

F. No. J-11011/695/2009-IA-II (I)  
Government of India  
Ministry of Environment and Forests  
(I.A. Division)

Paryavaran Bhawan  
CGO Complex, Lodhi Road  
New Delhi – 110 003  
E-mail: ms.industry-mef@nic.in  
Tele/fax: 011 – 2436 3973  
Dated: December 31<sup>st</sup>, 2010

To,  
M/s Maan Steel & Power Limited  
Room No. 4C.13, Elgin Road  
Kolkata- 700 200, West Bengal

Fax: 033- 22827947  
E-mail: [globalexperts@rediffmail.com](mailto:globalexperts@rediffmail.com)

Sub: Expansion of Sponge Iron Plant (57,000 TPA) into Integrated Steel Plant (0.18 MTPA) along with Captive Power Plant (24 MW; WHRB 12 MW & FBC 12 MW) and Ferro Alloy Plant (2x9 MVA) at Jamuria Industrial Estate, Ikra, P.O. Jamuria, District Burdwan in West Bengal by M/s Maan Steel & Power Limited - regarding Environmental Clearance

Sir,

This has reference to your letter no. MSPL/ENV-05/2010-11 dated 14<sup>th</sup> October, 2010 received in the Ministry on 20<sup>th</sup> October, 2010 along with a copy of EIA/EMP reports seeking environment clearance under the provisions of EIA Notification, 2006.

2. The Ministry of Environment and Forests has examined the application for the above project. It is noted that M/s Maan Steel & Power Limited have proposed for the expansion of Sponge Iron Plant (57,000 TPA) by addition of Steel melting shop and rolling mill to Integrated Steel Plant (0.18 MTPA) along with Captive Power Plant (24 MW; WHRB 12 MW & FBC 12 MW) and Ferro Alloy Plant (2x9 MVA) at Jamuria Industrial Estate, in District Burdwan in West Bengal. About 18000 TPA of Steam coal / pearl coke will be required which will be purchased from open market and also from import. Total land acquired is 40.94 acres and green belt will be developed in 13.5 acres. No R&R is involved. No national park/wildlife sanctuary/reserve forests are located within 10 km. radius of the project site. Total cost of the project is Rs. 342.30 Crores. Rs 13.70 Crores and Rs 1.19 Crores are earmarked towards capital cost and recurring cost/annum for environment pollution control measures.

3. Following are the details of the facilities to be installed and products to be manufactured:

EXISTING UNITS :				
Major Units	Capacity	Products	Production (TPA)	End Use
DRI kiln	2x95 TPD	Sponge Iron	57,000	SMS
PROPOSED EXPANSION :				
DRI KILN	4X100 TPD	Sponge Iron	1,20,000	SMS

SMS-IF-LRF/AOD -Billet Caster	4x15 T 2x30 T Matching	MS Billets	1,92,000	Rolling Mills
Rolling Mills	550 TPD	Rods/bars/light Structurals	1,80,000	Sale
CPP-WHRB +CPP-FBC	12 MW 12 MW	Power	24 MW	Internal use
Ferro Alloys	2x9 MVA	Ferro-Mn / Silico-Mn	30,000	Internal use/sale

4. To control particulate emissions electrostatic precipitator (ESP) will be provided to DRI kilns and FBC boiler. Hot fume gases for the kiln will be passed through dust settling chamber (DSC) and after burning chamber (ABC) to remove the coarse solids and burn CO and then passed through waste heat recovery boiler (WHRB) and Electrostatic precipitator (ESP) before letting out into the atmosphere through ID fan and stack. Fume extraction system with duct, gas cooler, bag house, ID fans and stack will be provided to Induction Furnace. Fugitive dust will be controlled by dust suppression and dust extraction system. Regular water sprinkling will be carried out to minimize the fugitive dust emission during transportation.

5. Total water requirement of 1,632 m<sup>3</sup>/day will be met from the River Ajay. The treated effluent will be used for dust suppression and green belt development. Domestic effluent will be treated in septic tank followed by soak pit. No effluent will be discharged outside the premises and 'Zero' discharge will be adopted. All the storm water will be collected and stored in water harvesting pond. Out of 45 MW power requirement, 24 MW will be generated captively and 21 MW will be sourced from grid. Char and coal fumes will be utilized as fuel feed in FBC power plant.

6. The solid waste generated in the form of Char and coal fines will be used in FBC boiler. Scrap will be recycled in steel melting shop. Scales from rolling mill and Iron ore fines from raw material handling system will be sold to sinter plant. Kiln dust, kiln accretion, bottom ash will be used for land filling. Fly ash will be used as per Fly Ash Notification and collected in dry form. Waste/used/spent oil and used batteries will be sold to authorized recyclers/re-processors.

7. All the Integrated Steel plants are listed at S.No. 3(a) under category 'A' of the Schedule of EIA Notification, 2006 and appraised at the Central level.

8. The proposal was considered by the Expert Appraisal Committee-1 (industry) in its 16<sup>th</sup> meeting held during 22<sup>nd</sup> - 24<sup>th</sup> November, 2010. The Committee recommended the proposal for environmental clearance subject to stipulation of specific conditions along with other environmental conditions. Public hearing is not required due to project being located in Jamuria Industrial Estate as per Section (iii), Stage (3), Para (i)(b) of EIA Notification 2006

9. Based on the information submitted by you, presentation made by you and consultant, Global Experts, Bhubaneswar, the Ministry of Environment and Forests hereby accords environmental clearance to the above project under the provisions of EIA Notification dated 14<sup>th</sup> September 2006 subject to strict compliance of the following Specific and General conditions:

**A. SPECIFIC CONDITIONS :**

- i. Efforts shall be made to reduce RSPM levels in the ambient air and a time bound action plan shall be submitted. On-line ambient air quality monitoring and continuous stack

SMS-IF-LRF/AOD -Billet Caster	4x15 T 2x30 T Matching	MS Billets	1,92,000	Rolling Mills
Rolling Mills	550 TPD	Rods/bars/light Structurals	1,80,000	Sale
CPP-WHRB +CPP-FBC	12 MW 12 MW	Power	24 MW	Internal use
Ferro Alloys	2x9 MVA	Ferro-Mn / Silico-Mn	30,000	Internal use/sale

4. To control particulate emissions electrostatic precipitator (ESP) will be provided to DRI kilns and FBC boiler. Hot fume gases for the kiln will be passed through dust settling chamber (DSC) and after burning chamber (ABC) to remove the coarse solids and burn CO and then passed through waste heat recovery boiler (WHRB) and Electrostatic precipitator (ESP) before letting out into the atmosphere through ID fan and stack. Fume extraction system with duct, gas cooler, bag house, ID fans and stack will be provided to Induction Furnace. Fugitive dust will be controlled by dust suppression and dust extraction system. Regular water sprinkling will be carried out to minimize the fugitive dust emission during transportation.

5. Total water requirement of 1,632 m<sup>3</sup>/day will be met from the River Ajay. The treated effluent will be used for dust suppression and green belt development. Domestic effluent will be treated in septic tank followed by soak pit. No effluent will be discharged outside the premises and 'Zero' discharge will be adopted. All the storm water will be collected and stored in water harvesting pond. Out of 45 MW power requirement, 24 MW will be generated captively and 21 MW will be sourced from grid. Char and coal fumes will be utilized as fuel feed in FBC power plant.

6. The solid waste generated in the form of Char and coal fines will be used in FBC boiler. Scrap will be recycled in steel melting shop. Scales from rolling mill and Iron ore fines from raw material handling system will be sold to sinter plant. Kiln dust, kiln accretion, bottom ash will be used for land filling. Fly ash will be used as per Fly Ash Notification and collected in dry form. Waste/used/spent oil and used batteries will be sold to authorized recyclers/re-processors.

7. All the Integrated Steel plants are listed at S.No. 3(a) under category 'A' of the Schedule of EIA Notification, 2006 and appraised at the Central level.

8. The proposal was considered by the Expert Appraisal Committee-1 (industry) in its 16<sup>th</sup> meeting held during 22<sup>nd</sup> - 24<sup>th</sup> November, 2010. The Committee recommended the proposal for environmental clearance subject to stipulation of specific conditions along with other environmental conditions. Public hearing is not required due to project being located in Jamuria Industrial Estate as per Section (iii), Stage (3), Para (i)(b) of EIA Notification 2006

9. Based on the information submitted by you, presentation made by you and consultant, Global Experts, Bhubaneswar, the Ministry of Environment and Forests hereby accords environmental clearance to the above project under the provisions of EIA Notification dated 14<sup>th</sup> September 2006 subject to strict compliance of the following Specific and General conditions:

#### A. SPECIFIC CONDITIONS :

- i. Efforts shall be made to reduce RSPM levels in the ambient air and a time bound action plan shall be submitted. On-line ambient air quality monitoring and continuous stack

monitoring facilities for all the stacks shall be provided and sufficient air pollution control devices viz. Electrostatic precipitator (ESP), gas cleaning plant, venturi scrubber, bag filters etc. shall be provided to keep the emission levels below  $50 \text{ mg/Nm}^3$  by installing energy efficient technology.

- ii. As proposed, Electrostatic precipitator (ESP) shall be provided to control the particulate emissions from the FBC and WHRB within  $50 \text{ mg/Nm}^3$ . Fume extraction system shall be provided to the steel melting shop to extract the fumes. Bag filters to control the dust emissions from the induction furnaces and pulse jet bag filters at coal and iron crushing area, stock house and cooler discharge area.
- iii. The National Ambient Air Quality Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16<sup>th</sup> November, 2009 shall be followed.
- 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. New standards for the sponge iron plant issued by the Ministry vide G.S.R. 414(E) dated 30<sup>th</sup> May, 2008 should be followed.
- v. Hot gases from DRI kiln shall be passed through Dust Settling Chamber (DSC) to remove coarse solids and After Burning Chamber (ABC) to burn CO completely and used in waste heat recovery boiler (WHRB). The gas then shall be cleaned in ESP before leaving out into the atmosphere through ID fan and stack.
- vi. Total water requirement shall not exceed  $1,632 \text{ m}^3/\text{day}$ . Permission from the competent authority shall be obtained to draw the water. Efforts shall further be made to use maximum water from the rain water harvesting sources. Use of air cooled condensers shall be explored and closed circuit cooling system shall be provided to reduce water consumption and water requirement shall be modified accordingly. All the effluent should be treated and used for ash handling, dust suppression and green belt development. No effluent shall be discharged and 'zero' discharge shall be adopted. Sanitary sewage should be treated in septic tank followed by soak pit.
- vii. Efforts shall be made to make use of rain water harvested. If needed, capacity of the reservoir should be enhanced to meet the maximum water requirement. Only balance water requirement shall be met from other sources.
- viii. Regular monitoring of influent and effluent surface, sub-surface and ground water (including chromite) should be ensured and treated wastewater should meet the norms prescribed by the State Pollution Control Board or described under the E (P) Act whichever are more stringent. Leachate study for the effluent generated and analysis shall also be regularly carried out and report submitted to the Ministry's Regional Office at Bhubaneswar, West Bengal Pollution Control Board (WBPCB) and CPCB.
- ix. The water consumption shall not exceed as per the standard prescribed for the steel plants.
- x. All the coal fines, char from DRI plant shall be utilized in AFBC boiler of power plant and no char shall be used for briquette making or disposed off anywhere else. AFBC boiler shall be installed simultaneously along with the DRI plant to ensure full utilization of char from the beginning. Scrap shall be used in steel melting shop (SMS) and SMS slag and

kiln accretions shall be properly utilized. All the other solid waste including broken refractory mass shall be properly disposed off in environment-friendly manner.

- xi. Proper utilization of fly ash shall be ensured as per Fly Ash Notification, 1999 and its subsequent amendments.
- xii. Vehicular pollution due to transportation of raw material and finished products shall be controlled. Proper arrangements shall also be made to control dust emissions during loading and unloading of the raw material and finished product.
- xiii. All internal roads shall be black topped. The roads shall be regularly cleaned with mechanical sweepers. A 3-tier avenue plantation using native species shall be developed along the roads. Facilities for parking of trucks carrying raw coal from the linked coalmines shall be created within the Unit.
- xiv. Proper handling, storage, utilization and disposal of all the solid waste shall be ensured and regular report regarding toxic metal content in the waste material and its composition, end use of solid/hazardous waste should be submitted to the Ministry's Regional Office at Bhubaneswar, WBPCB and CPCB.
- xv. A time bound action plan shall be submitted to reduce solid waste, its proper utilization and disposal.
- xvi. Risk and Disaster Management Plan along with the mitigation measures shall be prepared and a copy submitted to the Ministry's Regional Office at Bhubaneswar, WBPCB and CPCB within 3 months of issue of environment clearance letter.
- xvii. As proposed, green belt shall be developed in 33 % of plant area as per the CPCB guidelines in consultation with the DFO.
- xviii. All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Steel Plants should be implemented.
- xix. At least 5 % of the total cost of the project should be earmarked 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 Bhubaneswar. Implementation of such program should be ensured accordingly in a time bound manner.
- xx. The company shall provide housing for construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.

**B. GENERAL CONDITIONS:**

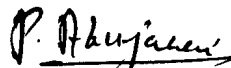
- i. The project authorities must strictly adhere to the stipulations made by the West Bengal State Pollution Control Board and the State Government.
- ii. No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment and Forests.
- iii. 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 State Board may specify more stringent standards for the relevant parameters keeping in view the nature of the industry and its size and location.

- iv. At least four ambient air quality monitoring stations should be established in the downward direction as well as where maximum ground level concentration of PM<sub>10</sub>, SO<sub>2</sub> and NO<sub>x</sub> are anticipated in consultation with the SPCB. Data on ambient air quality and stack emission shall be regularly submitted to this Ministry including its Regional Office at Bhubaneswar and the SPCB/CPCB once in six months.
- v. Industrial wastewater shall be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19<sup>th</sup> May, 1993 and 31<sup>st</sup> December, 1993 or as amended from time to time. The treated wastewater shall be utilized for plantation purpose.
- vi. 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).
- vii. Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- viii. 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.
- ix. 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.
- x. Requisite amount shall be earmarked towards capital cost and recurring cost/annum for environment pollution control measures to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government. An implementation schedule for implementing all the conditions stipulated herein shall be submitted to the Regional Office of the Ministry at Bhubaneswar. The funds so provided shall not be diverted for any other purpose.
- xi. A copy of clearance letter shall be sent by the proponent to concerned Panchayat, Zila Parishad/Municipal Corporation, Urban Local Body and the local NGO, if any, from whom suggestions/representations, if any, were received while processing the proposal. The clearance letter shall also be put on the web site of the company by the proponent.
- xii. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of the MOEF at Bhubaneswar. The respective Zonal Office of

CPCB and the SPCB. The criteria pollutant levels namely; PM10, SO<sub>2</sub>, NO<sub>x</sub> (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.

- xiii. The project proponent shall also submit six monthly reports on the status of the compliance of the stipulated environmental conditions including results of monitored data (both in hard copies as well as by e-mail) to the Regional Office of MOEF, the respective Zonal Office of CPCB and the SPCB. The Regional Office of this Ministry at Bhubaneswar / CPCB / SPCB shall monitor the stipulated conditions.
  - xiv. The environmental statement for each financial year ending 31<sup>st</sup> 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 alongwith the status of compliance of environmental conditions and shall also be sent to the respective Regional Office of the MOEF at Bhubaneswar by e-mail.
  - xv. 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 SPCB 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 should be forwarded to the Regional office at Bhubaneswar.
  - xvi. 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.
10. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
11. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
12. The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous Wastes (Management, Handling and Transboundary Movement) Rules, 2008 and the Public (Insurance) Liability Act, 1991 along with their amendments and rules.

  
(Dr. P.L. Ahujai)  
Scientist -F