

MIEL/NP/EMD/ 303/2015

**Date:** 08.07.2015

To

**The Additional Director,**

Ministry of Environment and Forests,  
Regional Office, Western Region, Link Road No 3,  
E-5, Ravishankar Nagar,(Arera Colony),  
Bhopal (M.P.) Pin Code: 462016.

**Subject:** Six Monthly Environmental Monitoring and Six Monthly Compliance Status Report for the period January 2015 to June 2015 of 1.75 MTPA Integrated Steel Plant in Naharpali village, Raigarh, Chhattisgarh.

**Reference:** Environmental Clearance for 1.75 MTPA Integrated Steel Plant vide letter no. F. No. J-11011/196/2007 – IA II(I) dated 26.12.2007; amended on 31.03.2011 and on 16.02.2012.

Dear Sir,

Please find enclosed herewith Six Monthly Compliance Status Report along with Six Monthly Environmental Monitoring Reports for the period January 2015 to June 2015 against the conditions stipulated in Environmental Clearance vide letter no. J-11011/196/2007 – IA II(I) dated 26.12.2007 which is amended on 31.03.2011 and on 16.02.2012 for 1.75 MTPA Integrated Steel Plant in Naharpali village, Raigarh, Chhattisgarh as under:

1. Six Monthly Compliance Report as enclosed in **Annexure – 1.**
2. Six Monthly Environmental Monitoring Reports as enclosed in **Annexure – 2.**

This is for your kind information and records please.

Thanking you,

Yours faithfully,

For **Monnet Ispat & Energy Limited,**



**Dr. Sunil Kushwaha**

(HOD – Environment)

**Encl:** As above

**CC:**

1. **Zonal Officer,** Central Pollution Control Board, 3<sup>rd</sup> Floor, Sarkar Bhawan, North TT Nagar, Bhopal (M.P.) – 462003.
2. **Member Secretary,** Chhattisgarh Environment Conservation Board, Commercial Complex, Chhattisgarh Housing Board Colony Kabir Nagar, Raipur (C.G.) – 492001.

**Six Monthly Environmental Clearance Compliance Report**  
**Monnet Ispat & Energy Limited, Naharpali, Raigarh**

**Status of progress & point-wise compliance of condition stipulated by MoEF in Environmental Clearance for expansion of 1.75 MTPA Integrated Steel Plant vide letter no. F. No. J11011/196/2007- IA II(I) dated 26/12/07.**

No	Condition	Status as on 01.07.2015
<b>A.</b>	<b>Specific Conditions</b>	
i.	Efforts shall be made to reduce RSPM levels in the ambient air and a time bound action plan shall be submitted. Online stack monitoring facilities for all the stacks and sufficient air pollution control methods to control emissions from the kiln and WHRB shall be provided viz. Electrostatic precipitation (ESP) and bag filters etc. to keep emissions level below 100mg/Nm <sup>3</sup> . Gas cleaning plant (GCP) and Ventury Scrubbers shall be provided to blast furnace (BF). The BF gases shall be cleaned in gas cleaning system (GCS) and used in AFBC power plant. Kiln Off gases shall be used as fuel in the waste heat recovery boiler (WHRB).	Pollution control equipments of suitable capacities have been installed like ESP, Bag filters, Dry fog system and water spraying system at different locations as per requirement. Emission of the particulate matter is being maintained as per the guidelines of the boards. To check the emission level we have established environment laboratory and regular monitoring is being conducted by us as well as through third party. We have installed online continuous monitoring system (opacity dust monitors) at all measure stacks of power plant and DRI. Kiln flue gas of all DRI Kilns is being used in Waste Heat Recovery Boilers.
ii	Secondary fugitive emissions from blast furnace and sinter plant 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.	Central de-dusting system have been installed in Blast furnace cast house and stock area to control the fugitive emissions in the area. We are controlling the fugitive emissions within the latest CPCB norms. Please see Six Monthly Compliance Reports.
iii	Total requirement of the water from Mahanadi river shall not exceed 37,340 m <sup>3</sup> /day. Acidic and alkaline waste water from gas cleaning plant (GCP) of BF plant shall be treated in 'thickener' to remove SS and recycled. As reflected in the EIA/EMP report the waste water generated from various unit shall be properly recycled and reused in the process and for cooling, palatalizing, slag granulation, horticulture etc. The waste water from coal beneficiation plant shall be reused for ash slurry preparation for the disposal of ash generated from AFBC boiler. No waste water shall be discharged outside premises and Zero discharge shall be treated in septic tank followed by soak pits and used for green belt development.	No industrial as well as domestic effluent is being discharged out of the plant premises. 'Zero Effluent Discharge' is being followed.
iv	Prior permission for the drawl of ground as well as surface water from Mahanadi river from the state ground water Board/ Central Ground Water Authority / concerned Department shall be obtained	We have already obtained permission from Water Resource Department (C.G.) to draw water from Mahanadi River. We are continuously paying the water bill without any delay.
v	All the char from DRI plant shall be utilized in AFBC Boiler of power plant and no char shall be disposed off anywhere else. The other entire solid / hazardous waste generated shall be properly utilized or disposed off in environment friendly manner. ESP fly ash and bag filter shall be made available to the cement plants and brick making plants whereas bottom ash shall be	1. Generated char from sponge iron is passed through magnetic separator to separate iron content and then being used as raw material in our AFBC & CFBC boilers for power generation. 2. We are utilizing fly ash /ESP dust for bricks/ blocks manufacturing in our own brick

	disposed off in a suitably designed landfill as per CPCB guideline to prevent leaching to the sub-soil and under ground aquifer. Mill scale shall be reused in Ferro alloy/ pig iron furnace. The liquid slag shall be granulated in cast house granulation unit and given to cement plants/ brick manufacturers for further utilization. Non-granulated slag shall be used in making roads DM resin shall be disposed in properly cemented pit. Waste oil and lubricant shall be sold to authorized recyclers, kiln accretions shall be utilized for filling low lying areas ETP sludge shall be used in brick making and filling low lying areas.	plants & Road construction work. 3. Bottom ash and kiln accretion is being utilized in filling low-lying area & road base making etc. 4. Used oil/ used lubricants are being sold to authorized recyclers and annual returns and manifest for the same is submitted to CECB.
vi	All the fly ash shall be utilized as per fly Ash Notification. 1999 and subsequently amendment in 2003.	We are utilizing fly ash /ESP dust for bricks/ blocks manufacturing, road base making & land filling in low-lying areas ensuring soil covering over the fly ash being filled in the low-lying areas. Apart from this, we are also using fly ash is garden development activities inside plant premises. To control the fugitive dust emission, we have also arranged water sprinkling in respective areas.
vii	Green belt shall be developed in at least 33% within and around the plant premises as per the CPCB guidelines in consultation with DFO.	We have planted around 350000 saplings so far out of which 180000 are being survived in around the plant premises. We have planted approx. 10000 saplings in the financial year 2014-15 and planning to plant another 10000 saplings in the year 2015-16.
viii	Prior permission from the state forest department shall be taken regarding likely impact of the expansion of the proposed steel plant on the surrounding reserve forests viz. Rabo RF (0.92 Km, NE), Bansajhar RF (6.07Km, SW), Burha pahar (6.64 Km, W), Kenmura PF (2.64 Km, SW), Bendojhariya PF (5.11 Km, SW)	Permission has been sought from the State Forest Department regarding likely impact of the expansion of the proposed steel plant on the surrounding reserve forests. However, no letter has been issued from State Forest Department in this regards.
ix	All the recommendations made in the charter on Corporate Responsibility for Environment protection (CREP) for the steel sector shall be strictly implemented.	We are implementing the charter for environment protection in phased manner. CREP compliance has already been submitted.
<b>B. General Conditions</b>		
i	The project authorities must strictly adhere to the stipulations made by the Chhattisgarh Environment Conservation Board (CECB) and the state Government.	All the stipulations made by the Chhattisgarh Environment Conservation Board (CECB) and the state Government are being followed.
ii	No further expansion or modifications in the plant should be carried out without prior approval of the Ministry of Environment and forests.	Agreed. No further expansion or modifications in the plant will be carried out without taking approval from MoEF.
iii	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 location. At no time the emission level shall go beyond the prescribed standards. On-line continuous monitoring system shall be installed in stacks to monitor SPM and interlocking facilities shall be provided so that process can be automatically stopped in case emission level exceeds the limit.	We have already installed pollution control equipments of suitable capacity like ESP and Bag Filters, dry fog system, and water spraying system at different location as per the requirement. Emission of the particulate matter is being maintained as per the prescribed limit of the board. To check the emission level, regular monitoring is conducted by us and also by authorized agency. All process units are interlocked with installed pollution control equipments which immediately stops the process activity in

		case of failure of any pollution controls equipments. We have installed online continuous monitoring system at all major stacks in all units of our plant.
iv	In plant control measures for checking fugitive emissions from all the vulnerable sources like spillage/raw materials/coal handling etc. shall be provided. Further specific measures like provision of dust suppression system consisting of water sprinkling, suction hoods, fans and bag filters etc, shall be installed at material transfer points, blast furnace stock, house and other enclosed raw material handling areas. Centralized De-dusting System for collection of fugitive emissions through suction hood and subsequent treatment through bag filter or any other device and finally emitted through a stack of appropriately designed height conforming to the standards for induction furnaces existing in the industry and proposed induction and arc furnaces. Fugitive emissions shall be regularly monitored and records maintained.	All the conveyor belts and transfer points are connected with bag filters to control the fugitive emissions. Water sprinklers have been provided at various points. Pneumatic dust extraction system has been installed for conveying the collected dust from pollution control equipments. In order to achieve further improvement in control of fugitive emission in Raw Material Section & Coal Handling Plant, dry fog dust suppression system has been installed. We have also made proper arrangement of water sprinkling through water tanker on plant roads and other areas including storage yards. water spray tankers provided to spray/sprinkle water on roads and other dust generating points/ areas to control the air pollution inside and out side area of the company and to avoid fugitive emission due to vehicle movement.
v	At least four ambient air quality monitoring stations should be established in the downward direction as well as where maximum ground level concentration of SPM, SO <sub>2</sub> and NO <sub>x</sub> are anticipated in consultation with the CECB. Data on ambient air quality and stack emissions should be regularly submitted to this Ministry including its Regional Office at Bhopal and the CSEB / CPCB once in six months.	We have installed four Online Ambient Air Quality Monitoring Stations in four directions of our plant. The data of Online Ambient Air Quality Stations is being submitted regularly to Head Office in Raipur and to Regional Office in Raigarh. Apart from this, we regularly monitor the ambient air quality as well as work zone air quality manually with Respirable Dust Samplers & High Volume Samplers. Stack Monitoring Reports & Ambient Air Quality Monitoring Reports are being submitted regularly to state pollution control board. Please see six monthly environmental monitoring reports.
vi	Industrial waste water shall be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19th May 1933 and 31st December 1933 or as amended from time to time. The treated waste water shall be utilized for plantation purpose.	Presently, we have installed common settling tank to collect all discharge waste water through interconnecting drainage system which is further connected with settling pond. After settling, it is being used for horticulture activities, dust suppression and other activities. For domestic effluent, suitable septic tanks & soak pits are provided. Please see six monthly environmental monitoring reports.
vii	The overall noise levels in and around the plant area shall be kept well within the standards (85dBA) 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 (day-time) and 70 dBA (night-time)	Noise level in and around the plant area are well within the standards. We have provided noise control measures including silencers, enclosures etc at all noise generating points. Earplugs are being used in noisy work zone areas, if any. Please see six monthly environmental monitoring reports.
viii	Occupational Health Surveillance of the workers should be done on a regular basis and records maintained as	Occupational Health Surveillance of the workers is being done on a regular basis.

	per the Factories Act.	Occupational Health Surveillance Report has already been submitted.
ix	The Company shall develop surface water harvesting structures to harvest the rainwater for utilization in the lean season besides recharging the ground water table.	We have settling pond to collect runoff surface water to harvest the rainwater. We have also developed and are developing roof top rainwater harvesting system at our colony area and same will be developed in plant premises after the project is complete.
x	The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA. / EMP report. Further the company must undertake social-economic development activities in the surrounding villages community development programmes, educational programs, drinking water supply and health care etc.	The company provides medical assistance to the neighboring village by mobile van dispensary with a doctor and paramedical staff. Different health camps are also organized. The company has also established bore wells in villages for provision of safe potable water. The company has also established training center to provide industrial training to youth of near by villages. Company has also provided infrastructure to various schools. Company also has started Monnet DAV School at Naharpali. Monnet foundation has been formed for community development at nearby areas. Financial assistance is provided for infrastructure development of Anganwadies, for religious and cultural functions, organizing vocational training to ladies and adolescent girls for stitching & Knitting, Awareness program for village on subject like health, food & nutrition etc.
xi	The project authorities shall also provide adequate funds both recurring and non-recurring to implement the conditions stipulated the Ministry of Environment and Forest as well as the state Government along with the implementation schedule for all the conditions stipulated herein. The funds so provided should not be diverted for any other purpose.	Separate funds have been ear marked for upgrading the environment.
xii	The Regional Office of this Ministry at Bhopal / CPCB/ CECB will monitor the stipulated conditions. A six monthly compliance report and the monitored data along with statistical interpretation shall be submitted to them regularly.	We do agree and are following accordingly. Six monthly compliance report and monitored data are being submitted both in soft copy and hard copy regularly. Please see summary/ statistical monitoring data in Six Monthly Monitoring Report.
xiii	The project Proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the CSEB and may also be seen as website of the Ministry of Environment and Forests at <a href="http://enfor.nic.in">http://enfor.nic.in</a> This shall be in the vernacular language of the locality concerned and a copy of the same should be forwarded to the Regional Office.	The Environmental Clearance had been made public via local newspapers. The copies of Clearances are also available on our website.
ix	Project authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of commencing the land development work.	The consent to establishment was accorded by CECB Raipur on 31.01.2008 and land development work started on 10.03.2008.

**On status of progress & point-wise compliance of conditions stipulated in amendment of Environmental Clearance for inclusion of Oxygen Plant vide letter no. F. No. J-11011/196/2007 – IA II (I) dated 31st March, 2011.**

No	Condition	Status as on 01.07.2015
1.	Data on ambient air, stack and fugitive emissions shall be regularly submitted online to Ministry's Regional office at Bhopal, SPCB and Central Pollution Control Board as well as hard copy once in six months and display data on RSPM, SO <sub>2</sub> , and NO <sub>x</sub> outside the premises at the appropriate site for the general public.	Regular environmental monitoring reports are being submitted to concern board as well as six monthly compliance reports in hard copy. Monitoring data is being displayed outside of main gate of company premises for the general public awareness.
2.	The National Ambient Air Quality Standards issued by the Ministry vide G.S.R. No. 826 (E) dated 16th November, 2009 shall be followed.	The National Ambient Air Quality Standards are being followed. We have installed Online Ambient Air Quality Monitoring Stations to regularly monitor the air pollution levels.
3.	The project proponent shall also submit six monthly reports on status of the compliance of stipulated environmental conditions including results of monitored data (both in hard copies as well as by e-mail) to the respective Regional Office of MoEF, the respective Zonal Office of CPCB and the SPCB. The Regional Office of this Ministry at Bhopal/CPCB/SPCB shall monitor the stipulated conditions.	Six monthly compliance reports already are being submitted to Regional Office of MoEF at Bhopal, CPCB New Delhi as well as CECB, Raipur both in hard copy as well as soft copy through e-mail.
4.	The environmental statement for each financial year ending on 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environmental (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental conditions and shall also be sent to the respective Regional Offices of MoEF by e-mail.	The environmental statement is being submitted to State Pollution Control Board, Raipur before 30th September for each financial year ending on 31st March. Last Environmental Statement has been submitted on 22.09.2014 vide letter no. MIEL/NP/EMD/137/2014. It is also made available on our official website. The environmental statement for the year 2014-15 will be submitted shortly before 30.09.2015.
5.	At least 2% of the total cost of the project (increased cost after amendment) shall be embarked towards the corporate social responsibility and item-wise details along with time bound action plan should be prepared and submitted to the Ministry's Regional Office at Bhopal. Implementation of such program should be ensured accordingly in a time bound manner.	Corporate Social Responsibility (CSR) activities are being done under the supervision of District Administration. The summary report of CSR activities have already been submitted.

**On status of progress & point-wise compliance of conditions stipulated in in amendment of Environmental Clearance regarding change of boiler configuration in Integrated Steel Plant (1.75 MTPA) and Captive Power Plant (240 MW) of MIEL, Naharpali vide letter no. F. No. J-11011/196/2007 – IA II (I) dated 16th February, 2012**

No	Condition	Status as on 01.07.2015
1.	<p>The company shall submit within three months their policy towards Corporate Environmental Responsibility which should inter-alia address (i) Standard operating process/ procedure to being into focus any infringement/ deviation/ violation of environmental or forest norms/ conditions, (ii) Hierarchical system or Administrative order of the Company to deal with environmental issues and ensuring compliance to the environmental clearance conditions and (iii) System of reporting of non compliance/ violation/ environmental norms to the Board of Directors of the company and/or stakeholders or shareholders.</p>	<ol style="list-style-type: none"> <li>1. The Company has got Environmental policy (Corporate Environmental Responsibility) ISO 14001 and committed as a philosophy, accept the responsibility to take care of the harmful effects its operation may generated, if any, and protect the environment with a spirit of Green Steel Movement. The company is also committed pro-actively to continual improvement through pollution prevention, resource conservation and sustainable development of facilities and programs. The company integrated policy (quality and environment) already submitted.</li> <li>2. We are complying all statutory requirements and focus to avoid any infringement/ deviation/ violation of environmental or forest norms/ conditions with daily environmental monitoring report, monthly monitoring report, six monthly monitoring report, six monthly compliance reports and environmental statement etc. The standard Operating Process already submitted.</li> <li>3. We have administrative information system as well as Organogram to deal with environmental issues and ensuring compliance to the environmental clearance conditions. The Organizational Chart has already been submitted.</li> <li>4. The reporting system of non compliance/ violation environmental norms to the board of directors of the company and/ or stakeholders or shareholders is as per organization chart. The EMD head reports to unit head on daily basis through Management Information System (MIS) and monthly Preventive Action Committee (PAC) meeting as per statutory norms. The unit head communicate the same to the board of directors of the company and / or stakeholders or shareholders through Management Information System (MIS), Management Review meeting as well as Board of Directors meeting etc.</li> </ol>



**Monnet Ispat & Energy Ltd, Raigarh  
Centralized Environmental Lab**



Date: 07.07.2015

**Ambient Air Quality Monitoring Report**  
(January 2015 to June 2015)  
**Inside Plant Premises (Core Zone)**

Location	Parameter	Jan 15	Feb 15	Mar 15	Apr 15	May 15	Jun 15
North Direction at MIEL Colony	PM10	35	36	39	34	38	22
	PM2.5	18	14	17	14	19	14
	SO2	07	07	07	09	13	08
	NOX	24	22	18	15	14	10
	CO	232	231	229	200	211	196
South Direction at Oxygen Plant	PM10	43	46	43	35	43	30
	PM2.5	19	23	19	17	27	-
	SO2	08	09	09	10	6.3	13
	NOX	14	15	19	16	8.7	09
	CO	175	184	223	240	294	150
East Direction Near Railway Siding	PM10	63	59	61	64	79	77
	PM2.5	21	26	26	28	36	31
	SO2	10	12	14	14	20	17
	NOX	16	14	15	18	18	17
	CO	BDL	BDL	BDL	BDL	BDL	BDL
West Direction Near Switch Yard	PM10	54	54	54	57	70	69
	PM2.5	17	26	27	21	32	29
	SO2	09	12	15	12	14	13
	NOX	13	13	16	15	17	14
	CO	BDL	BDL	BDL	BDL	BDL	BDL

**Note:** CO monitoring in these locations has been done by Handy CO Monitor, of which minimum detection limit is 1 ppm.

**Dr. Sunil Kushwaha**  
(HOD – Environment)





**Monnet Ispat & Energy Ltd, Raigarh  
Centralized Environmental Lab**



Date: 07.07.2015

**Ambient Air Quality Monitoring Report**  
(January 2015 to June 2015)

**Outside Plant Premises (Buffer Zone)**

Location	Parameter	Jan 15	Feb 15	Mar 15	Apr 15	May 15	Jun 15
In Singhanpur Village	PM10	49	46	39	44	45	39
	PM2.5	22	21	19	20	27	24
	SO2	09	08	08	11	17	14
	NOX	11	09	11	10	19	13
	CO	BDL	BDL	BDL	BDL	BDL	BDL
In Lorhajhar Village	PM10	53	53	49	48	51	44
	PM2.5	17	22	24	22	31	28
	SO2	08	07	06	09	14	12
	NOX	06	09	07	08	12	14
	CO	BDL	BDL	BDL	BDL	BDL	BDL

**Note:** CO monitoring in these locations has been done by Handy CO Monitor, of which minimum detection limit is 1 ppm.

**Dr. Sunil Kushwaha**  
(HOD – Environment)



**Monnet Ispat & Energy Ltd, Raigarh  
Centralized Environmental Lab**



Date: 07.07.2015

**Stack Emission Monitoring report**  
(January 2015 to June 2015)

**Particulate Matter Concentration (in mg/Nm<sup>3</sup>)**

S. No.	Parameters	Jan 15	Feb 15	Mar 15	Apr 15	May 15	Jun 15
1	Power Plant (90 MW)	42	31	35	31	29	38
2	Power Plant (80 MW)	33	35	39	42	39	34
3	DRI Kiln 1,2	41	40	37	30	37	31
4	DRI Kiln 3,4	37	36	32	34	38	29
5	DRI Kiln 5,6	S/D	S/D	41	38	41	40
6	Blast Furnace (BF stove)	26	25	28	25	22	24
7	Blast Furnace (Desusting System)	29	26	26	23	25	21
8	Sinter Plant	28	23	27	24	27	25
9	Steel Melting Shop (Electric Furnace)	29	30	33	29	26	21

**Dr. Sunil Kushwaha**  
(HOD – Environment)



**Monnet Ispat & Energy Ltd, Raigarh**  
**Centralized Environmental Lab**



Date: 07.07.2015

**Ambient Noise Monitoring Report**  
 (January 2015 to June 2015)

SN	Location	Jan 15		Feb 15		Mar 15		Apr 15		May 15		Jun 15	
		Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night
<b>Core Zone</b>													
1	North Direction near MIEL Colony	69.3	56.3	71.6	65.2	72.2	66.1	71.5	67.2	73.7	66.9	70.2	65.6
2	South Direction near Oxygen Plant	72.3	59.1	70.2	54.8	70.9	53.9	74.7	71.6	69.1	57.3	72.7	59.3
3	East Direction near Railway Siding	74.1	63.9	72.9	64.1	71.8	64.5	70.4	65.1	72.4	64.8	68.1	62.3
4	West Direction near Switch Yard	67.4	56.2	69.2	52.1	69.7	53.5	68.8	54.3	66.1	53.2	66.7	55.4
<b>Buffer Zone</b>													
5	Singhanpur Village	52.3	44.1	51.7	44.2	52.4	43.6	53.3	42.2	52.6	40.9	53.8	40.7
6	Lorhajhar Village	50.9	41.9	53.2	43.4	52.1	43.9	52.7	42.7	49.6	38.7	51.5	38.6

<b>CPCB Standards</b>		
Industrial Areas	75 (Day)	70 (Night)
Residential Areas	55 (Day)	45 (Night)

**Dr. Sunil Kushwaha**  
 (HOD - Environment)



**Monnet Ispat & Energy Ltd, Raigarh  
Centralized Environmental Lab**



Date: 07.07.2015

**Work-Zone Noise Monitoring Report**  
(January 2015 to June 2015)

S. No.	Location	Jan 15	Feb 15	Mar 15	Apr 15	May 15	Jun 15
1	Near Office Area	72.2	73.6	74.8	76.6	74.3	74.1
2	Near Power Plant	81.2	82.9	80.6	82.9	83.4	80.6
3	Near Kiln 1 & 2	72.3	77.3	80.2	79.5	78.3	80.2
4	Near Kiln 3 & 4	70.9	76.3	81.8	80.1	81.7	81.3
5	Near Kiln 5 & 6	74.1	75.1	80.8	81.8	80.2	80.8
6	Crusher Area	78.2	77.2	79.7	79.4	78.6	77.9
7	Raw Material Handling Area	81.8	78.2	78.6	79.2	75.6	76.7
8	Rolling Mill	82.1	78.8	78.3	78.9	79.1	77.1
9	Blast Furnace	83.9	82.3	83.0	83.2	81.9	82.8
10	Sinter Plant	72.8	79.6	80.2	81.7	82.3	80.5
11	Steel Melting Shop	76.9	81.1	82.3	83.1	82.8	82.4
Prescribed Limit for Work Zone Noise Levels: <b>85 dB(A)</b>							

**Dr. Sunil Kushwaha**  
(HOD – Environment)



**Monnet Ispat & Energy Ltd, Raigarh  
Centralized Environmental Lab**



Date: 07.07.2015

**Effluent Analysis Report**  
(January 2015 to June 2015)

**Sample Details**

Sample	Effluent
Sample Type	Waste Water
Sample Location	ERS Outlet

**Results**

S. No.	Parameters	Unit	Jan 15	Feb 15	Mar 15	Apr 15	May 15	Jun 15	Limit
1	pH Value	-	8.19	7.57	7.32	7.58	7.34	7.21	6.5 – 8.5
2	TSS	mg/l	48	22	30	40	37	41	100
3	COD	mg/l	29	20	28	24	08	16	250.0
4	BOD	mg/l	07	05	05	05	02	03	30.0
5	Oil & Grease	mg/l	ND	ND	ND	ND	0.15	ND	10.0

**Dr. Sunil Kushwaha**  
(HOD - Environment)

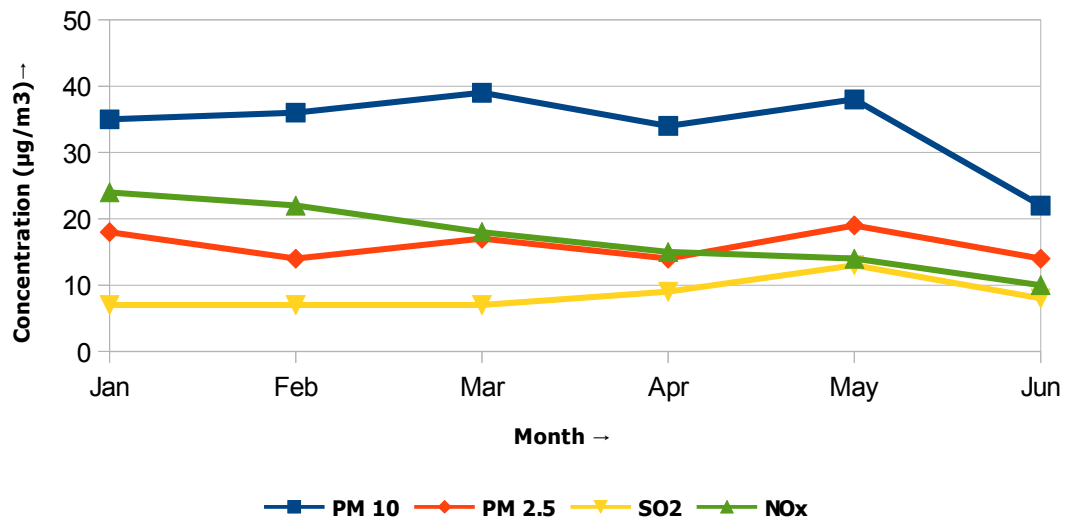


## Monnet Ispat & Energy Ltd, Raigarh Centralized Environmental Lab

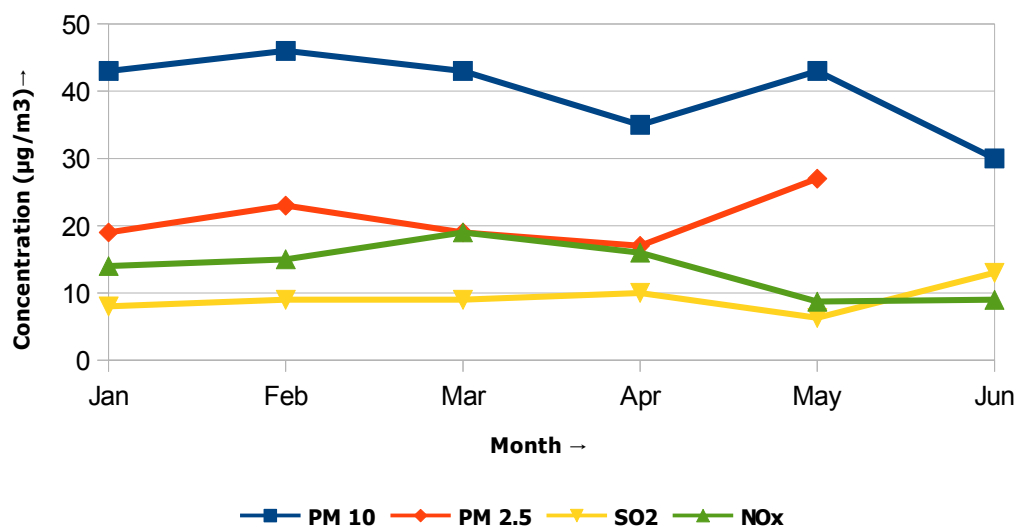


### Ambient Air Quality Trends

#### North Direction (Monnet Colony)



#### South Direction (Oxygen Plant)



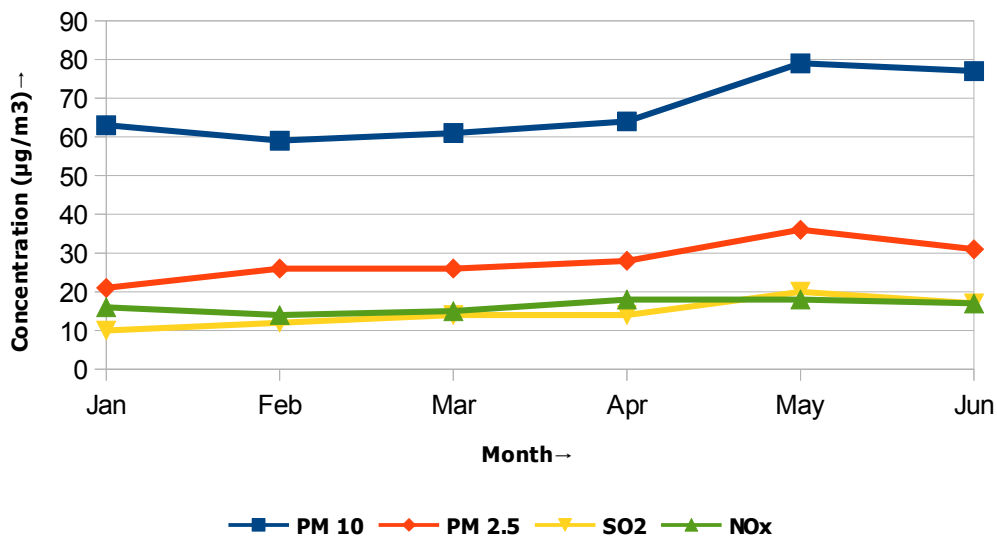


## Monnet Ispat & Energy Ltd, Raigarh Centralized Environmental Lab



### Ambient Air Quality Trends

#### East Direction (Railway Siding)



#### West Direction (Switch Yard)

