



Director (S)
Ministry of Environment and Forests
Eastern Regional Office,
A/3, Chandrasekharapur,
Bhubaneswar- 751023

Ref No: FAP (B)/ ENV/ 568 / 15
Date: 30th May 2015 / 1. 6. 15

Sub: Submission of Six monthly compliance report on implementation of Environmental safeguards of Ferro Alloys Plant, Bamnival, for the period from **October'14 to March'15**.

Ref: Ministry of Environment and Forests Letter No: J-1101/10/2007-IAII (I), dated 07.05.2007

Dear Sir,

We are herewith submitting the six monthly compliance report in respect of the stipulated environmental clearance conditions of Ferro Alloys Plant, Bamnival, for the period from **October'14 to March'15** as per EIA Notification, 2006.

We are also sending you the soft copy of the report to your good office on email: mef.or@nic.in for your ready reference.

We trust that the measures taken towards environmental safeguards comply with the stipulated environmental conditions. We look forward to your further guidance which shall certainly help us in our endeavor for further improve upon our Environmental Management practices.

Thanking you,

Yours faithfully,

HEAD (FA Production)
Ferro Alloys Plant, Bamnival.
M/s Tata Steel Limited

Encl: As above

C.C: Member secretary, OSPCB, Bhubaneswar.

Regional Officer, OSPCB, Keonjhar.

TATA STEEL
Tata Steel Limited

Ferro Alloy Plant, Bamnival - 758 082, Keonjhar, Odisha, India
Tel. : 9238118601, 9238118603, 9238118605, Fax : 91 6726 243324
Regd. Office : Bombay House, 24 Homi Mody Street, Mumbai 400 001

COMPLIANCE STATUS PERIOD: OCT'14 to MARCH'15 FOR

ENVIRONMENTAL CLEARANCE OF FERRO ALLOYS PLANT, BAMNIPAL OF TATA STEEL LIMITED VIDE MOEF's LETTER NO. No.: J-11011/10/2007-IA. II (I), Dated 07.05.2007

A. SPECIFIC CONDITIONS

- i) 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. 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. Interlocking facilities shall be provided so that process can be automatically stopped in case emission level.

Status of Compliance:

The Proposed expansion project not yet started, shall be complied. Interlocking facilities shall be provided wherever feasible to stop the process, in case emission level exceeds the limit. In other places, alarms will be provided for necessary action. Online stacks emission monitoring systems shall be installed in the new major stacks.

- ii) Continuous stack monitoring facilities for all the major stacks and adequate air pollution control systems shall be provided to keep emission levels below 50 mg/Nm³ and reports submitted to the OSPCB & CPCB.

Status of Compliance:

The proposed expansion project construction not yet started. Monthly stack monitoring report of existing plant is submitted to OSPCB, BBSR and RO, OSPCB keonjhar, Orissa, every month.

As per the OSPCB consent order the prescribed emission standard for stack attached to Arc furnace and GFPS is only for PM i.e 100 mg/ Nm³.

		OCT	NOV	DEC	JAN	FEB	MARCH
parameters	Std (mg/ Nm ³)	Avg. during the month(mg/ Nm ³)	Avg. during the month(mg/ Nm ³)	Avg. during the month(mg/ Nm ³)	Avg. during the month(mg/ Nm ³)	Avg. during the month(mg/ Nm ³)	Avg. during the month(mg/ Nm ³)
PM	100	Dt. 05.08.2014 onwards Plant under shut down	Dt. 05.08.2014 onwards Plant under shut down	Dt. 05.08.2014 onwards Plant under shut down	Dt. 05.08.2014 onwards Plant under shut down	18.26	15.84

- iii) In-plant control measures for checking fugitive emissions from all the vulnerable sources shall be provided. Fume and dust extraction system with bag filters shall be provided at the transfer and discharge points to control fugitive emissions. Pneumatic

ash conveying system and storage silos shall be used for dust transfer to silos. ESP shall be provided to the Captive Power Plant (CPP) to control air emissions to 100mg/Nm³. Further, specific measures like water sprinkling around the coal stockpiles and asphaltting or concreting of the roads shall be done to control fugitive emissions.

Status of Compliance:

The Proposed CPP project construction not yet started. However for the existing control of Ferro chrome plant for the dust and fugitive emission, the dust extraction system with bag filters have been provided at GFPS (Grinding, Filtering, pelletizing and sintering) transfer and discharge points to control fugitive emissions. Water spraying arrangement in haul road and auto water sprinkling system installed at Raw material store yard and weigh bridge area. In existing plant control measures for checking fugitive emissions from all the vulnerable sources are being installed.

- iv) Secondary fugitive emissions shall be controlled within the prescribed limits, regularly monitored and records maintained. Guideline / Code of practice issued by the CPCB in this regard shall be followed.

Status of Compliance:

The Proposed expansion project construction not yet started. Shall be complied, However in existing plant we have three air quality monitoring stations (Two in the work zone, one in residential area). Monitoring of the air quality was being conducted twice in a week as per CPCB guide lines. Likewise quarterly monitoring is done in 3 buffer zone locations. PM₁₀, PM_{2.5}, SO₂, NO_x, CO, parameters in the air quality were being monitored. We have also started ambient air quality monitoring as per recent Gazette Notification 826(E), dated 16.11.2009. The data on ambient air quality of core zone as well as buffer zone for the period Oct'14 to March'15 reveal that all the parameters are within the stipulated standards. The ambient air quality analysis report submitted to OSPCB, BBSR and RO, OSPCB Keonjhar, Orissa every month.

- v) Total requirement of water from Remal Dam and Kusei river shall not exceed 4416m³/day and 7584m³/d respectively as per the permission accorded by the department of Water Resources, Govt of Orissa. All the 3640m³/day treated effluent shall be used for dust suppression and green belt development after treatment for total suspended solids (TSS) and pH. Domestic waste water shall be discharged outside the factory premises and 'Zero' discharge shall be adopted.

Status of Compliance:

The proposed expansion project is yet to be start. The water requirement for existing plant has not increased, and is well below the above permissible limit and we have adopted Zero discharge.

- vi) All the solid waste including process slag, SAF flue dust, raw material fines, product fines, ash, raw water treatment slurry and ETP sludge shall be properly disposed off. Fly ash and granulated slag shall be providing to the cement manufacturing units for

further use. Hexavalent Chromium present in the slag shall be converted to trivalent chromium. Ferrochrome shall be stored in secured landfill as per the CPCB guidelines. Bottom ash shall be disposed off in a suitably designed landfill as per CPCB guide line to prevent leaching to the sub-oil and underground aquifer. STP sludge after drying shall be used as fertilizer for green belt development. Used oil shall be sold to recyclers and preprocessors.

Status of Compliance:

The proposed Project construction not yet started. However for the existing plant we are complying to the OSPCB norms for the disposal of all solid waste.

- vii) SAF slag shall not be dumped but reused as per the alternate action plan submitted to the Ministry. Product fines and flue dust shall not be dumped anywhere but reused in the process.

Status of Compliance:

SAF hard slag is used for civil construction. Rainwater harvesting structure was constructed using SAF hard slag replacing granite boulders. CPP project and plant expansion not yet started.

- viii) The company shall develop rain water harvesting structures to harvest the rain water for utilization the lean season besides recharging the ground water table.

Status of Compliance:

Rain water harvesting structure has been developed and the facility for recharging the ground water table is under construction.

- ix) Out of total 71.719 ha. Green belt shall be developed in 40 ha within and around the plant premises as per the CPCB guidelines in consultation with DFO besides compensatory afforestation in 39.72 ha in lieu of forest land acquired.

Status of Compliance:

Green belt has been developed. The 39.72 Ha of land is yet to be acquired.

- x) Occupational Health Surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.

Status of Compliance:

Occupational health surveillance of all workers has been done and record submitted to Director of Factories & Boilers office. The ground water quality is being monitored regularly. Adequate numbers of monitoring stations have been set up in and around the lease area as well the surrounding villages to monitor ground water quality. The data on ground water quality parameters for the period Oct'14 to March'15 meet the limits of drinking water quality.

- xi) Recommendations made in the CREP guidelines issued for Ferro chrome plants shall be implemented.

Status of Compliance:

CREP recommendations have been implemented

- xii) No construction activities at the 39.72 ha forest land shall start without prior approval under forest (Conservation) Act, 1980 and subsequent amendments.

Status of Compliance:

Acquisition of 39.72 ha forest land is still in progress. No construction has been started on this land.

- xiii) Comments/observations of the Chief Wildlife Warden/State Forest Department shall be obtained regarding impact of the proposed expansion plant on the Rebana RF, Daitari RF, Tamka RF, Mahagiri PF which are located around the project site and all the recommendations should be implemented in time bound manner.

Status of Compliance:

The proposed expansion project construction not yet started. The comments/Observations of chief wildlife warden and the corresponding recommendations will be made available in time.

B. GENERAL CONDITIONS:

- i. The project authorities must strictly adhere to the stipulations made by the Orissa Pollution Control Board (OSPCB) and the State Government.

Status of Compliance:

The proposed expansion project construction not yet started. For existing plant we have been submitting the report monthly.

- ii. No further expansion or modifications in the plant should be carried out without prior approval of the Ministry of Environment and Forests.

Status of Compliance:

The proposed expansion project construction not yet started.

- iii. 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, SO₂ and NO_x are anticipated in consultation with the OSPCB. Data on ambient air quality and stack emission should be regularly submitted to this Ministry including its Regional Office at Bhubaneswar and the OSPCB/CPCB once in six months.

Status of Compliance:

The proposed expansion project construction not yet started. For existing plant three air quality monitoring stations (two in the work zone, one in residential area). Monitoring of the air quality was being conducted twice in a week as per CPCB guide lines. Likewise quarterly monitoring is done in 3 buffer zone locations. The air quality

analysis report submitted to OPCB BBSR and Regional Office, OPCB, Keonjhar, Orissa every month.

- iv. Industrial wastewater 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 utilized for plantation purpose.

Status of Compliance:

The proposed expansion project construction not yet started. For existing process industrial wastewater collected in settling pond. After two stages of settlement the overflow water is recycled completely without discharging outside. The waste water generated from ventury scrubber is treated in the thickner and the sludge is conveyed to an impervious lined pond in the form of slurry for settlement. The over flow water of the sludge pond was recycled back to the process without discharging outside.

- 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 should conform to the standards prescribed under EPA Rules, 1989 viz 75 dBA (daytime) and 70 dBA (nighttime).

Status of Compliance:

The proposed expansion project construction not yet started. For existing process the overall noise level in around the plant area within the standards(85dBA) by providing noise control measures like 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). The noise analysis report submitted to OPCB BBSR and Regional Office, OPCB, Keonjhar, Orissa .

- vi. 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 socio-economic development activities in the surrounding villages like community development programmes, educational programmes, drinking water supply and health care etc.

Status of Compliance:

The proposed expansion project construction not yet started. The socio-economic, development activities in the surrounding villages like community development programmes, educational programmes, drinking water supply and health care etc. are be taken care by our CSR team.

- A) We have installed reflection lights (Light pipes) in our work shop area. They are equivalent to 252 watt florescent bulbs. Each light pipe reduces the energy consumption by 9370 KWH/year, which is equivalent to 7705 kg of CO2 reduction per year.
- B) Tree Plantation
- C) Use of energy efficient equipment to reduce power consumption.
- D) Use of CFL lights in place of incandescent lamps.
- E) Use of solar lights for the community.

- F) Use solar heaters in our guest house.
- vii. As mentioned in the EIA/EMP, Rs.25.44 Crores and Rs.3.26 Crores shall be earmarked towards capital cost and recurring cost/annum to control pollution and shall be judiciously utilized 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.

Status of Compliance:

The proposed expansion project construction not yet started.

- viii. The Regional Office of this Ministry at Bhubaneswar/CPCB/OSPCB shall monitor the stipulated conditions. A six monthly compliance report and the monitored data along with statistical interpretation shall be submitted to them regularly.

Status of Compliance:

The proposed expansion project construction not yet started. A six monthly compliance report and the monitored data along with statistical interpretation have been submitted to MOEF Bhubaneswar, CPCB/OSPCB.

- ix. 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 OSPCB/Committee and may also be seen at Website of the Ministry of Environment and Forests at <http://envfor.nic.in>. 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 at Bhubaneswar.

Status of Compliance:

The proposed expansion project construction not yet started. The project proponent had been informed the public in two local newspapers (The Samaja, The Indian Express) 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.

- x. 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.

Status of Compliance:

The proposed expansion project construction not yet started.