

F. No. J-11011/258/2012- IA II (I)
 Government of India
 Ministry of Environment and Forests
 (I.A. Division)

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 Dated 1st March, 2013

To,

Shri Pankaj Jain
 M/s BRGD Ingot Pvt. Ltd.
 4, D L Khan Road, Block-C, Flat No. 201
 2nd Floor, PS Kalighat, PO Bhowanipur, Kolkata-700025

E-mail: brgd2010@gmail.com ; Fax No. : 033-24541122

Subject: Expansion of Steel Melting Shop Unit in the existing Steel Plant at Village Palitpur, District Burdwan, West Bengal by M/s BRGD Ingot Pvt. Ltd. - regarding TORs.

Ref. : Your letter no. nil dated 29th June, 2012.

Sir,

Kindly refer to your letter no. nil dated 29th June, 2012 alongwith project documents including Form-I, Pre-feasibility Report and draft 'Terms of Reference' as per the EIA Notification, 2006. It is noted that proposal is for the expansion of Steel Melting Shop Unit in the existing Steel Plant at Village Palitpur, District Burdwan, West Bengal by M/s BRGD Ingot Pvt. Ltd

20 Draft Terms of Reference (TOR) have been discussed and finalized during the 4th **Reconstituted Expert Appraisal Committee (Industry) held during 8th - 9th January, 2013** for preparation of EIA/EEMP report. Following are the 'TORs':

1. Executive summary of the project
2. Photographs of the proposed plant area.
3. A line diagram/flow sheet for the process and EMP
4. Coal linkage documents
5. A site location map on Indian map of 1:10, 00,000 scale followed by 1:50,000/1:25,000 scale on an A3/A2 sheet with at least next 10 Kms of terrains i.e. circle of 10 kms and further 10 kms on A3/A2 sheets with proper longitude/latitude/heights with min. 100/200 m. contours should be included. 3-D view i.e. DEM (Digital Elevation Model) for the area in 10 km radius from the proposal site. A photograph of the site should also be included.
6. Present land use should be prepared based on satellite imagery. High-resolution satellite image data having 1m-5m spatial resolution like quickbird, Ikonos, IRS P-6 pan sharpened etc. for the 10 Km radius area from proposed site. The same should be used for land used/land-cover mapping of the area

7. Topography of the area should be given clearly indicating whether the site requires any filling. If so, details of filling, quantity of fill material required, its source, transportation etc. should be given.
8. Location of national parks/wildlife sanctuary/reserve forests within 10 km. radius should specifically be mentioned. A map showing land use/land cover, reserved forests, wildlife sanctuaries, national parks, tiger reserve etc in 10 km of the project site.
9. Copy of application submitted for clearance under the Wildlife (Protection) Act, 1972, from the Standing Committee of the National Board for Wildlife as the project is located within 10 Km distance of **Ramnabagan Wildlife Sanctuary**.
10. A certified report of the status of compliance of the conditions stipulated in the environmental clearance and Consent to Operate for the ongoing / existing operation of the project by the Regional Office of the Ministry of Environment and Forests and SPCB.
11. Project site layout plan to scale using AutoCAD showing raw materials, fly ash and other storage plans, bore well or water storage, aquifers (within 1 km.) dumping, waste disposal, green areas, water bodies, rivers/drainage passing through the project site should be included.
12. Coordinates of the plant site as well as ash pond with topo sheet co-ordinates of the plant site as well as ash pond with topo sheet should also be included.
13. Details and classification of total land (identified and acquired) should be included.
14. Rehabilitation & Resettlement (R & R) should be as per policy of the State Govt. and a detailed action plan should be included.
15. Permission from the tribals, if tribal land has also to be acquired along with details of the compensation plan.
16. Permission and approval for the use of forest land, if any, and recommendations of the State Forest Department.
17. A list of industries containing name and type in 25 km radius should be incorporated.
18. Residential colony should be located in upwind direction.
19. List of raw material required, analysis of all the raw materials and source along with mode of transportation should be included. All the trucks for raw material and finished product transportation must be "Environmentally Compliant".
20. Petrological and Chemical analysis and other chemical properties of raw materials used (with GPS location of source of raw material) i.e. ores, minerals, rock, soil, coal, iron, dolomite quartz etc. using high definition and precision instruments mentioning their detection range and methodology such Digital Analyzers, AAS with Graphite furnace, ICPMS, MICRO-WDXRF, EPMA, XRD, Nano studies or at least as per ISO-10500 and WHO norms. These analysis should include trace element and metal studies like Cr (VI) Ni, Fe, As, Pb, Zn, Hg, Se, S etc. Presence of radioactive elements (U, Th etc.), if applicable, should also be included.
21. Petrography, grain size analysis and Major element analysis of raw material and soil from project site and raw material should be done on the same parameters along with analysis for SiO_2 , Al_2O_3 , MgO , MnO , K_2O , CaO , FeO , Fe_2O_3 , P_2O_5 , H_2O , CO_2 .
22. If the rocks, ores, raw material has trace elements their petrography, ore microscopy, XRD, elemental mapping EPMA, XRF is required to quantify the amount present in it and hence future risk involved while using it and management plan.
23. Action plan for excavation and muck disposal during construction phase.
24. Studies for fly ash, muck, slurry, sludge material disposal and solid waste generated, if the raw materials used has trace elements and a management plan should also be included.
25. Manufacturing process details for all the plants should be included.

- 26 Mass balance for the raw material and products should be included
- 27 Energy balance data for all the components of steel plant including proposed power plant should be incorporated.
- 28 Site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall should be collected.
- 29 Data generated in the last three years i.e. air, water, raw material properties and analysis (major, trace and heavy metals), ground water table, seismic history and hazard history etc.
- 30 One season site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall and AAQ data (except monsoon) should be collected. The monitoring stations should take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests.
- 31 Ambient air quality at 8 locations within the study area of 10 km., aerial coverage from project site with one AAQMS in downwind direction should be carried out
- 32 The suspended particulate matter present in the ambient air must be analyzed for the presence of poly-aromatic hydrocarbons (PAH), i.e. Benzene soluble fraction. Chemical characterization of RSPM and incorporating of RSPM data
- 33 Determination of atmospheric inversion level at the project site and assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features.
- 34 Air quality modeling for steel plant for specific pollutants needs to be done. APCS for the control of emissions from the kiln and WHRB should also be included to control emissions within 50 mg/Nm^3 .
- 35 Action plan to follow National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 should be included.
- 36 Ambient air quality monitoring modeling along with cumulative impact should be included for the day (24 hrs) for maximum GLC along with following :
- i) Emissions (g/second) with and without the air pollution control measures
 - ii) Meteorological inputs (wind speed, m/s), wind direction, ambient air temperature, cloud cover, relative humidity & mixing height using SODAR) on hourly basis
 - iii) Model input options for terrain, plume rise, deposition etc.
 - iv) Print-out of model input and output on hourly and daily average basis
 - v) A graph of daily averaged concentration (MGLC scenario) with downwind distance at every 500 m interval covering the exact location of GLC.
 - vi) Details of air pollution control methods used with percentage efficiency that are used for emission rate estimation with respect to each pollutant
 - vii) Applicable air quality standards as per LULC covered in the study area and % contribution of the proposed plant to the applicable Air quality standard. In case of expansion project, the contribution should be inclusive of both existing and expanded capacity.
 - viii) No. I-VII are to be repeated for fugitive emissions and any other source type relevant and used for Industry
 - ix) Graphs of monthly average daily concentration with down-wind distance
 - x) Specify when and where the ambient air quality standards are exceeded either due to the proposed plant alone or when the plant contribution is added to the background air quality.
 - xi) Fugitive dust protection or dust reduction technology for workers within 30 m of the plant active areas.
- 37 A plan for the utilization of waste/fuel gases in the WHRB for generating power has to be set out.

38. Impact of the transport of the raw materials and end products on the surrounding environment should be assessed and provided. The alternate method of raw material and end product transportation should also be studied and details included.
39. One season data for gaseous emissions other than monsoon season is necessary.
40. An action plan to control and monitor secondary fugitive emissions from all the sources as per the latest permissible limits issued by the Ministry vide G.S.R. 414(E) dated 30th May, 2008.
41. Presence of aquifer(s) within 1 km of the project boundaries and management plan for recharging the aquifer should be included.
42. Source of surface/ground water level, site (GPS), cation, anion (Ion Chromatograph), metal trace element (as above) chemical analysis for water to be used. If surface water is used from river, rainfall, discharge rate, quantity, drainage and distance from project site should also be included. Information regarding surface hydrology and water regime should be included.
43. Ground water analysis with bore well data, litho-logs, drawdown and recovery tests to quantify the area and volume of aquifer and its management.
44. Ground water modeling showing the pathways of the pollutants should be included.
45. Column leachate study for all types of stockpiles or waste disposal sites at 20°C-50°C should be conducted and included.
46. Action plan for rainwater harvesting measures at plant site should be submitted to harvest rainwater from the roof tops and storm water drains to recharge the ground water and also to use for the various activities at the project site to conserve fresh water and reduce the water requirement from other sources. Rain water harvesting and groundwater recharge structures may also be constructed outside the plant premises in consultation with local Gram Panchayat and Village Heads to augment the ground water level. Incorporation of water harvesting plan for the project is necessary, if source of water is bore well.
47. Permission for the drawl of water from the State Irrigation Department or concerned authority and water balance data including quantity of effluent generated, recycled and reused and discharged is to be provided. Methods adopted/to be adopted for the water conservation should be included.
48. A note on the impact of drawl of water on the nearby River during lean season.
49. Surface water quality of nearby River (50 m upstream and downstream) and other surface drains at eight locations must be ascertained.
50. If the site is within 10 km radius of any major river, Flood Hazard Zonation Mapping is required at 1:5000 to 1:10,000 scale indicating the peak and lean River discharge as well as flood occurrence frequency.
51. A note on treatment of wastewater from different plants, recycle and reuse for different purposes should be included.
52. Provision of traps and treatment plants are to be made, if water is getting mixed with oil, grease and cleaning agents.
53. If the water is mixed with solid particulates, proposal for sediment pond before further transport should be included. The sediment pond capacity should be 100 times the transport capacity.
54. Wastewater characteristics (heavy metals, anions and cations, trace metals, PAH) from any other source should be included.
55. The pathways for pollution via seepages, evaporation, residual remains are to be studied for surface water (drainage, rivers, ponds, and lakes), sub-surface and ground water with a monitoring and management plans.

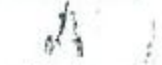
- 56 Ground water monitoring minimum at 8 locations and near solid waste dump zone. Geological features and Geo-hydrological status of the study area are essential as also. Ecological status (Terrestrial and Aquatic) is vital.
- 57 Action plan for solid/hazardous waste generation, storage, utilization and disposal particularly slag from all the sources, char and fly ash. Copies of MOU regarding utilization of ash should also be included.
- 58 Details of evacuation of ash, details regarding ash pond impermeability and whether it would be lined, if so details of the lining etc. need to be addressed.
- 59 A note on the treatment, storage and disposal of all type of slag should be included. Identification and details of land to be used for SMS slag disposal should be included. Details of secured land fill as per CPCB guidelines should also be included.
- 60 End use of solid waste and its composition should be covered. Toxic metal content in the waste material and its composition should also be incorporated particularly of slag.
- 61 All stock piles will have to be on top of a stable liner to avoid leaching of materials to ground water.
- 62 Action plan for the green belt development plan in 33 % area i.e. land with not less than 1,500 trees per ha. Giving details of species, width of plantation, planning schedule etc. should be included. The green belt should be around the project boundary and a scheme for greening, of the travelling roads should also be incorporated. All rooftops/terraces should have some green cover.
- 63 Detailed description of the flora and fauna (terrestrial and aquatic) should be given with special reference to rare, endemic and endangered species.
- 64 Disaster Management Plan including risk assessment and damage control needs to be addressed and included.
- 65 Occupational health:
- a) Details of existing Occupational & Safety Hazards. What are the exposure levels of above mentioned hazards and whether they are within Permissible Exposure level (PEL). If these are not within PEL, what measures the company has adopted to keep them within PEL so that health of the workers can be preserved,
 - b) Details of exposure specific health status evaluation of worker. If the workers' health is being evaluated by pre designed format, chest x rays, Audiometry, Spirometry, Vision testing (Far & Near vision, colour vision and any other ocular defect) ECG, during pre placement and periodical examinations give the details of the same. Details regarding last month analyzed data of abovementioned parameters as per age, sex, duration of exposure and department wise.
 - c) Annual report of health status of workers with special reference to Occupational Health and Safety.
 - d) Plan and fund allocation to ensure the occupational health & safety of all contracts and sub-contract workers.
 - e) Action plan for the implementation of OHS standards as per OSHAS/USEPA.
- 66 Details regarding infrastructure facilities such as sanitation, fuel, rest room etc. to be provided to the labour force during construction as well as to the casual workers including truck drivers during operation phase.
- 67 Impact of the project on local infrastructure of the area such as road networks and whether any additional infrastructure needs to be constructed and the agency responsible for the same with time frame.
- 68 Environment Management Plan (EMP) to mitigate the adverse impacts due to the project along with item wise cost of its implementation. Total capital cost and recurring cost/annum for environmental pollution control measures should be included.
- 69 Plan for the implementation of the recommendations made for the steel plants in the CREP guidelines must be prepared.

70. At least 5 % of the total cost of the project should be earmarked towards the Enterprise Social Commitment based on public hearing issues and item-wise details along with time bound action plan should be included. Socio-economic development activities need to be elaborated upon.
71. Public hearing issues raised and commitments made by the project proponent on the same should be included separately in EIA/EMP Report in the form of tabular chart.
72. A note on identification and implementation of Carbon Credit project should be included.
73. Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof should also be included.


3.0 These 'TORs' should be considered for the preparation of EIA / EMP report for the expansion of Steel Melting Shop Unit in the existing Steel Plant at Village Palitpur, District Burdwan, West Bengal in addition to all the relevant information as per the 'General Structure of EIA' given in Appendix III and IIIA in the EIA Notification, 2006. The EIA/EMP as per TORs should be submitted to the Chairman, West Bengal Pollution Control Board, (WBPCB) for public consultation. The WBPCB shall conduct the public hearing/public consultation as per the provisions of EIA notification, 2006.

4.0 You are requested to kindly submit the final EIA/EMP prepared as per TORs and incorporating all the issues raised during Public Hearing / Public Consultation to the Ministry for considering the proposal for environmental clearance *within 2 years as per the MoEF O.M. No. J-11013/41/2006-IA.II (I) dated 22nd March, 2010*.

5.0 The consultants involved in the preparation of EIA/EMP report after accreditation with Quality Council of India / National Accreditation Board of Education and Training (QCI/NABET) would need to include a certificate in this regard in the EIA/EMP reports prepared by them and data provided by other Organization(s)/Laboratories including their status of approvals etc.


(A.N. Singh)
Dy. Director

Copy to : The Chairman West Bengal Pollution Control Board, Block LA, Building No. 10 A, Sector-III, Salt Lake City, Kolkata - 700 091, West Bengal (Fax No. : 033-2335-6730, 23352813)


(A.N. Singh)
Dy. Director