigate odour pollution. Fume extraction system shall also be provided to alkali degreasing section and chrome passivation both to extract alkali and acid droplets.	Fume extraction system is designed for Solvent vapours incineration and for alkali & Chromate with a water scrubber
v)	At least four ambient air quality monitoring stations shall be established in the downward direction as well as where maximum ground level concentration of SPM, SO ₂ and NO _x are anticipated in consultation with JSPCB. Data on ambient air quality and stack emission shall be regularly submitted to this Ministry including its Regional Office at Bhubaneswar, JSPCB and CPCB once in six months.	Four Ambient Air quality monitoring station established. data being submitted with this report .AAQ report as Annexure VIII & VIIIA, VIIIB, VIIC, VIID, VIIE and VIIF. Monitoring of PM _{2.5} and other parameters from SI.5 to SI. 12 as specified in the notification GSR 826 (E) date 16.11.2009.
vi)	In plant control measures for checking fugitive emission from all the vulnerable sources shall be provided. Further specific measures like water sprinkling shall be carried out and fugitive emissions shall be controlled, regularly monitored and records maintained.	N.A
vii)	Secondary fugitive emissions shall be controlled within the latest permissible limits issued the Ministry and regularly monitored. Guidelines / Code of Practice issued by the CPCB in this regard shall be followed.	N.A
viii)	Industrial waste water shall be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19th May, 1993 and 31st December, 1993 or as amended from time to time. The treated wastewater shall be utilised for plantation purpose.	ETP is designed to take care of Environmental norms. The treated water is used for gardening.
ix)	The plant authorities shall strictly comply with the rules and regulations under manufacture, storage and Import of Hazardous Chemical Rules, 1989 as amended in October 1994 and January 2000 and Hazardous Wastes (Management and Handling) Rules, 2003. Authorisation from the Jharkhand SPCB must be obtained for collection / treatment / storage / disposal of hazardous wastes. No hazardous waste shall be sold.	Requirements under manufacture, storage and Import of Hazardous Chemical Rules, 1989 as amended in October 1994 and January 2000 are being complied. Consent for Hazardous waste authorisation applied for renewal on 28.12.2015.Document is attached as Annexure II B.
x)	Occupational health surveillance of the workers shall be done on regular basis and records maintained as per the Factories Act.	Occupational health surveillance of the workers are being done as per the Factories Act. We are attaching details as annexure III and IIIA & IIIB.
xi)	The company shall develop surface as well as ground water harvesting structures to harvest the rainwater for utilisation in the lean season besides recharging the ground water table.	Detailed design of rainwater harvesting plan attached as Annexure – IV.
xii)	As proposed, green belt shall be developed 8 ha (33%) out of total 24 ha to mitigate the effect of fugitive emissions all around the plant as per the CPCB guidelines.	More than 30 percent area has been developed as Green belt. Plant layout showing green belt developed till date attached as Annexure – V & V A.

DESIGN OF SECURED LAND FILL (SLF)

Ameyure JT



G.A. PLAN

NOTES: 1. ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SPECIFIED. 2. THE DESIGN IS FOR A SECURED LAND FILL. 3. THE ACTUAL DESIGN SHALL BE DETERMINED BY THE CLIENT & THE DESIGNER.

- 1. ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SPECIFIED.
- 2. THE DESIGN IS FOR A SECURED LAND FILL.
- 3. THE ACTUAL DESIGN SHALL BE DETERMINED BY THE CLIENT & THE DESIGNER.

APPROXIMATE COVERED QUANTITIES FOR FINISHING PLASTER, PAINT, ETC.

ITEM	QUANTITY	UNIT
1. PLASTER	1000	SQ. M.
2. PAINT	500	LITERS
3. ETC.

APPROVED FOR CONTRIBUTION

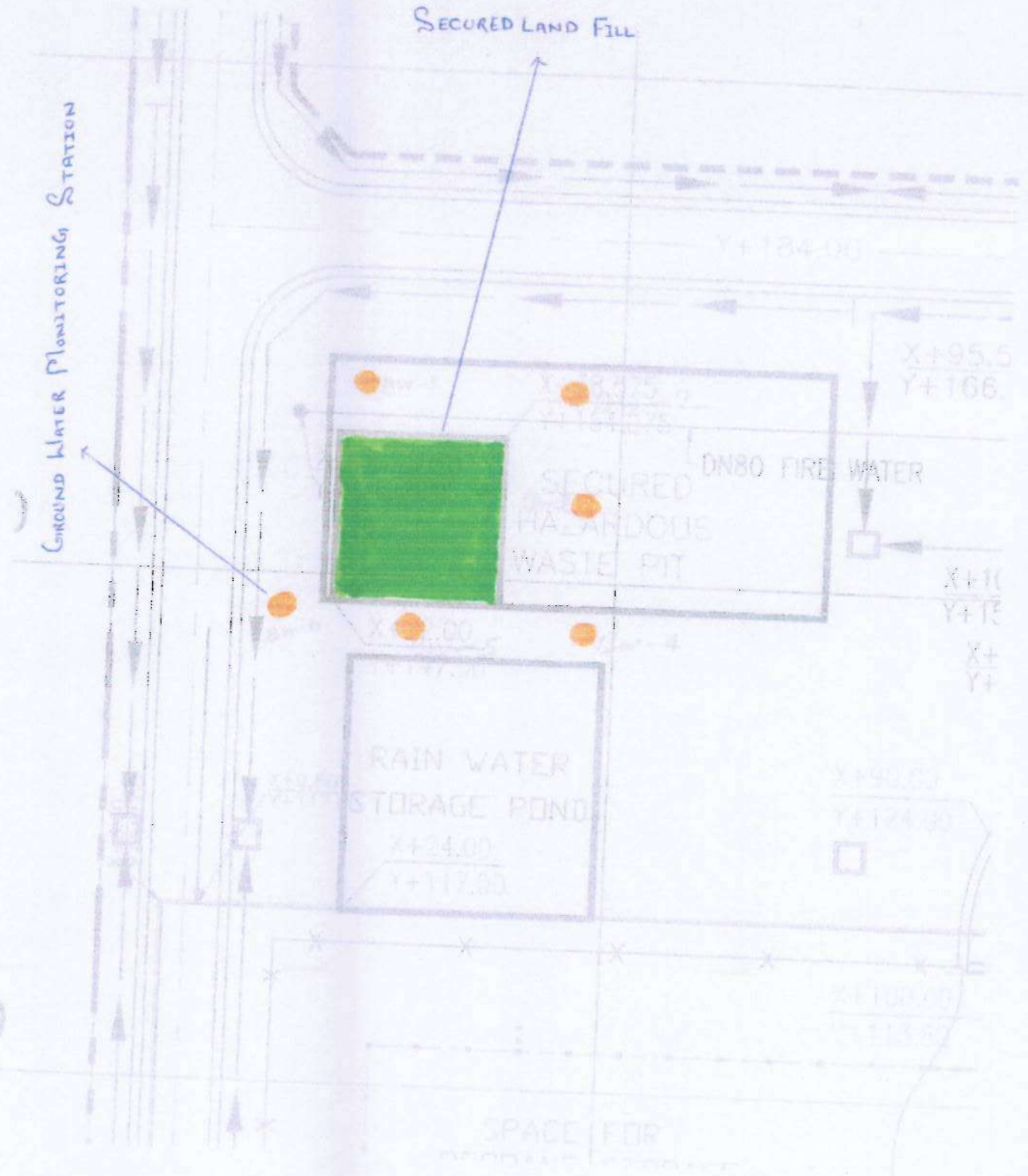
APPROVED FOR CONSTRUCTION

M. N. DASTGEER & COMPANY (P) LTD.

TATA BLUE SCOPE STEEL LTD.

GROUND WATER MONITORING STATION

SECURED LAND FILL



SKETCH - 2



झारखण्ड राज्य प्रदूषण नियंत्रण पर्वद
JHARKHAND STATE POLLUTION CONTROL BOARD
 T.A. DIVISION BUILDING (GROUND FLOOR), H.E.C., DHURWA, RANCHI-834004
 Phone No:- 2400852, 2400979, 2400851, Fax No:- 2400850.

Ref No. JA/2655/WI/332

Date :- 1.2-07.

No Objection Certificate under section 25 & 26 of the water (Prevention & Control of pollution) Act, 1974 and under section 21 of the Air (Prevention & Control of pollution) Act, 1981.

1. Reference application no. 4588 dated 19-09-05 of M/s Tata BlueScope Steel Ltd. , Bara Ash pond Area, Jamshedpur- 831009 for setting up a plant for manufacturing of Zinc- Aluminium, Coated Steel Strip and Polyester paint Coated Strip at Bara Ash pond Area, Po- Agrico, Dist - East Singhbhum. The production capacity of the industry will be as follows :-

- 1) Zinc-Aluminium Coated Steel Strips (Galvalue/Zinc column - 100,000 TPY
- 2) Polyester Paint coated Strip- 150,000TPY

Project Cost- 785.0 Crores

2. After Consideration

- i) The facts stated in the N.O.C application & Project Report
- ii) Provisions of related water (Prevention & control of Pollution) Act, 1974 & Air (Prevention & Control of pollution) Act, 1981.
- iii) EIA/EMP submitted.
- iv) Public Hearing conducted on 12-05-06.

3. N.O.C in favour of unit, based on EIA/EMP & facts stated in the project report, N.O.C application is hereby accorded subject to the following conditions:-

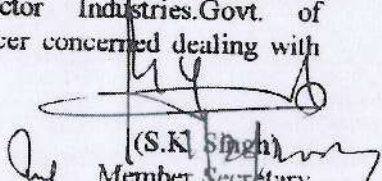
- i) The unit shall obtain consent to operate from State pollution Control Board under section 25 and 26 of the Water (Prevention & Control of pollution) Act, 1974 and section 21 of the Air (Prevention & Control of pollution) Act, 1981 prior to commissioning of the plant.
- ii) The unit shall install Effluent Treatment Plant adopting appropriate technology to treat the effluent to the standard stipulated and it shall be recirculated.
- iii) All tanks used for collection and treatment of effluent shall be made impervious by providing adequate cement concrete/stone masonry/stone slab lining with leak proof materials.
- iv) The unit shall install water meter to measure the water consumed for different purposes as per the water (Prevention & Control of pollution) Cess Act, 1977.
- v) The unit shall ensure continuous and uninterrupted power supply so that the pollution control system functions uninterruptedly. Separate energy meters shall be provided for the pollution control systems.
- vi) The unit shall upgrade pollution control systems as and when new technologies are available.
- vii) The unit shall install suitable Air pollution control devices wherever necessary to control fugitive emission, and emission from stack shall conform to the stipulated standards.
- viii) The height of stack(s) shall be as per norms of Central Pollution Control Board. Necessary port hole(s) ladder and platform shall be provided with the stack as per norms of the Central Pollution Control Board for stack emission monitoring.

- ix) The unit shall provide Ambient Air Quality Report & Noise level monitoring report before and after commissioning of the plant. The unit shall ensure that the Noise level & AAQ are within the prescribed limit.
 - x) The D.G. sets shall be housed properly to minimize noise pollution in and around the factory campus. The height of exhaust pipe shall be raised as per the norms of C.P.C.B.
 - xi) The plantation shall be made in every direction in all vacant spaces available around the factory campus.
 - xii) The unit shall prepare and submit a plan of rain water harvesting within Six months.
 - xiii) The unit shall implement all pollution control measures as suggested in EIA/EMP.
 - xiv) Online monitoring system shall be installed to check pollution level continuously.
 - xv) For the disposal of Oily and Volatile organic waste, Incinerator shall be provided with adequate pollution control devices to meet the Board's emission standard.
 - xvi) The unit shall obtain Environmental Clearance from MOEF, Govt. of India by 30th, June, 2007.
 - xvii) The unit shall comply the following directions as per the recommendation of the committee, constituted vide Board's letter no. 3113 dated 21-09-06
 - a) The road leading from M/s Timken India Ltd. to M/s Tata BlueScope Steel Ltd. Shall be made pucca and frequency of water spraying shall be increased.
 - b) Slag dumped in the northern side of the premises shall be removed.
 - c) Garland drain along the boundary outside the premises shall be provided.
 - d) Water spraying on all haul roads shall be done regularly.
 - e) Garbage dumped in the Eastern side of the premises shall be removed.
4. The Jharkhand State Pollution Control Board reserves the right to revise and/or add any other conditions, if necessary, for the protection of Environment and to ensure pollution control or any.
 5. The present N.O.C shall not be considered as an assurance for granting consent to operate the proposed plant and is subject to compliance of all conditions as mentioned above.
 6. This N.O.C is valid for a period of 12 months from the date of issue.

Sd/-
(S.K. Singh)
Member Secretary

Memo No. 332

Ranchi, Dated 1.2.07.
Copy forwarded to M/s Tata BlueScope Steel Ltd., Bara Ash pond Area, Jamshedpur-831009 /Secretary, Ministry of Environment and Forest, Govt. of India New Delhi/Secretary, Dept. of Forest and Environment, Govt. Of Jharkhand, Ranchi/ Chief inspector of Factories, Doranda, Ranchi/Deputy Commissioner, East Singhbhum/Director Industries.Govt. of Jharkhand,Ranchi/Regional Office, J.S.P.C Board, Jamshedpur/officer concerned dealing with consent/PS to Chairman.


(S.K. Singh)
Member Secretary

- ix) The unit shall provide Ambient Air Quality Report & Noise level monitoring report before



JHARKHAND STATE POLLUTION CONTROL BOARD

TOWNSHIP ADMINISTRATION BUILDING, HEC COMPLEX, DHURWA, RANCHI 834004

Telephone: 0651-2400850 (Fax)/ 2400851/2400852/2401847/2400979/2400139

Ref. No. PC/JSR/Air/T-64/11/...*4.522*

Ranchi, Dated *28.12.15*

Consent to operate (CTO) under section 25 /26 of the Water (Prevention & Control of Pollution) Act, 1974 and under section 21 of the Air (Prevention & Control of Pollution) Act, 1981

1. Reference: Application (s) dated 11.12.2014 of M/s. Tata Blue Scope Steel Ltd., At – Bara, P.O. – Agrico, Jamshedpur, Dist. – East Singhbhum (occupier) for consent under section 25 /26 of the Water (Prevention & Control of Pollution) Act, 1974 and under section 21 of the Air (Prevention & Control of Pollution) Act, 1981.
2. Documents Relied Upon:
 - (a) The content of Environmental Clearance (EC), Ref No. J-11011/271/2007-IA.II(I) Dated 24.08.2007 issued by MoEF, Govt. of India
 - (b) The content of Consent-to-Establish (CTE), Ref No. 332 Ranchi, Dated 01.02.2007
 - (c) The content of Consent-to-Operate (CTO), Ref No. G-3885 Ranchi, Dated 10.10.2014
 - (d) The content of Inspection Report (I/R), Ref No. 1179 Regional Officer, Regional Office-Cum-Laboratory, Jamshedpur, Dated 09.05.2015
3. The consent is granted under section 25 / 26 of the Water (Prevention & Control of Pollution) Act, 1974 and under section 21 of the Air (Prevention & Control of Pollution) Act, 1981 to operate the project in At – Bara, P.O. – Agrico, Jamshedpur, Dist. – East Singhbhum, as follows:

Project	Plot No.	Area	Investment (Rs)	Product & Capacity	Period	
					From	To
Before Expansion	At - Bara, P.O. – Agrico, Jamshedpur, Dist. – East Singhbhum	-----	785.0 Crores	Metal Coated Steel Coils – 1,00,000 TPA and Painted Coils – 1,50,000 TPA	Date of issue	31.12.2019

(A) General Conditions :

- i. That, the occupier shall comply with all conditions of EC, Ref. No. J-11011/271/2007-IA.II(I) Dated 24.08.2007, CTE Ref. No. 332, Ranchi, Dated 01.02.2007 previous CTO, Ref. No. G-3885 Ranchi, Dated 10.10.2014 shall submit report to this effect with supporting documents.
- ii. That, the occupier shall maintain the ambient air quality within the standard given below:

S N	Parameter	Standard
I	Respirable Suspended Particulate Matter (24 hrs.)	100 µg/ Nm ³
II	Sulphur Dioxide (24 hrs.)	80 µg/ Nm ³
III	Oxides of Nitrogen (24 hrs.)	80 µg/ Nm ³

- iii. That, the occupier shall maintain the emission quality within the standard and the quantity, as follows:

S. N.	Parameter	Standard
I	Particulate Matter	150 mg/ Nm ³

- iv. That, the occupier shall keep D G Set(s) within acoustic enclosure (s) and shall keep the height(s) of exhaust pipe(s) as per Central Pollution Control Board norm.
- v. That, the occupier shall keep process effluent in close-circuit and the quality of effluent from other sources in conformity with the standard (s) and the discharge quantity as below:

S N	Parameter	Standard
I	Total Suspended Solids	100 mg/L
II	BOD	30 mg/L
III	COD	250 mg/ L
IV	Oil & Grease	10 mg/ L

- vi. That, the occupier shall install and maintain Central Ground Water Board/ State Ground Water Directorate approved system of rain water harvesting-cum-ground water recharge.
- vii. That, the occupier shall create and maintain new water body (ies) / remove deposit(s) of existing water body(ies)/ nearby stream(s) and pond(s) and well(s) and shall maintain the wholesomeness of water.
- viii. That, the occupier shall dispose of solid wastes as follows:

S N	Waste Type	Mode of Disposal
I	Hazardous Carbonaceous Wastes	In co-processing in high temperature furnaces or kilns
II	Hazardous Non-Carbonaceous Wastes	In TSDF
III	Non-carbonaceous non-hazardous solid wastes/ Mine Over Burden	As a substitute of Soil or Mineral

- ix. That, the occupier shall grow and maintain greenery in the periphery and other available spaces and shall continue enhancing its plant density and biodiversity.
- x. That, the occupier shall submit environmental statement with supporting stoichiometric calculations analyses reports, every year.
- xi. That, the occupier shall submit report(s) duly monitored and issued by an NABL accredited laboratory in compliance of sub-para (ii), (iii), (v) and (viii) of general condition **quarterly**.
- xii. That, the occupier shall comply with all applicable provisions of the Water (Prevention & Control of Pollution) Act, 1974; the Water (Prevention & Control of Pollution) Cess Act, 1977; the Air (Prevention & Control of Pollution) Act, 1981; and the Environment (Protection) Act, 1986 and Rules there under.

(53)

(B). Specific Conditions:

- i. That, the occupier shall upgrade operate and maintain fume extraction system to control voc fumes and shall operate water scrubber in alkali & chromate section.
 - ii. That, the occupier shall operate ETP regularly.
 - iii. That, the occupier shall operate & maintain incinerator for hazardous wastes.
 - iv. That, the occupier shall interlock the production with pollution control equipment within consent period.
 - v. That, the occupier shall ensure no discharge outside the premises all the time.
 - vi. That, the occupier shall construct pucca road inside the factory and shall maintain good house keeping inside the factory campus within consent period.
 - vii. That, the occupier shall comply the conditions given in Environment Clearance issued by Ministry of Environment and Forest, New Delhi.
 - viii. That, the occupier shall submit compliance report of CTO condition every year.
 - ix. That, the occupier shall submit applications for renewal of consent under section 25 / 26 of the Water (Prevention & Control of Pollution) Act, 1974 and under section 21 of the Air (Prevention & Control of Pollution) Act, 1981 again 120 days prior to the date of expiry of this consent i.e. 31.12.2019, with requisite fee and documents showing compliance of all of the above conditions.
4. This order shall be valid subject to all compliance(s)/statutory clearance (s) under all other applicable laws to the unit.

This is issued with the approval of the competent authority

Sd/-

[Sanjay Kumar Suman]
Member Secretary

Ranchi, Dated 28.12.15

Memo No. PC/JSR/Air/T-64/11/..... 65922

Copy to: M/s. Tata Blue Scope Steel Ltd., At – Bara, P.O. – Agrico, Jamshedpur, Dist. – East Singhbhum / the Director of Industry, Government of Jharkhand, Ranchi /the Deputy Commissioner, East Singhbhum / the Chief Inspector of Factories, Ranchi /Regional Office-cum-Laboratory, Jamshedpur for information & necessary action.

[Sanjay Kumar Suman]
Member Secretary

SKS
28.12.15



JHARKHAND STATE POLLUTION CONTROL BOARD
REGIONAL OFFICE-CUM-LABORATORY
FORM-2/See Rule 3 (C) and 5 (s)

FORM FOR GRANT OF AUTHORIZATION NOC OCCUPIER OR OPERATOR HANDLING
HAZARDOUS WASTES.

Ref. No: - 2021


Dated - 20/7/11

1. M/s Tata Blue Scope Steel Ltd hereby granted provisional authorization to operate a facility for collection, reception, treatment storage, transport and disposal of hazardous waste on the premises stipulated at- Bara, P.O.- Agrico, Jamshedpur, Dist- East Singhbhum.
2. The authorization granted to operate a facility for collection, treatment storage and disposal of hazardous wastes.
3. The authorization shall be in force for a period of 5 years with effect from date- 24.03.2011
4. The authorization in subject to the conditions stated below and such conditions as may be specified in the Rules for the time being force under the Environment (Protection) Act, 1986.
 - (i) The authorization shall comply with the provisions of the Environment (P) Act. 1986 and the Rules made there under.
 - (ii) The authorization or its renewal shall be produced for inspection at the request of an office authorized by the State Pollution Control Board.
 - (iii) The person authorized shall not rent, sell, transfer or otherwise transport the hazardous waste(s) without obtaining prior permission of the State Pollution Control Board.
 - (iv) Any unauthorized change in personnel, equipment as working conditions as mentioned in the application by the person authorized shall constitute a break of his authorization.
 - (v) It is the duty of authorized person to take prior permission of the State Pollution Control Board to close down the facility.
 - (vi) An application for the renewal of an authorization shall be made as laid down in 5 (6) (II).
 - (vii) The quantities, categories and names of Hazardous Wastes generating processes shall be submitted within one month.
 - (viii) Hazardous Wastes shall be kept in secured landfill.
 - (ix) The unit shall maintain records of collection, Reception, Treatment, Storage & Disposal of H/W in form-3 and submit annual return in form-4 as per the rules.

This is being issued as per direction of competent authority contained in letter no-3117, dated- 10.07.2004.

To,

M/s Tata Blue Scope Steel Ltd,
At- Bara, P.O.- Agrico, Jamshedpur,
Dist- East Singhbhum.


20/7/11
Regional Officer
Jamshedpur.

Form-1

[See rules 5(3) and (7)]

APPLICATION FOR OBTAINING AUTHORIZATION FOR COLLECTION/ RECEPTION/ TREATMENT/ TRANSPORT/ STORAGE/ DISPOSAL OF HAZARDOUS WASTE

From:

Tata BlueScope Steel Limited
At: Bara, PO: Agrico, Jamshedpur-831009
Bara
District: EAST SINGHBUM
Tehsil: JAMSHEDPUR
Pin: 831009

To

**The Member Secretary,
Jharkhand Pollution Control Board/Jharkhand Pollution Control Committee,
RANCHI**

Sir,

I/We hereby apply for authorization under sub-rule(3) of Rule 5 of the Hazardous Waste(Management, Handling and Transboundry Movement) Rules,2008 for Collection,Transport,Storage,Disposal, of hazardous wastes.

For Office Use Only

1. Code No.
2. Whether the unit is situated in a critically polluted area as identified by Ministry of Environment and Forests.

Filled In By Applicant

Part A: General

3. (a) Name and address of the unit and location of activity :

Tata BlueScope Steel Limited
At: Bara, PO: Agrico, Jamshedpur-831009
Bara
District: EAST SINGHBUM
Tehsil: JAMSHEDPUR
Pin: 831009

Location of Activity: Waste water treatment plant

- (b) Authorization required for: Collection,Transport,Storage,Disposal,

(c) In case of renewal of authorization previous authorization number and date : 2021 and 20/07/2011

4. (a) Whether the unit is generating hazardous waste as defined in these Rules : Yes

(b) If so the type and quantity of wastes (in Tonnes/Kl)

Type	Quantity(Tonnes/KL)
------	---------------------

5. (a) Total capital invested on the project : 88000.00

(b) Year of commencement of production : 2011

(c) Whether the industry works general/2 shifts/round the clock : Round the Clock

6. (a) List and quantum of products and by-products(in Tonnes/KL)

Product Name	Quantity(Tonnes/KL)	By Product Name	By Product Quantity(Tonnes/KL)
--------------	---------------------	-----------------	--------------------------------

(b) List and quantum of raw material used(in Tonnes/KL)

Raw Material	Quantity(Tonnes/KL)
--------------	---------------------

7. Furnish a flow diagram of manufacturing process showing input and output in terms of products,waste generated including for captive generation and demineralised water.

Attached

Part B: Hazardous Waste

8. (a) Type of hazardous wastes generated as defined under these Rules.

(b) Quantum of hazardous waste generated.

(c) Sources and waste characteristics.

(d) Mode of storage within the plant, method of disposal and capacity.

Type	Quantity(Tonnes/KL)	Source	Mode of Storage	Method of Disposal	Capacity(Tonnes/KL)
------	---------------------	--------	-----------------	--------------------	---------------------

9. Hazardous Wastes generated as per these Rules from storage of hazardous chemicals as defined under the Manufacture,Storage and Import of Hazardous Chemicals Rules 1989.

Part C: Treatment, Storage and Disposal Facility

10. Detailed proposal of the facility(to be attaced) to include

(a)Location of sit(provide map):

Not Attached

(b)Name and Details of waste processing technology:

Attached

(c)Site Clearance(from local authority,if any):

Not Attached

(d)Utilization Programme for waste processed(Product Utilization):

Not Attached

(e)Method Of disposal(details in brief be given):

Not Attached

(f)Nature and composition of waste:

Not Attached

(g) Methodology and operational details of landfilling/incineration:

Not Attached

(h) Measures to be taken for prevention and control of environmental pollution including treatment of leachate:

Not Attached

(i) Measures to be taken for safety of workers working in the plant:

Not Attached

Place:

Date:

Signature:.....

Designation:.....



Jharkhand State Pollution Control Board

Online Consent Management & Monitoring System

Government of India
Ministry of Environment & Forest

REPORT 2015

Welcome Tata BlueScope Steel Limited

Date : 28-12-2015

On-line Payment Receipt

Receipt No.
 Depositor Name
 Bank Id.
 Bank Name.
 Application No.
 Name and Address of Industry
 Name of Regional Office
 Applied For
 Payment Date
 HWM Fee (Rs.)
 Total Amount Paid (Rs.)
 Transaction Status

165798474
 Mr Riten Choudhury
 ICICI
 511714
 Tata BlueScope Steel Limited, At: Bara,PO:Agrico,Jamshedpur-831009, JAMSHEDPUR,
 EAST SINGHBUM
 Jamshedpur
 HWM
 Mon Dec 28 13:58:11 IST 2015
 Payment Details
 35000.0
 35000.00
 Successfully Completed

Processed Print

Pollution Control Board, Copyright © 2009All Rights Reserved NIC, India

Occupational Health Monitoring Programmes

Occupational Health Monitoring Programmes			
Sr. No.	Type of Medical Examination	Details	Frequency
1	Pre-Employment Medical Checkup	Before Employment	once
2	All Employee	Will undergo Medical checkup once in 12 month.	Annual
3	Examination of Eye site and colour vision of certain workers such as crane, Locomotive, Fork lift, Payloaders, Dumpers or other automobiles operators as well as workers involved in giving signal to crane or locomotive operator.	As per Bihar / Jharkhand factory rules 1) No person shall be employed to operate crane, Locomotive and forklift pay loader, Dumper or other automobiles or to give signals to a crane operator or locomotive operator unless his eye sight and colour vision have been examined by qualified ophthalmologist, approve by the inspector and declare fit to work whether or without the use of corrective glasses. The eye-sight and colour vision of person employed as referred shall be examined once in a period of 12 month up to age of 45 and once in six month beyond that age.	Once in a up to age of 45 beyond that once in six month.
4	Workers employed in hazardous process	6 month general checkup to ascertain in the health status of all workers in respect of occupational health hazards to which they are exposed and in cases where in the opinion of factory medical officer it is necessary to do so in shorter interval in respect of any worker. b) The details of pre-employment and and periodical examination carried out as aforesaid shall be recorded in health register in form no 24 (C). No person shall be employed for first time without a certificate of fitness in form no 33 granted by factory medical officer. d) Any finding of factory medical officer revealing any abnormality or unsuitability of any person employed in process shall immediately be reported to certifying surgeon who shall in turn, examine the concerned worker and communicate his finding to occupier within 30 days. If the certifying surgeon is of opinion that workers so examined is required to be taken away from process for health protection he will direct the occupier accordingly, who shall not employ the said worker in the same process. However the worker so taken away be provided with alternate placement unless he is fully incapacitated. In opinion of the certifying surgeon, in which case the worker affected shall be suitably rehabilitated. Provided that the certifying surgeon on his own may examine any worker when he considers it necessary to do so for ascertaining the suitability of his employment in the hazardous process of for ascertaining the health status of any worker. E) The workers taken away from employment in any process under sub rules may be employed again in same process only after obtaining the fitness certificate from certifying surgeon and after making entry to that effect in health register.	Once in six month
5	Person involved in handling of Chronic compound	every worker involved in in should be examined by M.O at least twice in every week and by certifying surgeon at least in three months.	Twice in week by M.O. And By certifying surgeon once in three month
6	Person involved in mollen metal area	6 month general checkup and special check up for Eye	Once in six month
7	Person involved in high noise level	Will be examined by certifying surgeon within 14 days of first employment and thereafter in every 12 months. (Audiometry examination)	

Medical Examination Report of Contractor Employee Involved in crane Operation and forklift operation

Sr No	Date of Medical Examination	Name	SEX	Age	Height	Weight	Blood Group	Pulse Rate	B.P	Wearing Glass or not	Eye Sight	Chest	EAR	Nose	Remarks of Doctor
1	19-May-16	Vijay Kumar Yadav	Male	30						No	Normal				Fit For Duty
2	19-May-16	Ranjeet Kumar	Male	25						No	Normal				Fit For Duty
3	19-May-16	Sitaran Yadav	Male	34						No	Normal				Fit For Duty
4	10-Sep-16	Sunil Kumar Gupta	Male	38						Yes	Normal				Fit For Duty
5	10-Sep-16	Mukesh Kumar Mishra	Male	35						No	Normal				Fit For Duty
6	10-Sep-16	Kundan Kumar	Male	22						No	Normal				Fit For Duty
7	10-Sep-16	Vikash Kumar	Male	28						No	Normal				Fit For Duty
8	10-Sep-16	Anup Kumar Dey	Male	28						No	Normal				Fit For Duty
9	10-Sep-16	Radh Ulang	Male	41						Yes	Normal				Fit For Duty
10	10-Sep-16	R.N. Chachorbory	Male	59						Yes	Normal				Fit For Duty
11	10-Sep-16	Shyamal Ghosh	Male	50						Yes	Normal				Fit For Duty
12	10-Sep-16	Manish Kumar Singh	Male	28						No	Normal				Fit For Duty
13	10-Sep-16	Tun Tun Singh	Male	36						No	Normal				Fit For Duty
14	10-Sep-16	Sadab Alam	Male	35						No	Normal				Fit For Duty
15	10-Sep-16	Ravi Shankar Upadhyay	Male	27						No	Normal				Fit For Duty
16	10-Sep-16	B. Prakash Rao	Male	58						Yes	Normal				Fit For Duty
17	10-Sep-16	Mid.Ataque Usmani	Male	38						No	Normal				Fit For Duty
18	10-Sep-16	All Ahmad	Male	26						No	Normal				Fit For Duty
19	10-Sep-16	Jagat Kumar Singh	Male	35						Yes	Normal				Fit For Duty
20	10-Sep-16	Satyendra Kumar Upadhyay	Male	38						Yes	Normal				Fit For Duty

Medical Report Details of Employees

S.NO	NAME	AGE	SEX	P.NO	Department	Date of Examination	Status
1	SACHIN M LOHKARE	38	M	1525	Logistics	24.10.16	Fit
2	MANISH UPADHAYAY	43	M	618	Automation	24.10.16	Fit
3	BIPIN KUMAR	37	M	1367	Quality Assurance	24.10.16	Fit
4	BARUN JHA	33	M	1805	Automation	24.10.16	Fit
5	MOHINDER SINGH KAUR	34	M	1730	Quality Assurance	24.10.16	Fit
6	SURENDRA KR CHOUDHARY	37	M	1120	Electrical Maint.	24.10.16	Fit
7	AMITABH KR JHA	39	M	1293	Electrical Maint.	24.10.16	Fit
8	BHARAT KR TIWARI	39	M	1272	SRL	24.10.16	Fit
9	ANIRBAN BANERJEE	28	M	1682	SRL	24.10.16	Fit
10	ANIL KR YADAV	34	M	206	Mech.Maint	24.10.16	Fit
11	PARVIN KR RAI	35	M	747	Mech.Maint	24.10.16	Fit
12	KEDAR MISTRI	44	M	944	Mech.Maint	24.10.16	Fit
13	SANJAY PANDEY	44	M	1458	IT System	24.10.16	Fit
14	SHUBHAM MISHRA	18	M	30527		24.10.16	Fit
15	ARINDAM BANERJEE	36	M	518	Procurement & Store	24.10.16	Fit
16	MANOHAR KR GUPTA	28	M	30526		24.10.16	Fit
17	PANKAJ MISHRA	44	M	695	Procurement	24.10.16	Fit
18	ABHIJIT KUMAR	29	M	1271	Mech.Maint	24.10.16	Fit
19	PREMANGSHU SAHA	37	M	1539	Mech.Maint	24.10.16	Fit
20	MUZAHID ALI KHAN	31	M	1082	Mech.Maint	24.10.16	Fit
21	RAHUL DAS	31	M	1112	Mech.Maint	24.10.16	Fit
22	M.RAMESH KUMAR	38	M	1516	Supply Chain	24.10.16	Fit
23	SANJEEV KR SINGH	43	M	381	Stores	24.10.16	Fit
24	NAVNEET GAURAV	31	M	1232	Quality Assurance	24.10.16	Fit
25	MD EZAZUL HAQUE	29	M	1510	CPL Operation	24.10.16	Fit
26	VIJAY KR OJHA	35	M	1318	Procurement	24.10.16	Fit
27	SUBHAM KUMAR	26	M	80525		24.10.16	Fit
28	YOGESH KR SINGH	43	M	1456	Mech.Maint	24.10.16	Fit
29	PRABHAT KR SINGH	44	M	1057	Electrical Maint.	24.10.16	Fit
30	RAVINDRA NATH SINGH	33	M	1239	Quality Assurance	24.10.16	Fit
31	RANJAN PRASAD	42	M	1119	Electrical Maint.	24.10.16	Fit
32	MAHENDRA DHAMAL	30	M	1419	Quality Assurance	24.10.16	Fit
33	AMIT KR SINHA	29	M	1342	MCL Operation	24.10.16	Fit
34	AADITYA RAJ	26	M	1763	Supply Chain	24.10.16	Fit
35	DIPAK BISWAS	41	M	263	CPL Operation	24.10.16	Fit
36	ASHISH KR MISHRA	48	M	1299	Quality Assurance	24.10.16	Fit
37	MALKIT SINGH	24	M	1644	MCL Operation	24.10.16	Fit
38	PRASHANT SRIVASTAVA	30	M	1615	Electrical Maint.	24.10.16	Fit
39	DEEPAK KESHARI	32	M	1685	PPC	24.10.16	Fit
40	KISHAN LAL SAINI	31	M	1301	MCL Operation	24.10.16	Fit
41	VOGESH SHARMA	29	M	1243	MCL Operation	24.10.16	Fit
42	PARDEEP KR SHUKLA	29	M	1124	Electrical Maint.	24.10.16	Fit
43	KAUSHIK GHOSH	34	M	1097	Electrical Maint.	24.10.16	Fit
44	SATYENDRA MISHRA	25	M	1424	MCL Operation	24.10.16	Fit
45	BIMAL SAMAL	28	M	1765	PPC	24.10.16	Fit
46	BINAY PRASAD	38	M	1566	PPC	24.10.16	Fit
47	AVISHEK KR SRIVASTAVA	29	M	1350	Mech.Maint	24.10.16	Fit
48	RAVINDRA PATIL	40	M	1286	Mech.Maint	24.10.16	Fit
49	MANJEET SINGH	35	M	1392	CPL Operation	24.10.16	Fit

Medical Report Details of Employees

S.NO	NAME	AGE	SEX	P.NO	Department	Date of Examination	Status
50	RAVI KANT	31	M	1096	CPL Operation	24.10.16	Fit
51	PANKAJ KR BANKEY	32	M	1524	Logistics	24.10.16	Fit
52	RAMESH TUDU	27	M	1324	CPL Operation	24.10.16	Fit
53	UMESH SAWARKAR	37	M	1691	CPL Operation	24.10.16	Fit
54	AMIT MATE	29	M	1493	CPL Operation	24.10.16	Fit
55	RAMESHWAR PD AHIRWAL	39	M	1373	Electrical Maint.	24.10.16	Fit
56	AJAY KR PASWAN	41	M	1794	Quality Assurance	24.10.16	Fit
57	GAURAV AGRAWAL	33	M	1142	CPL Operation	24.10.16	Fit
58	SUMAN SEAL	26	M	1426	MCL Operation	24.10.16	Fit
59	ARUP KR TRIPATHY	58	M	152	Electrical Maint.	24.10.16	Fit
60	TEJINDER PAL SINGH	25	M	1377	MCL Operation	24.10.16	Fit
61	AJAY KR VISHWAKARMA	36	M	1274	Mech.Maint	24.10.16	Fit
62	SHAKIT PADA MAHATO	30	M	1577	Electrical Maint.	24.10.16	Fit
63	MD IQBAL	39	M	1520	Logistics	24.10.16	Fit
64	KAMAL NAYAK	32	M	1770	CPL Operation	24.10.16	Fit
65	KRISHNA KR YADAV	34	M	1227	Mech.Maint	24.10.16	Fit
66	RAKESH RANJAN	24	M	1744	Finance	24.10.16	Fit
67	ASHISH BHADRI	52	M	7E+08	Chief Operations	24.10.16	Fit
68	SOURAV SEN	36	M	1099	Mech.Maint	24.10.16	Fit
69	SHASHIKANT VERMA	26	M	1282	Electrical Maint.	24.10.16	Fit
70	ABHISHEK TRIPATHI	40	M	1668	Human Resource	24.10.16	Fit
71	RAJESH MAHESHWARI	53	M	176	Quality Assurance	24.10.16	Fit
72	BISWAJIT MANDAL	37	M	827	Mech.Maint	24.10.16	Fit
73	PIYUSH KUMAR	47	M	256	Finance	24.10.16	Fit
74	HARERAM SINGH	40	M	326	Mech.Maint	24.10.16	Fit
75	SUSANTA MOHANTY	30	M	1240	MCL Operation	24.10.16	Fit
76	KARAMVIR SINGH	37	M	1341	MCL Operation	24.10.16	Fit
77	RAJEEV KHARE	43	M	1576	Quality Assurance	24.10.16	Fit
78	GIREEJH CHANDRA YADAV	32	M	1388	PPC	24.10.16	Fit
79	UJWAL G. JAIPURKAR	29	M	1681	PPC	24.10.16	Fit
80	SANTOSH KR SAHU	39	M	1285	SRL	24.10.16	Fit
81	TUSHAR KANTI MAL	62	M	7E+07	Quality Assurance	24.10.16	Fit
82	AMOL RAWTE	30	M	1244	MCL Operation	24.10.16	Fit
83	RAMKHILAWAN YADAV	41	M	1338	MCL Operation	24.10.16	Fit
84	SUBHAM DAS	22	M	1817	Electrical Maint.	24.10.16	Fit
85	ABHISHEK SINGH	33	M	1546	Automation	24.10.16	Fit
86	DHIRAJ MUKHERJEE	35	M	1648	Supply Chain	24.10.16	Fit
87	ANIL KR CHOUDHARY	24	M	1479	CPL Operation	24.10.16	Fit
88	PUSHPENDRA SINGH	34	M	1589	CPL Operation	24.10.16	Fit
89	SAMRESH KR	36	M	1415	HSE	24.10.16	Fit
90	FIRDOS A KHAN	36	M	720	HSE	24.10.16	Fit
91	HUSSAINUL OLA QUADRI	35	M	1077	Electrical Maint.	24.10.16	Fit
92	ASHOK KR SINGH	44	M	576123	Electrical Maint.	24.10.16	Fit
93	CHINMAY DUBEY	29	M	1273	Electrical Maint.	24.10.16	Fit
94	SANJEEV KR	36	M	1170	PPC	24.10.16	Fit
95	NISHI KANT SINGH	33	M	1738	Human Resource	24.10.16	Fit
96	DHEERENDRA SINGH BAGHEL	36	M	1148	CPL Operation	24.10.16	Fit
97	ABHAY KUMAR	23	M	1429	MCL Operation	24.10.16	Fit

Medical Report Details of Employees

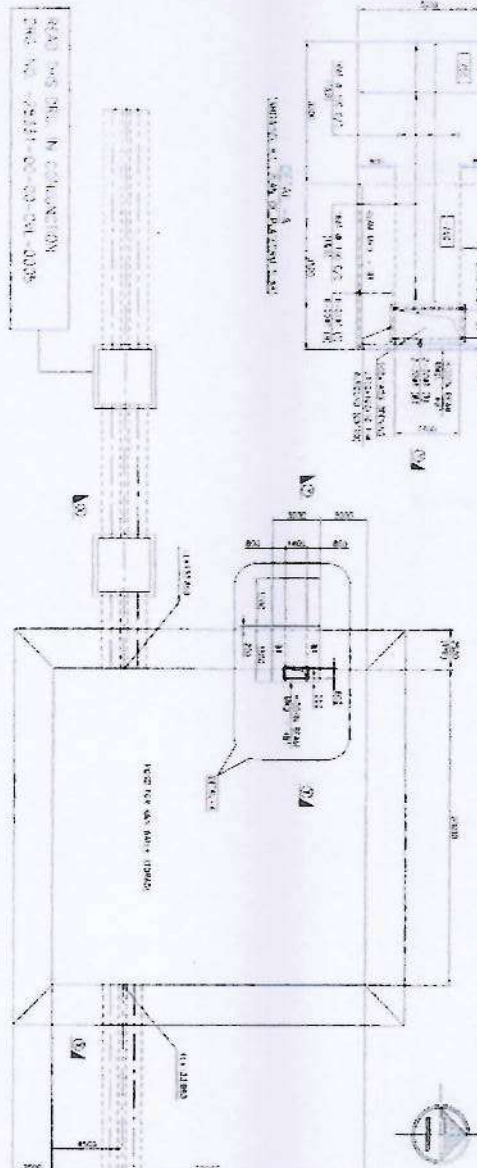
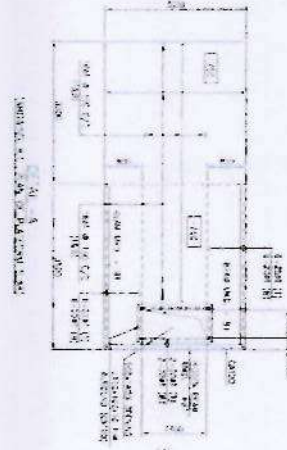
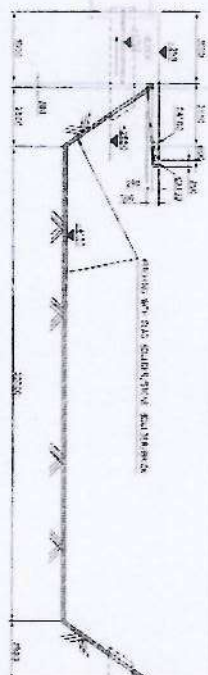
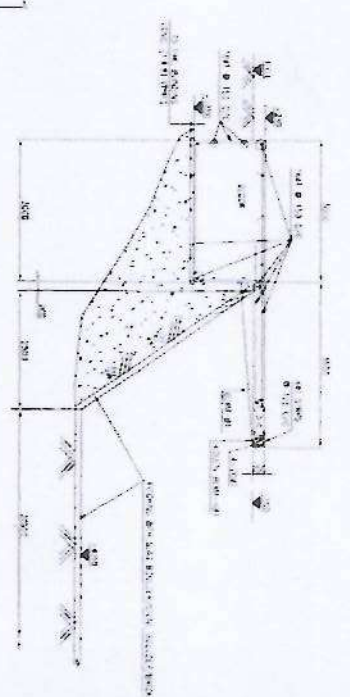
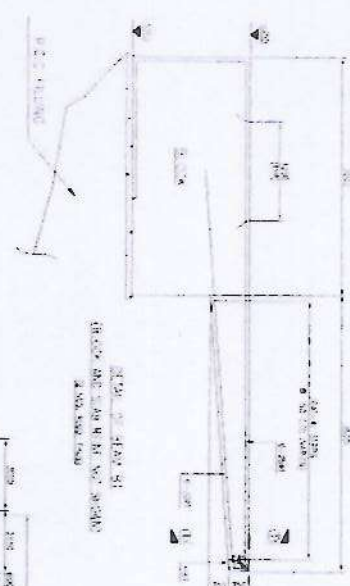
S.NO	NAME	AGE	SEX	P.NO	Department	Date of Examination	Status
98	K RAJESHEKHAR RAO	33	M	1401	MCL Operation	24.10.16	Fit
99	JANG BAHADUR	46	M	1340	Mech.Maint	24.10.16	Fit
100	PUSPESH THAKUR	37	M	1149	Logistics	25.10.16	Fit
101	MAYANK KUMAR	32	M	1314	Logistics	25.10.16	Fit
102	ASHISH RANJAN	31	M	1628	CPL Operation	25.10.16	Fit
103	SHAILESH KUMAR	38	M	1483	Quality Assurance	25.10.16	Fit
104	AMIT KUMAR SINGH	31	M	929	SRL	25.10.16	Fit
105	ANURANJAN KR.	34	M	687	BP Construction	25.10.16	Fit
106	VIVEK KUMAR	24	M	1804	CPL Operation	25.10.16	Fit
107	MAHESH MISHRA	30	M	1580	CPL Operation	25.10.16	Fit
108	G.V.V.N SRIV	26	M	1125	Supply Chain	25.10.16	Fit
109	PRADEEP KR PANDA	42	M	1049	MCL Operation	25.10.16	Fit
110	INDRANIL BISOAS	46	M	149	CPL Operation	25.10.16	Fit
111	ASHISH KUMAR	29	M	1728	Quality Assurance	25.10.16	Fit
112	BRAJESH CHANDRA	32	M	1564	Quality Assurance	25.10.16	Fit
113	GYANENDRA JHA	38	M	1742	Logistics	25.10.16	Fit
114	FAISAL RZA	28	M	1197	Mech.Maint	25.10.16	Fit
115	PANKAJ KR JHA	34	M	1636	Electrical Maint.	25.10.16	Fit
116	DHAMMANAND HIREKAR	32	M	1478	Electrical Maint.	25.10.16	Fit
117	PRAFULLA THAKALHEDE	34	M	1413	MCL Operation	25.10.16	Fit
118	SAROJ KR BISOI	35	M	1540	IT System	25.10.16	Fit
119	MANOJ KR PATHAK	38	M	1473	IT System	25.10.16	Fit
120	DEEPAK KR JHA		M	1726	Supply Chain	25.10.16	Fit
121	ASHUTOSH KR	29	M	1719	Stores	25.10.16	Fit
122	RANDHIR KR CHOUBEY	42	M	1530	Quality Assurance	25.10.16	Fit
123	ARUP DUTTA	39	M	1252	IT System	25.10.16	Fit
124	M NAVIN KUDVA	41	M	575	IT System	25.10.16	Fit
125	ARTI RANJAN	36	F	1484	IT System	25.10.16	Fit
126	ATANU DALUI	36	M	1220	Mech.Maint	25.10.16	Fit
127	DEV KUMAR MIDYA	36	M	1513	Electrical Maint.	25.10.16	Fit
128	VED PRAKASH	32	M	1411	Quality Assurance	25.10.16	Fit
129	JAY PRAKASH SHARMA	34	M	1362	Quality Assurance	25.10.16	Fit
130	JAY DEV	29	M	1211	CPL Operation	25.10.16	Fit
131	AMOL SHINTRE	33	M	977	SRL	25.10.16	Fit
132	ANUPAM SINGH	33	M	1482	Quality Assurance	25.10.16	Fit
133	PRAKASH VISHWAKRMA	36	M	1640	CPL Operation	25.10.16	Fit
134	SAGAR MUKHERJEE	40	M	1115	CPL Operation	25.10.16	Fit
135	TAHIR HUSSAIN	25	M	1325	CPL Operation	25.10.16	Fit
136	SIDDHARTH SHANKER	41	M	1692	Finance	25.10.16	Fit
137	SUDIPDEY	38	M	1598	Finance	25.10.16	Fit
138	SANTOSH SINGH	35	M	1402	Quality Assurance	25.10.16	Fit
139	PALLAB CHOUDHURY	34	M	1279	SRL	25.10.16	Fit
140	SWAPAN PAUL	28	M	1275	SRL	25.10.16	Fit
141	SASWAT TRIPATHY	29	M	1821	Finance	25.10.16	Fit
142	NARAYAN LAL BOHRA	37	M	1379	MCL Operation	25.10.16	Fit
143	AJAY KUMAR SAHU	28	M	1378	Quality Assurance	25.10.16	Fit
144	ROHIT	32	M	1129	SRL & PL	25.10.16	Fit
145	GANESH CHARAN	34	M	271	Stores	25.10.16	Fit
146	ARBIND KR SINGH	43	M	1276	Supply Chain	25.10.16	Fit

Medical Report Details of Employees

S.NO	NAME	AGE	SEX	P.NO	Department	Date of Examination	Status
147	SHANKAR MANI	50	M	145	Supply Chain	25.10.16	Fit
148	NAVAL KISHOR	49	M	1474	Mech.Maint	25.10.16	Fit
149	TIKECHAND DEEP	32	M	1248	CPL Operation	25.10.16	Fit
150	BHANU PRATAP SINGH	28	M	1613	SRL	25.10.16	Fit
151	DEBADATTA SAHU	33	M	1393	CPL Operation	25.10.16	Fit
152	SANJAY YADAV	39	M	600	SRL	25.10.16	Fit
153	PUSHPENDRA SINGH	28	M	1451	Electrical Maint.	25.10.16	Fit
154	VINAY KUMAR	30	M	1733	Logistics	25.10.16	Fit
155	ABHISHEK SINGH	25	M	1743	Electrical Maint.	25.10.16	Fit
156	JEEVAN	35	M	1114	Mech.Maint	25.10.16	Fit
157	PARTHAJIT MISHRA	23	M	1819	GET	25.10.16	Fit
158	K G SONI	38	M	1437	Quality Assurance	25.10.16	Fit
159	SHAILENDRA SINGH	35	M	1518	Quality Assurance	25.10.16	Fit
160	SANJAY KR SINGH	33	M	1452	Quality Assurance	25.10.16	Fit
161	ANIL EKKA	34	M	1083	Mech.Maint	25.10.16	Fit
162	ADITI SHARMA	29	F	1779	Human Resource	25.10.16	Fit
163	SAMUNDRA BHATTACHARJEE	23	M	1820	GET	25.10.16	Fit
164	NAHAR SINGH	29	M	1449	CPL Operation	25.10.16	Fit
165	MD SHAMSHID ALAM	37	M	1390	BP Construction	25.10.16	Fit
166	DAVIK GHOSE	22	M	1824	GET	25.10.16	Fit
167	RAJASHREE BHOWMICK	30		1215	Human Resource	25.10.16	Fit
168	SANTOSH KR MISHRA	34	M	1649	Logistics	25.10.16	Fit
169	BALU PATIL	27	M	1462	CPL Operation	25.10.16	Fit
170	CHETAN BHUMARE	33	M	1229	Mech.Maint	25.10.16	Fit
171	SURAJ KUMAR	48	M	862		25.10.16	Fit
172	VIKASH KR MAHATO	24	M	1428	MCL Operation	25.10.16	Fit
173	ASHUTOSH KR JHA	43	M	850989	Stores	25.10.16	Fit
174	ABHIJIT KR	28	M	1241	Quality Assurance	25.10.16	Fit
175	DEEPAK KR MISHRA	26	M	1432	MCL Operation	25.10.16	Fit
176	ANINDYA BANERJEE	47	M	1078	Mech.Maint	25.10.16	Fit
177	RAJTILAK YADAV	30	M	1679	Electrical Maint.	25.10.16	Fit
178	NISHANT GAYTAM	37	M	1684	Logistics	25.10.16	Fit
179	GAURAV KR JHA	36	M	1249	MCL Operation	25.10.16	Fit
180	VISHAL PANDEY	38	M	65	HSE	25.10.16	Fit
181	ANISH JHA	37	M	8476	IT System	25.10.16	Fit
182	NIRANJAN ROUT	42	M	224	Improvement	25.10.16	Fit
183	VINAY VERMA	30	M	1294	Electrical Maint.	25.10.16	Fit

DESIGN OF RAIN WATER HARVESTING POND

Ameyrajiv



PLAN OF RAIN WATER STORAGE POND

NO STORAGE OF SOLID WASTE TO BE DONE IN RELATION WITH THE POND'S DESIGN. MAN HOLES ONLY.

WATER STORED IN POND WILL BE MAINLY USED FOR WATERING AND LANDSCAPING PURPOSES.

CONSTRUCTION OF THE POND SHALL BE IN ACCORDANCE WITH THE LOCAL GOVT. REGULATIONS.

DATE: 25/05/2023

NO RAINWATER IS TO BE STORED IN THE POND FOR MORE THAN 30 DAYS. THE POND SHALL BE MAINTAINED AT ALL TIMES. THE POND SHALL BE KEPT FREE FROM SOLID WASTE AND LITTER. THE POND SHALL BE KEPT FREE FROM SOLID WASTE AND LITTER. THE POND SHALL BE KEPT FREE FROM SOLID WASTE AND LITTER.

NO.	REV.	DATE	DESCRIPTION
1	0	25/05/2023	ISSUED FOR TENDER
2	1	25/05/2023	REVISED DRAWING

DATE: 25/05/2023

PROJECT NO.	BR	ADD	EST. NO.	DATE
PROJECT NAME	BR	ADD	EST. NO.	DATE
PROJECT LOCATION	BR	ADD	EST. NO.	DATE
PROJECT STATUS	BR	ADD	EST. NO.	DATE

NO RAINWATER IS TO BE STORED IN THE POND FOR MORE THAN 30 DAYS. THE POND SHALL BE MAINTAINED AT ALL TIMES. THE POND SHALL BE KEPT FREE FROM SOLID WASTE AND LITTER. THE POND SHALL BE KEPT FREE FROM SOLID WASTE AND LITTER. THE POND SHALL BE KEPT FREE FROM SOLID WASTE AND LITTER.

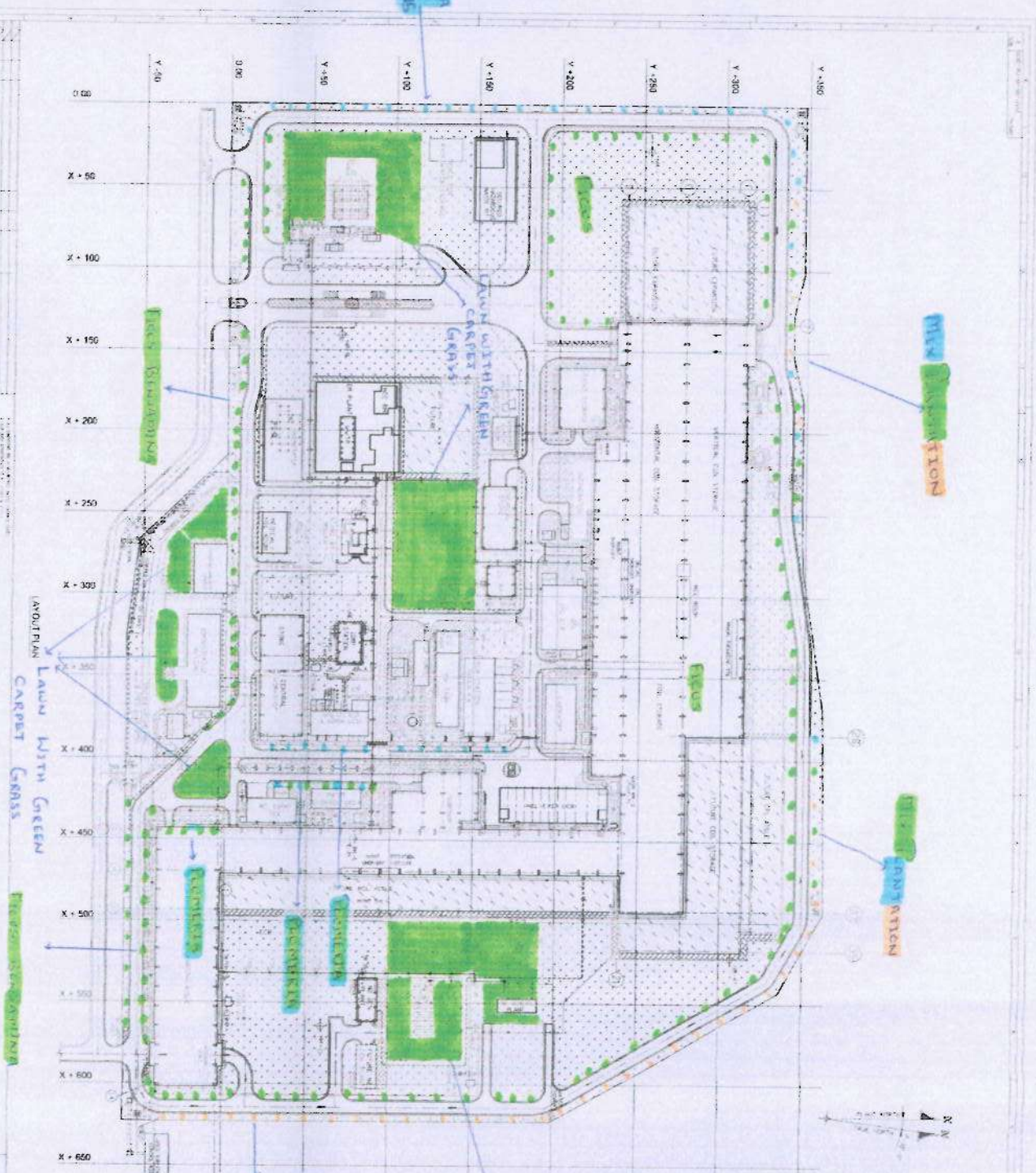
NO.	REV.	DATE	DESCRIPTION
1	0	25/05/2023	ISSUED FOR TENDER
2	1	25/05/2023	REVISED DRAWING

DATE: 25/05/2023

DATE: 25/05/2023

LANDSCAPE SYMBOLS

SL. NO.	ITEM	SYMBOL
1.	LOCAL DRAIN BASIN	[Symbol]
2.	KOREAN/JAPANESE LAWN GRASS	[Symbol]
3.	100 TKG GRANITE STONE	[Symbol]
4.	INTERLOCKING LIMB BLOCKS	[Symbol]



DRAWING NO. 10/10/2010
 PROJECT NO. 10/10/2010
 CLIENT: [Name]
 DESIGNER: [Name]
 CHECKER: [Name]
 DATE: [Date]
 SCALE: [Scale]

GREEN BELT AND PLATATION WORK PROGRESS REPORT

Month & year	Work details Manual and Area of work	Plantation and lawn preparation Details	No of Plants & srubs	Expenses amount Rs
October-2010 to December 2010	Work started from 3 rd October 2010. Total working days:- 70 No. of labors :- 20 Work soil labeling and trench making around Admin and Canteen Building. Supply of good earth (27457.676 CFT) and Supply of Manure (7 trucks)			
	All Around plant at different place.	Fichus Benjamin	36	1440
		Bismarck	30	1200
		Shrubs	383	20956
		Ground cover	262	4800
		Golden Doranda	783	1570
		Lavenders ,	32	3320
		Plumbaria Alba	5	240
		Calendar	30	375
		Alistonia Scholaris	20	1500
		Plumeria Rubra	4	225
		Silver oak	15	1125
		Total	1600	36751
	Area	Lawn	Area in Sqre Meter	Expense
	Near Admin Building and Canteen Building	Kalunchu	2.5	100
	Near canteen Building and Canteen Building	Korean Carpet Grass	36	4000
	Near L.P.G. Fencing area	Green grass lawn	4100	264200
	Hydrogen plant inside fencing area	Green grass Lawn	568.712	35260.144
	Nitrogen plant Inside fencing area	green grass Lawn	1483	91946
	Out side LPG	Green Grass Lawn	990.75	61380
	Lunch room Area	Green grass Lawn	1208.56	74896
	North side of chemical store	Green grass Lawn	3987	247194
	LBss north east Corner	Green grass Lawn	248.015	15376
	Out side H2 and N2 plant area	Green grass Lawn	6116.995	379253
	DG surrounding area	Green grass Lawn	106.38	6572
	Total		18845	1180177
	Cost of Good Earth and manure			305000
	GRAND TOTAL			1521928

Total No of Plants and Shrubs Planted during period October 2010 to December 2010 was 1610 and expense amount was Rs. 36751 Total area of lawn in Sq. mtr was 18845 and expense amount was Rs. 1180177 Cost of good earth and manure was Rs. 305000 Total Amount of expense was Rs. 1521928

January 2011 to March 2011	Total No of working Days 62	Cost of good Earth and Manure		305000
	No of labors 20	Caussia fistula	13	520
		Arocaria	1	40
		Erythrina Varigata	13	520
		Minusops Elengi	13	806
		Chorisia Speciosa	10	400
		Ficus Panda	1	40
		Cledendron inerme (Shrubs)	1000	6200
		Ribbon Grass	250	15500
		China Palm	25	1000
		Golden Doranda	500	20000
		Ficus King Bush	4	300
		Lavendra (Ground coveres)	50	3100
		kalachu	50	3100
		cuphea	25	1875
		ficus panda	1	75
		Bismarika nobolis	3	225
		Ficus Benamina	50	2000
		Bottle Palm	18	1350
		GRAND TOTAL	2027	362051

GREEN BELT AND PLANTATION WORK PROGRESS REPORT

Total Number of Plants, Ground coverers and Shrubs planted during January to March 2011 was 2027 and amount expense was Rs. 362051

April to 15 June 2011	Total no of working days 47	Gulmohar	46	3425
	Total no of labours 16	Champa	77	2000
		Bottle Palm	50	975
		Silver Oke	13	975
		LangestrmiaFlosergia	13	975
		Champa	75	1900
		Elistonia	61	3782
		Ficus Benjamina	70	2400
		Phonick Pan	61	2800
		Cassiafis Tula	13	4575
		Cledendron Inerme	100	806
		Elientina Red	100	4000
		Golden Bamboo	10	6200
		Murraya paniculata	250	6200
		Grand Total	939	41013
		Lawn	Area in Square Meter	
		Ground Coverers 65	65	10000
		Grass Koren carpet	3116	373968
		Earth and Good Manure		302000
		Total		685968

Total No of Plants and Shrubs Planted during period April 2011 to 15th June 2011 was 939 and expence amount was Rs. 41013

Total area of lawn in Sq. mtr was 3181 and expense amount was Rs 383968 Cost of good earth and manure was Rs. 302000

Total Amount of expense was Rs. 726981

July 2011 to Sept 2011		Fichus Benjamin	36	1440
		Bismarck & Shrubs	30 & 383	1200 & 20956
		Ground cover	262	4800
		Lavenders	32	3320
		Golden Doranda	783	1570
		Plumbaria Alba	5	240
		Calendar & Champa	30 & 77	375 & 2000
		Alistonia Scholaris	20	1500
		Ficus Benjamina	70	2400
	Total no of working days 42	Silver oak	15	1125
	Total no of labours 24	Gulmohar	46	3425
		Golden Bamboo	10	6200
		Murraya paniculata	250	6200
		Total	2049	56751

Total No of Plants, Shrubs and Ground coverers planted during October 2010 to Sept 30 2011 is 6615 and amount expend is Rs. 496566

Total area of Lawn develop in Sq. Mtr is 22026 and amount expend is Rs. 1564145 Cost of good earth and manure is Rs. 912000

Cost of development of Green Belt in TATA BLUESCOPE STEEL, Bara Plant is Rs. 2972711 which was paid to authorized vendors of company

From October to December 2011	Total no of working days 75, Total no of labours 7		Cost of maintaining lawn and plantation was Rs 290000
From January 12 to March 12	Total no of working days 75, Total no of labours 9		Cost of maintaining lawn and plantation was Rs 302600
Total Cost of Maintaining plants, Shrubs, Ground coverers and Lawn was RS 592600 and it was paid to authorized vendors of company. During period from Oct-2011 to March-2012.			
From April 12 to June 2012	Total no of working days 70, total no of labours 11		Cost of maintaining lawn and plantation was Rs 302600
from July 2012 to Sept 2012	Total no of working days 73, total no of labours 11		Cost of maintaining lawn and plantation was Rs 302600
Total Cost of Maintaining plants, Shrubs, Ground coverers and Lawn was RS 6052000 and it was paid to authorized vendors of company. During period from APRIL 2012 to Sept 2012.			
From Oct 12 to Dec 2012	Total no of working days 65, total no of labours 12		Cost of maintaining lawn and plantation was Rs 325843
from Jan 13 to Mar 13	Total no of working days 73, total no of labours 12		Cost of maintaining lawn and plantation was Rs 316854
Total Cost of Maintaining plants, Shrubs, Ground coverers and Lawn was RS 642699 and it was paid to authorized vendors of company. During period from Oct 2012 to Mar 2013.			

GREEN BELT AND PLATATION WORK PROGRESS REPORT		
from April-13 to Sep-13	Total no of working days 154 ,total no of labours 05	Cost of maintaining lawn and plantation was Rs 479822
Total 235 plants and Shrubs Planted during period April 2013 to Sep-13,out of 235,135 Plants donated by forest department and total Cost of Maintaining plants ,Shrubs ,Ground coverers and Lawn was RS 478932 and it was paid to authorized vendors of company. During period from April to 2013 to Sep-2013.		
From Oct 13 to Dec 2013	Total no of working days 70 ,total no of labours 06	Cost of maintaining lawn and plantation was Rs 249325
From Jan 14 to Mar 14	Total no of working days 73 ,total no of labours 06	Cost of maintaining lawn and plantation was Rs 255295
Total 120 plants and shrubs planted during period Oct-13 to March-14 and total Cost of Maintaining plants ,Shrubs ,Ground coverers and Lawn was RS 504620,it was paid to authorized vendors of company. During period from Oct 2013 to Mar 2014.		
From April 14 to June 14	Total no of working days 72 ,total no of labours 05	Cost of maintaining lawn and plantation was Rs 262923
From July 14 to Sep 14	Total no of working days 73 ,total no of labours 05	Cost of maintaining lawn and plantation was Rs 262225
Total 70 plants and shrubs planted during period April-14 to Sep-14 and total Cost of Maintaining plants ,Shrubs ,Ground coverers and Lawn was RS 525148 and it was paid to authorized vendors of company,during period from April 14 to Sep 2014.		
From Oct 14 to Dec 14	Total no of working days 72 ,total no of labours 05	Cost of maintaining lawn and plantation was Rs 262174
From Jan 15 to Mar 15	Total no of working days 75 ,total no of labours 05	Cost of maintaining lawn and plantation was Rs 264672
From Apr'15 to June'15	Total no of working days 77 ,total no of labours 06	Cost of maintaining lawn and plantation was Rs 255034
From July'15 to Sep'15	Total no of working days 78 ,total no of labours 05	Cost of maintaining lawn and plantation was Rs 239259
Total 500 plants and shrubs planted during period April-15 to Sep-15 and total Cost of Maintaining plants ,Shrubs ,Ground coverers and Lawn was RS 494294,it was paid to authorized vendors of company,during period from April-15 to Sep-15		
From Oct'15 to Dec'15	Total no of working days 75 ,total no of labours 05	Cost of maintaining lawn and plantation was Rs 243516
From Jan'16 to Mar'16	Total no of working days 76 ,total no of labours 05	Cost of maintaining lawn and plantation was Rs 244116
Total 400 plants and shrubs planted during period Oct'15 to March'16,total cost of plantation was 38837 and Cost of Maintaining plants ,Shrubs ,Ground coverers and Lawn was RS 487632,it was paid to authorized vendors of company,during period from Oct'15 to March'16		
From April'16 to June'16	Total no of working days 76 ,total no of labours 05	Cost of maintaining lawn and plantation was Rs 194054
From July'16 to Sep'16	Total no of working days 76 ,total no of labours 05	Cost of maintaining lawn and plantation was Rs 194055
Total 1667 plants and shrubs planted during period April'16 to Sep'16,total cost of plantation was 21055 and Cost of Maintaining plants ,Shrubs ,Ground coverers and Lawn was RS 388109 ,it was paid to authorized vendors of company,during period from April'16 to Sep'16		
From Oct'16 to Dec'16	Total no of working days 72 ,total no of labours 04	Cost of maintaining lawn and plantation was Rs 218960
From Jan'17 to March'17	Total no of working days 76 ,total no of labours 04	Cost of maintaining lawn and plantation was Rs 222640
Total 1397 plants and shrubs planted during period Oct'16 to March'17,total cost of plantation was 7565 and Cost of Maintaining plants ,Shrubs ,Ground coverers and Lawn was RS 441600 ,it was paid to authorized vendors of company,during period from Oct'16 to March'17.		

CSR of Tata BlueScope Steel

Since the inauguration of our plant was on 06.03.12 (about only 5 year back) we have started the CSR activities in a very humble manner. Some of the activities are mentioned below:

1. We are providing drinking water supply in near village – Bagunhatu, JSR.
2. Facilitate OPD in nearby villages for twice in a month.
3. Distribution of collected items under “JOY of Sharing” activity in nearby Village School.

Summary of CREP (Corporate Responsibility for Environment Conservation) activity done so far and proposed to do in future.

Since the inauguration of our plant was on 06.03.12 (about only 5 year back), CREP activity are in progress. Some of the compliance which has been completed so far and proposed to do in future is as below mention.

Compliance of CREP Recommendations for iron and steel Plant

SL No	CREP GUIDELINES	ACTION PLANNED
1	Fugitive emissions from material handling, conveying and screening operations shall be evacuated in closed systems and extracted by Fabric filters or ESPs or equally effective methods	N/A
2	Pollution control systems shall be operated as an integral part of production to ensure minimum emissions. Timely evacuation of dust (from Dust catchers, ESPs, Bag filter hoppers etc.) shall be routinely organized.	N/A
3	Fugitive emissions shall be controlled by controlled wetting and /or by the use of crust formers.	The plants design includes fume extractor; fumes are burnt in the incinerator before it goes to air through stacks. Gaseous emission from MCL is design as per MoEF standard. Fume extraction system is design for solvent vapors incineration, water scrubber system is implemented for alkaline substances. Fugitive emission is anticipated as nil
4	Flue dust, collected within the dust catchers shall be evacuated using closed vessels or employing equally effective methods to minimize fugitive dust.	N/A
5	Cooling water shall be recycled and reused	Two no. of Water cooling towers has been installed and waste water treatment plant has been installed. Water is recycling and reused. Close Circuit Cooling water scheme implemented WWTP implemented at site. Design of Water system and ETP takes care of all the norms.

6	Domestic discharges which are not reused, shall meet outfall, only after conforming to the specified effluent discharge standards.	N/A
7	The areas where high noise levels persist continuously for a significant period of time like Furnace area, Gas Cleaning Plant area, etc. shall be earmarked as High Noise Zone areas and accordingly it shall be displayed at appropriate places for warning employees. Through Integrated Maintenance Management system, necessary care shall be taken to minimize the noise at these areas.	In MCL Zinc pot area has been earmarked as high noise zone area and it has been displayed there. All the person working there has been provided with ear muff /ear plug. Acoustics enclosure for DG set and Air Compressor done.
8	Employees who are continuously exposed to high noise levels shall be provided with earplugs or earmuffs.	All the persons working at high noise level have been provided ear muff /ear plug.
9	Appropriate measures shall be taken, so that employees are not getting exposed to higher noise levels for a significant period of time.	Being complied.
10	Noise levels at various areas of the plant shall be regularly monitored and reviewed	Included in EMP. Regular monitoring will be done and reported accordingly. All equipments area design in accordance with EPA rules for control of noise levels.
11	Areas where continuous exposure cannot be avoided, necessary care shall be taken to insulate them from the surroundings.	Being complied
12	All efforts shall be made to minimize the generation of wastes and maximize its effective utilization	Included in EMP, Waste water treatment plant has been installed.
13	Wherever it becomes unavoidable, except resorting to option of dumping, in such cases, the wastes shall be disposed under controlled conditions.	Included in EMP. SLF has been installed. Incinerator installed.
14	All the wastes from the pollution control systems or treatment units shall be reused or recycled to the extent possible.	Included in EMP. Waste water treatment plant has been installed & after treatment water is being used for gardening.
15	Disposal of wastes shall be done in such a way that the pressure on land and subsequent land contamination shall be minimum.	Included in EMP. No open dumping on land. SLF has been installed. Incinerator has been installed.



TEST REPORT – OCTOBER 2016

Report Release Date	: 05.11.2016	Sample Ref. No.(ARF)	: EC/ARF/29/161038
Test Report No	: EC/TR/42/737	Source of Sample	: Steel Coated Plant
Type of Sample	: Suspended Dust & Gases	Sampling Date	: 19.10.16 to 20.10.16
Sample Collection by	: Mr. Binod Singh & Team	Period of Analysis	: 24.10.16 to 05.11.16
Sample Details	: Ambient Air	Sample Condition	: Sealed & Preserved
Name & Address	: Tata Blue Scope Steel Ltd At. Bara, P.O. Agrico Jamshedpur – 831 009 Jharkhand	Remarks	: ----
		Sample Drawn By	: ECO CARE
		Deviation from	: None
		Method, if any	

Sampling Location: Near Main Gate

SL NO	TESTS	PROTOCOL	RESULT	Limit as per NAAQS
1	SPM $\mu\text{g}/\text{m}^3$ (≥ 10 micron ($\mu\text{g}/\text{M}^3$))	IS 5182:Part 23:2006	185.18	500
2	Particulate Matter PM_{10} $\mu\text{g}/\text{m}^3$	IS 5182:Part 23:2006	81.07	100
3	Particulate Matter $\text{PM}_{2.5}$ $\mu\text{g}/\text{m}^3$	USEPA CFR40(50), Appendix L	39.00	60
4	Sulphur Dioxide (SO_2), $\mu\text{g}/\text{m}^3$	IS 5182:Part 2:2001	28.44	80
5	Nitrogen Dioxide (NO_x), $\mu\text{g}/\text{m}^3$	IS 5182:Part 6:2006	33.79	80
6	Lead (Pb), $\mu\text{g}/\text{m}^3$	AAS METHOD AFTER SAMPLING	0.32	1.0
7	Arsenic (As), ng/m^3	AAS METHOD AFTER SAMPLING	B.D.L	6
8	Nickel (Ni), ng/m^3	AAS METHOD AFTER SAMPLING	11.90	20
9	Carbon Monoxide (CO), mg/m^3	NDIR SPECTROSCOPY	0.47	2
10	Ammonia (NH_3), $\mu\text{g}/\text{m}^3$	INDO PHENOL BLUE METHOD	11.30	400
11	Benzo(Alpha) Pyrene, ng/m^3	ABSORPTION & DESORPTION FOLLOWED BY GC ANALYSIS	0.129	1
12	Ozone (O_3), $\mu\text{g}/\text{m}^3$	CHEMICAL METHOD	12.70	180
13	Benzene (C_6H_6), $\mu\text{g}/\text{m}^3$	ABSORPTION & DESORPTION FOLLOWED BY GC ANALYSIS	0.46	5

1. Test values are reported based on the samples received.
2. Sample(s) will be destroyed after 7 days from date of issues of the Test Report subject to nature of Preservation. Sample will be preserved as per the standard method
3. The Test report shall not be reproduced, without the written approval of laboratory


Authorised Signatory

Nupur Chatterjee
B. Sc. M. Sc. (Env. Sc.)
Dy Technical Manager



TEST REPORT – OCTOBER 2016

Report Release Date	: 05.11.2016	Sample Ref. No.(ARF)	: EC/ARF/29/161038
Test Report No	: EC/TR/42/740	Source of Sample	: Steel Coated Plant
Type of Sample	: Suspended Dust & Gases	Sampling Date	: 20.10.16 to 21.10.16
Sample Collection by	: Mr. Binod Singh & Team	Period of Analysis	: 24.10.16 to 05.11.16
Sample Details	: Ambient Air	Sample Condition	: Sealed & Preserved
Name & Address	: Tata Blue Scope Steel Ltd At. Bara, P.O. Agrico Jamshedpur – 831 009 Jharkhand	Remarks	: -----
		Sample Drawn By	: ECO CARE
		Deviation from	: None
		Method, if any	

Sampling Location: Near L.P.G Storage Area

SL NO	TESTS	PROTOCOL	RESULT	Limit as per NAAQS
1	SPM $\mu\text{g}/\text{m}^3$ (≥ 10 micron ($\mu\text{g}/\text{M}^3$))	IS 5182:Part 23:2006	170.28	500
2	Particulate Matter PM ₁₀ $\mu\text{g}/\text{m}^3$	IS 5182:Part 23:2006	62.20	100
3	Particulate Matter PM _{2.5} $\mu\text{g}/\text{m}^3$	USEPA CFR40(50), Appendix L	28.13	60
4	Sulphur Dioxide (SO ₂), $\mu\text{g}/\text{m}^3$	IS 5182:Part 2:2001	30.50	80
5	Nitrogen Dioxide (NO _x), $\mu\text{g}/\text{m}^3$	IS 5182:Part 6:2006	27.12	80
6	Lead (Pb), $\mu\text{g}/\text{m}^3$	AAS METHOD AFTER SAMPLING	0.38	1.0
7	Arsenic (As), ng/m^3	AAS METHOD AFTER SAMPLING	B.D.L	6
8	Nickel (Ni), ng/m^3	AAS METHOD AFTER SAMPLING	12.10	20
9	Carbon Monoxide (CO), mg/m^3	NDIR SPECTROSCOPY	0.39	2
10	Ammonia (NH ₃), $\mu\text{g}/\text{m}^3$	INDO PHENOL BLUE METHOD	11.80	400
11	Benzo(Alpha) Pyrene, ng/m^3	ABSORPTION & DESORPTION FOLLOWED BY GC ANALYSIS	0.136	1
12	Ozone (O ₃), $\mu\text{g}/\text{m}^3$	CHEMICAL METHOD	12.00	180
13	Benzene (C ₆ H ₆), $\mu\text{g}/\text{m}^3$	ABSORPTION & DESORPTION FOLLOWED BY GC ANALYSIS	0.36	5

1. Test values are reported based on the samples received.
2. Sample(s) will be destroyed after 7 days from date of issues of the Test Report subject to nature of Preservation. Sample will be preserved as per the standard method
3. The Test report shall not be reproduced, without the written approval of laboratory


Authorised Signatory

Nupur Chatterjee
B. Sc. M. Sc. (Env. Sc.)
Dy Technical Manager



TEST REPORT – OCTOBER 2016

Report Release Date	: 05.11.2016	Sample Ref. No.(ARF)	: EC/ARF/29/161038
Test Report No	: EC/TR/42/739	Source of Sample	: Steel Coated Plant
Type of Sample	: Suspended Dust & Gases	Sampling Date	: 20.10.16 to 21.10.16
Sample Collection by	: Mr. Binod Singh & Team	Period of Analysis	: 24.10.16 to 05.11.16
Sample Details	: Ambient Air	Sample Condition	: Sealed & Preserved
Name & Address	: Tata Blue Scope Steel Ltd At. Bara, P.O. Agrico Jamshedpur – 831 009, Jharkhand	Remarks	: ----
		Sample Drawn By	: ECO CARE
		Deviation from Method, if any	: None

Sampling Location: SRL Pack Line North Area

SL NO	TESTS	PROTOCOL	RESULT	Limit as per NAAQS
1	SPM $\mu\text{g}/\text{m}^3$ (≥ 10 micron ($\mu\text{g}/\text{M}^3$))	IS 5182:Part 23:2006	162.20	500
2	Particulate Matter PM_{10} $\mu\text{g}/\text{m}^3$	IS 5182:Part 23:2006	59.49	100
3	Particulate Matter $\text{PM}_{2.5}$ $\mu\text{g}/\text{m}^3$	USEPA CFR40(50), Appendix L	31.21	60
4	Sulphur Dioxide (SO_2), $\mu\text{g}/\text{m}^3$	IS 5182:Part 2:2001	27.26	80
5	Nitrogen Dioxide (NO_x), $\mu\text{g}/\text{m}^3$	IS 5182:Part 6:2006	26.27	80
6	Lead (Pb), $\mu\text{g}/\text{m}^3$	AAS METHOD AFTER SAMPLING	0.37	1.0
7	Arsenic (As), ng/m^3	AAS METHOD AFTER SAMPLING	B.D.L	6
8	Nickel (Ni), ng/m^3	AAS METHOD AFTER SAMPLING	12.10	20
9	Carbon Monoxide (CO), mg/m^3	NDIR SPECTROSCOPY	0.35	2
10	Ammonia (NH_3), $\mu\text{g}/\text{m}^3$	INDO PHENOL BLUE METHOD	11.40	400
11	Benzo(Alpha) Pyrene, ng/m^3	ABSORPTION & DESORPTION FOLLOWED BY GC ANALYSIS	0.131	1
12	Ozone (O_3), $\mu\text{g}/\text{m}^3$	CHEMICAL METHOD	12.20	180
13	Benzene (C_6H_6), $\mu\text{g}/\text{m}^3$	ABSORPTION & DESORPTION FOLLOWED BY GC ANALYSIS	0.32	5

1. Test values are reported based on the samples received.
2. Sample(s) will be destroyed after 7 days from date of issues of the Test Report subject to nature of Preservation. Sample will be preserved as per the standard method
3. The Test report shall not be reproduced, without the written approval of laboratory


Authorised Signatory

Nupur Chatterjee
B. Sc. M. Sc. (Env. Sc.)
Dy Technical Manager



TEST REPORT – OCTOBER 2016

Report Release Date	: 05.11.2016	Sample Ref. No.(ARF)	: EC/ARF/29/161038
Test Report No	: EC/TR/42/738	Source of Sample	: Steel Coated Plant
Type of Sample	: Suspended Dust & Gases	Sampling Date	: 19.10.16 to 20.10.16
Sample Collection by	: Mr. Binod Singh & Team	Period of Analysis	: 24.10.16 to 05.11.16
Sample Details	: Ambient Air	Sample Condition	: Sealed & Preserved
Name & Address	: Tata Blue Scope Steel Ltd At. Bara, P.O. Agrico Jamshedpur – 831 009, Jharkhand	Remarks	: ----
		Sample Drawn By	: ECO CARE
		Deviation from	: None
		Method, if any	

Sampling Location: Near Nitrogen Plant Area

SL NO	TESTS	PROTOCOL	RESULT	Limit as per NAAQS
1	SPM $\mu\text{g}/\text{m}^3$ (≥ 10 micron ($\mu\text{g}/\text{M}^3$))	IS 5182:Part 23:2006	178.32	500
2	Particulate Matter PM ₁₀ $\mu\text{g}/\text{m}^3$	IS 5182:Part 23:2006	69.25	100
3	Particulate Matter PM _{2.5} $\mu\text{g}/\text{m}^3$	USEPA CFR40(50), Appendix L	33.37	60
4	Sulphur Dioxide (SO ₂), $\mu\text{g}/\text{m}^3$	IS 5182:Part 2:2001	25.20	80
5	Nitrogen Dioxide (NO _x), $\mu\text{g}/\text{m}^3$	IS 5182:Part 6:2006	29.87	80
6	Lead (Pb), $\mu\text{g}/\text{m}^3$	AAS METHOD AFTER SAMPLING	0.33	1.0
7	Arsenic (As), ng/m^3	AAS METHOD AFTER SAMPLING	B.D.L	6
8	Nickel (Ni), ng/m^3	AAS METHOD AFTER SAMPLING	12.30	20
9	Carbon Monoxide (CO), mg/m^3	NDIR SPECTROSCOPY	0.41	2
10	Ammonia (NH ₃), $\mu\text{g}/\text{m}^3$	INDO PHENOL BLUE METHOD	11.60	400
11	Benzo(Alpha) Pyrene, ng/m^3	ABSORPTION & DESORPTION FOLLOWED BY GC ANALYSIS	0.142	1
12	Ozone (O ₃), $\mu\text{g}/\text{m}^3$	CHEMICAL METHOD	12.40	180
13	Benzene (C ₆ H ₆), $\mu\text{g}/\text{m}^3$	ABSORPTION & DESORPTION FOLLOWED BY GC ANALYSIS	0.38	5

1. Test values are reported based on the samples received.
2. Sample(s) will be destroyed after 7 days from date of issues of the Test Report subject to nature of Preservation. Sample will be preserved as per the standard method
3. The Test report shall not be reproduced, without the written approval of laboratory


Authorised Signatory

Nupur Chatterjee
B. Sc. M. Sc. (Env. Sc.)
Dy Technical Manager



TEST REPORT – NOVEMBER 2016

Report Release Date	: 01.12.2016	Sample Ref. No.(ARF)	: EC/ARF/29/161130
Test Report No	: EC/TR/42/804	Source of Sample	: Steel Coated Plant
Type of Sample	: Suspended Dust & Gases	Sampling Date	: 17.11.16 to 18.11.16
Sample Collected by	: Mr. Binod Singh & Team	Period of Analysis	: 21.11.16 to 01.12.16
Sample Details	: Ambient Air	Sample Condition	: Sealed & Preserved
Name & Address	: Tata Blue Scope Steel Ltd At. Bara, P.O. Agrico Jamshedpur – 831 009 Jharkhand	Remarks	: -----
		Sample Drawn By	: ECO CARE
		Deviation from	: None
		Method, if any	

Sampling Location: Near Main Gate

SL NO	TESTS	PROTOCOL	RESULT	Limit as per NAAQS
1	SPM $\mu\text{g}/\text{m}^3$ (≥ 10 micron $\mu\text{g}/\text{M}^3$)	IS 5182:Part 23:2006	189.50	500
2	Particulate Matter PM ₁₀ $\mu\text{g}/\text{m}^3$	IS 5182:Part 23:2006	83.20	100
3	Particulate Matter PM _{2.5} $\mu\text{g}/\text{m}^3$	USEPA CFR40(50), Appendix L	41.24	60
4	Sulphur Dioxide (SO ₂), $\mu\text{g}/\text{m}^3$	IS 5182:Part 2:2001	29.32	80
5	Nitrogen Dioxide (NO _x), $\mu\text{g}/\text{m}^3$	IS 5182:Part 6:2006	32.10	80
6	Lead (Pb), $\mu\text{g}/\text{m}^3$	AAS METHOD AFTER SAMPLING	0.29	1.0
7	Arsenic (As), ng/m^3	AAS METHOD AFTER SAMPLING	B.D.L	6
8	Nickel (Ni), ng/m^3	AAS METHOD AFTER SAMPLING	10.98	20
9	Carbon Monoxide (CO), mg/m^3	NDIR SPECTROSCOPY	0.42	2
10	Ammonia (NH ₃), $\mu\text{g}/\text{m}^3$	INDO PHENOL BLUE METHOD	11.05	400
11	Benzo(Alpha) Pyrene, ng/m^3	ABSORPTION & DESORPTION FOLLOWED BY GC ANALYSIS	0.124	1
12	Ozone (O ₃), $\mu\text{g}/\text{m}^3$	CHEMICAL METHOD	12.15	180
13	Benzene (C ₆ H ₆), $\mu\text{g}/\text{m}^3$	ABSORPTION & DESORPTION FOLLOWED BY GC ANALYSIS	0.43	5

1. Test values are reported based on the samples received.
2. Sample(s) will be destroyed after 7 days from date of issues of the Test Report subject to nature of Preservation. Sample will be preserved as per the standard method .
3. The Test report shall not be reproduced, without the written approval of laboratory

Authorised Signatory

Nupur Chatterjee
B. Sc. M. Sc. (Env. Sc.)
Dy Technical Manager



Eco Care

Specialised House on Environmental Monitoring, Analysis, Assessment & Management

Annexure VIIA

Phone : (0341) 2252011

(0341) 3290511

Fax : (0341) 2252011

Manoj Talkies, (Basement Floor)
Kumarpur, Asansol - 713304
Dist. Burdwan (West Bengal)

TEST REPORT – NOVEMBER 2016

Report Release Date	: 01.12.2016	Sample Ref. No.(ARF)	: EC/ARF/29/161130
Test Report No	: EC/TR/42/807	Source of Sample	: Steel Coated Plant
Type of Sample	: Suspended Dust & Gases	Sampling Date	: 18.11.16 to 19.11.16
Sample Collected by	: Mr. Binod Singh & Team	Period of Analysis	: 21.11.16 to 01.12.16
Sample Details	: Ambient Air	Sample Condition	: Sealed & Preserved
Name & Address	: Tata Blue Scope Steel Ltd At. Bara, P.O. Agrico Jamshedpur – 831 009 Jharkhand	Remarks	: ----
		Sample Drawn By	: ECO CARE
		Deviation from	: None
		Method, if any	

Sampling Location: Near L.P.G Storage Area

SL NO	TESTS	PROTOCOL	RESULT	Limit as per NAAQS
1	SPM $\mu\text{g}/\text{m}^3$ (≥ 10 micron $(\mu\text{g}/\text{M}^3)$)	IS 5182:Part 23:2006	178.97	500
2	Particulate Matter PM ₁₀ $\mu\text{g}/\text{m}^3$	IS 5182:Part 23:2006	70.23	100
3	Particulate Matter PM _{2.5} $\mu\text{g}/\text{m}^3$	USEPA CFR40(50), Appendix L	26.80	60
4	Sulphur Dioxide (SO ₂), $\mu\text{g}/\text{m}^3$	IS 5182:Part 2:2001	28.73	80
5	Nitrogen Dioxide (NO _x), $\mu\text{g}/\text{m}^3$	IS 5182:Part 6:2006	30.93	80
6	Lead (Pb), $\mu\text{g}/\text{m}^3$	AAS METHOD AFTER SAMPLING	0.34	1.0
7	Arsenic (As), ng/m^3	AAS METHOD AFTER SAMPLING	B.D.L	6
8	Nickel (Ni), ng/m^3	AAS METHOD AFTER SAMPLING	11.91	20
9	Carbon Monoxide (CO), mg/m^3	NDIR SPECTROSCOPY	0.40	2
10	Ammonia (NH ₃), $\mu\text{g}/\text{m}^3$	INDO PHENOL BLUE METHOD	11.42	400
11	Benzo(Alpha) Pyrene, ng/m^3	ABSORPTION & DESORPTION FOLLOWED BY GC ANALYSIS	0.123	1
12	Ozone (O ₃), $\mu\text{g}/\text{m}^3$	CHEMICAL METHOD	11.92	180
13	Benzene (C ₆ H ₆), $\mu\text{g}/\text{m}^3$	ABSORPTION & DESORPTION FOLLOWED BY GC ANALYSIS	0.31	5

1. Test values are reported based on the samples received.
2. Sample(s) will be destroyed after 7 days from date of issues of the Test Report subject to nature of Preservation. Sample will be preserved as per the standard method .
3. The Test report shall not be reproduced, without the written approval of laboratory

Authorised Signatory

Nupur Chatterjee
B. Sc. M. Sc. (Env. Sc.)
Dy Technical Manager



Eco Care

Specialised House on Environmental Monitoring, Analysis, Assessment & Management

Annexure VIII A

Phone : (0341) 2252011

(0341) 3290511

Fax : (0341) 2252011

Manoj Talkies, (Basement Floor)

Kumarpur, Asansol - 713304

Dist. Burdwan (West Bengal)

TEST REPORT – NOVEMBER 2016

Report Release Date	: 01.12.2016	Sample Ref. No.(ARF)	: EC/ARF/29/161130
Test Report No	: EC/TR/42/806	Source of Sample	: Steel Coated Plant
Type of Sample	: Suspended Dust & Gases	Sampling Date	: 18.11.16 to 19.11.16
Sample Collected by	: Mr. Binod Singh & Team	Period of Analysis	: 21.11.16 to 01.12.16
Sample Details	: Ambient Air	Sample Condition	: Sealed & Preserved
Name & Address	: Tata Blue Scope Steel Ltd At. Bara, P.O. Agrico Jamshedpur – 831 009 Jharkhand	Remarks	: ----
		Sample Drawn By	: ECO CARE
		Deviation from	: None
		Method, if any	

Sampling Location: SRL Pack Line North Area

SL NO	TESTS	PROTOCOL	RESULT	Limit as per NAAQS
1	SPM $\mu\text{g}/\text{m}^3$ (≥ 10 micron $\mu\text{g}/\text{M}^3$)	IS 5182:Part 23:2006	164.83	500
2	Particulate Matter PM_{10} $\mu\text{g}/\text{m}^3$	IS 5182:Part 23:2006	62.18	100
3	Particulate Matter $\text{PM}_{2.5}$ $\mu\text{g}/\text{m}^3$	USEPA CFR40(50), Appendix L	34.71	60
4	Sulphur Dioxide (SO_2), $\mu\text{g}/\text{m}^3$	IS 5182:Part 2:2001	26.38	80
5	Nitrogen Dioxide (NO_x), $\mu\text{g}/\text{m}^3$	IS 5182:Part 6:2006	28.18	80
6	Lead (Pb), $\mu\text{g}/\text{m}^3$	AAS METHOD AFTER SAMPLING	0.35	1.0
7	Arsenic (As), ng/m^3	AAS METHOD AFTER SAMPLING	B.D.L	6
8	Nickel (Ni), ng/m^3	AAS METHOD AFTER SAMPLING	11.82	20
9	Carbon Monoxide (CO), mg/m^3	NDIR SPECTROSCOPY	0.32	2
10	Ammonia (NH_3), $\mu\text{g}/\text{m}^3$	INDO PHENOL BLUE METHOD	11.30	400
11	Benzo(Alpha) Pyrene, ng/m^3	ABSORPTION & DESORPTION FOLLOWED BY GC ANALYSIS	0.135	1
12	Ozone (O_3), $\mu\text{g}/\text{m}^3$	CHEMICAL METHOD	12.08	180
13	Benzene (C_6H_6), $\mu\text{g}/\text{m}^3$	ABSORPTION & DESORPTION FOLLOWED BY GC ANALYSIS	0.40	5

1. Test values are reported based on the samples received.
2. Sample(s) will be destroyed after 7 days from date of issues of the Test Report subject to nature of Preservation. Sample will be preserved as per the standard method
3. The Test report shall not be reproduced, without the written approval of laboratory

Authorised Signatory

Nupur Chatterjee
B. Sc. M. Sc. (Env. Sc.)
Dy Technical Manager



TEST REPORT – NOVEMBER 2016

Report Release Date	: 01.12.2016	Sample Ref. No.(ARF)	: EC/ARF/29/161130
Test Report No	: EC/TR/42/805	Source of Sample	: Steel Coated Plant
Type of Sample	: Suspended Dust & Gases	Sampling Date	: 17.11.16 to 18.11.16
Sample Collected by	: Mr. Binod Singh & Team	Period of Analysis	: 21.11.16 to 01.12.16
Sample Details	: Ambient Air	Sample Condition	: Sealed & Preserved
Name & Address	: Tata Blue Scope Steel Ltd At. Bara, P.O. Agrico Jamshedpur – 831 009 Jharkhand	Remarks	: ---
		Sample Drawn By	: ECO CARE
		Deviation from	: None
		Method, if any	

Sampling Location: Near Nitrogen Plant Area

SL NO	TESTS	PROTOCOL	RESULT	Limit as per NAAQS
1	SPM $\mu\text{g}/\text{m}^3$ (≥ 10 micron $\mu\text{g}/\text{M}^3$)	IS 5182:Part 23:2006	172.82	500
2	Particulate Matter PM_{10} $\mu\text{g}/\text{m}^3$	IS 5182:Part 23:2006	65.15	100
3	Particulate Matter $\text{PM}_{2.5}$ $\mu\text{g}/\text{m}^3$	USEPA CFR40(50), Appendix L	36.95	60
4	Sulphur Dioxide (SO_2), $\mu\text{g}/\text{m}^3$	IS 5182:Part 2:2001	27.56	80
5	Nitrogen Dioxide (NO_x), $\mu\text{g}/\text{m}^3$	IS 5182:Part 6:2006	30.30	80
6	Lead (Pb), $\mu\text{g}/\text{m}^3$	AAS METHOD AFTER SAMPLING	0.37	1.0
7	Arsenic (As), ng/m^3	AAS METHOD AFTER SAMPLING	B.D.L	6
8	Nickel (Ni), ng/m^3	AAS METHOD AFTER SAMPLING	12.10	20
9	Carbon Monoxide (CO), mg/m^3	NDIR SPECTROSCOPY	0.38	2
10	Ammonia (NH_3), $\mu\text{g}/\text{m}^3$	INDO PHENOL BLUE METHOD	11.20	400
11	Benzo(Alpha) Pyrene, ng/m^3	ABSORPTION & DESORPTION FOLLOWED BY GC ANALYSIS	0.138	1
12	Ozone (O_3), $\mu\text{g}/\text{m}^3$	CHEMICAL METHOD	12.10	180
13	Benzene (C_6H_6), $\mu\text{g}/\text{m}^3$	ABSORPTION & DESORPTION FOLLOWED BY GC ANALYSIS	0.37	5

1. Test values are reported based on the samples received.
2. Sample(s) will be destroyed after 7 days from date of issues of the Test Report subject to nature of Preservation. Sample will be preserved as per the standard method .
3. The Test report shall not be reproduced, without the written approval of laboratory


Authorised Signatory

Nupur Chatterjee
B. Sc. M. Sc. (Env. Sc.)
Dy Technical Manager



Eco Care

Specialised House on Environmental Monitoring, Analysis, Assessment & Management

Annexure VIII B

Phone : (0341) 2252011

(0341) 3290511

Fax : (0341) 2252011

Manoj Talkies, (Basement Floor)
Kumarapur, Asansol - 713304
Dist. Burdwan (West Bengal)

TEST REPORT – DECEMBER 2016

Report Release Date	: 03.01.2017	Sample Ref. No.(ARF)	: EC/ARF/29/161232
Test Report No	: EC/TR/42/920	Source of Sample	: Steel Coated Plant
Type of Sample	: Suspended Dust & Gases	Sampling Date	: 22.12.16 to 23.12.16
Sample Collected by	: Mr. Binod Singh & Team	Period of Analysis	: 24.12.16 to 03.01.17
Sample Details	: Ambient Air	Sample Condition	: Sealed & Preserved
Name & Address	: Tata Blue Scope Steel Ltd At. Bara, P.O. Agrico Jamshedpur – 831 009 Jharkhand	Remarks	: ----
		Sample Drawn By	: ECO CARE
		Deviation from	: None
		Method, if any	

Sampling Location: Near L.P.G Storage Area

SL NO	TESTS	PROTOCOL	RESULT	Limit as per NAAQS
1	SPM $\mu\text{g}/\text{m}^3$ (≥ 10 micron $\mu\text{g}/\text{M}^3$)	IS 5182 (Part 4): 2005	171.25	500
2	Particulate Matter PM ₁₀ $\mu\text{g}/\text{m}^3$	IS 5182 (Part 23): 2006	63.15	100
3	Particulate Matter PM _{2.5} $\mu\text{g}/\text{m}^3$	EPA CFR- 40 (pt 50), Appendix 1	28.93	60
4	Sulphur Dioxide (SO ₂), $\mu\text{g}/\text{m}^3$	IS 5182 (Part 2): 2001	24.32	80
5	Nitrogen Dioxide (NO _x), $\mu\text{g}/\text{m}^3$	IS 5182 (Part 6): 2006	29.34	80
6	Lead (Pb), $\mu\text{g}/\text{m}^3$	AAS METHOD AFTER SAMPLING	0.30	1.0
7	Arsenic (As), ng/m^3	AAS METHOD AFTER SAMPLING	B.D.L	6
8	Nickel (Ni), ng/m^3	AAS METHOD AFTER SAMPLING	11.74	20
9	Carbon Monoxide (CO), mg/m^3	NDIR SPECTROSCOPY	0.25	2
10	Ammonia (NH ₃), $\mu\text{g}/\text{m}^3$	ISC 401, 3 rd ed 1999	25.97	400
11	Benzo(Alpha) Pyrene, ng/m^3	ABSORPTION & DESORPTION FOLLOWED BY GC ANALYSIS	0.124	1
12	Ozone (O ₃), $\mu\text{g}/\text{m}^3$	ISC 411, 3 rd ed 1999	13.34	180
13	Benzene (C ₆ H ₆), $\mu\text{g}/\text{m}^3$	ABSORPTION & DESORPTION FOLLOWED BY GC ANALYSIS	0.29	5

1. Test values are reported based on the samples received.
2. Sample(s) will be destroyed after 7 days from date of issues of the Test Report subject to nature of Preservation. Sample will be preserved as per the standard method
3. The Test report shall not be reproduced, without the written approval of laboratory


Authorised Signatory
NIRANJAN LAL AGARWALLA
B Tech MS (USA), A.M.I.E.
Scientist & Chief Executive



Eco Care

Specialised House on Environmental Monitoring, Analysis, Assessment & Management

Annexure VIII B

Phone : (0341) 2252011

(0341) 3290511

Fax : (0341) 2252011

Manoj Talkies, (Basement Floor)
Kumarpur, Asansol - 713304
Dist. Burdwan (West Bengal)

TEST REPORT – DECEMBER 2016

Report Release Date	: 03.01.2017	Sample Ref. No.(ARF)	: EC/ARF/29/161232
Test Report No	: EC/TR/42/917	Source of Sample	: Steel Coated Plant
Type of Sample	: Suspended Dust & Gases	Sampling Date	: 21.12.16 to 22.12.16
Sample Collected by	: Mr. Binod Singh & Team	Period of Analysis	: 24.12.16 to 03.01.17
Sample Details	: Ambient Air	Sample Condition	: Sealed & Preserved
Name & Address	: Tata Blue Scope Steel Ltd At. Bara, P.O. Agrico Jamshedpur – 831 009 Jharkhand	Remarks	: ---
		Sample Drawn By	: ECO CARE
		Deviation from	: None
		Method, if any	

Sampling Location: Near Main Gate

SL NO	TESTS	PROTOCOL	RESULT	Limit as per NAAQS
1	SPM $\mu\text{g}/\text{m}^3$ (≥ 10 micron $\mu\text{g}/\text{M}^3$)	IS 5182 (Part 4): 2005	183.22	500
2	Particulate Matter PM_{10} $\mu\text{g}/\text{m}^3$	IS 5182 (Part 23): 2006	77.17	100
3	Particulate Matter $\text{PM}_{2.5}$ $\mu\text{g}/\text{m}^3$	EPA CFR- 40 (pt 50), Appendix 1	37.28	60
4	Sulphur Dioxide (SO_2), $\mu\text{g}/\text{m}^3$	IS 5182 (Part 2): 2001	26.96	80
5	Nitrogen Dioxide (NO_x), $\mu\text{g}/\text{m}^3$	IS 5182 (Part 6): 2006	31.35	80
6	Lead (Pb), $\mu\text{g}/\text{m}^3$	AAS METHOD AFTER SAMPLING	0.22	1.0
7	Arsenic (As), ng/m^3	AAS METHOD AFTER SAMPLING	B.D.L	6
8	Nickel (Ni), ng/m^3	AAS METHOD AFTER SAMPLING	8.95	20
9	Carbon Monoxide (CO), mg/m^3	NDIR SPECTROSCOPY	0.35	2
10	Ammonia (NH_3), $\mu\text{g}/\text{m}^3$	ISC 401, 3 rd ed 1999	27.48	400
11	Benzo(Alpha) Pyrene, ng/m^3	ABSORPTION & DESORPTION FOLLOWED BY GC ANALYSIS	0.120	1
12	Ozone (O_3), $\mu\text{g}/\text{m}^3$	ISC 411, 3 rd ed 1999	16.87	180
13	Benzene (C_6H_6), $\mu\text{g}/\text{m}^3$	ABSORPTION & DESORPTION FOLLOWED BY GC ANALYSIS	0.42	5

1. Test values are reported based on the samples received.
2. Sample(s) will be destroyed after 7 days from date of issues of the Test Report subject to nature of Preservation. Sample will be preserved as per the standard method .
3. The Test report shall not be reproduced, without the written approval of laboratory

Authorised Signatory
NIRANJAN LAL AGARWALLA
B Tech MS (USA), A.M.I.E.
Scientist & Chief Executive



Eco Care

Specialised House on Environmental Monitoring, Analysis, Assessment & Management

Annexure VIII

Phone : (0341) 2252011

(0341) 3290511

Fax : (0341) 2252011

Manoj Talkies, (Basement Floor)
Kumarapur, Asansol - 713304
Dist. Burdwan (West Bengal)

TEST REPORT – DECEMBER 2016

Report Release Date	: 03.01.2017	Sample Ref. No.(ARF)	: EC/ARF/29/161232
Test Report No	: EC/TR/42/919	Source of Sample	: Steel Coated Plant
Type of Sample	: Suspended Dust & Gases	Sampling Date	: 22.12.16 to 23.12.16
Sample Collected by	: Mr. Binod Singh & Team	Period of Analysis	: 24.12.16 to 03.01.17
Sample Details	: Ambient Air	Sample Condition	: Sealed & Preserved
Name & Address	: Tata Blue Scope Steel Ltd At. Bara, P.O. Agrico Jamshedpur – 831 009 Jharkhand	Remarks	: ----
		Sample Drawn By	: ECO CARE
		Deviation from	: None
		Method, if any	

Sampling Location: SRL Pack Line North Area

SL NO	TESTS	PROTOCOL	RESULT	Limit as per NAAQS
1	SPM $\mu\text{g}/\text{m}^3$ (≥ 10 micron $\mu\text{g}/\text{M}^3$)	IS 5182 (Part 4): 2005	158.20	500
2	Particulate Matter PM ₁₀ $\mu\text{g}/\text{m}^3$	IS 5182 (Part 23): 2006	56.88	100
3	Particulate Matter PM _{2.5} $\mu\text{g}/\text{m}^3$	EPA CFR- 40 (pt 50), Appendix 1	32.53	60
4	Sulphur Dioxide (SO ₂), $\mu\text{g}/\text{m}^3$	IS 5182 (Part 2): 2001	22.84	80
5	Nitrogen Dioxide (NO _x), $\mu\text{g}/\text{m}^3$	IS 5182 (Part 6): 2006	27.44	80
6	Lead (Pb), $\mu\text{g}/\text{m}^3$	AAS METHOD AFTER SAMPLING	0.24	1.0
7	Arsenic (As), ng/m^3	AAS METHOD AFTER SAMPLING	B.D.L	6
8	Nickel (Ni), ng/m^3	AAS METHOD AFTER SAMPLING	11.08	20
9	Carbon Monoxide (CO), mg/m^3	NDIR SPECTROSCOPY	0.28	2
10	Ammonia (NH ₃), $\mu\text{g}/\text{m}^3$	ISC 401, 3 rd ed 1999	30.48	400
11	Benzo(Alpha) Pyrene, ng/m^3	ABSORPTION & DESORPTION FOLLOWED BY GC ANALYSIS	0.140	1
12	Ozone (O ₃), $\mu\text{g}/\text{m}^3$	ISC 411, 3 rd ed 1999	15.10	180
13	Benzene (C ₆ H ₆), $\mu\text{g}/\text{m}^3$	ABSORPTION & DESORPTION FOLLOWED BY GC ANALYSIS	0.35	5

1. Test values are reported based on the samples received.
2. Sample(s) will be destroyed after 7 days from date of issues of the Test Report subject to nature of Preservation. Sample will be preserved as per the standard method
3. The Test report shall not be reproduced, without the written approval of laboratory

Authorised Signatory
NIRANJAN LAL AGARWALLA
B Tech MS (USA), A.M.I.E.
Scientist & Chief Executive



TEST REPORT – DECEMBER 2016

Report Release Date	: 03.01.2017	Sample Ref. No.(ARF)	: EC/ARF/29/161232
Test Report No	: EC/TR/42/918	Source of Sample	: Steel Coated Plant
Type of Sample	: Suspended Dust & Gases	Sampling Date	: 21.12.16 to 22.12.16
Sample Collected by	: Mr. Binod Singh & Team	Period of Analysis	: 24.12.16 to 03.01.17
Sample Details	: Ambient Air	Sample Condition	: Sealed & Preserved
Name & Address	: Tata Blue Scope Steel Ltd At. Bara, P.O. Agrico Jamshedpur – 831 009 Jharkhand	Remarks	: ---
		Sample Drawn By	: ECO CARE
		Deviation from	: None
		Method, if any	

Sampling Location: Near Nitrogen Plant Area

SL NO	TESTS	PROTOCOL	RESULT	Limit as per NAAQS
1	SPM $\mu\text{g}/\text{m}^3$ (≥ 10 micron $\mu\text{g}/\text{M}^3$)	IS 5182 (Part 4): 2005	165.26	500
2	Particulate Matter PM_{10} $\mu\text{g}/\text{m}^3$	IS 5182 (Part 23): 2006	60.00	100
3	Particulate Matter $\text{PM}_{2.5}$ $\mu\text{g}/\text{m}^3$	EPA CFR- 40 (pt 50), Appendix 1	27.38	60
4	Sulphur Dioxide (SO_2), $\mu\text{g}/\text{m}^3$	IS 5182 (Part 2): 2001	25.20	80
5	Nitrogen Dioxide (NO_x), $\mu\text{g}/\text{m}^3$	IS 5182 (Part 6): 2006	28.50	80
6	Lead (Pb), $\mu\text{g}/\text{m}^3$	AAS METHOD AFTER SAMPLING	0.28	1.0
7	Arsenic (As), ng/m^3	AAS METHOD AFTER SAMPLING	B.D.L	6
8	Nickel (Ni), ng/m^3	AAS METHOD AFTER SAMPLING	10.13	20
9	Carbon Monoxide (CO), mg/m^3	NDIR SPECTROSCOPY	0.30	2
10	Ammonia (NH_3), $\mu\text{g}/\text{m}^3$	ISC 401, 3 rd ed 1999	31.98	400
11	Benzo(Alpha) Pyrene, ng/m^3	ABSORPTION & DESORPTION FOLLOWED BY GC ANALYSIS	0.116	1
12	Ozone (O_3), $\mu\text{g}/\text{m}^3$	ISC 411, 3 rd ed 1999	11.54	180
13	Benzene (C_6H_6), $\mu\text{g}/\text{m}^3$	ABSORPTION & DESORPTION FOLLOWED BY GC ANALYSIS	0.36	5

1. Test values are reported based on the samples received.
2. Sample(s) will be destroyed after 7 days from date of issues of the Test Report subject to nature of Preservation. Sample will be preserved as per the standard method
3. The Test report shall not be reproduced, without the written approval of laboratory

Authorised Signatory
NIRANJAN LAL AGARWALLA
B Tech MS (USA), A.M.I.E.
Scientist & Chief Executive



Eco Care

Certificate No: T-4346

Specialised House on Environmental Monitoring, Analysis, Assessment & Management

Annexure VIII C

Phone : (0341) 2252011

(0341) 3290511

Fax : (0341) 2252011

Manoj Talkies, (Basement Floor)

Kumarpur, Asansol - 713304

Dist. Burdwan (West Bengal)

TEST REPORT – JANUARY 2017

Report Release Date	: 25.01.2017	Sample Ref. No.(ARF)	: EC/ARF/29/170128
Test Report No	: EC/TR/42/1029	Source of Sample	: Steel Coated Plant
Type of Sample	: Suspended Dust & Gases	Sampling Date	: 11.01.17 to 12.01.17
Sample Collected by	: Mr. Binod Singh & Team	Period of Analysis	: 14.01.17 to 24.01.17
Sample Details	: Ambient Air	Sample Condition	: Sealed & Preserved
Name & Address	: Tata Blue Scope Steel Ltd At. Bara, P.O. Agrico Jamshedpur – 831 009 Jharkhand	Remarks	: ---
		Sample Drawn By	: ECO CARE
		Deviation from	: None
		Method, if any	

Sampling Location: Near Main Gate

SL NO	TESTS	PROTOCOL	RESULT	Limit as per NAAQS
1	SPM $\mu\text{g}/\text{m}^3$ (≥ 10 micron ($\mu\text{g}/\text{M}^3$))	IS 5182 (Part 4): 2005	196.35	500
2	Particulate Matter PM ₁₀ $\mu\text{g}/\text{m}^3$	IS 5182 (Part 23): 2006	80.58	100
3	Particulate Matter PM _{2.5} $\mu\text{g}/\text{m}^3$	EPA CFR- 40 (pt 50), Appendix 1	41.27	60
4	Sulphur Dioxide (SO ₂), $\mu\text{g}/\text{m}^3$	IS 5182 (Part 2): 2001	25.20	80
5	Nitrogen Dioxide (NO _x), $\mu\text{g}/\text{m}^3$	IS 5182 (Part 6): 2006	27.97	80
6	Lead (Pb), $\mu\text{g}/\text{m}^3$	AAS METHOD AFTER SAMPLING	0.28	1.0
7	Arsenic (As), ng/m^3	AAS METHOD AFTER SAMPLING	B.D.L	6
8	Nickel (Ni), ng/m^3	AAS METHOD AFTER SAMPLING	9.06	20
9	Carbon Monoxide (CO), mg/m^3	NDIR SPECTROSCOPY	0.32	2
10	Ammonia (NH ₃), $\mu\text{g}/\text{m}^3$	ISC 401, 3 rd ed 1999	28.98	400
11	Benzo(Alpha) Pyrene, ng/m^3	ABSORPTION & DESORPTION FOLLOWED BY GC ANALYSIS	0.134	1
12	Ozone (O ₃), $\mu\text{g}/\text{m}^3$	ISC 411, 3 rd ed 1999	18.67	180
13	Benzene (C ₆ H ₆), $\mu\text{g}/\text{m}^3$	ABSORPTION & DESORPTION FOLLOWED BY GC ANALYSIS	0.47	5

1. Test values are reported based on the samples received.
2. Sample(s) will be destroyed after 7 days from date of issues of the Test Report subject to nature of Preservation. Sample will be preserved as per the standard method
3. The Test report shall not be reproduced, without the written approval of laboratory


Authorised Signatory
Nupur Chatterjee
B. Sc. M. Sc. (Env. Sc.)
Dy Technical Manager



Eco Care

Specialised House on Environmental Monitoring, Analysis, Assessment & Management

Annexure VIII

Phone : (0341) 2252011

(0341) 3290511

Fax : (0341) 2252011

Manoj Talkies, (Basement Floor)
Kumarpur, Asansol - 713304
Dist. Burdwan (West Bengal)

TEST REPORT – JANUARY 2017

Report Release Date	: 25.01.2017	Sample Ref. No.(ARF)	: EC/ARF/29/170128
Test Report No	: EC/TR/42/1032	Source of Sample	: Steel Coated Plant
Type of Sample	: Suspended Dust & Gases	Sampling Date	: 12.01.17 to 13.01.17
Sample Collected by	: Mr. Binod Singh & Team	Period of Analysis	: 14.01.17 to 24.01.17
Sample Details	: Ambient Air	Sample Condition	: Sealed & Preserved
Name & Address	: Tata Blue Scope Steel Ltd At. Bara, P.O. Agrico Jamshedpur – 831 009 Jharkhand	Remarks	: ---
		Sample Drawn By	: ECO CARE
		Deviation from	: None
		Method, if any	

Sampling Location: Near L.P.G Storage Area

SL NO	TESTS	PROTOCOL	RESULT	Limit as per NAAQS
1	SPM $\mu\text{g}/\text{m}^3$ (≥ 10 micron $\mu\text{g}/\text{M}^3$)	IS 5182 (Part 4): 2005	176.33	500
2	Particulate Matter PM ₁₀ $\mu\text{g}/\text{m}^3$	IS 5182 (Part 23): 2006	66.25	100
3	Particulate Matter PM _{2.5} $\mu\text{g}/\text{m}^3$	EPA CFR- 40 (pt 50), Appendix 1	33.72	60
4	Sulphur Dioxide (SO ₂), $\mu\text{g}/\text{m}^3$	IS 5182 (Part 2): 2001	29.32	80
5	Nitrogen Dioxide (NO _x), $\mu\text{g}/\text{m}^3$	IS 5182 (Part 6): 2006	29.24	80
6	Lead (Pb), $\mu\text{g}/\text{m}^3$	AAS METHOD AFTER SAMPLING	0.32	1.0
7	Arsenic (As), ng/m^3	AAS METHOD AFTER SAMPLING	B.D.L	6
8	Nickel (Ni), ng/m^3	AAS METHOD AFTER SAMPLING	11.93	20
9	Carbon Monoxide (CO), mg/m^3	NDIR SPECTROSCOPY	0.22	2
10	Ammonia (NH ₃), $\mu\text{g}/\text{m}^3$	ISC 401, 3 rd ed 1999	25.97	400
11	Benzo(Alpha) Pyrene, ng/m^3	ABSORPTION & DESORPTION FOLLOWED BY GC ANALYSIS	0.119	1
12	Ozone (O ₃), $\mu\text{g}/\text{m}^3$	ISC 411, 3 rd ed 1999	15.10	180
13	Benzene (C ₆ H ₆), $\mu\text{g}/\text{m}^3$	ABSORPTION & DESORPTION FOLLOWED BY GC ANALYSIS	0.25	5

1. Test values are reported based on the samples received.
2. Sample(s) will be destroyed after 7 days from date of issues of the Test Report subject to nature of Preservation. Sample will be preserved as per the standard method
3. The Test report shall not be reproduced, without the written approval of laboratory

Authorised Signatory

Nupur Chatterjee
B. Sc. M. Sc. (Env. Sc.)
Dy Technical Manager



Eco Care

Certificate No: T-4348

Specialised House on Environmental Monitoring, Analysis, Assessment & Management

Annexure VIII

Phone : (0341) 2252011

(0341) 3290511

Fax : (0341) 2252011

Manoj Talkies, (Basement Floor)

Kumarapur, Asansol - 713304

Dist. Burdwan (West Bengal)

TEST REPORT – JANUARY 2017

Report Release Date	: 25.01.2017	Sample Ref. No.(ARF)	: EC/ARF/29/170128
Test Report No	: EC/TR/42/1031	Source of Sample	: Steel Coated Plant
Type of Sample	: Suspended Dust & Gases	Sampling Date	: 12.01.17 to 13.01.17
Sample Collected by	: Mr. Binod Singh & Team	Period of Analysis	: 14.01.17 to 24.01.17
Sample Details	: Ambient Air	Sample Condition	: Sealed & Preserved
Name & Address	: Tata Blue Scope Steel Ltd At. Bara, P.O. Agrico Jamshedpur – 831 009 Jharkhand	Remarks	: ----
		Sample Drawn By	: ECO CARE
		Deviation from	: None
		Method, if any	

Sampling Location: SRL Pack Line North Area

SL NO	TESTS	PROTOCOL	RESULT	Limit as per NAAQS
1	SPM $\mu\text{g}/\text{m}^3$ (≥ 10 micron ($\mu\text{g}/\text{M}^3$))	IS 5182 (Part 4): 2005	167.46	500
2	Particulate Matter PM ₁₀ $\mu\text{g}/\text{m}^3$	IS 5182 (Part 23): 2006	55.64	100
3	Particulate Matter PM _{2.5} $\mu\text{g}/\text{m}^3$	EPA CFR- 40 (pt 50), Appendix 1	35.39	60
4	Sulphur Dioxide (SO ₂), $\mu\text{g}/\text{m}^3$	IS 5182 (Part 2): 2001	22.54	80
5	Nitrogen Dioxide (NO _x), $\mu\text{g}/\text{m}^3$	IS 5182 (Part 6): 2006	28.50	80
6	Lead (Pb), $\mu\text{g}/\text{m}^3$	AAS METHOD AFTER SAMPLING	0.29	1.0
7	Arsenic (As), ng/m^3	AAS METHOD AFTER SAMPLING	B.D.L	6
8	Nickel (Ni), ng/m^3	AAS METHOD AFTER SAMPLING	10.92	20
9	Carbon Monoxide (CO), mg/m^3	NDIR SPECTROSCOPY	0.26	2
10	Ammonia (NH ₃), $\mu\text{g}/\text{m}^3$	ISC 401, 3 rd ed 1999	31.98	400
11	Benzo(Alpha) Pyrene, ng/m^3	ABSORPTION & DESORPTION FOLLOWED BY GC ANALYSIS	0.146	1
12	Ozone (O ₃), $\mu\text{g}/\text{m}^3$	ISC 411, 3 rd ed 1999	16.87	180
13	Benzene (C ₆ H ₆), $\mu\text{g}/\text{m}^3$	ABSORPTION & DESORPTION FOLLOWED BY GC ANALYSIS	0.37	5

1. Test values are reported based on the samples received.
2. Sample(s) will be destroyed after 7 days from date of issues of the Test Report subject to nature of Preservation. Sample will be preserved as per the standard method .
3. The Test report shall not be reproduced, without the written approval of laboratory

Authorised Signatory

Nupur Chatterjee
B. Sc. M. Sc. (Env. Sc.)
Dy. Technical Manager



Eco Care

Specialised House on Environmental Monitoring, Analysis, Assessment & Management

Annexure VIII

Phone : (0341) 2252011

(0341) 3290511

Fax : (0341) 2252011

Manoj Talkies, (Basement Floor)

Kumarpur, Asansol - 713304

Dist. Burdwan (West Bengal)

TEST REPORT – JANUARY 2017

Report Release Date	: 25.01.2017	Sample Ref. No.(ARF)	: EC/ARF/29/170128
Test Report No	: EC/TR/42/1030	Source of Sample	: Steel Coated Plant
Type of Sample	: Suspended Dust & Gases	Sampling Date	: 11.01.17 to 12.01.17
Sample Collected by	: Mr. Binod Singh & Team	Period of Analysis	: 14.01.17 to 24.01.17
Sample Details	: Ambient Air	Sample Condition	: Sealed & Preserved
Name & Address	: Tata Blue Scope Steel Ltd At. Bara, P.O. Agrico Jamshedpur – 831 009 Jharkhand	Remarks	: ---
		Sample Drawn By	: ECO CARE
		Deviation from	: None
		Method, if any	

Sampling Location: Near Nitrogen Plant Area

SL NO	TESTS	PROTOCOL	RESULT	Limit as per NAAQS
1	SPM $\mu\text{g}/\text{m}^3$ (≥ 10 micron $\mu\text{g}/\text{M}^3$)	IS 5182 (Part 4): 2005	181.83	500
2	Particulate Matter PM_{10} $\mu\text{g}/\text{m}^3$	IS 5182 (Part 23): 2006	66.03	100
3	Particulate Matter $\text{PM}_{2.5}$ $\mu\text{g}/\text{m}^3$	EPA CFR- 40 (pt 50), Appendix 1	39.08	60
4	Sulphur Dioxide (SO_2), $\mu\text{g}/\text{m}^3$	IS 5182 (Part 2): 2001	24.32	80
5	Nitrogen Dioxide (NO_x), $\mu\text{g}/\text{m}^3$	IS 5182 (Part 6): 2006	33.26	80
6	Lead (Pb), $\mu\text{g}/\text{m}^3$	AAS METHOD AFTER SAMPLING	0.31	1.0
7	Arsenic (As), ng/m^3	AAS METHOD AFTER SAMPLING	B.D.L	6
8	Nickel (Ni), ng/m^3	AAS METHOD AFTER SAMPLING	10.41	20
9	Carbon Monoxide (CO), mg/m^3	NDIR SPECTROSCOPY	0.28	2
10	Ammonia (NH_3), $\mu\text{g}/\text{m}^3$	ISC 401, 3 rd ed 1999	30.48	400
11	Benzo(Alpha) Pyrene, ng/m^3	ABSORPTION & DESORPTION FOLLOWED BY GC ANALYSIS	0.122	1
12	Ozone (O_3), $\mu\text{g}/\text{m}^3$	ISC 411, 3 rd ed 1999	11.54	180
13	Benzene (C_6H_6), $\mu\text{g}/\text{m}^3$	ABSORPTION & DESORPTION FOLLOWED BY GC ANALYSIS	0.39	5

1. Test values are reported based on the samples received.
2. Sample(s) will be destroyed after 7 days from date of issues of the Test Report subject to nature of Preservation. Sample will be preserved as per the standard method
3. The Test report shall not be reproduced, without the written approval of laboratory

Authorised Signatory

Nupur Chatterjee
B. Sc. M. Sc. (Env. Sc.)
Dy Technical Manager



Eco Care



Annexure VIII

Phone : (0341) 2252011

(0341) 3290511

Fax : (0341) 2252011

Manoj Talkies, (Basement Floor)

Kumarpur, Asansol - 713304

Dist. Burdwan (West Bengal)

Specialised House on Environmental Monitoring, Analysis, Assessment & Management
ISO 9000:2008 Certified, OHSAS 18001:2007 Certified

TEST REPORT – FEBRUARY 2017

Report Release Date	: 28.02.2017	Sample Ref. No.(ARF)	: EC/ARF/29/170242
Test Report No	: EC/TR/42/1221	Source of Sample	: Steel Coated Plant
Type of Sample	: Suspended Dust & Gases	Sampling Date	: 14.02.17 to 15.02.17
Sample Collected by	: Mr. Binod Singh & Team	Period of Analysis	: 17.02.17 to 27.02.17
Sample Details	: Ambient Air	Sample Condition	: Sealed & Preserved
Name & Address	: Tata Blue Scope Steel Ltd At. Bara, P.O. Agrico Jamshedpur – 831 009 Jharkhand	Remarks	: ----
		Sample Drawn By	: ECO CARE
		Deviation from Method, if any	: None

Sampling Location: Near Main Gate

SL NO	TESTS	PROTOCOL	RESULT	Limit as per NAAQS
1	SPM $\mu\text{g}/\text{m}^3$ (≥ 10 micron $\mu\text{g}/\text{M}^3$)	IS 5182 (Part 4): 2005	177.14	500
2	Particulate Matter PM_{10} $\mu\text{g}/\text{m}^3$	IS 5182 (Part 23): 2006	65.86	100
3	Particulate Matter $\text{PM}_{2.5}$ $\mu\text{g}/\text{m}^3$	EPA CFR- 40 (pt 50), Appendix 1	35.06	60
4	Sulphur Dioxide (SO_2), $\mu\text{g}/\text{m}^3$	IS 5182 (Part 2): 2001	23.72	80
5	Nitrogen Dioxide (NO_x), $\mu\text{g}/\text{m}^3$	IS 5182 (Part 6): 2006	27.02	80
6	Lead (Pb), $\mu\text{g}/\text{m}^3$	AAS METHOD AFTER SAMPLING	0.31	1.0
7	Arsenic (As), ng/m^3	AAS METHOD AFTER SAMPLING	B.D.L	6
8	Nickel (Ni), ng/m^3	AAS METHOD AFTER SAMPLING	10.11	20
9	Carbon Monoxide (CO), mg/m^3	NDIR SPECTROSCOPY	0.27	2
10	Ammonia (NH_3), $\mu\text{g}/\text{m}^3$	ISC 401, 3 rd ed 1999	30.48	400
11	Benzo(Alpha) Pyrene, ng/m^3	ABSORPTION & DESORPTION FOLLOWED BY GC ANALYSIS	0.138	1
12	Ozone (O_3), $\mu\text{g}/\text{m}^3$	ISC 411, 3 rd ed 1999	20.43	180
13	Benzene (C_6H_6), $\mu\text{g}/\text{m}^3$	ABSORPTION & DESORPTION FOLLOWED BY GC ANALYSIS	0.42	5

1. Test values are reported based on the samples received.
2. Sample(s) will be destroyed after 7 days from date of issues of the Test Report subject to nature of Preservation. Sample will be preserved as per the standard method
3. The Test report shall not be reproduced, without the written approval of laboratory

Authorised Signatory

Nupur Chatterjee
B. Sc. M. Sc. (Env. Sc.)
Dy Technical Manager



Eco Care



Annexure VIII

Phone : (0341) 2252011

(0341) 3290511

Fax : (0341) 2252011

Specialised House on Environmental Monitoring, Analysis, Assessment & Management
ISO 9000:2008 Certified, OHSAS 18001:2007 Certified

Manoj Talkies, (Basement Floor)
Kumarpur, Asansol - 713304
Dist. Burdwan (West Bengal)

TEST REPORT – FEBRUARY 2017

Report Release Date	: 28.02.2017	Sample Ref. No.(ARF)	: EC/ARF/29/170242
Test Report No	: EC/TR/42/1224	Source of Sample	: Steel Coated Plant
Type of Sample	: Suspended Dust & Gases	Sampling Date	: 15.02.17 to 16.02.17
Sample Collected by	: Mr. Binod Singh & Team	Period of Analysis	: 17.02.17 to 27.02.17
Sample Details	: Ambient Air	Sample Condition	: Sealed & Preserved
Name & Address	: Tata Blue Scope Steel Ltd At. Bara, P.O. Agrico Jamshedpur – 831 009 Jharkhand	Remarks	: ---
		Sample Drawn By	: ECO CARE
		Deviation from	: None
		Method, if any	

Sampling Location: Near L.P.G Storage Area

SL NO	TESTS	PROTOCOL	RESULT	Limit as per NAAQS
1	SPM $\mu\text{g}/\text{m}^3$ (≥ 10 micron $\mu\text{g}/\text{M}^3$)	IS 5182 (Part 4): 2005	201.52	500
2	Particulate Matter PM ₁₀ $\mu\text{g}/\text{m}^3$	IS 5182 (Part 23): 2006	74.24	100
3	Particulate Matter PM _{2.5} $\mu\text{g}/\text{m}^3$	EPA CFR- 40 (pt 50), Appendix 1	37.44	60
4	Sulphur Dioxide (SO ₂), $\mu\text{g}/\text{m}^3$	IS 5182 (Part 2): 2001	33.50	80
5	Nitrogen Dioxide (NO _x), $\mu\text{g}/\text{m}^3$	IS 5182 (Part 6): 2006	29.87	80
6	Lead (Pb), $\mu\text{g}/\text{m}^3$	AAS METHOD AFTER SAMPLING	0.28	1.0
7	Arsenic (As), ng/m^3	AAS METHOD AFTER SAMPLING	B.D.L	6
8	Nickel (Ni), ng/m^3	AAS METHOD AFTER SAMPLING	11.20	20
9	Carbon Monoxide (CO), mg/m^3	NDIR SPECTROSCOPY	0.25	2
10	Ammonia (NH ₃), $\mu\text{g}/\text{m}^3$	ISC 401, 3 rd ed 1999	27.48	400
11	Benzo(Alpha) Pyrene, ng/m^3	ABSORPTION & DESORPTION FOLLOWED BY GC ANALYSIS	0.133	1
12	Ozone (O ₃), $\mu\text{g}/\text{m}^3$	ISC 411, 3 rd ed 1999	16.88	180
13	Benzene (C ₆ H ₆), $\mu\text{g}/\text{m}^3$	ABSORPTION & DESORPTION FOLLOWED BY GC ANALYSIS	0.31	5

1. Test values are reported based on the samples received.
2. Sample(s) will be destroyed after 7 days from date of issues of the Test Report subject to nature of Preservation. Sample will be preserved as per the standard method
3. The Test report shall not be reproduced, without the written approval of laboratory

Authorised Signatory
Nupur Chatterjee
B. Sc. M. Sc. (Env. Sc.)
Dy Technical Manager



Eco Care



Annexure VIII

Phone : (0341) 2252011
(0341) 3290511
Fax : (0341) 2252011

Manoj Talkies, (Basement Floor)
Kumarpur, Asansol - 713304
Dist. Burdwan (West Bengal)

Specialised House on Environmental Monitoring, Analysis, Assessment & Management
ISO 9000:2008 Certified, OHSAS 18001:2007 Certified

TEST REPORT – FEBRUARY 2017

Report Release Date	: 28.02.2017	Sample Ref. No.(ARF)	: EC/ARF/29/170242
Test Report No	: EC/TR/42/1223	Source of Sample	: Steel Coated Plant
Type of Sample	: Suspended Dust & Gases	Sampling Date	: 15.02.17 to 16.02.17
Sample Collected by	: Mr. Binod Singh & Team	Period of Analysis	: 17.02.17 to 27.02.17
Sample Details	: Ambient Air	Sample Condition	: Sealed & Preserved
Name & Address	: Tata Blue Scope Steel Ltd At. Bara, P.O. Agrico Jamshedpur – 831 009 Jharkhand	Remarks	: ---
		Sample Drawn By	: ECO CARE
		Deviation from	: None
		Method, if any	

Sampling Location: SRL Pack Line North Area

SL NO	TESTS	PROTOCOL	RESULT	Limit as per NAAQS
1	SPM $\mu\text{g}/\text{m}^3$ (≥ 10 micron ($\mu\text{g}/\text{M}^3$))	IS 5182 (Part 4): 2005	179.15	500
2	Particulate Matter PM ₁₀ $\mu\text{g}/\text{m}^3$	IS 5182 (Part 23): 2006	70.06	100
3	Particulate Matter PM _{2.5} $\mu\text{g}/\text{m}^3$	EPA CFR- 40 (pt 50), Appendix 1	34.40	60
4	Sulphur Dioxide (SO ₂), $\mu\text{g}/\text{m}^3$	IS 5182 (Part 2): 2001	27.56	80
5	Nitrogen Dioxide (NO _x), $\mu\text{g}/\text{m}^3$	IS 5182 (Part 6): 2006	28.28	80
6	Lead (Pb), $\mu\text{g}/\text{m}^3$	AAS METHOD AFTER SAMPLING	0.26	1.0
7	Arsenic (As), ng/m^3	AAS METHOD AFTER SAMPLING	B.D.L	6
8	Nickel (Ni), ng/m^3	AAS METHOD AFTER SAMPLING	10.45	20
9	Carbon Monoxide (CO), mg/m^3	NDIR SPECTROSCOPY	0.21	2
10	Ammonia (NH ₃), $\mu\text{g}/\text{m}^3$	ISC 401, 3 rd ed 1999	28.98	400
11	Benzo(Alpha) Pyrene, ng/m^3	ABSORPTION & DESORPTION FOLLOWED BY GC ANALYSIS	0.128	1
12	Ozone (O ₃), $\mu\text{g}/\text{m}^3$	ISC 411, 3 rd ed 1999	15.10	180
13	Benzene (C ₆ H ₆), $\mu\text{g}/\text{m}^3$	ABSORPTION & DESORPTION FOLLOWED BY GC ANALYSIS	0.34	5

1. Test values are reported based on the samples received.
2. Sample(s) will be destroyed after 7 days from date of issues of the Test Report subject to nature of Preservation. Sample will be preserved as per the standard method
3. The Test report shall not be reproduced, without the written approval of laboratory

Authorised Signatory

Nupur Chatterjee
B. Sc. M. Sc. (Env. Sc.)
Dy Technical Manager



Eco Care



Annexure VIII
Phone : (0341) 2252011
(0341) 3290511
Fax : (0341) 2252011

Manoj Talkies, (Basement Floor)
Kumarpur, Asansol - 713304
Dist. Burdwan (West Bengal)

Specialised House on Environmental Monitoring, Analysis, Assessment & Management
ISO 9000:2008 Certified, OHSAS 18001:2007 Certified

TEST REPORT – FEBRUARY 2017

Report Release Date	: 28.02.2017	Sample Ref. No.(ARF)	: EC/ARF/29/170242
Test Report No	: EC/TR/42/1222	Source of Sample	: Steel Coated Plant
Type of Sample	: Suspended Dust & Gases	Sampling Date	: 14.02.17 to 15.02.17
Sample Collected by	: Mr. Binod Singh & Team	Period of Analysis	: 17.02.17 to 27.02.17
Sample Details	: Ambient Air	Sample Condition	: Sealed & Preserved
Name & Address	: Tata Blue Scope Steel Ltd At. Bara, P.O. Agrico Jamshedpur – 831 009 Jharkhand	Remarks	: ----
		Sample Drawn By	: ECO CARE
		Deviation from Method, if any	: None

Sampling Location: Near Nitrogen Plant Area

SL NO	TESTS	PROTOCOL	RESULT	Limit as per NAAQS
1	SPM $\mu\text{g}/\text{m}^3$ (≥ 10 micron $(\mu\text{g}/\text{M}^3)$)	IS 5182 (Part 4): 2005	161.00	500
2	Particulate Matter PM_{10} $\mu\text{g}/\text{m}^3$	IS 5182 (Part 23): 2006	62.05	100
3	Particulate Matter $\text{PM}_{2.5}$ $\mu\text{g}/\text{m}^3$	EPA CFR- 40 (pt 50), Appendix 1	41.99	60
4	Sulphur Dioxide (SO_2), $\mu\text{g}/\text{m}^3$	IS 5182 (Part 2): 2001	24.90	80
5	Nitrogen Dioxide (NO_x), $\mu\text{g}/\text{m}^3$	IS 5182 (Part 6): 2006	33.79	80
6	Lead (Pb), $\mu\text{g}/\text{m}^3$	AAS METHOD AFTER SAMPLING	0.29	1.0
7	Arsenic (As), ng/m^3	AAS METHOD AFTER SAMPLING	B.D.L	6
8	Nickel (Ni), ng/m^3	AAS METHOD AFTER SAMPLING	10.22	20
9	Carbon Monoxide (CO), mg/m^3	NDIR SPECTROSCOPY	0.24	2
10	Ammonia (NH_3), $\mu\text{g}/\text{m}^3$	ISC 401, 3 rd ed 1999	31.98	400
11	Benzo(Alpha) Pyrene, ng/m^3	ABSORPTION & DESORPTION FOLLOWED BY GC ANALYSIS	0.122	1
12	Ozone (O_3), $\mu\text{g}/\text{m}^3$	ISC 411, 3 rd ed 1999	13.32	180
13	Benzene (C_6H_6), $\mu\text{g}/\text{m}^3$	ABSORPTION & DESORPTION FOLLOWED BY GC ANALYSIS	0.39	5

1. Test values are reported based on the samples received.
2. Sample(s) will be destroyed after 7 days from date of issues of the Test Report subject to nature of Preservation. Sample will be preserved as per the standard method
3. The Test report shall not be reproduced, without the written approval of laboratory

Authorised Signatory

Nupur Chatterjee
B. Sc. M. Sc. (Env. Sc.)
Dy Technical Manager



Eco Care



Annexure VIII

Phone : (0341) 2252011
(0341) 3290511
Fax : (0341) 2252011

Specialised House on Environmental Monitoring, Analysis, Assessment & Management

ISO 9000:2008 Certified, OHSAS 18001:2007 Certified

Manoj Talkies, (Basement Floor)
Kumarpur, Asansol - 713304
Dist. Burdwan (West Bengal)

TEST REPORT – MARCH 2017

Report Release Date	: 29.03.2017	Sample Ref. No.(ARF)	: EC/ARF/29/170339
Test Report No	: EC/TR/42/1412	Source of Sample	: Steel Coated Plant
Type of Sample	: Suspended Dust & Gases	Sampling Date	: 15.03.17 to 16.03.17
Sample Collected by	: Mr. Binod Singh & Team	Period of Analysis	: 18.03.17 to 28.03.17
Sample Details	: Ambient Air	Sample Condition	: Sealed & Preserved
Name & Address	: Tata Blue Scope Steel Ltd At. Bara, P.O. Agrico Jamshedpur – 831 009 Jharkhand	Remarks	: ----
		Sample Drawn By	: ECO CARE
		Deviation from	: None
		Method, if any	

Sampling Location: Near Main Gate

SL NO	TESTS	PROTOCOL	RESULT	Limit as per NAAQS
1	SPM $\mu\text{g}/\text{m}^3$ (≥ 10 micron $\mu\text{g}/\text{M}^3$)	IS 5182 (Part 4): 2005	188.04	500
2	Particulate Matter PM ₁₀ $\mu\text{g}/\text{m}^3$	IS 5182 (Part 23): 2006	71.97	100
3	Particulate Matter PM _{2.5} $\mu\text{g}/\text{m}^3$	EPA CFR- 40 (pt 50), Appendix 1	39.01	60
4	Sulphur Dioxide (SO ₂), $\mu\text{g}/\text{m}^3$	IS 5182 (Part 2): 2001	25.50	80
5	Nitrogen Dioxide (NO _x), $\mu\text{g}/\text{m}^3$	IS 5182 (Part 6): 2006	30.30	80
6	Lead (Pb), $\mu\text{g}/\text{m}^3$	AAS METHOD AFTER SAMPLING	0.34	1.0
7	Arsenic (As), ng/m^3	AAS METHOD AFTER SAMPLING	B.D.L	6
8	Nickel (Ni), ng/m^3	AAS METHOD AFTER SAMPLING	10.32	20
9	Carbon Monoxide (CO), mg/m^3	NDIR SPECTROSCOPY	0.30	2
10	Ammonia (NH ₃), $\mu\text{g}/\text{m}^3$	ISC 401, 3 rd ed 1999	31.98	400
11	Benzo(Alpha) Pyrene, ng/m^3	ABSORPTION & DESORPTION FOLLOWED BY GC ANALYSIS	0.147	1
12	Ozone (O ₃), $\mu\text{g}/\text{m}^3$	ISC 411, 3 rd ed 1999	23.99	180
13	Benzene (C ₆ H ₆), $\mu\text{g}/\text{m}^3$	ABSORPTION & DESORPTION FOLLOWED BY GC ANALYSIS	0.45	5

1. Test values are reported based on the samples received.
2. Sample(s) will be destroyed after 7 days from date of issues of the Test Report subject to nature of Preservation. Sample will be preserved as per the standard method
3. The Test report shall not be reproduced, without the written approval of laboratory

Authorised Signatory
NIRANJAN LAL AGARWALLA
B Tech MS (USA), A.M.I.E.
Scientist & Chief Executive



Eco Care



Annexure VIII
Phone : (0341) 2252011
(0341) 3290511
Fax : (0341) 2252011

Manoj Talkies, (Basement Floor)
Kumarpur, Asansol - 713304
Dist. Burdwan (West Bengal)

Specialised House on Environmental Monitoring, Analysis, Assessment & Management

ISO 9000:2008 Certified, OHSAS 18001:2007 Certified

TEST REPORT – MARCH 2017

Report Release Date	: 29.03.2017	Sample Ref. No.(ARF)	: EC/ARF/29/170339
Test Report No	: EC/TR/42/1415	Source of Sample	: Steel Coated Plant
Type of Sample	: Suspended Dust & Gases	Sampling Date	: 16.03.17 to 17.03.17
Sample Collected by	: Mr. Binod Singh & Team	Period of Analysis	: 18.03.17 to 28.03.17
Sample Details	: Ambient Air	Sample Condition	: Sealed & Preserved
Name & Address	: Tata Blue Scope Steel Ltd At. Bara, P.O. Agrico Jamshedpur – 831 009 Jharkhand	Remarks	: ----
		Sample Drawn By	: ECO CARE
		Deviation from	: None
		Method, if any	

Sampling Location: Near L.P.G Storage Area

SL NO	TESTS	PROTOCOL	RESULT	Limit as per NAAQS
1	SPM $\mu\text{g}/\text{m}^3$ (≥ 10 micron $\mu\text{g}/\text{M}^3$)	IS 5182 (Part 4): 2005	147.87	500
2	Particulate Matter PM_{10} $\mu\text{g}/\text{m}^3$	IS 5182 (Part 23): 2006	58.63	100
3	Particulate Matter $\text{PM}_{2.5}$ $\mu\text{g}/\text{m}^3$	EPA CFR- 40 (pt 50), Appendix 1	28.71	60
4	Sulphur Dioxide (SO_2), $\mu\text{g}/\text{m}^3$	IS 5182 (Part 2): 2001	23.14	80
5	Nitrogen Dioxide (NO_x), $\mu\text{g}/\text{m}^3$	IS 5182 (Part 6): 2006	24.26	80
6	Lead (Pb), $\mu\text{g}/\text{m}^3$	AAS METHOD AFTER SAMPLING	0.29	1.0
7	Arsenic (As), ng/m^3	AAS METHOD AFTER SAMPLING	B.D.L	6
8	Nickel (Ni), ng/m^3	AAS METHOD AFTER SAMPLING	11.05	20
9	Carbon Monoxide (CO), mg/m^3	NDIR SPECTROSCOPY	0.27	2
10	Ammonia (NH_3), $\mu\text{g}/\text{m}^3$	ISC 401, 3 rd ed 1999	28.98	400
11	Benzo(Alpha) Pyrene, ng/m^3	ABSORPTION & DESORPTION FOLLOWED BY GC ANALYSIS	0.131	1
12	Ozone (O_3), $\mu\text{g}/\text{m}^3$	ISC 411, 3 rd ed 1999	20.43	180
13	Benzene (C_6H_6), $\mu\text{g}/\text{m}^3$	ABSORPTION & DESORPTION FOLLOWED BY GC ANALYSIS	0.33	5

1. Test values are reported based on the samples received.
2. Sample(s) will be destroyed after 7 days from date of issues of the Test Report subject to nature of Preservation. Sample will be preserved as per the standard method
3. The Test report shall not be reproduced, without the written approval of laboratory


Authorised Signatory
NIRANJAN LAL AGARWALLA
 B Tech MS (USA), A.M.I.E.
 Scientist & Chief Executive



Eco Care



Phone : (0341) 2252011
(0341) 3290511
Fax : (0341) 2252011

Manoj Talkies, (Basement Floor)
Kumarapur, Asansol - 713304
Dist. Burdwan (West Bengal)

Specialised House on Environmental Monitoring, Analysis, Assessment & Management

ISO 9000:2008 Certified, OHSAS 18001:2007 Certified

TEST REPORT – MARCH 2017

Report Release Date	: 29.03.2017	Sample Ref. No.(ARF)	: EC/ARF/29/170339
Test Report No	: EC/TR/42/1414	Source of Sample	: Steel Coated Plant
Type of Sample	: Suspended Dust & Gases	Sampling Date	: 16.03.17 to 17.03.17
Sample Collected by	: Mr. Binod Singh & Team	Period of Analysis	: 18.03.17 to 28.03.17
Sample Details	: Ambient Air	Sample Condition	: Sealed & Preserved
Name & Address	: Tata Blue Scope Steel Ltd At. Bara, P.O. Agrico Jamshedpur – 831 009 Jharkhand	Remarks	: ----
		Sample Drawn By	: ECO CARE
		Deviation from	: None
		Method, if any	

Sampling Location: SRL Pack Line North Area

SL NO	TESTS	PROTOCOL	RESULT	Limit as per NAAQS
1	SPM $\mu\text{g}/\text{m}^3$ (≥ 10 micron ($\mu\text{g}/\text{M}^3$))	IS 5182 (Part 4): 2005	154.66	500
2	Particulate Matter PM ₁₀ $\mu\text{g}/\text{m}^3$	IS 5182 (Part 23): 2006	61.83	100
3	Particulate Matter PM _{2.5} $\mu\text{g}/\text{m}^3$	EPA CFR- 40 (pt 50), Appendix 1	33.04	60
4	Sulphur Dioxide (SO ₂), $\mu\text{g}/\text{m}^3$	IS 5182 (Part 2): 2001	26.97	80
5	Nitrogen Dioxide (NO _x), $\mu\text{g}/\text{m}^3$	IS 5182 (Part 6): 2006	29.24	80
6	Lead (Pb), $\mu\text{g}/\text{m}^3$	AAS METHOD AFTER SAMPLING	0.24	1.0
7	Arsenic (As), ng/m ³	AAS METHOD AFTER SAMPLING	B.D.L	6
8	Nickel (Ni), ng/m ³	AAS METHOD AFTER SAMPLING	10.36	20
9	Carbon Monoxide (CO), mg/m ³	NDIR SPECTROSCOPY	0.25	2
10	Ammonia (NH ₃), $\mu\text{g}/\text{m}^3$	ISC 401, 3 rd ed 1999	25.98	400
11	Benzo(Alpha) Pyrene, ng/m ³	ABSORPTION & DESORPTION FOLLOWED BY GC ANALYSIS	0.125	1
12	Ozone (O ₃), $\mu\text{g}/\text{m}^3$	ISC 411, 3 rd ed 1999	16.88	180
13	Benzene (C ₆ H ₆), $\mu\text{g}/\text{m}^3$	ABSORPTION & DESORPTION FOLLOWED BY GC ANALYSIS	0.39	5

1. Test values are reported based on the samples received.
2. Sample(s) will be destroyed after 7 days from date of issues of the Test Report subject to nature of Preservation. Sample will be preserved as per the standard method
3. The Test report shall not be reproduced, without the written approval of laboratory

Authorised Signatory
NIRANJAN LAL AGARWALLA
B Tech MS (USA), A.M.I.E.
Scientist & Chief Executive



Eco Care



Phone : (0341) 2252011
(0341) 3290511
Fax : (0341) 2252011

Manoj Talkies, (Basement Floor)
Kumarapur, Asansol - 713304
Dist. Burdwan (West Bengal)

Specialised House on Environmental Monitoring, Analysis, Assessment & Management

ISO 9000:2008 Certified, OHSAS 18001:2007 Certified

TEST REPORT – MARCH 2017

Report Release Date	: 29.03.2017	Sample Ref. No.(ARF)	: EC/ARF/29/170339
Test Report No	: EC/TR/42/1413	Source of Sample	: Steel Coated Plant
Type of Sample	: Suspended Dust & Gases	Sampling Date	: 15.03.17 to 16.03.17
Sample Collected by	: Mr. Binod Singh & Team	Period of Analysis	: 18.03.17 to 28.03.17
Sample Details	: Ambient Air	Sample Condition	: Sealed & Preserved
Name & Address	: Tata Blue Scope Steel Ltd At. Bara, P.O. Agrico Jamshedpur – 831 009 Jharkhand	Remarks	: ----
		Sample Drawn By	: ECO CARE
		Deviation from	: None
		Method, if any	

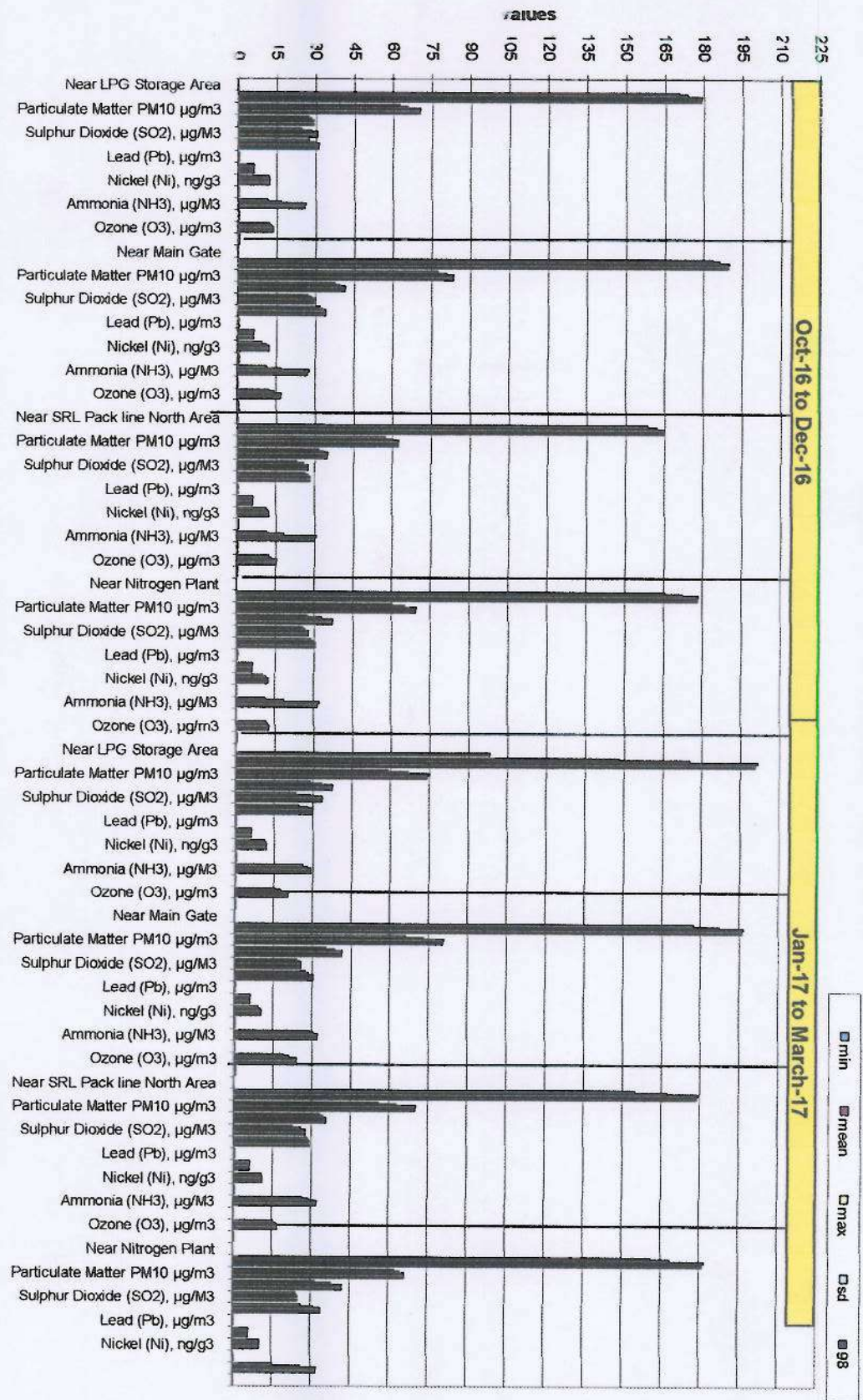
Sampling Location: Near Nitrogen Plant Area

SL NO	TESTS	PROTOCOL	RESULT	Limit as per NAAQS
1	SPM $\mu\text{g}/\text{m}^3$ (≥ 10 micron $\mu\text{g}/\text{M}^3$)	IS 5182 (Part 4): 2005	161.98	500
2	Particulate Matter PM ₁₀ $\mu\text{g}/\text{m}^3$	IS 5182 (Part 23): 2006	64.42	100
3	Particulate Matter PM _{2.5} $\mu\text{g}/\text{m}^3$	EPA CFR- 40 (pt 50), Appendix 1	31.48	60
4	Sulphur Dioxide (SO ₂), $\mu\text{g}/\text{m}^3$	IS 5182 (Part 2): 2001	24.02	80
5	Nitrogen Dioxide (NO _x), $\mu\text{g}/\text{m}^3$	IS 5182 (Part 6): 2006	26.17	80
6	Lead (Pb), $\mu\text{g}/\text{m}^3$	AAS METHOD AFTER SAMPLING	0.31	1.0
7	Arsenic (As), ng/m^3	AAS METHOD AFTER SAMPLING	B.D.L	6
8	Nickel (Ni), ng/m^3	AAS METHOD AFTER SAMPLING	10.25	20
9	Carbon Monoxide (CO), mg/m^3	NDIR SPECTROSCOPY	0.22	2
10	Ammonia (NH ₃), $\mu\text{g}/\text{m}^3$	ISC 401, 3 rd ed 1999	14.94	400
11	Benzo(Alpha) Pyrene, ng/m^3	ABSORPTION & DESORPTION FOLLOWED BY GC ANALYSIS	0.128	1
12	Ozone (O ₃), $\mu\text{g}/\text{m}^3$	ISC 411, 3 rd ed 1999	33.48	180
13	Benzene (C ₆ H ₆), $\mu\text{g}/\text{m}^3$	ABSORPTION & DESORPTION FOLLOWED BY GC ANALYSIS	0.36	5

1. Test values are reported based on the samples received.
2. Sample(s) will be destroyed after 7 days from date of issues of the Test Report subject to nature of Preservation. Sample will be preserved as per the standard method
3. The Test report shall not be reproduced, without the written approval of laboratory

Authorised Signatory
NIRANJAN LAL AGARWALLA
B Tech MS (USA), A.M.I.E.
Scientist & Chief Executive

TATA BLUE SCOPE STEEL LTD, Jamshedpur.
Graphical representation of AAQ statistical analysis - each location
APRIL 2016 to SEPTEMBER 2016 DATA

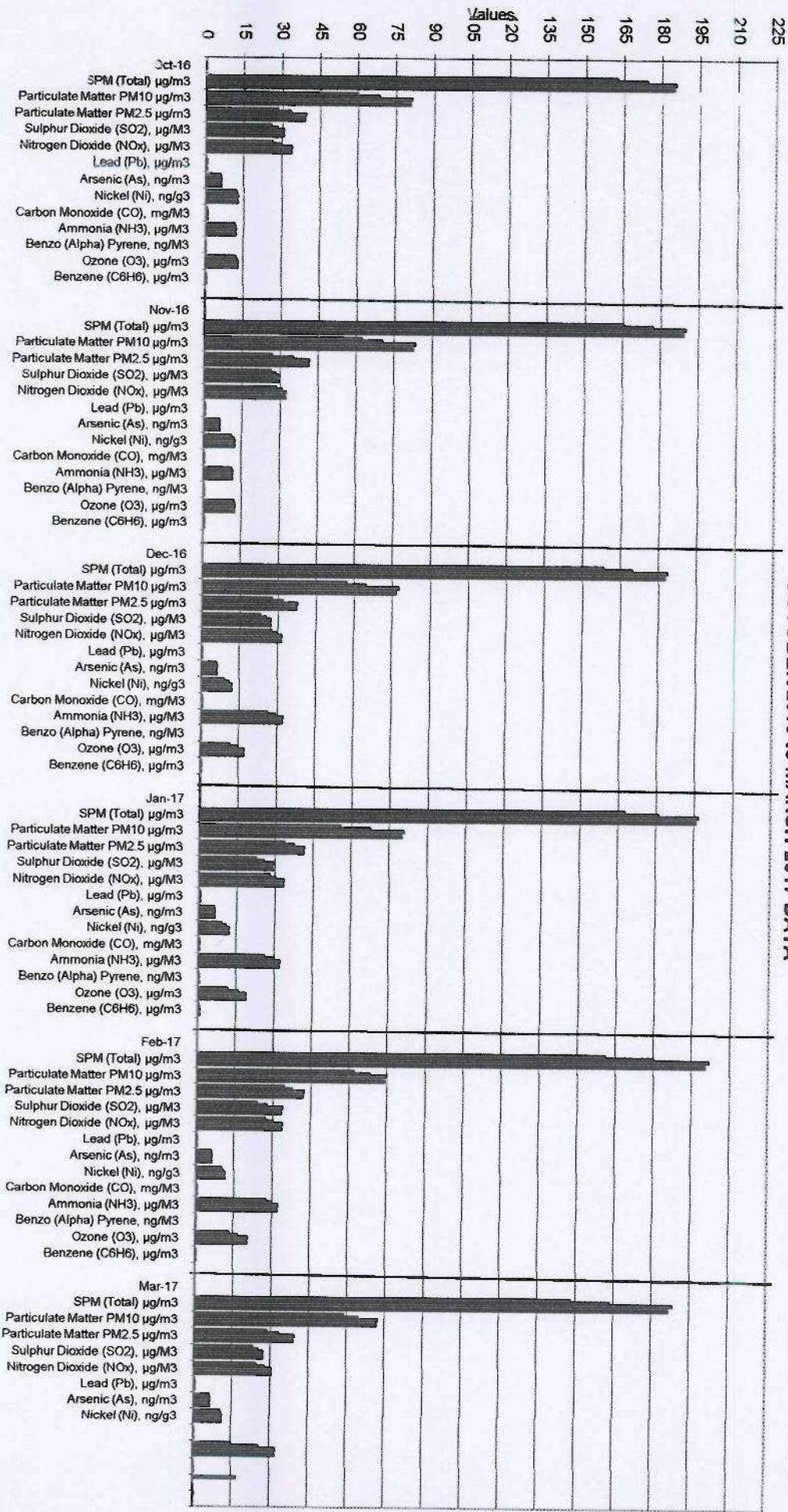


APPROXIMATE VALUE

ATTENTION

Near S.R.L. Pack line North Area	Sulphur Dioxide (SO ₂), µg/M ³	22.54	6	26.97	Sulphur Dioxide (SO ₂), µg/M ³	22.54	25.69	27.56	2.74	27.54	
	Nitrogen Dioxide (NO ₂), µg/M ³	28.50	28.28	29.24	Nitrogen Dioxide (NO ₂), µg/M ³	28.50	28.67	29.24	0.50	29.21	
	Lead (Pb), µg/m ³	0.29	0.26	0.24	Lead (Pb), µg/m ³	0.24	0.26	0.29	0.03	0.29	
	Arsenic (As), ng/m ³	6.00	6	6	Arsenic (As), ng/m ³	6.00	6.00	6.00	0.00	6.00	
	Nickel (Ni), ng/g ³	10.92	10.45	10.36	Nickel (Ni), ng/g ³	10.36	10.58	10.92	0.30	10.90	
	Carbon Monoxide (CO), mg/M3	0.26	0.21	0.25	Carbon Monoxide (CO), mg/M3	0.21	0.24	0.26	0.03	0.26	
	Ammonia (NH ₃), µg/M3	31.98	28.98	25.98	Ammonia (NH ₃), µg/M3	25.98	28.98	31.98	3.00	31.86	
	Benzo (Alpha) Pyrene, ng/M3	0.146	0.128	0.125	Benzo (Alpha) Pyrene, ng/M3	0.13	0.13	0.15	0.01	0.15	
	Ozone (O ₃), µg/m ³	16.87	15.1	16.88	Ozone (O ₃), µg/m ³	15.10	16.28	16.88	1.02	16.88	
	Benzene (C ₆ H ₆), µg/m ³	0.37	0.34	0.39	Benzene (C ₆ H ₆), µg/m ³	0.34	0.37	0.39	0.03	0.39	
Near Nitrogen Plant Area	Near Nitrogen Plant										
	SPM (Total) µg/m ³	181.83	161	161.98	SPM (Total) µg/m ³	161.00	168.27	181.83	11.75	181.04	
	Particulate Matter PM ₁₀ , µg/m ³	66.03	62.05	64.42	Particulate Matter PM ₁₀ , µg/m ³	62.05	64.17	66.03	2.00	65.97	
	Particulate Matter PM _{2.5} , µg/m ³	39.08	41.99	31.48	Particulate Matter PM _{2.5} , µg/m ³	31.48	37.52	41.99	5.43	41.87	
	Sulphur Dioxide (SO ₂), µg/M ³	24.32	24.9	24.02	Sulphur Dioxide (SO ₂), µg/M ³	24.02	24.41	24.90	0.45	24.88	
	Nitrogen Dioxide (NO ₂), µg/M ³	33.26	33.79	26.17	Nitrogen Dioxide (NO ₂), µg/M ³	26.17	31.07	33.79	4.25	33.77	
	Lead (Pb), µg/m ³	0.28	0.29	0.31	Lead (Pb), µg/m ³	0.28	0.29	0.31	0.02	0.31	
	Arsenic (As), ng/m ³	6.00	6	6	Arsenic (As), ng/m ³	6.00	6.00	6.00	0.00	6.00	
	Nickel (Ni), ng/g ³	10.13	10.22	10.25	Nickel (Ni), ng/g ³	10.13	10.20	10.25	0.06	10.25	
	Carbon Monoxide (CO), mg/M3	0.30	0.24	0.22	Carbon Monoxide (CO), mg/M3	0.22	0.25	0.30	0.04	0.30	
Ammonia (NH ₃), µg/M3	30.48	31.98	14.94	Ammonia (NH ₃), µg/M3	14.94	25.80	31.98	9.43	31.92		
Benzo (Alpha) Pyrene, ng/M3	0.116	0.122	0.128	Benzo (Alpha) Pyrene, ng/M3	0.12	0.12	0.13	0.01	0.13		
Ozone (O ₃), µg/m ³	11.54	13.32	33.48	Ozone (O ₃), µg/m ³	11.54	19.45	33.48	12.19	32.67		
Benzene (C ₆ H ₆), µg/m ³	0.36	0.39	0.36	Benzene (C ₆ H ₆), µg/m ³	0.36	0.37	0.39	0.02	0.39		
Only Sheet 1 and Sheet 2 prepared											

TATA BLUE SCOPE STEEL LTD, Jamshedpur.
Graphical representation of AAQ statistical analysis - each month
OCTOBER 2016 to MARCH 2017 DATA



min mean max 98

Approximate value

Amplexure VME

TESTS	MOI CRED DATA			SPATIAL TREND					
	Near L.P.G Storage Area	Near Main Gate	Near S.R.L Pack line North Area	Near Nitrogen Plant Area	min	mean	max	sd	98
Oct-16									
SPM (Total) $\mu\text{g}/\text{m}^3$	170.28	185.18	162.2	178.32	162.20	174.00	185.18	9.95	184.77
Particulate Matter PM_{10} $\mu\text{g}/\text{m}^3$	62.2	81.07	59.49	69.25	59.49	68.00	81.07	9.63	80.36
Particulate Matter $\text{PM}_{2.5}$ $\mu\text{g}/\text{m}^3$	28.13	39	31.21	33.37	28.13	32.93	39.00	4.58	38.66
Sulphur Dioxide (SO_2), $\mu\text{g}/\text{M}^3$	30.5	28.44	27.26	25.2	25.20	27.85	30.50	2.22	30.38
Nitrogen Dioxide (NO_2), $\mu\text{g}/\text{M}^3$	27.12	33.79	26.27	29.87	26.27	29.26	33.79	3.39	33.55
Lead (Pb), $\mu\text{g}/\text{m}^3$	0.38	0.32	0.37	0.33	0.32	0.35	0.38	0.03	0.38
Arsenic (As), ng/m^3	6	6	6	6	6.00	6.00	6.00	0.00	6.00
Nickel (Ni), ng/g^3	12.1	11.9	12.1	12.3	11.90	12.10	12.30	0.16	12.29
Carbon Monoxide (CO), mg/M^3	0.39	0.47	0.35	0.41	0.35	0.41	0.47	0.05	0.47
Ammonia (NH_3), $\mu\text{g}/\text{M}^3$	11.8	11.3	11.4	11.6	11.30	11.53	11.80	0.22	11.79
Benzo (Alpha) Pyrene, ng/M^3	0.136	0.129	0.131	0.142	0.129	0.13	0.14	0.01	0.14
Ozone (O_3), $\mu\text{g}/\text{m}^3$	12	12.7	12.2	12.4	12.00	12.33	12.70	0.30	12.68
Benzene (C_6H_6), $\mu\text{g}/\text{m}^3$	0.36	0.46	0.32	0.38	0.32	0.38	0.46	0.06	0.46
Nov-16									
SPM (Total) $\mu\text{g}/\text{m}^3$	178.97	189.5	164.83	172.82	164.83	176.53	189.50	10.41	188.87
Particulate Matter PM_{10} $\mu\text{g}/\text{m}^3$	70.23	83.2	62.18	65.15	62.18	70.19	83.20	9.29	82.42
Particulate Matter $\text{PM}_{2.5}$ $\mu\text{g}/\text{m}^3$	26.8	41.24	34.71	36.95	26.80	34.93	41.24	6.06	40.98
Sulphur Dioxide (SO_2), $\mu\text{g}/\text{M}^3$	28.73	29.32	26.38	27.56	26.38	28.00	29.32	1.30	29.28
Nitrogen Dioxide (NO_2), $\mu\text{g}/\text{M}^3$	30.93	32.1	28.18	30.3	28.18	30.38	32.10	1.64	32.03
Lead (Pb), $\mu\text{g}/\text{m}^3$	0.34	0.29	0.35	0.37	0.29	0.34	0.37	0.03	0.37
Arsenic (As), ng/m^3	6	6	6	6	6.00	6.00	6.00	0.00	6.00
Nickel (Ni), ng/g^3	11.91	10.98	11.82	12.1	10.98	11.70	12.10	0.50	12.09
Carbon Monoxide (CO), mg/M^3	0.4	0.42	0.32	0.38	0.32	0.38	0.42	0.04	0.42
Ammonia (NH_3), $\mu\text{g}/\text{M}^3$	11.42	11.05	11.3	11.2	11.05	11.24	11.42	0.16	11.41
Benzo (Alpha) Pyrene, ng/M^3	0.123	0.124	0.135	0.138	0.12	0.13	0.14	0.01	0.14
Ozone (O_3), $\mu\text{g}/\text{m}^3$	11.92	12.15	12.08	12.10	11.92	12.06	12.15	0.10	12.15
Benzene (C_6H_6), $\mu\text{g}/\text{m}^3$	0.31	0.43	0.4	0.37	0.31	0.38	0.43	0.05	0.43
Dec-16									
SPM (Total) $\mu\text{g}/\text{m}^3$	171.25	183.22	158.2	165.26	158.20	169.48	183.22	10.60	182.50
Particulate Matter PM_{10} $\mu\text{g}/\text{m}^3$	63.15	77.17	56.88	60	56.88	64.30	77.17	8.95	76.33
Particulate Matter $\text{PM}_{2.5}$ $\mu\text{g}/\text{m}^3$	28.93	37.28	32.53	27.38	27.38	31.53	37.28	4.40	37.00
Sulphur Dioxide (SO_2), $\mu\text{g}/\text{M}^3$	24.32	26.96	22.84	25.2	22.84	24.83	26.96	1.72	26.85
Nitrogen Dioxide (NO_2), $\mu\text{g}/\text{M}^3$	29.34	31.35	27.44	28.5	27.44	29.16	31.35	1.66	31.23
Lead (Pb), $\mu\text{g}/\text{m}^3$	0.3	0.22	0.24	0.28	0.22	0.26	0.30	0.04	0.30
Arsenic (As), ng/m^3	6	6	6	6	6.00	6.00	6.00	0.00	6.00
Nickel (Ni), ng/g^3	11.74	8.95	11.08	10.13	8.95	10.48	11.74	1.21	11.70
Carbon Monoxide (CO), mg/M^3	0.25	0.35	0.28	0.3	0.25	0.30	0.35	0.04	0.35
Ammonia (NH_3), $\mu\text{g}/\text{M}^3$	25.97	27.48	30.48	31.98	25.97	28.98	31.98	2.74	31.89
Benzo (Alpha) Pyrene, ng/M^3	0.124	0.12	0.14	0.116	0.12	0.13	0.14	0.01	0.14
Ozone (O_3), $\mu\text{g}/\text{m}^3$	13.34	16.87	15.1	11.54	11.54	14.21	16.87	2.29	16.76
Benzene (C_6H_6), $\mu\text{g}/\text{m}^3$	0.29	0.42	0.35	0.36	0.29	0.36	0.42	0.05	0.42

MONITORING UNIT

Ja-17	Jan-17	Feb-17	Mar-17							
SP1 (Total) µg/m ³	176.33	196.35	167.46	181.83	SPM (Total) µg/m ³	167.46	180.49	196.35	12.12	195.48
Pa1 iculate Matter PM ₁₀ µg/m ³	66.25	80.58	55.64	66.03	Particulate Matter PM ₁₀ µg/m ³	55.64	67.13	80.58	10.25	79.72
Pa2 iculate Matter PM _{2.5} µg/m ³	33.72	41.27	35.39	39.08	Particulate Matter PM _{2.5} µg/m ³	33.72	37.37	41.27	3.43	41.14
Su1 hur Dioxide (SO ₂), µg/M ³	29.32	25.20	22.54	24.32	Sulphur Dioxide (SO ₂), µg/M ³	22.54	25.35	29.32	2.87	29.07
Ni1 ogen Dioxide (NO _x), µg/M ³	29.24	27.97	28.5	33.26	Nitrogen Dioxide (NO _x), µg/M ³	27.97	29.74	33.26	2.40	33.02
Le1 l (Pb), µg/m ³	0.32	0.28	0.29	0.28	Lead (Pb), µg/m ³	0.28	0.29	0.32	0.02	0.32
Ar1 nic (As), ng/m ³	6	6	6	6	Arsenic (As), ng/m ³	6.00	6.00	6.00	0.00	6.00
Ni1 el (Ni), ng/g ³	11.93	9.06	10.92	10.13	Nickel (Ni), ng/g ³	9.06	10.51	11.93	1.22	11.87
Ca1 on Monoxide (CO), mg/M3	0.22	0.32	0.26	0.3	Carbon Monoxide (CO), mg/M3	0.22	0.28	0.32	0.04	0.32
Am1 onia (NH3), µg/M3	25.97	28.98	31.98	30.48	Ammonia (NH3), µg/M3	25.97	29.35	31.98	2.57	31.89
Py1 zo (Alphal) Pyrene, ng/M3	0.119	0.134	0.146	0.116	Benzo (Alphal) Pyrene, ng/M3	0.12	0.13	0.15	0.01	0.15
Oz1 ne (O ₃), µg/m ³	15.10	18.67	16.87	11.54	Ozone (O ₃), µg/m ³	11.54	15.55	18.67	3.04	18.56
Be1 zene (C ₆ H ₆), µg/m ³	0.25	0.47	0.37	0.36	Benzene (C ₆ H ₆), µg/m ³	0.25	0.36	0.47	0.09	0.46
Fe-17					Feb-17					
SP1 (Total) µg/m ³	201.52	177.14	179.15	161	SPM (Total) µg/m ³	161.00	179.70	201.52	16.66	200.18
Pa1 iculate Matter PM ₁₀ µg/m ³	74.24	65.86	70.06	62.05	Particulate Matter PM ₁₀ µg/m ³	62.05	68.05	74.24	5.26	73.99
Pa2 iculate Matter PM _{2.5} µg/m ³	37.44	35.06	34.40	41.99	Particulate Matter PM _{2.5} µg/m ³	34.40	37.22	41.99	3.44	41.72
Su1 hur Dioxide (SO ₂), µg/M ³	33.5	23.72	27.56	24.9	Sulphur Dioxide (SO ₂), µg/M ³	23.72	27.42	33.50	4.36	33.14
Ni1 ogen Dioxide (NO _x), µg/M ³	29.87	27.02	28.28	33.79	Nitrogen Dioxide (NO _x), µg/M ³	27.02	29.74	33.79	2.94	33.55
Le1 l (Pb), µg/m ³	0.28	0.31	0.26	0.29	Lead (Pb), µg/m ³	0.26	0.29	0.31	0.02	0.31
Ar1 nic (As), ng/m ³	6	6	6	6	Arsenic (As), ng/m ³	6.00	6.00	6.00	0.00	6.00
Ni1 el (Ni), ng/g ³	11.20	10.11	10.45	10.22	Nickel (Ni), ng/g ³	10.11	10.50	11.20	0.49	11.16
Ca1 on Monoxide (CO), mg/M3	0.25	0.27	0.21	0.24	Carbon Monoxide (CO), mg/M3	0.21	0.24	0.27	0.03	0.27
Am1 onia (NH3), µg/M3	27.48	30.48	28.98	31.98	Ammonia (NH3), µg/M3	27.48	29.73	31.98	1.94	31.89
Py1 zo (Alphal) Pyrene, ng/M3	0.133	0.138	0.128	0.122	Benzo (Alphal) Pyrene, ng/M3	0.12	0.13	0.14	0.01	0.14
Oz1 ne (O ₃), µg/m ³	16.88	20.43	15.10	13.32	Ozone (O ₃), µg/m ³	13.32	16.43	20.43	3.04	20.22
Be1 zene (C ₆ H ₆), µg/m ³	0.31	0.42	0.34	0.39	Benzene (C ₆ H ₆), µg/m ³	0.31	0.37	0.42	0.05	0.42
Mar-17					Mar-17					
SP1 (Total) µg/m ³	147.87	188.04	154.66	161.98	SPM (Total) µg/m ³	147.87	163.14	188.04	17.57	186.48
Pa1 iculate Matter PM ₁₀ µg/m ³	58.63	71.97	61.83	64.42	Particulate Matter PM ₁₀ µg/m ³	58.63	64.21	71.97	5.69	71.52
Pa2 iculate Matter PM _{2.5} µg/m ³	28.71	39.01	33.04	31.48	Particulate Matter PM _{2.5} µg/m ³	28.71	33.06	39.01	4.35	38.65
Su1 hur Dioxide (SO ₂), µg/M ³	23.14	25.5	26.97	24.02	Sulphur Dioxide (SO ₂), µg/M ³	23.14	24.91	26.97	1.68	26.88
Ni1 ogen Dioxide (NO _x), µg/M ³	24.26	30.3	29.24	26.17	Nitrogen Dioxide (NO _x), µg/M ³	24.26	27.49	30.30	2.78	30.24
Le1 l (Pb), µg/m ³	0.29	0.34	0.24	0.31	Lead (Pb), µg/m ³	0.24	0.30	0.34	0.04	0.34
Ar1 nic (As), ng/m ³	6	6	6	6	Arsenic (As), ng/m ³	6.00	6.00	6.00	0.00	6.00
Ni1 el (Ni), ng/g ³	11.05	10.32	10.36	10.25	Nickel (Ni), ng/g ³	10.25	10.50	11.05	0.37	11.01
Ca1 on Monoxide (CO), mg/M3	0.27	0.3	0.25	0.22	Carbon Monoxide (CO), mg/M3	0.22	0.26	0.30	0.03	0.30
Am1 onia (NH3), µg/M3	28.98	31.98	25.98	14.94	Ammonia (NH3), µg/M3	14.94	25.47	31.98	7.44	31.80
Py1 zo (Alphal) Pyrene, ng/M3	0.131	0.147	0.125	0.128	Benzo (Alphal) Pyrene, ng/M3	0.13	0.13	0.15	0.01	0.15
Oz1 ne (O ₃), µg/m ³	20.43	23.99	16.88	33.48	Ozone (O ₃), µg/m ³	16.88	23.70	33.48	7.14	32.91
Be1 zene (C ₆ H ₆), µg/m ³	0.33	0.45	0.39	0.36	Benzene (C ₆ H ₆), µg/m ³	0.33	0.38	0.45	0.05	0.45



Eco Care



Annexure IX
Phone : (0341) 2252011
(0341) 3290511
Fax : (0341) 2252011

Manoj Talkies, (Basement Floor)
Kumarpur, Asansol - 713304
Dist. Burdwan (West Bengal)

Specialised House on Environmental Monitoring, Analysis, Assessment & Management

ISO 9000:2008 Certified, OHSAS 18001:2007 Certified

TEST REPORT – MARCH 2017

Report Release Date : 29.03.2017	Sample Ref. No.(ARF) : EC/ARF/29/170339
Test Report No : EC/TR/42/1420	Source of Sample : Steel Coated Plant
Type of Sample : Noise	Sampling Date : 15.03.2017
Sample Collected by : Mr. Binod Singh & Team	Period of Analysis : ----
Sample Details : Ambient Noise	Sample Condition : ----
Name & Address : Tata Blue Scope Steel Ltd	Remarks : ----
At. Bara, P.O. Agrico	Sample Drawn By : ECO CARE
Jamshedpur	Deviation from
Jharkhand	Method, if any : None

METEOROLOGICAL INFORMATION

1	Average Temperature (°C)	28.0
2	Average Relative Humidity (%)	53.0
3	Barometric Pressure (mm of Hg)	750
4	Weather Condition	Clear Day

AMBIENT NOISE QUALITY REPORT

Sampling Location		NOISE LEVEL		
		Minimum	Leq – Mean	Maximum
1. Near Main Gate	Day	49.30 dB(A)	65.19 dB(A)	72.20 dB(A)
	Night	43.60 dB(A)	59.32 dB(A)	67.00 dB(A)
2. Near Nitrogen Plant	Day	47.30 dB(A)	61.57 dB(A)	68.10 dB(A)
	Night	41.60 dB(A)	55.44 dB(A)	63.10 dB(A)

1. Test values are reported based on the samples received.
2. The Test report shall not be reproduced, without the written approval of laboratory


Authorised Signatory
NIRANJANA L. AGARWALLA
B Tech MS (USA), A.M.I.E.
Scientist & Chief Executive



Eco Care



Phone : (0341) 2252011
(0341) 3290511
Fax : (0341) 2252011

Manoj Talkies, (Basement Floor)
Kumarpur, Asansol - 713304
Dist. Burdwan (West Bengal)

Specialised House on Environmental Monitoring, Analysis, Assessment & Management

ISO 9000:2008 Certified, OHSAS 18001:2007 Certified

TEST REPORT – MARCH 2017

Report Release Date : 29.03.2017	Sample Ref. No.(ARF) : EC/ARF/29/170339
Test Report No : EC/TR/42/1421	Source of Sample : Steel Coated Plant
Type of Sample : Noise	Sampling Date : 16.03.2017
Sample Collected by : Mr. Binod Singh & Team	Period of Analysis : ---
Sample Details : Ambient Noise	Sample Condition : ---
Name & Address : Tata Blue Scope Steel Ltd	Remarks : ---
At. Bara, P.O. Agrico	Sample Drawn By : ECO CARE
Jamshedpur	Deviation from
Jharkhand	Method, if any : None

METEOROLOGICAL INFORMATION

1	Average Temperature (°C)	29.0
2	Average Relative Humidity (%)	55.0
3	Barometric Pressure (mm of Hg)	750
4	Weather Condition	Clear Day

AMBIENT NOISE QUALITY REPORT

Sampling Location		NOISE LEVEL		
		Minimum	Leq – Mean	Maximum
3. Near L.P.G Storage Area	Day	54.00 dB(A)	61.22 dB(A)	65.30 dB(A)
	Night	46.70 dB(A)	58.42 dB(A)	64.40 dB(A)
4. SRL Pack Line North Area	Day	51.40 dB(A)	64.99 dB(A)	71.80 dB(A)
	Night	48.20 dB(A)	60.49 dB(A)	66.90 dB(A)

1. Test values are reported based on the samples received.
2. The Test report shall not be reproduced, without the written approval of laboratory

Authorised Signatory
NIRANJAN LAL AGARWALLA
B Tech MS (USA), A.M.I.E.
Scientist & Chief Executive



Eco Care



Phone : (0341) 2252011
(0341) 3290511
Fax : (0341) 2252011

Manoj Talkies, (Basement Floor)
Kumarpur, Asansol - 713304
Dist. Burdwan (West Bengal)

Specialised House on Environmental Monitoring, Analysis, Assessment & Management

ISO 9000:2008 Certified, OHSAS 18001:2007 Certified

TEST REPORT – MARCH 2017

Report Release Date : 29.03.2017	Sample Ref. No.(ARF) : EC/ARF/29/170339
Test Report No : EC/TR/42/1422	Source of Sample : Steel Coated Plant
Type of Sample : Noise	Sampling Date : 16.03.2017
Sample Collected by : Mr. Binod Singh & Team	Period of Analysis : ----
Sample Details : Ambient Noise	Sample Condition : ----
Name & Address : Tata Blue Scope Steel Ltd	Remarks : ----
At. Bara, P.O. Agrico	Sample Drawn By : ECO CARE
Jamshedpur	Deviation from
Jharkhand	Method, if any : None

METEOROLOGICAL INFORMATION

1	Average Temperature (°C)	29.0
2	Average Relative Humidity (%)	55.0
3	Barometric Pressure (mm of Hg)	750
4	Weather Condition	Clear Day

AMBIENT NOISE QUALITY REPORT

Sampling Location	NOISE LEVEL		
	Minimum	Leq – Mean	Maximum
5. Boiler House	69.20 dB(A)	74.58 dB(A)	78.00 dB(A)
6. Compressor House	70.50 dB(A)	73.15 dB(A)	76.90 dB(A)

1. Test values are reported based on the samples received.
2. The Test report shall not be reproduced, without the written approval of laboratory

Authorised Signatory
NIRANJAN LAL AGARWALLA
B Tech MS (USA), A.M.I.E.
Scientist & Chief Executive



Eco Care



Annexure IX

Phone : (0341) 2252011
(0341) 3290511
Fax : (0341) 2252011

Specialised House on Environmental Monitoring, Analysis, Assessment & Management
ISO 9000:2008 Certified, OHSAS 18001:2007 Certified

Manoj Talkies, (Basement Floor)
Kumarpur, Asansol - 713304
Dist. Burdwan (West Bengal)

TEST REPORT – MARCH 2017

Report Release Date	: 29.03.2017	Sample Ref. No.(ARF)	: EC/ARF/29/170339
Test Report No	: EC/TR/42/1422_A	Source of Sample	: Steel Coated Plant
Type of Sample	: Noise	Sampling Date	: 16.03.2017
Sample Collected by	: Mr. Binod Singh & Team	Period of Analysis	: ----
Sample Details	: Ambient Noise	Sample Condition	: ----
Name & Address	: Tata Blue Scope Steel Ltd At. Bara, P.O. Agrico Jamshedpur Jharkhand	Remarks	: ----
		Sample Drawn By	: ECO CARE
		Deviation from Method, if any	: None

METEOROLOGICAL INFORMATION

1	Average Temperature (°C)	29.0
2	Average Relative Humidity (%)	55.0
3	Barometric Pressure (mm of Hg)	750
4	Weather Condition	Clear Day

AMBIENT NOISE QUALITY REPORT

Sampling Location	NOISE LEVEL		
	Minimum	Leq – Mean	Maximum
5. Boiler House	69.20 dB(A)	74.58 dB(A)	78.00 dB(A)
6. Compressor House	70.50 dB(A)	73.15 dB(A)	76.90 dB(A)
7. D. G. Set No. 1 (Without Acoustic Enclosure)	89.00 dB(A)	91.42 dB(A)	89.00 dB(A)
8. D. G. Set No. 1 (With Acoustic Enclosure)	80.10 dB(A)	84.35 dB(A)	87.40 dB(A)
9. D. G. Set No. 2 (Without Acoustic Enclosure)	87.00 dB(A)	91.31 dB(A)	94.80 dB(A)
10. D. G. Set No. 2 (With Acoustic Enclosure)	83.40 dB(A)	86.41 dB(A)	89.40 dB(A)

1. Test values are reported based on the samples received.
2. The Test report shall not be reproduced, without the written approval of laboratory

Authorised Signatory
NIRANJAN LAL AGARWALLA
B Tech MS (USA), A.M.I.E.
Scientist & Chief Executive



Eco Care



Phone : (0341) 2252011
(0341) 3290511
Fax : (0341) 2252011

Manoj Talkies, (Basement Floor)
Kumarpur, Asansol - 713304
Dist. Burdwan (West Bengal)

Specialised House on Environmental Monitoring, Analysis, Assessment & Management

ISO 9000:2008 Certified, OHSAS 18001:2007 Certified

TEST REPORT – MARCH 2017

Report Release Date	: 29.03.2017	Sample Ref. No.(ARF)	: EC/ARF/29/170339
Test Report No	: EC/TR/42/1409	Source of Sample	: Steel Coated Plant
Type of Sample	: Dust & Gaseous Emission	Sampling Date	: 15.03.2017
Sample Collected by	: Mr. Binod Singh & Team	Period of Analysis	: 18.03.2017
Sample Details	: Stack Emission	Sampling Location	: M.C.L Stack
Name & Address	: Tata Blue Scope Steel Ltd At. Bara, P.O. Agrico Jamshedpur Jharkhand	Sample Condition	: Sealed & Preserved
		Sample Stamped as	: TH – 299
		Sample Drawn By	: ECO CARE
		Remarks	: ----
		Deviation from Method, if any	: None

GENERAL INFORMATION

1	Particular of the Plant	: Steel Coated Plant
2	Emission Due to	: Process Activity
3	Stack Connected to	: M.C.L
4	Material of Construction	: M.S.
5	Stack Height from G.L.	: 45.00 m
6	Height of Sampling Port from G.L.	: 29.50 m
7	Height of Sampling Port from L.D.Z.	: ----
8	Dimension of Stack at Sampling Port	: 2.00 m
9	Shape of the Stack	: Circular Ø
10	Working Load	: ----

FUEL CHARACTERISTIC REPORT

1	Source of Energy	: L.P.G
2	Energy Consumption	: 571 NM ³ /hr
3	Calorific Value (K-Cal/Kg)	: ----

RESULTS OF SAMPLING GASEOUS EMISSION ANALYSIS

		Method	
1	Flue Gas Temperature	309 °C	IS 11255 : Part 3
2	Barometric Pressure	750 mm Hg	IS 11255 : Part 3
3	Velocity of Flue Gas	6.90 m/sec	IS 11255 : Part 3
4	Flue Gas Quantity	39495 NM ³ / hr	IS 11255 : Part 3
5	Concentration of Particulate Matter	31.46 mg/NM ³	IS 11255 : Part 1
6	Concentration of Carbon Dioxide (%)	1.8	IS 13270
7	Concentration of SO ₂	12.27 mg/NM ³	IS 11255 : Part 2
8	Concentration of NO _x	25.63 mg/NM ³	IS 11255 : Part 7
9	Concentration of Volatile Organic Compound	21.45 mg/NM ³	

1. Test values are reported based on the samples received.
2. Sample(s) will be destroyed after 7 days from date of issues of the Test Report subject to nature of Preservation. Sample will be preserved as per the standard method.
3. The Test report shall not be reproduced, without the written approval of laboratory


Authorised Signatory

NIRANJAN LAL AGARWALLA
B Tech MS (USA), A.M.I.E.
Scientist & Chief Executive



Eco Care



Phone : (0341) 2252011
(0341) 3290511
Fax : (0341) 2252011

Manoj Talkies, (Basement Floor)
Kumarpur, Asansol - 713304
Dist. Burdwan (West Bengal)

Specialised House on Environmental Monitoring, Analysis, Assessment & Management

ISO 9000:2008 Certified, OHSAS 18001:2007 Certified

TEST REPORT – MARCH 2017

Report Release Date	: 29.03.2017	Sample Ref. No.(ARF)	: EC/ARF/29/170339
Test Report No	: EC/TR/42/1408	Source of Sample	: Steel Coated Plant
Type of Sample	: Dust & Gaseous Emission	Sampling Date	: 15.03.2017
Sample Collected by	: Mr. Binod Singh & Team	Period of Analysis	: 18.03.2017
Sample Details	: Stack Emission	Sampling Location	: Baking Oven CCL Stack
Name & Address	: Tata Blue Scope Steel Ltd At. Bara, P.O. Agrico Jamshedpur Jharkhand	Sample Condition	: Sealed & Preserved
		Sample Stamped as	: TH – 298
		Sample Drawn By	: ECO CARE
		Remarks	: ----
		Deviation from Method, if any	: None

GENERAL INFORMATION

1	Particular of the Plant	: Steel Coated Plant
2	Emission Due to	: Process Activity
3	Stack Connected to	: Baking Oven C.C.L
4	Material of Construction	: M.S.
5	Stack Height from G.L.	: 36.00 m
6	Height of Sampling Port from G.L.	: 11.45 m
7	Height of Sampling Port from L.D.Z.	: 3.70 m
8	Dimension of Stack at Sampling Port	: 2.00 m
9	Shape of the Stack	: Circular Ø
10	Working Load	: ----

FUEL CHARACTERISTIC REPORT

1	Source of Energy	: L.P.G
2	Energy Consumption	: 330 Kg/hr
3	Calorific Value (K-Cal/Kg)	: ----

RESULTS OF SAMPLING GASEOUS EMISSION ANALYSIS

		Method	
1	Flue Gas Temperature	242 °C	IS 11255 : Part 3
2	Barometric Pressure	750 mm Hg	IS 11255 : Part 3
3	Velocity of Flue Gas	14.92 m/sec	IS 11255 : Part 3
4	Flue Gas Quantity	96434 NM ³ /hr	IS 11255 : Part 3
5	Concentration of Particulate Matter	35.12 mg/NM ³	IS 11255 : Part 1
6	Concentration of Carbon Dioxide (%)	2.2	IS 13270
7	Concentration of SO ₂	17.13 mg/NM ³	IS 11255 : Part 2
8	Concentration of NO _x	28.16 mg/NM ³	IS 11255 : Part 7
9	Concentration of Volatile Organic Compound	28.62 mg/NM ³	

1. Test values are reported based on the samples received.
2. Sample(s) will be destroyed after 7 days from date of issues of the Test Report subject to nature of Preservation. Sample will be preserved as per the standard method.
3. The Test report shall not be reproduced, without the written approval of laboratory

Authorised Signatory

NIRANJAN LAL AGARWALLA

B Tech MS (USA), A.M.I.E.

Scientist & Chief Executive



Eco Care



Phone : (0341) 2252011
(0341) 3290511
Fax : (0341) 2252011

Manoj Talkies, (Basement Floor)
Kumarpur, Asansol - 713304
Dist. Burdwan (West Bengal)

Specialised House on Environmental Monitoring, Analysis, Assessment & Management

ISO 9000:2008 Certified, OHSAS 18001:2007 Certified

TEST REPORT – MARCH 2017

Report Release Date	: 29.03.2017	Sample Ref. No.(ARF)	: EC/ARF/29/170339
Test Report No	: EC/TR/42/1407	Source of Sample	: Steel Coated Plant
Type of Sample	: Dust & Gaseous Emission	Sampling Date	: 15.03.2017
Sample Collected by	: Mr. Binod Singh & Team	Period of Analysis	: 18.03.2017
Sample Details	: Stack Emission	Sampling Location	: Boiler Stack
Name & Address	: Tata Blue Scope Steel Ltd At. Bara, P.O. Agrico Jamshedpur Jharkhand	Sample Condition	: Sealed & Preserved
		Sample Stamped as	: TH – 297
		Sample Drawn By	: ECO CARE
		Remarks	: ----
		Deviation from Method, if any	: None

GENERAL INFORMATION

1	Particular of the Plant	: Steel Coated Plant
2	Emission Due to	: Process Activity
3	Stack Connected to	: Boiler
4	Material of Construction	: M.S.
5	Stack Height from G.L.	: 32.00 m
6	Height of Sampling Port from G.L.	: 15.00 m
7	Height of Sampling Port from L.D.Z.	: ----
8	Dimension of Stack at Sampling Port	: 1.045 m
9	Shape of the Stack	: Circular Ø
10	Working Load	: ----

FUEL CHARACTERISTIC REPORT

1	Source of Energy	: L.P.G
2	Energy Consumption	: 290 Kg/hr
3	Calorific Value (K-Cal/Kg)	: ----

RESULTS OF SAMPLING GASEOUS EMISSION ANALYSIS

		Method	
1	Flue Gas Temperature	153 °C	IS 11255 : Part 3
2	Barometric Pressure	750 mm Hg	IS 11255 : Part 3
3	Velocity of Flue Gas	8.32 m/sec	IS 11255 : Part 3
4	Flue Gas Quantity	17747 NM ³ / hr	IS 11255 : Part 3
5	Concentration of Particulate Matter	36.71 mg/NM ³	IS 11255 : Part 1
6	Concentration of Carbon Dioxide (%)	2.2	IS 13270
7	Concentration of SO ₂	17.34 mg/NM ³	IS 11255 : Part 2
8	Concentration of NO _x	25.37 mg/NM ³	IS 11255 : Part 7
9	Concentration of Volatile Organic Compound	24.05 mg/NM ³	

1. Test values are reported based on the samples received.
2. Sample(s) will be destroyed after 7 days from date of issues of the Test Report subject to nature of Preservation. Sample will be preserved as per the standard method.
3. The Test report shall not be reproduced, without the written approval of laboratory

Authorised Signatory

NIRANJAN LAL AGARWALLA
B Tech MS (USA), A.M.I.E.
Scientist & Chief Executive



Eco Care



Annexure Xc
Phone : (0341) 2252011
(0341) 3290511
Fax : (0341) 2252011

Specialised House on Environmental Monitoring, Analysis, Assessment & Management

ISO 9000:2008 Certified, OHSAS 18001:2007 Certified

Manoj Talkies, (Basement Floor)
Kumarpur, Asansol - 713304
Dist. Burdwan (West Bengal)

TEST REPORT – MARCH 2017

Report Release Date	: 29.03.2017	Sample Ref. No.(ARF)	: EC/ARF/29/170339
Test Report No	: EC/TR/42/1410	Source of Sample	: Steel Coated Plant
Type of Sample	: Dust & Gaseous Emission	Sampling Date	: 15.03.2017
Sample Collected by	: Mr. Binod Singh & Team	Period of Analysis	: 18.03.2017
Sample Details	: Stack Emission	Sampling Location	: D.G. Set Stack (1500 KVA)
Name & Address	: Tata Blue Scope Steel Ltd At. Bara, P.O. Agrico Jamshedpur Jharkhand	Sample Condition	: Sealed & Preserved
		Sample Stamped as	: TH – 300
		Sample Drawn By	: ECO CARE
		Remarks	: ----
		Deviation from Method, if any	: None

GENERAL INFORMATION

1	Particular of the Plant	: Steel Coated Plant
2	Emission Due to	: Burning of HSD
3	Stack Connected to	: D. G. Set No. 2 (1500 KVA)
4	Material of Construction	: M.S.
5	Stack Height from G.L.	: 30.00 m
6	Height of Sampling Port from G.L.	: 7.00 m
7	Height of Sampling Port from L.D.Z.	: ----
8	Dimension of Stack at Sampling Port	: 0.35 m
9	Shape of the Stack	: Circular Ø
10	Working Load	: 1500 KVA

FUEL CHARACTERISTIC REPORT

1	Source of Energy	: H.S.D
2	Energy Consumption	: 192 ltr./hr
3	Calorific Value (K-Cal/Kg)	: ----

RESULTS OF SAMPLING GASEOUS EMISSION ANALYSIS

		Method	
1	Flue Gas Temperature	185 °C	IS 11255 : Part 3
2	Barometric Pressure	750 mm Hg	IS 11255 : Part 3
3	Velocity of Flue Gas	8.85 m/sec	IS 11255 : Part 3
4	Flue Gas Quantity	1971 NM ³ / hr	IS 11255 : Part 3
5	Concentration of Particulate Matter	82.56 mg/NM ³	IS 11255 : Part 1
6	Concentration of Carbon Dioxide (%)	6.0	IS 13270
7	Concentration of SO ₂	22.64 mg/NM ³	IS 11255 : Part 2
8	Concentration of NO _x	38.27 mg/NM ³	IS 11255 : Part 7
9	Concentration of Volatile Organic Compound	26.28 mg/NM ³	

1. Test values are reported based on the samples received.
2. Sample(s) will be destroyed after 7 days from date of issues of the Test Report subject to nature of Preservation. Sample will be preserved as per the standard method.
3. The Test report shall not be reproduced, without the written approval of laboratory


Authorised Signatory

NIRANJAN LAL AGARWALLA
B Tech MS (USA), A.M.I.E.
Scientist & Chief Executive



Eco Care



Annexure D
Phone : (0341) 2252011
(0341) 3290511
Fax : (0341) 2252011

Specialised House on Environmental Monitoring, Analysis, Assessment & Management

ISO 9000:2008 Certified, OHSAS 18001:2007 Certified

Manoj Talkies, (Basement Floor)
Kumarpur, Asansol - 713304
Dist. Burdwan (West Bengal)

TEST REPORT – MARCH 2017

Report Release Date	: 22.03.2017	Sample Ref. No.(ARF)	: EC/ARF/29/170339
Test Report No	: EC/TR/42/1411	Source of Sample	: Steel Coated Plant
Type of Sample	: Dust & Gaseous Emission	Sampling Date	: 15.03.2017
Sample Collected by	: Mr. Binod Singh & Team	Period of Analysis	: 18.03.2017
Sample Details	: Stack Emission	Sampling Location	: D.G. Set Stack (1500 KVA)
Name & Address	: Tata Blue Scope Steel Ltd At. Bara, P.O. Agrico Jamshedpur Jharkhand	Sample Condition	: Sealed & Preserved
		Sample Stamped as	: TH – 301
		Sample Drawn By	: ECO CARE
		Remarks	: ----
		Deviation from Method, if any	: None

GENERAL INFORMATION

1	Particular of the Plant	: Steel Coated Plant
2	Emission Due to	: Burning of H.S.D
3	Stack Connected to	: D.G Set No. 1 (1500 KVA)
4	Material of Construction	: M.S.
5	Stack Height from G.L.	: 30.00 m
6	Height of Sampling Port from G.L.	: 7.00 m
7	Height of Sampling Port from L.D.Z.	: ----
8	Dimension of Stack at Sampling Port	: 0.35 m
9	Shape of the Stack	: Circular Ø
10	Working Load	: ----

FUEL CHARACTERISTIC REPORT

1	Source of Energy	: H.S.D
2	Energy Consumption	: 190 ltr./hr
3	Calorific Value (K-Cal/Kg)	: ----

RESULTS OF SAMPLING GASEOUS EMISSION ANALYSIS

		Method	
1	Flue Gas Temperature	193 °C	IS 11255 : Part 3
2	Barometric Pressure	750 mm Hg	IS 11255 : Part 3
3	Velocity of Flue Gas	8.62 m/sec	IS 11255 : Part 3
4	Flue Gas Quantity	1887 NM ³ / hr	IS 11255 : Part 3
5	Concentration of Particulate Matter	78.36 mg/NM ³	IS 11255 : Part 1
6	Concentration of Carbon Dioxide (%)	5.8	IS 13270
7	Concentration of SO ₂	16.34 mg/NM ³	IS 11255 : Part 2
8	Concentration of NO _x	39.26 mg/NM ³	IS 11255 : Part 7
9	Concentration of Volatile Organic Compound	20.36 mg/NM ³	

1. Test values are reported based on the samples received.
2. Sample(s) will be destroyed after 7 days from date of issues of the Test Report subject to nature of Preservation. Sample will be preserved as per the standard method.
3. The Test report shall not be reproduced, without the written approval of laboratory


Authorised Signatory

NIRANJAN LAL AGARWALLA
B Tech MS (USA), A.M.I.E.
Scientist & Chief Executive



Eco Care



Phone : (0341) 2252011
(0341) 3290511
Fax : (0341) 2252011

Manoj Talkies, (Basement Floor)
Kumarpur, Asansol - 713304
Dist. Burdwan (West Bengal)

Specialised House on Environmental Monitoring, Analysis, Assessment & Management

ISO 9000:2008 Certified, OHSAS 18001:2007 Certified

TEST REPORT – MARCH 2017

Report Release Date : 29.03.2017	Sample Ref. No.(ARF) : EC/ARF/29/170339
Test Report No : EC/TR/42/1416	Source of Sample : Steel Coated Plant
Type of Sample : Ground Water	Sampling Date : 17.03.2017
Sample Collected by : Mr. Binod Singh	Period of Analysis : 18.03.17 to 21.03.17
Sample Details : Bore Well Water	Sampling Location : Near Temple
Name & Address : Tata Blue Scope Steel Ltd	Sample Condition : Sealed & Preserved
At. Bara, P.O. Agrico	Sample Stamped as : 'W - 01'
Jamshedpur – 831 009	Sample Drawn By : ECO CARE
Jharkhand	Remarks : ----
	Deviation from Method, if any : None

Sl. No.	Parameters	Unit	Test Method (APHA 22 nd Edition)	Standards (IS:10500)	Results
1	pH at 24.9 °C		4500-H ⁺ B	6.5 – 8.5	6.91
2	TDS	mg/l	2540 C	500.0	334.70
3	Turbidity	NTU	2130 B	5.0	< 1.0
4	Total Alkalinity (as CaCO ₃)	mg/l	2320 B	200.0	108.50
5	Chloride (as Cl ⁻)	mg/l	4500 – Cl ⁻ B	250.0	31.80
6	Total Hardness (as CaCO ₃)	mg/l	2340 C	300.0	146.88
7	Fluoride (as F)	mg/l	4500 F – B/D	1.0	0.17
8	Sulphate (as SO ₄ ²⁻)	mg/l	4500 – SO ₄ ²⁻ E	200.0	14.37
9	Arsenic (as As)	mg/l	3500 As – B	0.05	< 0.01
10	Calcium (as Ca ²⁺)	mg/l	3500 – Ca B	75.0	37.61
11	Chromium '6 (as Cr)	mg/l	3500 – Cr – B	0.05	< 0.01
12	Iron (as Fe)	mg/l	3500 – Fe B	0.3	0.12
13	Magnesium (as Mg)	mg/l	3500 – Mg B	30.0	12.89
14	Coliform	MPN/100ml	9221 B	Not Detectable	Not Detected
15	T. Chromium	mg/l	3500 – Cr B	----	< 0.02

1. Test values are reported based on the samples received.
2. Sample(s) will be destroyed after 7 days from date of issues of the Test Report subject to nature of Preservation. Sample will be preserved as per the standard method
3. The Test report shall not be reproduced, without the written approval of laboratory

Authorised Signatory
NIRANJAN LAL AGARWALLA
B Tech MS (USA), A.M.I.E.
Scientist & Chief Executive



Eco Care



Phone : (0341) 2252011
(0341) 3290511
Fax : (0341) 2252011

Manoj Talkies, (Basement Floor)
Kumarpur, Asansol - 713304
Dist. Burdwan (West Bengal)

Specialised House on Environmental Monitoring, Analysis, Assessment & Management

ISO 9000:2008 Certified, OHSAS 18001:2007 Certified

TEST REPORT – MARCH 2017

Report Release Date : 29.03.2017	Sample Ref. No.(ARF) : EC/ARF/29/170339
Test Report No : EC/TR/42/1418	Source of Sample : Steel Coated Plant
Type of Sample : Water	Sampling Date : 17.03.2017
Sample Collected by : Mr. Binod Singh	Period of Analysis : 18.03.17 to 21.03.17
Sample Details : Effluent Water	Sampling Location : ETP Outlet
Name & Address : Tata Blue Scope Steel Ltd At. Bara, P.O. Agrico Jamshedpur – 831 009 Jharkhand	Sample Condition : Sealed & Preserved
	Sample Stamped as : 'W - 03'
	Sample Drawn By : ECO CARE
	Remarks : ----
	Deviation from Method, if any : None

Sl. No.	Parameters	Unit	Test Method (APHA 22 nd Edition)	Standards (EPR 1986 & IS 2296-1982)	Result
1	pH at 24.6 °C		4500-H ⁺ B	5.5 – 9.0	7.18
2	Temperature	°C	2550 B	----	24.6
3	TSS	mg/l	2540 D	100.0	76.20
4	TDS	mg/l	2540 C	2100.0	531.40
5	BOD (3 days) at 27.0 °C	mg/l	IS 3025 (Part - 44): 2009	30.0	25.00
6	COD	mg/l	5220 B	250.0	80.32
7	Oil & Grease	mg/l	5520 B	10.0	< 4.00
8	Chromium ⁺⁶ (as Cr)	mg/l	3500 – Cr B	0.10	0.03
9	Iron (as Fe)	mg/l	3500 – Fe B	3.0	0.15

1. Test values are reported based on the samples received.
2. Sample(s) will be destroyed after 7 days from date of issues of the Test Report subject to nature of Preservation. Sample will be preserved as per the standard method
3. The Test report shall not be reproduced, without the written approval of laboratory

Authorised Signatory
NIRANJAN LAL AGARWALLA
B Tech MS (USA), A.M.I.E.
Scientist & Chief Executive



Eco Care



Annexure XIB

Phone : (0341) 2252011
(0341) 3290511
Fax : (0341) 2252011

Manoj Talkies, (Basement Floor)
Kumarpur, Asansol - 713304
Dist. Burdwan (West Bengal)

Specialised House on Environmental Monitoring, Analysis, Assessment & Management

ISO 9000:2008 Certified, OHSAS 18001:2007 Certified

TEST REPORT – MARCH 2017

Report Release Date : 29.03.2017	Sample Ref. No.(ARF) : EC/ARF/29/170339
Test Report No : EC/TR/42/1419	Source of Sample : Steel Coated Plant
Type of Sample : Water	Sampling Date : 17.03.2017
Sample Collected by : Mr. Binod Singh	Period of Analysis : 18.03.17 to 21.03.17
Sample Details : Surface Water	Sampling Location : Subarnarekha River
Name & Address : Tata Blue Scope Steel Ltd At. Bara, P.O. Agrico Jamshedpur – 831 009 Jharkhand	Sample Condition : Sealed & Preserved
	Sample Stamped as : 'W - 04'
	Sample Drawn By : ECO CARE
	Remarks : ----
	Deviation from Method, if any : None

Sl. No.	Parameters	Unit	Test Method (APHA 22 nd Edition)	Standards (EPR 1986 & IS 2296-1982)	Result
1	pH at 24.7 °C		4500-H ⁺ B	5.5 – 9.0	7.10
2	Temperature	°C	2550 B	----	24.7
3	TSS	mg/l	2540 D	100.0	57.90
4	TDS	mg/l	2540 C	2100.0	270.20
5	BOD (3 days) at 27.0 °C	mg/l	IS 3025 (Part - 44): 2009	30.0	12.00
6	COD	mg/l	5220 B	250.0	43.34
7	Oil & Grease	mg/l	5520 B	10.0	< 4.00
8	Arsenic (as As)	mg/l	3500 As – B	0.2	< 0.01
9	Chromium ⁺⁶ (as Cr)	mg/l	3500 – Cr – B	0.10	< 0.01
10	Iron (as Fe)	mg/l	3500 – Fe B	3.0	0.07
11	Total Chromium	mg/l	3500-Cr B	----	< 0.02

1. Test values are reported based on the samples received.
2. Sample(s) will be destroyed after 7 days from date of issues of the Test Report subject to nature of Preservation. Sample will be preserved as per the standard method
3. The Test report shall not be reproduced, without the written approval of laboratory

Authorised Signatory
NIRANJAN LAL AGARWALLA
B Tech MS (USA), A.M.I.E.
Scientist & Chief Executive



Eco Care



Annexure XIC

Phone : (0341) 2252011

(0341) 3290511

Fax : (0341) 2252011

Specialised House on Environmental Monitoring, Analysis, Assessment & Management

Manoj Talkies, (Basement Floor)
Kumarpur, Asansol - 713304
Dist. Burdwan (West Bengal)

ISO 9000:2008 Certified, OHSAS 18001:2007 Certified

TEST REPORT – MARCH 2017

Report Release Date : 29.03.2017	Sample Ref. No.(ARF) : EC/ARF/29/170339
Test Report No : EC/TR/42/1417	Source of Sample : Steel Coated Plant
Type of Sample : Water	Sampling Date : 17.03.2017
Sample Collected by : Mr. Binod Singh	Period of Analysis : 18.03.2017
Sample Details : Supply Water	Sampling Location : Canteen
Name & Address : Tata Blue Scope Steel Ltd At. Bara, P.O. Agrico Jamshedpur – 831 009 Jharkhand	Sample Condition : Sealed & Preserved
	Sample Stamped as : 'W - 02'
	Sample Drawn By : ECO CARE
	Remarks : ----
	Deviation from Method, if any : None

Sl. No.	Parameters	Unit	Test Method (APHA 22 nd Edition)	Standards (IS:10500)	Results
1	pH at 24.7 °C		4500-H ⁺ B	6.5 – 8.5	6.97
2	TDS	mg/l	2540 C	500.0	215.20
3	Turbidity	NTU	2130 B	5.0	< 1.0
4	Total Alkalinity (as CaCO ₃)	mg/l	2320 B	200.0	74.86
5	Chloride (as Cl ⁻)	mg/l	4500 – Cl ⁻ B	250.0	19.08
6	Total Hardness (as CaCO ₃)	mg/l	2340 C	300.0	91.80
7	Sulphate (as SO ₄ ²⁻)	mg/l	4500 – SO ₄ ²⁻ E	200.0	16.42
8	Calcium (as Ca ²⁺)	mg/l	3500 – Ca B	75.0	20.44
9	Iron (as Fe)	mg/l	3500 – Fe B	0.3	0.06
10	Magnesium (as Mg)	mg/l	3500 – Mg B	30.0	9.91

1. Test values are reported based on the samples received.
2. Sample(s) will be destroyed after 7 days from date of issues of the Test Report subject to nature of Preservation. Sample will be preserved as per the standard method
3. The Test report shall not be reproduced, without the written approval of laboratory

Authorised Signatory
NIRANJANA LAL AGARWALLA
B Tech MS (USA), A.M.I.E.
Scientist & Chief Executive



Eco Care



Annexure XII

Phone : (0341) 2252011
(0341) 3290511
Fax : (0341) 2252011

Manoj Talkies, (Basement Floor)
Kumarpur, Asansol - 713304
Dist. Burdwan (West Bengal)

Specialised House on Environmental Monitoring, Analysis, Assessment & Management

ISO 9000:2008 Certified, OHSAS 18001:2007 Certified

TEST REPORT – MARCH 2017

Report Release Date	: 29.03.2017	Sample Ref. No.(ARF)	: EC/ARF/29/170339
Test Report No	: EC/TR/42/1423	Source of Sample	: Steel Coated Plant
Type of Sample	: Soil	Sampling Date	: 15.03.17
Sample Collected by	: Mr. Binod Singh	Period of Analysis	: 18.03.17 to 20.03.17
Sample Details	: Soil	Sampling Location	: Near Canteen Area
Name & Address ¹	: Tata Blue Scope Steel Ltd At.Bara,P.O - Agrico Jamshedpur Jharkhand	Sample Condition	: Sealed & Preserved
		Sample Stamped as	: 'TBSSL - 05'
		Sample Drawn By	: ECO CARE
		Remarks	: ----
		Deviation from Method, if any	: None

<u>Sl. No.</u>	<u>Analysis Parameters</u>	<u>Units</u>	<u>Result</u>
1	pH		6.27
2	Moisture Content	%	5.63
3	Organic Matter	%	0.37
4	Chloride	%	8.32
5	Iron	%	2.4

1. Test values are reported based on the samples received.
2. Sample(s) will be destroyed after 7 days from date of issues of the Test Report subject to nature of Preservation. Sample will be preserved as per the standard method.
3. The Test report shall not be reproduced, without the written approval of laboratory.

Authorised Signatory

NIRANJAN LAL AGARWALLA
B Tech MS (USA), A.M.I.E.
Scientist & Chief Executive

Annexure XIII

Serial No	Financial Year	Production in MT
1	2010-2011	Nil
2	2011-2012	11,798
3	2012-2013	1,21,100
4	2013-2014	1,56,215
5	2014-2015	1,79,743
6	2015-2016	1,93,507.30
7	2016-2017	2,12,881