

# SUPER SMELTERS LIMITED

JAMURIA INDUSTRIAL ESTATE, JAMURIA, P.O IKRA, DIST: BURDWAN

Conditions imposed under Environmental Clearance F.No. J-11011/86/2008-IA II (I) dated 01<sup>st</sup> August 2008 issued by the Ministry of Environment and Forests (I.A. Division), Government of India to Super Smelters Limited, Jamuria Industrial Estate, Jamuria, P.O. Ikra Dist Burdwan.

Six Monthly Compliance Report as on: 31<sup>st</sup> March 2017

SPECIFIC CONDITIONS		
S/no.	Conditions	Compliance
i)	Efforts shall be made to reduce RSPM levels in the ambient air and a time bound action plan should be submitted. On-line stack monitoring facilities for all the stacks and adequate air pollution control devices shall be provided to keep the emission levels below 100 mg/Nm <sup>3</sup> and reports submitted to the WBPCB, CPCB and Ministry's Regional Office at Bhubaneswar	Online stack monitoring facility for stacks and adequate air pollution control devices have been installed and is being monitored regularly.
ii)	Electrostatic precipitator (ESP) shall be provided to WHRB, AFBC-CPP and Sinter plant. Bag house shall be provided to non-recovery type coke oven. Bag filters and dust extraction system shall be provided to blast furnace BF. Gas from mini blast furnace (MBF) shall be cleaned in dust settling chamber (DSC) and passed through after burning chamber (ABC), ventury scrubber and cyclone separator to further clean the gas. The coke oven gas shall be used as fuel in reheating furnace of the rolling mill.	ESP for WHRB and Coal Based Boiler-CPP has been provided. Dust separation system installed. Additional online bag filters have also been installed at Transfer Tower, RMHS and product house. Telescopic chute installed at DRI product house.
iii)	The environment standards for sponge iron plants, issued in May, 2008 shall be strictly implemented.	Implemented
iv)	Gaseous emission levels including secondary fugitive emissions from all the sources shall be controlled within the latest permissible limits issued by the Ministry and regularly monitored. Guidelines / Code of Practice issued by the CPCB shall be followed.	Being Monitored regularly as per guidelines / Code of Practice issued by the CPCB.
v)	In-plant control measures for checking fugitive emissions from all the vulnerable, sources shall be provided. Dust extraction system	Control measures are implemented. Water sprinklers are in place at several



	with bag filters shall be provided at various dust generating points. Fume extraction system with bag filter shall be provided to EAF (SMS) to extract fume and then discharged to the atmosphere through the stack of adequate height. Fugitive dust emissions from storage, transportation and raw material handling areas, shall be controlled by water sprinkling and other dust suppression measures	suitable locations for dust control. Additional online bag filters have also been installed. Telescopic chute installed at product hopper to prevent dust extraction. Covered / capsule damper are being used for transfer ESP dust.
vi)	All the standards prescribed for the coke oven plants shall be followed as per the latest guidelines. Proper and full utilization of coke oven gases in power plant using waste heat recovery steam generators shall be ensured and no flue gases should be discharged into the air.	Not applicable at present.
vii)	Continuous monitoring of Total Organic Compounds (TOC) shall be done at the outlet of ETP (BOD plant).	At present Not applicable. Shall be complied when required.
Viii)	Total make up water requirement from Akhalpur reservoir and ADDA shall not exceed 26,760 m <sup>3</sup> /day. Storm water shall be collected and stored in water harvesting pond for further utilization. Effluent Treatment Plant (ETP) shall be installed for the treatment of process water. Blow down from power plant and BF shall be reused for various activities inside the plant viz. in pig casting machine, coke quenching in coke ovens, spraying on hot slag and slag granulation plant Etc. The treated wastewater from all other processes shall be recycled into the process to the maximum extent possible and reused either in the process or for dust suppression or green belt development. No effluent shall be discharged and 'zero' discharge shall be strictly adopted. Domestic effluent shall be appropriately treated and used for green belt development.	An arrangement for waste / rain water collection has been made. Water treatment plant commissioned. No effluent is discharged in open. BF and Coke Oven plant shall be installed in the next phase. The water is being recycled and used in the process.
ix)	Prior 'Permission' for the drawl of 26,760 m <sup>3</sup> /day water from Akhalpur reservoir from the concerned department shall be obtained.	Permission obtained.
x)	Proper utilization of fly ash shall be ensured as per Fly ash Notification, 1999 as amendment in 2003.	Fly ash is being used for making fly ash bricks inside the plant. Also it is being supplied to Fly Ash bricks manufacturer outside. Low LOI CFBC Ash is being supplied to cement manufacturer and rest is used to fill abandoned mines pit
xi)	As proposed in EIA/EMP, char, middling and coal fines shall be used as fuel feed in FBC-CPP. Ferro chrome slag shall be disposed off in the secured landfill as per CPCB guidelines after passing through Toxic Chemical Leachability Potential (TCLP) test. Dust	1. Char is being used in the power plant. 2. We are not making Ferro Chrome now



	from DRI plant, slag and dust from Si-Mn Plant etc shall be disposed off in environment-friendly manner. Scrap from EAF / Rolling Mill shall be used in steel melting shop (SMS). Ferro Manganese slag shall be used in Si-Mn SAF. Sinter dust shall be recycled in mini blast furnace (MBF). Waste refractories and Cinder shall be either recycled or sold. Waste oil shall be sold to recyclers or properly disposed off as per the Hazardous Waste (Management & Handling) Rules, 1989 and subsequent amendments.	3. Slag and dust are being for depositing in the abandoned mines of ECL for which permission has been obtained. 4. Use of DRI Plant waste by reprocessing the waste in CFBC Boiler
xii)	All the dust from blast furnace, coal breeze, lime stone-fines, dolomite fines, iron ore fines, coking coal fines etc. shall be used in sinter plant: Blast furnace slag shall be granulated and provided to cement manufacturers for further utilization. SMS slag shall also be properly utilized / disposed off in abandoned mines; A time bound action plan shall be submitted to reduce solid waste, its proper utilization and disposal	Being Complied
xiii)	As proposed, green belt shall be developed in 80 acres (33 %) out of total 240 acres within and around the plant premises to mitigate the effects of fugitive emissions as per the CPCB guidelines in consultation with DFO.	18500 trees have been planted so far. Presently the plant is in project stage, green belt will be more than 33% of the total area on completion of the project.
xiv)	All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Steel plants shall be implemented	A formal plan has been prepared for the same and is under implementation. Adequate CSR measures are being carried out as per the requirement of villagers from time to time.

## GENERAL CONDITIONS

i)	The project authority shall adhere to the stipulations made by West Bengal Pollution Control Board (WBPCB) and State Government	Being complied
ii)	No further expansion or modification of the plant shall- be carried out without prior approval of this Ministry	Accepted
iii)	The gaseous emissions from various process units shall conform to the load/mass based standards notified by this Ministry-on 19 <sup>th</sup> May, 1993 and standards prescribed from time to time. The West Bengal Pollution Control Board (WBPCB) may specify more stringent standards for the relevant parameters keeping in view the nature of the industry and its size and location. At no time, the emission level shall go beyond the prescribed standards. Interlocked facilities shall be provided so that process can be automatically stopped in case emission level exceeds the limit.	DRI Gas is being used in power generation through WHRB.



iv)	Ambient air quality monitoring stations shall be set up as per statutory requirement in consultation with the WBPCB. Ambient air quality including ambient noise levels shall not exceed the standards stipulated under EPA or by the State authorities. Monitoring of ambient air quality and shall be carried out regularly in consultation with WBPCB and data submitted to the CPCB and WBPCB regularly. The instruments used for ambient air quality monitoring shall be calibrated time to time	Being monitored regularly and it has been found to be within norms.
v)	The overall noise levels in and around the plant area shall be kept well within the standards (85 dBA) by providing noise control measures including acoustic, hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under Environmental (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).	Being monitored regularly and it has been found to be within norms.
vi)	Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act	Proper safety of workmen with adequate protection equipment is ensured. Occupational health surveillance as per Factories Act is also maintained.
vii)	All the environment management measures given in the EIA/EMP shall be implemented and complied with	Implemented
Viii)	All the recommendations mentioned in the Corporate Responsibility for Environmental Protection (CREP) of CPCB issued for the steel plants shall be implemented.	Implemented
ix)	The company shall develop rain water harvesting structures to harvest the rain water for utilization in the lean season besides recharging the ground water table	Water bodies have been created inside the plant.
x)	Proper housekeeping and adequate occupational health programmes shall be taken up.	Complied
xi)	The company shall undertake eco-development measures including community welfare measures in the project area	Supply of Drinking water, renovation of School, Health Centre, and other activities are being carried on. Technical training of villagers. Technical and financial support to women for manufacturing and marketing of hand gloves.
xii)	A separate environmental management cell to carry out various	Lab equipments have been purchased.



	management and monitoring functions shall be set up under the control of Senior Executive	Environment cell formed and directly report to higher management.
xiii)	As mentioned in the EIA/EMP, Rs. 67.00 Crores and Rs. 5.90 Crores earmarked towards capital cost and recurring cost/ annum respectively for environment pollution control measures shall be used to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government. The funds so provided shall not be diverted for any other purpose	All possible measure has been taken and a budget has been created for the purpose of controlling pollution in accordance with Law and requirement of the stake holders.  Partly implemented as the plant is under progress and shall be taken care of on completion of the project.
xiv)	The Regional Office of this Ministry at Bhubaneswar / CPCB / WBPCB shall monitor the stipulated conditions. A six monthly compliance report and the monitored data along with statistical interpretation shall be submitted to them regularly	Accepted and complied
xvi)	The Project Proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the W. B. Pollution Control Board / Committee and may also be seen at Website of the Ministry of Environment and Forests at <a href="http://7envfor.nic.in">http://7envfor.nic.in</a> ;- This should 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 at Bhubaneswar	Complied







# ENVIROCHECK

## Environmental Laboratory

189 & 190, Rastraguru Avenue, Kol-700028

Ph : 2579-2889/2891, 2549-7490, Fax : 2529-9141

E-mail : envcheck@cal2.vsnl.net.in

Website : www.envirocheck.org

### STACK GAS ANALYSIS REPORT

1.	Name of the Industry	: Super Smelters Ltd. (Ferro Div.)
2.	Address	: P.O. - Ekra, Ambagan, Jamuria, Burdwan
3.	Date of sampling	: 04.04.2017
4.	Report No.	: 15/EC/April/TR(A)/I/17-18
5.	Analysis completed on	: 10.04.2017
6.	Reporting Date	: 18.04.2017

#### A. GENERAL INFORMATION ABOUT STACK

1.	Stack attached to	: Rotary Kiln 1 & 2 (DR-I) (attached with common stack)
2.	Shape of Stack	: Circular
3.	Material of Construction	: M.S.
4.	Height of Stack from G. L. (mtr.)	: 40.0
5.	Stack I.D. at sampling point (mtr.)	: 1.8
6.	Height of sampling port from G. L. (mtr.)	: 25.0
7.	Capacity	: Kiln - I - 100 TPD (Running - 70 TPD) Kiln - II - 100 TPD (Running - 72 TPD)
8.	Emission due to	: Combustion of Coal & Reduction of Iron Ore

(a) Type of Fuel Used	: Coal	(b) Fuel Consumption	: Kiln - I - 75.6 MT/Day Kiln - II - 82.0 MT/Day
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Cal-Value (K-Cal/kg.) - 4800	Ash Content (% by Wt.) - 38	Sulphur Content (% by Wt.) - 0.4
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9.(a) Permanent ladder & platform	Yes	(b) Pollution Control Device	: E.S.P
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#### B. RESULTS OF SAMPLING

SL. NO.	PARAMETERS	METHOD NO.	RESULTS
1.	Flue Gas Temperature (°C)	IS : 11255 (Part 1)	: 180.8
2.	Barometric Pressure (mm of Hg.)	--	: 756.0
3.	Velocity of Gas flow (m/s)	IS : 11255 (Part 3)	: 11.46
4.	Quantity of Gas flow (Nm <sup>3</sup> /hr.)	IS : 11255 (Part 3)	: 66926.67
5.	Concentration of SO <sub>2</sub> (mg/Nm <sup>3</sup> )	IS 11255 (Part 2)	: 692.91
6.	Concentration of CO <sub>2</sub> % (v/v)	IS 13270	: 10.8
7.	Concentration of O <sub>2</sub> % (v/v)	IS 13270	: 8.0
8.	Concentration of CO % (v/v)	IS 13270	: <1.0
9.	Concentration of Particulate Matter (mg/Nm <sup>3</sup> ) (at 12% CO <sub>2</sub> )	IS 11255 (Part - 1) & ASTM D 3685/D 3685M	: 95.69

Remarks : All the information under column A are supplied by the respective industry.  
: During monitoring Rotary Kiln 1 & 2 both were in operation.

Date : 18.04.2017

Authorised Signatory :

Dr. SUMIT CHOWDHURY  
Scientist



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189 & 190, Rastraguru Avenue, Kol-700028

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E-mail : envcheck@cal2.vsnl.net.in

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### STACK GAS ANALYSIS REPORT

1.	Name of the Industry	: Super Smelters Ltd. (Ferro Div.)
2.	Address	: P.O. - Ekra, Ambagan, Jamuria, Burdwan
3.	Date of sampling	: 04.04.2017
4.	Report No.	: 15/EC/April/TR(A)/II/17-18
5.	Analysis completed on	: 10.04.2017
6.	Reporting Date	: 18.04.2017

#### A. GENERAL INFORMATION ABOUT STACK

1.	Stack attached to	: Boiler - 1 & 2 (attached to common stack) (C.P.P)
2.	Shape of Stack	: Circular
3.	Material of Construction	: Concrete
4.	Height of Stack from G. L. (mtr.)	: 78.0
5.	Stack I.D. at sampling point (mtr.)	: 3.5
6.	Height of sampling port from G. L. (mtr.)	: 20.0
7.	Capacity	: 110 MT/hr. (Running - 100 MT/hr.) 35 MT/hr. (Running - 30 MT/hr.)
8.	Emission due to	: Combustion of Coal

(a) Type of Fuel Used	: Coal	(b) Fuel Consumption	: 23 MT/hr. & 10 MT/hr.
Cal-Value (K-Cal/kg.) - 4800	Ash Content (% by Wt.) - 38	Sulphur Content (% by Wt.) - 0.4	
9.(a) Permanent ladder & platform	Yes	(b) Pollution Control Device	: E.S.P

#### B. RESULTS OF SAMPLING

SL. NO.	PARAMETERS	METHOD NO.	RESULTS
1.	Flue Gas Temperature (°C)	IS : 11255 (Part 1)	: 151.6
2.	Barometric Pressure (mm of Hg.)	--	: 756.0
3.	Velocity of Gas flow (m/s)	IS : 11255 (Part 3)	: 12.15
4.	Quantity of Gas flow (Nm <sup>3</sup> /hr.)	IS : 11255 (Part 3)	: 287842.61
5.	Concentration of SO <sub>2</sub> (mg/Nm <sup>3</sup> )	IS 11255 (Part 2)	: 676.78
6.	Concentration of CO <sub>2</sub> % (v/v)	IS 13270	: 8.4
7.	Concentration of O <sub>2</sub> % (v/v)	IS 13270	: 9.8
8.	Concentration of CO % (v/v)	IS 13270	: <1.0
9.	Concentration of Particulate Matter (mg/Nm <sup>3</sup> ) (at 12% CO <sub>2</sub> )	IS 11255 (Part - 1) & ASTM D 3685/D 3685M	: 91.50

Remarks : All the information under column A are supplied by the respective industry.

Date : 18.04.2017

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### STACK GAS ANALYSIS REPORT

1.	Name of the Industry	:	Super Smelters Ltd. (Ferro Div.)
2.	Address	:	P.O. - Ekra, Ambagan, Jamuria, Burdwan
3.	Date of sampling	:	04.04.2017
4.	Report No.	:	15/EC/April/TR(A)/III/17-18
5.	Analysis completed on	:	10.04.2017
6.	Reporting Date	:	18.04.2017

#### A. GENERAL INFORMATION ABOUT STACK

1.	Stack attached to	:	Rotary Kiln (DRI - II & III) attached with common stack
2.	Shape of Stack	:	Circular
3.	Material of Construction	:	M.S.
4.	Height of Stack from G. L. (mtr.)	:	78.0
5.	Stack I.D. at sampling point (mtr.)	:	2.6
6.	Height of sampling port from G. L. (mtr.)	:	25.0
7.	Capacity	:	300 TPD (each) [Working Load-DRI-II - 210 TPD]
8.	Emission due to	:	Combustion of Coal & Reduction of Iron-Ore

(a) Type of Fuel Used	:	Coal	(b) Fuel Consumption	:	DRI - II - 225 MT/Day
Cal-Value (K-Cal/kg.) - 4800		Ash Content (% by Wt.) - 38			Sulphur Content (% by Wt.) - 0.04
9.(a) Permanent ladder & platform		Yes	(b) Pollution Control Device	:	E.S.P

#### B. RESULTS OF SAMPLING

SL. NO.	PARAMETERS	METHOD NO.	RESULTS
1.	Flue Gas Temperature (°C)	IS : 11255 (Part 1)	: 169.0
2.	Barometric Pressure (mm of Hg.)	--	: 756.0
3.	Velocity of Gas flow (m/s)	IS : 11255 (Part 3)	: 9.66
4.	Quantity of Gas flow (Nm <sup>3</sup> /hr.)	IS : 11255 (Part 3)	: 120746.78
5.	Concentration of SO <sub>2</sub> (mg/Nm <sup>3</sup> )	IS 11255 (Part 2)	: 760.06
6.	Concentration of CO <sub>2</sub> % (v/v)	IS 13270	: 11.0
7.	Concentration of O <sub>2</sub> % (v/v)	IS 13270	: 7.8
8.	Concentration of CO % (v/v)	IS 13270	: <1.0
9.	Concentration of Particulate Matter (mg/Nm <sup>3</sup> ) (at 12% CO <sub>2</sub> )	IS 11255 (Part - 1) & ASTM D 3685/D 3685M	: 81.70

Remarks : All the information under column A are supplied by the respective industry.  
: During monitoring DRI - II was in operation.

Date : 18.04.2017

Authorised Signatory :

Dr. SUMIT CHOWDHURY  
Scientist





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## STACK GAS ANALYSIS REPORT

1.	Name of the Industry	: Super Smelters Ltd. (Ferro Div.)
2.	Address	: P.O. - Ekra, Ambagan, Jamuria, Burdwan
3.	Date of sampling	: 04.04.2017
4.	Report No.	: 15/EC/April/TR(A)/IV/17-18
5.	Analysis completed on	: 10.04.2017
6.	Reporting Date	: 18.04.2017

### A. GENERAL INFORMATION ABOUT STACK

1.	Stack attached to	: SEAF (2 nos. attached with common stack)
2.	Shape of Stack	: Circular
3.	Material of Construction	: M.S.
4.	Height of Stack from G. L. (mtr.)	: 40.0
5.	Stack I.D. at sampling point (mtr.)	: 2.0
6.	Height of sampling port from G. L. (mtr.)	: 32.0
7.	Capacity	: 9 MVA (each)
8.	Emission due to	: Smelting of Me-Ore

(a) Type of Fuel Used	: Electricity Operated	(b) Fuel Consumption	: Nil
9.(a) Permanent ladder & platform	Yes	(b) Pollution Control Device	: Bag Filter

### B. RESULTS OF SAMPLING

SL. NO.	PARAMETERS	METHOD NO.	RESULTS
1.	Flue Gas Temperature (°C)	IS : 11255 (Part 1)	: 95.0
2.	Barometric Pressure (mm of Hg.)	--	: 756.0
3.	Velocity of Gas flow (m/s)	IS : 11255 (Part 3)	: 7.89
4.	Quantity of Gas flow (Nm <sup>3</sup> /hr.)	IS : 11255 (Part 3)	: 71821.36
5.	Concentration of Particulate Matter (mg/Nm <sup>3</sup> )	IS 11255 (Part - 1) & ASTM D 3685/D 3685M	: 80.14

Remarks : All the information under column A are supplied by the respective industry.  
: During monitoring 1 no. SEAF was in operation.

Date : 18.04.2017

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### AMBIENT AIR ANALYSIS REPORT

1.	Name of the Industry	:	Super Smelters Ltd. (Ferro Div.)
2.	Address	:	P.O. - Ekra, Ambagan, Jamuria, Burdwan
3.	Date of sampling	:	03.04.2017 - 04.04.2017
4.	Report No.	:	15/EC/April/TR(A)/V/17-18
5.	Analysis completed on	:	17.04.2017
6.	Reporting Date	:	18.04.2017
7.	Particular of Plant	:	Mini Steel Plant

#### A] GENERAL INFORMATION

1.	Location of Sampling	:	Near Main Gate (Ferro Div.)
2.	Duration of Sampling	:	24 hrs. (03:30 p.m. - 03:30 a.m.)

#### B] METEOROLOGICAL INFORMATION

1.	Average Temperature ( $^{\circ}\text{C}$ )	:	34.0
2.	Average Relative Humidity (%)	:	74.0
3.	Barometric Pressure (mm of Hg)	:	756.0
4.	Smell or Odour	:	No Remarkable Smell
5.	Weather Condition	:	Clear sky

#### C] RESULTS

SL. NO.	PARAMETERS	METHOD NO.	RESULTS
1.	Concentration of $\text{PM}_{2.5}$ ( $\mu\text{g}/\text{m}^3$ )	USEPA 1997a, 40 CFR Part 50, Appendix L	57.86
2.	Concentration of $\text{PM}_{10}$ ( $\mu\text{g}/\text{m}^3$ )	IS 5182 (Part 23)	134.78
3.	Concentration of $\text{SO}_2$ ( $\mu\text{g}/\text{m}^3$ )	IS 5182 (Part 2) & ASTM D 2914-01	15.07
4.	Concentration of $\text{NO}_x$ ( $\mu\text{g}/\text{m}^3$ )	IS 5182 (Part 6) & ASTM D 1607-91	36.79
5.	Concentration of CO ( $\text{mg}/\text{m}^3$ )	IS 5182 (Part 10) & ASTM D 3162-94	1.57
6.	Ozone ( $\text{O}_3$ ) ( $\mu\text{g}/\text{m}^3$ )	IS 5182 (Part-IX)	20.0
7.	Iron ( $\mu\text{g}/\text{m}^3$ )	IS 5182 (Part-22) 2004 & ASTM D 4185-06	3.85

Date : 18.04.2017

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## AMBIENT AIR ANALYSIS REPORT

1.	Name of the Industry	: Super Smelters Ltd. (Ferro Div.)
2.	Address	: P.O. - Ekra, Ambagan, Jamuria, Burdwan
3.	Date of sampling	: 03.04.2017 - 04.04.2017
4.	Report No.	: 15/EC/April/TR(A)/VI/17-18
5.	Analysis completed on	: 17.04.2017
6.	Reporting Date	: 18.04.2017
7.	Particular of Plant	: Ferro Alloy Division

### A] GENERAL INFORMATION

1.	Location of Sampling	: Near DRI - I (Ferro Div.)
2.	Duration of Sampling	: 24 hrs. (03:00 p.m. - 03:00 p.m.)

### B] METEOROLOGICAL INFORMATION

1.	Average Temperature (°C)	: 34.0
2.	Average Relative Humidity (%)	: 74.0
3.	Barometric Pressure (mm of Hg)	: 756.0
4.	Smell or Odour	: No Remarkable Smell
5.	Weather Condition	: Clear sky

### C] RESULTS

SL. NO.	PARAMETERS	METHOD NO.	RESULTS
1.	Concentration of PM <sub>2.5</sub> (µg/m <sup>3</sup> )	USEPA 1997a, 40 CFR Part 50, Appendix L	: 53.80
2.	Concentration of PM <sub>10</sub> (µg/m <sup>3</sup> )	IS 5182 (Part 23)	: 126.59
3.	Concentration of SO <sub>2</sub> (µg/m <sup>3</sup> )	IS 5182 (Part 2) & ASTM D 2914-01	: 8.58
4.	Concentration of NO <sub>x</sub> (µg/m <sup>3</sup> )	IS 5182 (Part 6) & ASTM D 1607-91	: 32.68
5.	Concentration of CO (mg/m <sup>3</sup> )	IS 5182 (Part 10) & ASTM D 3162-94	: 1.33
6.	Ozone (O <sub>3</sub> ) (µg/m <sup>3</sup> )	IS 5182 (Part-IX)	: 16.50
7.	Iron (µg/m <sup>3</sup> )	IS 5182 (Part-22) 2004 & ASTM D 4185-06	: 3.22

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