



The Chief Conservator of Forests (Central)
Eastern Regional Office
Ministry of Environment & Forests
Government of India
A/3, Chandrashekharpur,
Bhubaneswar – 751 023, Odisha

OP-Env/C-05/ 426 /2013
28 November, 2013.

Dear Sir,

Sub.: Six monthly Compliance Report for April '13 to Sep '13 for Environmental Clearances in respect of 6.0 MTPA Integrated Steel Plant of M/s. Tata Steel at Kalinganagar Industrial Complex, Dubri, Dist. Jajpur, Odisha.

Ref.: EC Granted by MoEF vide Letter No. J-11011/7/2006-IA-II(I) dated 7.11.2006.
: Amendment in EC granted by MoEF vide Letter No. J-11011/7/2006-IA-II(I) dated 10.12.2012


Kindly find enclosed Six Monthly Compliance Report for the period April 2013 to Sept '13 for the conditions stipulated in Environmental Clearance including amendment in EC to 6.0 MTPA Integrated Steel Plant of Tata Steel Limited at Duburi, Jajpur, Odisha for your kind considerations.

Copy of the compliance report is also being sent in soft format through e-mail (mei@ori.nic.in) for your kind perusal.

We trust the information furnished is in line with your requirement.

Thanking you,

Yours faithfully,


U S Parkhi
Head, Environment, KPO

Encl. a/a

Copy to MS, OSPCB, Bhubaneswar / CPCB Kolkata

Received
Kee
29.11.13
PS to APCCF (Central)
Min. Env. & Forests
Eastern Regional Office
Bhubaneswar-751023

TATA STEEL LIMITED

Odisha Project Kalinga Nagar Industrial Complex, Duburi, Jajpur, Odisha Pin 755 026, India
Registered Office: Bombay House 24 Homi Mody Street Mumbai 400 001

Six Monthly Compliance Status (April'13 to Sep'13) of Environmental Clearance including Amendment in EC for 6.0 MTPA Integrated Steel Plant at Kalinganagar, Duburi, District-Jajpur, Odisha by M/s Tata Steel Ltd vide MoEF Letter No. EC No-J-11011/7/2006-IA.II(I) dtd. 7th Nov 2006 and 10th Oct 2012

| Sl | Additional Conditions vide letter dated 10.10.2012 | Status as on 30.11.2013 |
|-----------|--|--|
| i) | The company shall install low NOx burners to mitigate NOx emissions from captive power plant. | Low NOx burners to control the NOx emissions. have been planned for installation in the captive power plant which is under construction |
| ii) | Data on ambient air, stack and fugitive emission shall be regularly submitted online to Ministry's Regional Office at Bhubaneswar and Central Pollution Control Board as well as hard copy once in six months and display data on PM10, SO2 and NOx outside the premises at the appropriate place for the general public. | <ul style="list-style-type: none"> • At present, project is under construction. • Latest AAQ data which is being monitored in & around the site on 24 hourly basis at more than 4 locations is summarized as follows: PM₁₀ : 34 to 59 µg/m³ PM_{2.5} : 18 to 34 µg/m³ SO₂ : 9 to 12 µg/m³ NO_x : 10 to 13 µg/m³ CO : < 0.25 mg/m³ • AAQ data is displayed at the entrance of the project site for information to general public in stationary board. • Online AAQ and Stack Monitoring systems are envisaged in the project and will be coming up as a part of project constructions. |
| iii) | The National Ambient Air Quality Standard issued by the Ministry vide GSR No.826(E) dated 16th November, 2009 shall be followed. | NAAQS vide GSR 826 (E) is referred for air quality monitoring and review. |
| iv) | The project proponent shall also submit six monthly reports on the status of the compliances of the 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 SPCB. The Regional Office of the Ministry at Bhubaneswar/CPCB/SPCB shall monitor the stipulated conditions | <ul style="list-style-type: none"> • Six monthly compliance report for the period Oct '12 to March '13 was submitted to MoEF, CPCB as well as OSPCB regional office both in hard as well as soft copy. |
| v) | The environmental statement for each financial year ending 31 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 Environment (protection Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliances of environmental conditions and shall also be sent to the respective Regional Offices of the MoEF by e-mail. | <ul style="list-style-type: none"> • Environment Statement for the year 2012-13 was submitted to OSPCB before 30.09.2013. • Status of Compliance of EC conditions are available on the company's website at www.tatasteelindia.com |
| vi) | The company shall submit within three months their policy towards Corporate Environment Responsibility which should inter-alia address (i) Standard operating process/ procedure to being into focus any infringement/ deviation/ violation of the environmental or forests norms/ conditions, (ii) Hierarchical system or Administrative order of the Company to deal with environmental issues and ensuring compliances to the environmental clearances conditions and (iii) system of reporting of noncompliance/ violation of environmental norms to the Board of Directors of the Company and/or shareholders | <ul style="list-style-type: none"> • Details related to Corporate Environmental Policy were submitted to MoEF, New Delhi on vide our letter no. TSLDEL/805/2013 dated 8.1.2013. • Copy of the same was also submitted to MoEF, Bhubaneswar Office. |

Six Monthly Compliance Status (April'13 to Sep'13) of Environmental Clearance including Amendment in EC for 6.0 MTPA Integrated Steel Plant at Kalinganagar, Duburi, District-Jajpur, Odisha by M/s Tata Steel Ltd vide MoEF Letter No. EC No-J-11011/7/2006-IA.II(I) dtd. 7th Nov 2006 and 10th Oct 2012

| A | Specific Conditions as per EC dated 7.11.2006 | Status as on 30.11.2013 |
|----------|--|---|
| i) | <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 Boards 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. Nox burners shall be installed to control NOx levels. VOCs from the coke oven shall be monitored and controlled as per CPCB guidelines. The new standards prescribed by the CPCB for coke oven plants shall be strictly followed.</p> | <ul style="list-style-type: none"> • Process units such as Coke Plant, Sinter Plant, Blast Furnaces, SMSs, Mills are designed and being constructed to have gaseous emissions under control and below the prescribed limits. • Online stack monitoring systems are proposed for all major stacks. • VOC from coke plant will be controlled by On-main charging by HPLA, Hydraulic doors, Door sealing, Door frame cleaner, etc. • All the points indicated in the conditions have been considered during designing stage. • Compliance will be ensured during construction & operations. |
| ii) | <p>In-plant control measures for checking fugitive emissions from all the vulnerable sources like coke oven area, Sinter Plant, BF case house, BF stack house, and BOF shop etc. shall be provided. Further, specific measures like water sprinkling and dry fogging (DF) shall be carried out at the stock piles of raw materials, stacker reclaimer, conveyor transfer points and vibrating screens etc. Dust extraction system and bag filter shall be provided for room air cleaning such as sinter plant stock house, BF stock house and BF cast house, BOF shop and Ferro-alloys handling area in steel melting shop etc. Fume extraction system in steel refining units shall also be provided. Centralized de-dusting system i.e. 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 and height conforming to the standards for induction furnaces in the industry shall be provided. Fugitive emissions shall be controlled, regularly monitored and records maintained.</p> | <ul style="list-style-type: none"> • During construction, water sprinkling on construction roads is being done by tankers. • Main roads are partially metaled. • In the steel plant, fugitive emission controls at all the vulnerable points have been considered by dust suppression, dry-got, Dust/ Fume extractions systems, etc. as applicable in RMHS, Sinter Plant, Coke Plant, BF Stock & Cast Houses, BOF Shops, Lime Plant, etc. • Stack heights have been designed as per guidelines for dispersion. |
| iii) | <p>ESP shall be provided to sinter plant and blast furnace. New standards prescribed by the CPCB for coke oven shall be strictly followed. The Company shall install Waster Heat Recovery Boilers (WHRB) to recover the waste heat and generate power from the steam produces by the WHRB. The particulate emissions from the WHRB shall be controlled by installation of ESP as per CPCB specification and particulate emissions shall not exceed 50mg/Nm³. Further, the company shall install bag filter, After Burner Chamber (ABC), suction hood, dust extraction device and fume extraction system to control gaseous emissions from the WHRB.</p> | <ul style="list-style-type: none"> • ESPs have been proposed and are under construction at Sinter Plant, Blast Furnace, Steel Melting Shops, etc. • Coke oven plant is designed to comply with standards issued on 3.2.2006. • WHRB have been proposed. • PM emissions from the stack will less than 50 mg/Nm³. |

Six Monthly Compliance Status (April'13 to Sep'13) of Environmental Clearance including Amendment in EC for 6.0 MTPA Integrated Steel Plant at Kalinganagar, Duburi, District-Jajpur, Odisha by M/s Tata Steel Ltd vide MoEF Letter No. EC No-J-11011/7/2006-IA.II(I) dtd. 7th Nov 2006 and 10th Oct 2012

| | Specific Conditions as per EC dated 7.11.2006 | Status as on 30.11.2013 |
|------|---|---|
| iv. | Total requirement of the water from Brahamani /Kharsua river shall not exceed 26.5 MGD. No ground water shall be drawn and used for the plant. The effluent quantity into the industrial drain leading to the Gonda Nalla shall not exceed 92m ³ /hr and shall conform to the prescribed standards. Ammonia, phenol and cyanide in the effluent should be treated separately and discharged only after meeting the norms prescribed by the OSPCB/CPCB/Ministry under E(P) Act. Cyanide shall meet the standard of 0.2 ppm. TDS in the effluent discharged shall not be more than 2,100 mg/l. The domestic wastewater after treatment in STP shall be used for green belt development. | <ul style="list-style-type: none"> • Make up water requirement for the plant is <26.5 MGD. At present, water consumption for construction is <0.35 MGD • Total effluent discharge envisaged is < 92m³/hr and it will meet the standards prescribed by MoEF/ CPCB/OSPCB. • Coke oven effluent treatment plant is separate and suitable for removal of Cyanide, Ammonia, Phenol within the prescribed limits. • STP is being constructed for treating the domestic wastewater. • Treated water shall be used for green belt development. |
| v. | Ground water monitoring around the solid waste disposal site/secured landfill (SLF) shall be carried out regularly and report submitted to the Ministry's Regional Office at Bhubaneswar, CPCB and OPCB. | <ul style="list-style-type: none"> • Base line data is available. • Ground water monitoring will be done post development of secured landfill. • Reports shall be generated on regular basis and submitted to RO, OSPCB & CPCB. |
| vi. | BF slag shall be sold to the cement manufacturers after granulation. Non-granulated BF slag shall be used in road making. BOF slag shall not be dumped anywhere except used for making cement and road etc. proposed in EIA/EMP. Ammonia and tar shall be recovered and remaining solid waste shall be burnt. Gas cleaning plant sludge and mill scales shall be reused in the sinter plant. Char generated shall be used in FBC boiler. The kiln accretions shall be utilized for filling low lying areas. The entire quantity of fly ash generated during the process shall be utilized for making brick. ESP fly ash shall be made available to the cement plants and brick making plants whereas bottom ash shall be disposed off in a suitably designed landfill as per CPCB guidelines to prevent leaching to the sub-soil and underground aquifer. | <ul style="list-style-type: none"> • Online BF slag granulation process is being constructed. Also rail wagon loading facilities are developed, so that slag can be transported to various cement units. • At present, cement units have been identified for the use of BF slag. • Brick making units have also been identified for utilization of fly ash. • Mill scales shall be re-utilized in sinter plant. |
| vii. | The company shall develop surface water harvesting structures to harvest the rain water for utilization in the lean season besides recharging the ground water table. | <ul style="list-style-type: none"> • Surface run-off during the monsoon have been collected and stored in the low lying areas. • Rain water harvesting structures are being planned within the project site. |

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| | Specific Conditions as per EC dated 7.11.2006 | Status as on 30.11.2013 |
|-------|---|---|
| viii. | Green belt shall be developed in at least 33% area within and around the plant premises as per the CPCB guidelines in consultation with DFO. | <ul style="list-style-type: none"> • Tree Plantation is a continuous process. Plantation work started along with the project construction. Areas covered are Gobarghati, Trijanga, IM Section, along the plant boundary and other areas that are available during construction of the project. Details of tree saplings planted: 2009-10 : 792 nos. 2010-11 : 1130 nos. 2011-12 : 4800 nos. 2012-13 : 12050 nos. 2013-14 : 20903 nos.(Till 30.11.13) • Avenue plantation is being taken up at Jajpur town, Kalinganagar and Bhubaneswar. • Greenbelt development plan is proposed and being implemented. |
| ix. | Occupational Health Surveillance of the workers shall be done on a regular basis and records maintained as per the factories Act. | <ul style="list-style-type: none"> • Periodic medical check-up for workers are being done and records for the same are maintained for OH surveillance and review. |
| x. | Recommendations made in the CREP guidelines issued for the steel plants shall be implemented. | <ul style="list-style-type: none"> • CREP recommendations are being implemented. |
| xi. | Rehabilitation and Resettlement plant shall be implemented as per the revised R&R policy and in collaboration with the State Government in a time bound manner and report submitted to the Ministry, its Regional Office at Bhuvaneshwar and OPCB. | <ul style="list-style-type: none"> • The R&R plan is being implemented within the framework of 'Tata Steel Parivaar' concept as per the revised R & R policy of Odisha Government in consultation with the local administration. • A team having more than 40 members is planning and executing the R&R activities. About 1000 families have been satisfactorily shifted from the site. |
| xii. | The environmental clearance for the mining project and forest clearance for the forest land involved in the mining project shall be obtained from the Ministry prior to operation of the integrated Steel Plant. In case, environmental clearance for the mining proposal from State Govt/Govt. of India is not available, Ministry shall be regularly informed about the source of ore and coal. | <ul style="list-style-type: none"> • The matter is being pursued with State and Central Government. • Source of ore and coal will be intimated to all concerned when this aspect is applicable. |

Six Monthly Compliance Status (April'13 to Sep'13) of Environmental Clearance including Amendment in EC for 6.0 MTPA Integrated Steel Plant at Kalinganagar, Duburi, District-Jajpur, Odisha by M/s Tata Steel Ltd vide MoEF Letter No. EC No-J-11011/7/2006-IA.II(I) dtd. 7th Nov 2006 and 10th Oct 2012

| B. | General Conditions as per EC dated 7.11.2006 | Status as on 30.11.2013 |
|-----------|--|---|
| i. | The project authorities must strictly adhere to the stipulations made by the Orissa Pollution Control Board (OPCB) and the State Government | <ul style="list-style-type: none"> • Stipulation as per OSPCB will be adhered to during project execution and subsequent operation phases. |
| ii. | No further expansion or modification in the plant should be carried out without prior approval of the Ministry of Environment and Forests. | <ul style="list-style-type: none"> • Amendment in the Environmental Clearance was granted by MoEF on 10.10.2012 vide letter no. J-11011/7/2006-IA.II.(I). |
| iii. | 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 ₂ and NO _x are anticipated in consultation with the OPCB. Data on ambient air quality and stack emission should be regularly submitted to this Ministry including its Regional Office at Bhopal and the OPCB/CPCB once in six months. | <ul style="list-style-type: none"> • Latest AAQ data monitored in and around the site on 24 hourly basis monitored at more than four locations is: <ul style="list-style-type: none"> PM₁₀ : 34 to 59 µg/m³ PM_{2.5} : 18 to 34 µg/m³ SO₂ : 9 to 12 µg/m³ NO_x : 10 to 13 µg/m³ CO : < 0.25 mg/m³ |
| iv. | Industrial waste water shall be properly collected, treated so as to conform to the standards prescribed under GSR 422 dated 19 th May, 1993 and 31 st December, 1993 or as amended from time to time. The treated wastewater shall be utilized for plantation purpose. | <ul style="list-style-type: none"> • Processing units are envisaged to have individual treatment & recirculation plant for recovery of water. • Treated water will be recirculated back to processing or will be sent to Central Effluent Treatment Plant. • A Central ETP is envisaged to have tertiary treatment for recycle and re-use of treated water. • Treated waste water will be also be used for plantation, dust suppression & other uses. |
| v. | 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 (daytime) and 70 dBA (nighttime). | <ul style="list-style-type: none"> • Noise control measures are considered in designing and procurement of equipment & machineries. • Ambient Noise levels are measured at various locations and noise levels observed during the reporting period are <ul style="list-style-type: none"> <49.65 dBA in day time <44.07 dBA in night time |

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| | General Conditions as per EC dated 7.11.2006 | Status as on 30.11.2013 | | | | | | | | | |
|--------------------|---|--|-------------------|-----------------|-------------|--------------------|---------|----------|--------|------|----------|
| 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. | <ul style="list-style-type: none"> • Environmental protection measures proposed in the EIA and EMP report is planned and is under implementation. • Socio-economic development activities are already initiated in 28 villages surrounding the project areas. Focus area of development are: <ul style="list-style-type: none"> ○ Health ○ Drinking water ○ Women Empowerment ○ Infrastructure development. ○ Education ○ Employability ○ Sports & Culture ○ Special Project- such as Lifeline Express <p>Dedicated team is working for these activities having expertise and skills.</p> | | | | | | | | | |
| vii. | The project authorities shall utilize Rs.1,525.00 Crores earmarked for the environmental pollution control measures judiciously to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government alongwith the implementation schedule for all the conditions stipulated herein. The funds so provided shall not be diverted for any other purpose. | Funds earmarked for the environmental pollution control measures shall be used only for the said purpose and will not be diverted. | | | | | | | | | |
| viii. | The Regional Office of this Ministry at Bhopal/CPCB/OPCB will monitor the stipulated conditions. A six monthly compliance report and the monitored data along with statistical interpretation shall be submitted to them regularly. | <p>Six monthly compliance reports are being sent regularly.</p> <p>Last Report Sent on 31.05.2013.</p> | | | | | | | | | |
| 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 OPCB/Committee and may also be seen at Website of the Ministry of Environmental 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. | <p>Complied.</p> <p>Paper advertisement Details:</p> <table border="0"> <thead> <tr> <th><u>News paper</u></th> <th><u>Language</u></th> <th><u>Date</u></th> </tr> </thead> <tbody> <tr> <td>New Indian Express</td> <td>English</td> <td>13.06.06</td> </tr> <tr> <td>Sambad</td> <td>Odia</td> <td>13.06.06</td> </tr> </tbody> </table> | <u>News paper</u> | <u>Language</u> | <u>Date</u> | New Indian Express | English | 13.06.06 | Sambad | Odia | 13.06.06 |
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| Sambad | Odia | 13.06.06 | | | | | | | | | |
| | Project authorities should inform 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. | Complied. | | | | | | | | | |

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