

MINUTES OF THE MEETING OF STATE LEVEL EXPERT APPRAISAL COMMITTEE, ORISSA HELD ON 20th & 21st OCTOBER, 2010

The meeting of State Level Expert Appraisal Committee, Orissa was held on 20th and 21st October, 2010 in the Conference Hall of Orissa State Pollution Control Board, Bhubaneswar at 11.00 AM. Dr. Gagan Bihari Nityananda Chainy, Chairman, SEAC Orissa chaired the meeting. The following members were present in the meeting.

- | | | | |
|----|-------------------------------------|---|----------|
| 1. | Dr. Gagan Bihari Nityananda Chainy | - | Chairman |
| 2. | Professor (Dr.) Swoyam Prakash Rout | - | Member |
| 3. | Dr. Harekrishna Nayak, | - | Member |
| 4. | Dr. Moheshwar Patra, | - | Member |
| 5. | Prof. Kumar Das | - | Member |
| 6. | Dr. R.C. Mohanty, | - | Member |

1. The minutes of previous meeting was confirmed by the members.
2. The committee went through the letter of Chairman, SEIAA vide No 437 dt 4.10.10 regarding adoption of guidelines for preparation of EIA report. It was decided to write to the Chairman, SEIAA that the SEAC, Orissa is adopting guidelines of MoEF, Govt. of India while appraising any proposal for environmental clearance.
3. The next meeting of the committee will be held on 8th November, 10 for finalization of the minutes of the meeting held on 20th & 21st October, 10, consideration of old proposals and screening of new proposals other than irrigation projects.
4. The committee observed that a number of irrigation project proposals had been received. The committee decided to hold the meeting on 9th - 10th, 19th - 20th and 24th to 26th November, 2010 for consideration of irrigation projects.

The agenda-wise proceedings and recommendations of the committee are detailed below:

ITEM NO. 1 : CONSIDERATION OF OLD PROPOSALS :

i) FINAL APPRAISAL FOR EC FOR 500 BEDDED HOSPITAL & MEDICAL COLLEGE OF EMPLOYEES STATE INSURANCE CORPORATION, AT MOUZA-JAGANNATH PRASAD, CHANDAKA-43, BHUBANESWAR

The proposal is for a 500 bedded Hospital & Medical College of Employees State Insurance Corporation, at Mouza-Jagannath Prasad, Chandaka-43, Bhubaneswar. Total plot area is 101605.23 sqm. and built up area – 149844.28 sqm.. The total makeup water requirement is **477** KLD. The water requirement will be met from PHED supply. Around 440 KLD of waste water will be generated which will be treated in a Sewage Treatment Plant (STP). Treated water will be re-used for dual flushing, green belt and landscaping. Total solid waste generation will be 1.12 TPD and biomedical waste generation will be 0.5 TPD . The power requirement is **8600 KW**. Bhubaneswar Development Authority has approved the building plan. . **The representative of the consultant of Global Experts C-23, BJB Nagar, Bhubaneswar – 751 014** made the presentation on the proposal in the SEAC meeting held on 19th & 20th July, 2010. The committee decided to consider environmental clearance for the proposal after getting certain information/document from the project proponent. The project proponent furnished the required information/document.

Based on the information/document furnished, the SEAC recommended for grant of environmental clearance in favour of the project for a period of 5 (five) years with the following stipulated conditions.

I. GENERAL CONDITIONS

- i) The applicant (Project proponents) will take necessary measures for prevention, control and mitigation of Air Pollution, Water Pollution, Noise Pollution and Land Pollution including solid waste and bio-medical waste management as mentioned by them in Form-1, Form-1A, and Environment Management Plan (EMP) in compliance with the prescribed statutory norms and standards.
- ii) The applicant will take statutory clearance/approval/permissions from the concerned authorities in respect of the project as and when required.

- iii) The applicant will submit half-yearly compliance report for post-environmental clearance monitoring in respect of the stipulated terms and conditions in the Environmental Clearance to the State Environmental Impact Assessment Authority (SEIAA), Orissa, on 1st June and 1st December of each calendar year.
- iv) The project proponent shall obtain Periodic Occupancy Renewal Certificate from competent authority at an interval of 3 to 5 years as per the provisions of National Building Code(NBC) 2005.
- v) The applicant will adopt the prescribed norms, specifications and standards as provided in the National Building Code of India, 2005, specially relating to :
 - a) Fire protection and life safety of occupants of the buildings.
 - b) Safety of personnel during construction, operation and demolition of buildings.
 - c) Day lighting and natural ventilation of buildings.
 - d) Safety from electrical fire, shock and lightening of the buildings.
 - e) Air-conditioning, heating and mechanical ventilation of the buildings
 - f) Acoustics and noise control of the buildings.
 - g) Maintenance and functioning with emissions from generators supplying power to common space / residential in case of power failure along with fuel handling /storage.
 - h) Installation of lifts and escalators in the buildings.
 - i) Water supply, drainage and sanitation including solid waste management.
 - j) Landscaping of surrounding areas of the buildings.

II. SPECIAL CONDITIONS

A. CONSTRUCTION PHASE.

- (i) No ground water shall be extracted for the project work at any stage during construction phase.
- (ii) Provision shall be made for the housing of construction laborers 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.
- (iii) A First-Aid Room will be provided in the project site both during construction and operation of the project.

- (iv) All the top soil excavated during construction activities should be stored separately for use in land filling, horticulture/landscape development within the project site.
- (v) Disposal of muck during construction phase should not create any adverse effect on the neighboring communities and will be disposed off taking the necessary precautions for general safety and health aspects of people only in approved sites with the approval of competent authority.
- (vi) Soil and ground water samples will be tested to ascertain that there is no threat to ground water quality by leaching of heavy metals and other toxic contaminants.
- (vii) Construction spoils, including bituminous material and other hazardous materials should not be allowed to contaminate watercourses, ground water and dump sites by following safe dumping / disposal practice as per statutory rules and norms with necessary approval of the Orissa Pollution Control Board.
- (viii) The diesel generator sets to be used during construction phase shall be low sulfur diesel type and should conform to Environment (Protection) Rules 1986 prescribed for air and noise emission standards.
- (ix) The diesel required for operating DG sets shall be stored in underground tanks and, if required, clearance from the Chief Controller of Explosives shall be taken.
- (x) Vehicles used for bringing construction materials to the site should be in good condition and should have a pollution check certificate and conform to statutory air and noise emission standards and should be operated only during non-peak hours of the day.
- (xi) Ambient noise levels should conform to residential standards both during day and night. Incremental pollution loads on the ambient air and noise quality should be closely monitored during construction phase. Adequate measures should be taken to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB/OPCB.
- (xii) Fly ash bricks should be used as building material in the construction as per the provisions of Fly Ash Notification of September, 1999 and as amended thereafter.
- (xiii) Ready mixed concrete would be used in building construction.
- (xiv) Storm water control and its re-use should be as per CGWB and BIS standards for these applications.

- (xv) Water demand during construction should be optimized by adopting best practices without compromising quality.
- (xvi) Separation of grey and black water supplies and collection should be done by the use of dual plumbing line. Grey and black water should be treated separately before recycling/ reuse.
- (xvii) Fixtures for showers, toilet flushing and drinking water should be of low flow type and restricted to requirements by use of aerators, avoiding wastage pressure reducing devices or sensor based controls.
- (xviii) Use of glass may be maximum upto 40% of total outer wall area to reduce the energy consumption and load on air-conditioning. If necessary, high quality double glass with special reflective coating may be used in the windows.
- (xix) Roof should meet the prescribed requirement as per Energy Conservation Building Code by using appropriate thermal insulation material.
- (xx) Opaque wall should meet prescriptive requirements as per Energy Conservation Building Code.
- (xxi) The approval of the competent authority shall be obtained for structural safety of the buildings due to earthquake and cyclone, adequacy of fire fighting equipments etc. as per National Building Code of India, 2005 including protection measures from lightening etc.
- (xxii) Regular supervision of the above and other measures for monitoring should be in place all through the construction phase to avoid disturbances and pollution to the surroundings.

B. OPERATION PHASE.

- i) The installation of the Sewage Treatment Plant (STP) should be certified by a competent agency and a report in this regard should be submitted to the SEIAA, Orissa before the project is commissioned for operation. Treated effluent from STP shall be recycled/reused to the maximum extent possible. Treatment of 100% grey water by decentralized treatment should be done. Discharge of unused treated effluent shall conform to the norms and standards of the Orissa State Pollution Control Board. Necessary measures should be taken to mitigate the odour problem from STP.
- ii) The STP sludge should not be dried nor incinerated within the project site and should be disposed off as per the norms of SPCB, Orissa.
- iii) The project proponent will ensure that under no circumstances, the environment is polluted due to non-functioning / under performance of

sewerage disposal system of the project. To achieve this, a stand-by STP with similar capacity should be installed to be put into service during the maintenance /over hauling of the original STP,

- iv) The solid waste generated should be properly collected and segregated. Wet garbage should be composted and dry / inert solid waste should be disposed off to the approved sites for land filling after recovering recyclable material. Necessary approval / permission may be obtained from the concerned authorities
- v) The Bio-medical waste generated shall be collected and disposed off as per the provisions of the BMW(Management &Handling) Rules ,1998 and as amended thereafter.
- vi) The proponent shall furnish detailed specification and design parameters of proposed incinerator within three months from the date of issue of EC.
- vii) Diesel power generating sets proposed as source of back-up power for lifts elevators and common area illumination during operation phase should be of enclosed type and conform to Environment Protection (EP) rules 1986. The height of the stack of DG sets should be equal to the height needed for the combined capacity of all proposed DG sets put together. Low sulfur diesel should be used. The location of the DG sets may be decided in consultation with Orissa State Pollution Control Board. Care may be taken to avoid disposal of smoke /pollutants from DG sets in the residential area.
- viii) Noise should be controlled to ensure that it does not exceed the prescribed standards. During night time, the noise levels measured at the boundary of the sites shall be restricted to the permissible levels to comply with the prevalent regulations.
- ix) Green-belt & avenue Plantation of trees shall be done as per approved layout plan using native tree species/plants improving greenery & keeping in view aesthetics considerations in the whole campus .
- x) Rain water harvesting for roof run- off and surface run- off, as plan submitted should be implemented. Before recharging the run off, pre-treatment must be done to remove suspended matter, oil, grease and other soluble components as per norms. The bore-well for rainwater recharging should be kept at least 5 mts. above the highest ground water table. The technology may preferably be adopted from a commercial firm with performance guarantee.
- xi) Weep holes in the compound walls shall be provided to ensure natural drainage of excessive rain water in the project area during the monsoon period after the harvesting operations.

- xii) The ground water level and its quality should be monitored regularly in consultation with Central / State Ground Water Authority.
- xiii) Traffic congestion near the entry and exit points from the roads adjoining the proposed project site must be avoided . Traffic congestion shall be avoided inside the project site. The area ear marked for parking shall not be used for any other purpose.
- xiv) A Report on the energy conservation measures confirming to energy conservation norms finalized by the Bureau of Energy Efficiency should be prepared incorporating details about building materials & technology, R & U Factors etc and submitted to the SEIAA, Orissa in three months time before operation/ habitation.
- xv) Provisions of solar hot water storage / supplies at the roof top may be made as per statutory norms of CPCB/MoEF/SPCB, Orissa.
- xvi) Energy conservation measures like installation of CFLs/TFLs for lighting the areas outside the building should be integral part of the project design and should be in place before project commissioning. Used CFLs and TFLs should be properly collected and disposed off/sent for recycling as per the prevailing guidelines/ rules of the regulatory authority to avoid toxic contamination. Use of solar panels may be adopted to the maximum extent possible, especially for street lights.
- xvii) The building blocks should have adequate distance between them to allow movement of fresh air and passage of natural light, air and ventilation.
- xviii) The funds earmarked for the environment protection measures shall be judiciously utilized. Under no circumstances this funds shall be diverted for other purposes like Annual allocation and maintenance / monitoring etc. and expenditure for this fund should be reported to the SEIAA, Orissa.
- xix) The need of the local people should be appropriately addressed in the CSR activities to be undertaken by the project proponent in the area. An action plan in this regard should be prepared and submitted to SEIAA, Orissa.
- xx) The above mentioned stipulated conditions shall be complied in time-bound manner. Failure to comply with any of the conditions mentioned above may result in cancellation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.

ii) **PROPOSAL OF NUAGAON IRON & MANGANESE MINES TO INCREASE IRON ORE PRODUCTION UPTO 4,00,000 TPA, MANGANESE ORE PRODUCTION UPTO 25,000 TPA WITH SCREENING PLANT 350 TPH AT – NUAGAON, DIST – SUNDERGARH.**

The proposal is for production of Iron ore upto 4,00,000 TPA, Manganese Ore production upto 25,000 TPA with screening plant 350 TPH. The mine lease area is 29.257 ha is predominantly hilly (23.815ha) devoid of vegetation. There is no forest land in mining lease area. Mine working will be opencast semi-mechanized involving drilling and blasting. Water requirement is 100 KLD and source will be ground water and surface water . The iron ore pit going to the depth of 15m from the top. It is proposed to go upto 22m. The drainage is towards Karo nala flowing in the NE at about 100m. There are about 26 mines located in the area.. The mining plan for the proposed production capacity for the year 2009-10 to 2013-14 is approved by IBM vide letter dated 2.03.2010. The life of the mine will be 9 years for iron ore and 28 years for manganese ore. Thus over all life of the mine will be 28 years. The TOR has been duly issued by SEAC to the project proponent vide letter No. **71 dt. 11.9.09**. The public hearing was conducted on 06.05.2010. Representative of M/s. Geomin Consultants made a presentation for the EC for production enhancement to 4,00,000 TPA iron ore and 25,000 TPA manganese ore along with a screening facility of 350 TPH in the SEAC meeting held on 19th & 20th July, 2010. The committee decided to consider environmental clearance for the proposal after getting certain information/document from the project proponent. The project proponent furnished the desired information/document.

Based on the information/document furnished, the SEAC recommended for grant of environmental clearance in favour of the project for a period of 5 (five) years with the following stipulated conditions.

- i) The applicant (Project proponent) will take necessary measures for prevention, control and mitigation of Air Pollution, Water Pollution, Noise Pollution and Land Pollution including solid waste management as mentioned by him in Form-1, Final EIA reports and Environment Management Plan (EMP) in compliance with the prescribed statutory norms and standards.

- ii) The applicant will take necessary steps for socio-economic development of the people of the area on need based assessment for providing employment, education, health care, drinking water and sanitation, road and communication facilities etc.
- iii) The applicant will comply to the points, concerns and issues raised by the people during public hearing on 06.05.2010 in accordance with the commitments made by him thereon.
- iv) The applicant will take statutory clearance/approval/permissions from the concerned authorities in respect of his project as and when required.
- v) For post environmental clearance monitoring, the applicant will submit half-yearly compliance report in respect of the stipulated terms and conditions of Environmental Clearance to the State Environmental Impact Assessment Authority (SEIAA), Orissa on 1st June and 1st December of each calendar year.
- vi) The core zone should be monitored intensively with no. of stations as prescribed by CPCB, Delhi and unit of pollutant level should be expressed as NAAQ of CPCB, Delhi. The detailed methodology adopted for analysis of samples shall be clearly indicated.
- vii) The proponent shall submit baseline data on flora & fauna and CSR activities already carried out within three months to the SEIAA.
- viii) Adequate buffer zone shall be maintained between two consecutive mineral bearing deposits.
- ix) Zero waste mining concept shall be implemented either by putting up pelletisation plant or dispose of low grade ores/fines to prospective buyers.
- x) The following shall be implemented viz. (a) dump run-off should be diverted into settling ponds (b) adequate rain water harvesting and ground water recharging facilities should be developed in the core zone; (c) attempt should be made to achieve zero water balance.
- xi) Maintenance of roads through which transportation of ores are undertaken shall be carried out by the project proponent regularly at its own cost.
- xii) Fugitive dust generation shall be controlled. Fugitive dust emission shall be regularly monitored at locations of nearest human habitation (including schools and other public amenities located nearest to sources of dust generation as applicable) and records shall be submitted to the SEIAA, Orissa.
- xiii) Transportation of ore shall be done by covering the trucks with tarpaulin or other suitable mechanism so that no spillage of ore / dust takes place.
- xiv) Rain water harvesting shall be undertaken to recharge the ground water source.
- xv) Monitoring of ground and surface water quality shall be regularly conducted and records should be maintained and data shall be submitted regularly to the SEIAA, Orissa.

- xvi) The proponent shall ensure that no silt originating due to mining activity is transported in the surface water course. Measures for prevention and control of soil erosion and management of silt shall be undertaken. Protection of dumps against erosion shall be carried out with geo textile matting or other suitable material, and thick plantations of native trees and shrubs shall be carried out at the dump slopes. Dumps shall be protected by retaining walls.
- xvii) Trenches / garland drains shall be constructed at foot of dumps to arrest silt from being carried to water bodies. Adequate number of Check Dams shall be constructed across seasonal/perennial nallahs (if any) flowing through the ML area and silts be arrested. De-silting at regular intervals shall be carried out.
- xviii) Provision shall be made for the housing of the labourers 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.
- xix) Occupational health and safety measures for the workers including identification of work related health hazards, training on malaria eradication, HIV, and health effects on exposure to mineral dust etc. shall be carried out. The Proponent shall engage a full time qualified doctor who is trained in occupational health. Periodic monitoring for exposure to respirable mineral dust on the workers shall be conducted and records maintained including health records of the workers. Awareness programme for workers on impact of mining on their health and precautionary measures like use of personal equipments etc. shall be carried out periodically. Review of impact of various health measures undertaken (at interval of five years or less) shall be conducted followed by follow up action wherever required. Occupational Health Centre shall be established near the mine site itself.
- xx) Shelter belt i.e Wind Break of 15 m width and consisting of at least 5 tiers around lease facing the human habitation, school / agricultural fields etc. (if any in the vicinity), in the safety zone/ back-filled & reclaimed areas, around voids & roads shall be raised. Green belt development and selection of plant species shall be as per CPCB guidelines. Density of the trees has to be around 2500 plants per hectare. Herbs and shrubs shall also form a part of afforestation programme besides tree plantation. Help & guidance of local DFO may be sought in the matter. Details of year wise afforestation programme including rehabilitation of mined out area shall be submitted to the SEIAA, Orissa within six months.
- xxi) This Environmental clearance is subject to Forest clearance under the Forest (Conservation) Act, 1980.
- xxii) The mining operations shall be restricted to above ground water table and it should not intersect the groundwater table.
- xxiii) The top soil shall temporarily be stored at earmarked site(s) only and it should not be kept unutilized for long (not more than 3 years). The topsoil shall be used for land reclamation and plantation.

- xxiv) The over burden (OB) generated during the mining operation shall be stacked at earmarked dump site(s) only and it should not be kept active for a long period of time and its phase-wise stabilization shall be carried out. Proper terracing of OB dump shall be carried out so that the overall slope shall not exceed 28^o. Backfilling shall be done as per approved mining plan. Back-filling to start from 3rd year onwards of the mining operation & the entire quantity of waste generated shall be backfilled & liquidated within five years. There shall be no external over-burden dumps after the 6th year of the mining operation. The backfilled area shall be afforested. Back-filling has to be done in a manner that it is restored to the normal ground level. Monitoring & management of rehabilitated areas should continue till the vegetation is established & becomes self-generating. Compliance status to be reported to the appropriate authorities.
- xxv) The funds earmarked for the environment protection measures shall be judiciously utilized. Under no circumstances this funds shall be diverted for other purposes. Year-wise expenditure for this fund should be reported to the SEIAA, Orissa.
- xxvi) The critical parameters such as SPM, RSPM, NOX in the ambient air within the impact zone, peak particle velocity at 300m distance or within the nearest habitation, whichever is closer shall be monitored periodically. Further, quality of discharged water shall also be monitored [(TDS, DO, PH and Total Suspended Solids (TSS)]. The monitored data shall be uploaded on the website of the company as well as displayed on a display board at the project site at a suitable location near the main gate of the Company in public domain. The circular No. J-20012/1/2006-IA.II(M) dated 27.05.2009 issued by Ministry of Environment and Forests, which is available on the website of the Ministry www.envfor.nic.in shall also be referred in this regard for its compliance.
- xxvii) A Final Mine Closure Plan along with details of Corpus Fund shall be submitted to the SEIAA 5 years in advance of final mine closure for approval.
- xxviii) The project proponent shall obtain necessary prior permission of the competent authorities for drawl of requisite quantity of water (surface water and ground water) required for the project.
- xxix) The project proponent shall prepare wild life conservation plan in consultation with DFO and adequate safety and mitigation measures should be incorporated to protect the wild life, flora, fauna to mitigate adverse impact.
- xxx) The above mentioned stipulated conditions shall be complied in time bound manner. Failure to comply with any of the conditions mentioned above may result in withdrawal of this environmental clearance and attract action under the provisions of Environment Protection (EP) Act, 1986.

iii) FINAL APPRAISAL FOR CONSIDERATION OF EC FOR 2X 27 MW CAPTIVE POWER PLANT OF M/S OCL INDIA LTD. RAJGANPUR, SUNDERGARH

M/s. OCL India Ltd is operating with 2.9 MTPA cement plant and 4.0 MTPA clinker plant. The proposal is for 2X27 MW power plant to meet the captive requirement for the above cement plant. Originally the proposal was submitted for “2 X 27 MW CPP & 200 TPH Coal Beneficiation Plant” at MoEF, Delhi with duly filled-in Form-1 & Pre Feasibility Report vide letter no. RGCF:86207 / 2, dated 6th December 2007. TOR Presentation held on 13th March 2008 before Expert Appraisal Committee (EAC) of Thermal Power & Coal Mine Projects of MoEF. TOR issued vide letter no. J-13012/27/2008-IA.II(T), dated 15th April 2008. Public Hearing Conducted on 29th May 2009 at Gopabandhu High School, Rajgangpur. The Public Hearing Findings are very much satisfactory. EC Presentation held on 11th Jan 2010 in 62nd meeting of EAC of Thermal Power & Coal Mine Projects of MoEF. Subsequently the proposal was reconsidered in the 65th meeting of EAC of thermal power and coal mine projects held during February 12-13, 2010. During this reconsideration, EAC of Thermal Power & Coal Mine Projects of MoEF decided to return the file (2X27 MW Captive Power Plant only) to State Level Environmental Impact Assessment Authority (SEIAA) for appraisal as it is a ‘B’ category project (< 500 MW) and coal washery to go separately to the Coal Sector (as applicable). EAC also informed that the TORs issued and the public hearing conducted by the project proponent however may remain valid. Accordingly, such decision of EAC in form of “Minutes of Meeting” was circulated in the MoEF website on 26th Feb’10. OCL has withdrawn 200 TPH Coal Beneficiation Proposal from MoEF, Delhi vide letter no. Nil, dated 9th April 2010 because of delay in allotment of Coal Block in favour of OCL and subsequently searching for a better and Environment friendly Technology for establishment of coal washery in future at pit head. MoEF forwarded the file of “2X27 MW CPP” to SEIAA for onward appraisal for Environmental Clearance vide letter no. J-13012/27/08-IA-II(T). The proposal of 2x27 MW CPP was presented before the SEAC on 19th & 20th July, 2010 by their full-time Director with the help of their supporting Managers and representative of Consultants of

M/s S.S. Environics (India) Pvt Ltd Patrapada Bhubaneswar. The committee decided to consider environmental clearance for the proposal after getting certain information/document from the project proponent. The project proponent furnished the desired information/document.

Based on the information/document furnished, the SEAC recommended for grant of environmental clearance in favour of the project for a period of 5 (five) years with the following stipulated conditions.

- i) The applicant (Project proponent) will take necessary measures for prevention, control and mitigation of Air Pollution, Water Pollution, Noise Pollution and Land Pollution including solid waste management as mentioned by him in Form-1, Final EIA reports and Environment Management Plan (EMP) in compliance with the prescribed statutory norms and standards.
- ii) The applicant will take necessary steps for socio-economic development of the people of the area on need based assessment for providing employment, education, health care, drinking water and sanitation, road and communication facilities etc.
- iii) The applicant will comply to the points, concerns and issues raised by the people during public hearing on 29th May 2009 in accordance with the commitments made by him thereon.
- iv) The applicant will take statutory clearance/approval/permissions from the concerned authorities in respect of his project as and when required.
- v) For post environmental clearance monitoring, the applicant will submit half-yearly compliance report in respect of the stipulated terms and conditions of Environmental Clearance to the State Environmental Impact Assessment Authority (SEIAA), Orissa on 1st June and 1st December of each calendar year.
- vi) High efficiency Electrostatic Precipitators (ESPs) shall be installed to ensure that particulate emission does not exceed 50 mg/Nm³.
- vii) **The proponent may use bottom ash as a supplement for the raw material for cement production with approved technology confirming to the relevant standard specification .**
- viii) **The unit shall be allowed to use washery rejects as raw material having \leq 60% ash content.**
- ix) The proponent shall treat the flue gas through Flue Gas De-sulfurisation (FGD), if SO₂ emission level exceed the prescribed norm.
- x) No ground water shall be extracted for the project work at any stage.

- xi) Adequate dust extraction system such as cyclones/ bag filters and water spray system in dusty areas such as in coal handling and ash handling points, transfer areas and other vulnerable dusty areas shall be provided.
- xii) Fly ash shall be collected in dry form and storage facility (silos) shall be provided. 100% fly ash utilization shall be ensured as per fly ash notification of MoEF, Govt. of India. Unutilized fly ash and bottom ash shall be stored in the ash pond separately through high concentration slurry disposal method. Mercury levels along with other heavy metals (Pb, Cr, As etc.) should be monitored in the fly ash / bottom ash, leachates and effluents emanating from the ash pond.
- xiii) The ash pond should be constructed with impervious lining and ash pond embankment should be stone pitched.
- xiv) The treated effluents conforming to the prescribed standards shall be re-circulated and reused within the plant. There shall be no discharge outside the plant boundary. Arrangements shall be made so that effluents and storm water do not get mixed.
- xv) A sewage treatment plant shall be provided and the treated sewage shall be used for raising greenbelt/plantation.
- xvi) Rainwater harvesting should be adopted. Central Groundwater Authority/ Board shall be consulted for finalization of appropriate rainwater harvesting technology within a period of three months from the date of clearance and details shall be furnished to the SEIAA, Orissa.
- xvii) Adequate safety measures shall be provided in the plant area to check/minimize spontaneous fires in coal yard, especially during summer season. Details of these measures to be taken along with location plant layout shall be submitted to the SEIAA, Orissa.
- xviii) Storage facilities for auxiliary liquid fuel such as LDO and/ HFO/LSHS shall be made in the plant area where risk is minimum. On site and off site Disaster Management Plans shall be prepared to meet any eventuality in case of an accident taking place. Mock drills shall be conducted regularly and based on the same, modifications required, if any shall be incorporated in the Disaster Management Plan (DMP). Sulfur content in the liquid fuel will not exceed 0.5%.
- xix) Regular monitoring of ground water in and around the ash pond area shall be carried out, records maintained and half yearly reports shall be furnished to the SEIAA, Orissa.
- xx) A green belt of adequate width and density preferably with local species along the periphery of the plant & alongside roads etc shall be raised so as to provide protection against particulates and noise. It must be ensured that at least 33% of the total land area shall be under permanent green cover. The project proponent shall ensure proper maintenance of green belt throughout the year & for this purpose they may engage professionals in this field for creation and maintenance of the green belt. An action plan for this purpose shall be prepared accordingly and submitted to the SEIAA, Orissa.

- xxi) First aid and sanitation arrangements shall be made for the drivers and other contract workers during construction phase.
- xxii) Noise levels emanating from turbines and air compressors shall be limited to 75 dBA. For people working in the high noise area, requisite personal protective equipments like earplugs/ear muffs etc. shall be provided. Workers engaged in noisy areas such as turbine area, air compressors etc shall be periodically examined to maintain audiometric record and for treatment for any hearing loss including shifting to non noisy/less noisy areas.
- xxiii) Regular monitoring of ground level concentration of SO₂, NO_x, RSPM (PM₁₀ & PM_{2.5}) etc. shall be carried out in the impact zone and records maintained. If at any stage these levels are found to exceed the prescribed limits, necessary control measures shall be provided immediately. The location of the monitoring stations and frequency of monitoring shall be decided in consultation with SPCB, Orissa.
- xxiv) Provision shall be made for housing of construction labourers 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.
- xxv) A separate environment management cell with qualified staff shall be set up for implementation of the stipulated environmental safeguards.
- xxiii) Half yearly report on the status of implementation of the stipulated conditions and environmental safeguards shall be submitted to the appropriate authorities.
 - xxvi) Separate funds shall be allocated for implementation of environmental protection measures along with item-wise break-up. These cost shall be included as part of the project cost. The funds earmarked for the environment protection measures shall not be diverted for other purposes and year-wise expenditure should be reported.
 - xxvii) The need of the local people should be appropriately addressed in the CSR activities to be undertaken by the project proponent in the area. An action plan in this regard should be prepared and submitted to SEIAA, Orissa.
 - xxviii) The above mentioned stipulated conditions shall be complied in time bound manner. Failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment Protection (EP) Act, 1986.

iv) **FINAL APPRAISAL FOR EC FOR CONSTRUCTION OF BUILDING FOR THE INTERNATIONAL MANAGEMENT INSTITUTE AT GOTHAPATANA, CHANDAKA, BHUBANESWAR**

The proposal is for **INTERNATIONAL MANAGEMENT INSTITUTE at Gothapatana, Chandaka, Bhubaneswar** Total plot area is **64280** sq.M and built up area is **40477.82 Sq.M**. The total makeup water requirement is **70 M3/DAY**. The water requirement will be met from ground water. Around 70 KLD of waste water will be generated which will be treated in a Sewage Treatment Plant (STP). Out of which 53.2 KLD is reused and 16.8 KLD will be discharged to municipal sewer. Treated water will be re-used for dual flushing, green belt and landscaping. Total solid waste generation will be 0.513 TPD . The power requirement is **945 KW**. IDCO has approved the building plan. . **The representation of Consultant of Global Experts C-23, BJB Nagar, Bhubaneswar – 751 014** made the presentation on the proposal in the SEAC meeting held on 19th & 20th July, 2010. The committee decided to consider environmental clearance for the proposal after getting certain information/document from the project proponent. The project proponent furnished the desired information/document.

Based on the information/document furnished, the SEAC recommended for grant of environmental clearance in favour of the project for a period of 5 (five) years with the following stipulated conditions.

I. GENERAL CONDITIONS

- i) The applicant (Project proponents) will take necessary measures for prevention, control and mitigation of Air Pollution, Water Pollution, Noise Pollution and Land Pollution including solid waste management as mentioned by them in Form-1, Form-1A, and Environment Management Plan (EMP) in compliance with the prescribed statutory norms and standards.
- ii) The applicant will take statutory clearance/approval/permissions from the concerned authorities in respect of the project as and when required.
- iii) The applicant will submit half-yearly compliance report for post-environmental clearance monitoring in respect of the stipulated terms and conditions in the Environmental Clearance to the State Environmental

- Impact Assessment Authority (SEIAA), Orissa, on 1st June and 1st December of each calendar year.
- III. The project proponent shall obtain Periodic Occupancy Renewal Certificate from competent authority at an interval of 3 to 5 years as per the provisions of National Building Code(NBC) 2005.
- IV. The applicant will adopt the prescribed norms, and standards provided in the National Building Code of India, 2005, specially relating to :
- a) Fire protection and life safety of occupants of the buildings.
 - b) Safety of personnel during construction, operation and demolition of buildings.
 - c) Day lighting and natural ventilation of buildings.
 - d) Safety from electrical fire, shock and lightening of the buildings.
 - e) Air-conditioning, heating and mechanical ventilation of the buildings
 - f) Acoustics and noise control of the buildings.
 - g) Maintenance and functioning with emissions from generators supplying power to common space / residential in case of power failure along with fuel handling /storage.
 - h) Installation of lifts and escalators in the buildings.
 - i) Water supply, drainage and sanitation including solid waste management.
 - j) Landscaping of surrounding areas of the buildings.

II SPECIAL CONDITIONS

A. CONSTRUCTION PHASE.

- (i) No ground water shall be extracted for the project work at any stage during construction phase.
- (ii) Provision shall be made for the housing of construction laborers 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.
- (iii) A First-Aid Room will be provided in the project site both during construction and operation of the project.
- (iv) All the top soil excavated during construction activities should be stored separately for use in land filling, horticulture/landscape development within the project site.
- (v) Disposal of muck during construction phase should not create any adverse effect on the neighboring communities and will be

disposed off taking the necessary precautions for general safety and health aspects of people only in approved sites with the approval of competent authority.

- (vi) Soil and ground water samples will be tested to ascertain that there is no threat to ground water quality by leaching of heavy metals and other toxic contaminants.
- (vii) Construction spoils, including bituminous material and other hazardous materials should not be allowed to contaminate watercourses, ground water and dump sites by following safe dumping / disposal practice as per statutory rules and norms with necessary approval of the Orissa Pollution Control Board.
- (viii) The diesel generator sets to be used during construction phase shall be low sulfur diesel type and should conform to Environment (Protection) Rules 1986 prescribed for air and noise emission standards.
- (ix) The diesel required for operating DG sets shall be stored in underground tanks and, if required, clearance from the Chief Controller of Explosives shall be taken.
- (x) Vehicles used for bringing construction materials to the site should be in good condition and should have a pollution check certificate and conform to statutory air and noise emission standards and should be operated only during non-peak hours of the day.
- (xi) Ambient noise levels should conform to residential standards both during day and night. Incremental pollution loads on the ambient air and noise quality should be closely monitored during construction phase. Adequate measures should be taken to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB/ OPCB.
- (xxiii) Fly ash bricks should be used as building material in the construction as per the provisions of Fly Ash Notification of September, 1999 and as amended thereafter.
- (xii) Ready mixed concrete would be used in building construction.
- (xiii) Storm water control and its re-use should be as per CGWB and BIS standards for these applications.
- (xiv) Water demand during construction should be optimized by adopting best practices without compromising quality.

- (xv) Separation of grey and black water supplies and collection should be done by the use of dual plumbing line. Grey and black water should be treated separately before recycling/ reuse.
- (xvi) Fixtures for showers, toilet flushing and drinking water should be of low flow type and restricted to requirements by use of aerators, avoiding wastage pressure reducing devices or sensor based controls.
- (xvii) Use of glass may be maximum upto 40% of total outer wall area to reduce the energy consumption and load on air-conditioning. If necessary, high quality double glass with special reflective coating may be used in the windows.
- (xviii) Roof should meet the prescribed requirement as per Energy Conservation Building Code by using appropriate thermal insulation material.
- (xix) Opaque wall should meet prescriptive requirements as per Energy Conservation Building Code.
- (xx) The approval of the competent authority shall be obtained for structural safety of the buildings due to earthquake, adequacy of fire fighting equipments etc. as per National Building Code of India, 2005 including protection measures from lightening etc.
- (xxi) Regular supervision of the above and other measures for monitoring should be in place all through the construction phase to avoid disturbances and pollution to the surroundings.

III. OPERATION PHASE.

- i) The installation of the Sewage Treatment Plant (STP) should be certified by a competent agency and a report in this regard should be submitted to the SEIAA, Orissa before the project is commissioned for operation. Treated effluent from STP shall be recycled/reused to the maximum extent possible. Treatment of 100% grey water by decentralized treatment should be done. Discharge of unused treated effluent shall conform to the norms and standards of the Orissa State Pollution Control Board. Necessary measures should be taken to mitigate the odour problem from STP.
- ii) The STP sludge should not be dried nor incinerated within the project site and should be disposed off as per the norms of SPCB, Orissa.
- iii) The project proponent will ensure that under no circumstances, the environment is polluted due to non-functioning / under performance of sewerage disposal system of the project. To achieve this, a stand-by STP

with similar capacity should be installed to be put into service during the maintenance /over hauling of the original STP,

- iv) The solid waste generated should be properly collected and segregated. Wet garbage should be composted and dry / inert solid waste should be disposed off to the approved sites for land filling after recovering recyclable material. Necessary approval / permission may be obtained from the concerned authorities
- v) Diesel power generating sets proposed as source of back-up power for lifts elevators and common area illumination during operation phase should be of enclosed type and conform to Environment Protection (EP) rules 1986. The height of the stack of DG sets should be equal to the height needed for the combined capacity of all proposed DG sets put together. Low sulfur diesel should be used. The location of the DG sets may be decided in consultation with Orissa State Pollution Control Board. Care may be taken to avoid disposal of smoke /pollutants from DG sets in the residential area.
- vi) Noise should be controlled to ensure that it does not exceed the prescribed standards. During night time, the noise levels measured at the boundary of the sites shall be restricted to the permissible levels to comply with the prevalent regulations.
- vii) Green-belt & avenue Plantation of trees shall be done as per approved layout plan using native tree species/plants improving greenery & keeping in view aesthetics considerations in the whole campus .
- viii) Rain water harvesting for roof run- off and surface run- off, as plan submitted should be implemented. Before recharging the run off, pre-treatment must be done to remove suspended matter, oil, grease and other soluble components as per norms. The bore-well for rainwater recharging should be kept at least 5 mts. above the highest ground water table. The technology may preferably be adopted from a commercial firm with performance guarantee.
- ix) Weep holes in the compound walls shall be provided to ensure natural drainage of excessive rain water in the project area during the monsoon period after the harvesting operations.
- x) The ground water level and its quality should be monitored regularly in consultation with Central / State Ground Water Authority.
- xxi) Traffic congestion near the entry and exit points from the roads adjoining the proposed project site must be avoided . Traffic congestion shall be avoided inside the project site. The area ear marked for parking shall not be used for any other purpose.

- xi) A Report on the energy conservation measures confirming to energy conservation norms finalized by the Bureau of Energy Efficiency should be prepared incorporating details about building materials & technology, R & U Factors etc and submitted to the SEIAA, Orissa in three months time before operation/ habitation.
 - xii) Provisions of solar hot water storage / supplies at the roof top may be made as per statutory norms of CPCB/MoEF/SPCB, Orissa.
 - xiii) Energy conservation measures like installation of CFLs/TFLs for lighting the areas outside the building should be integral part of the project design and should be in place before project commissioning. Used CFLs and TFLs should be properly collected and disposed off/sent for recycling as per the prevailing guidelines/ rules of the regulatory authority to avoid toxic contamination. Use of solar panels may be adopted to the maximum extent possible, especially for street lights.
 - xiv) The building blocks should have adequate distance between them to allow movement of fresh air and passage of natural light, air and ventilation.
 - xv) The funds earmarked for the environment protection measures shall be judiciously utilized. Under no circumstances this funds shall be diverted for other purposes like Annual allocation and maintenance / monitoring etc. and expenditure for this fund should be reported to the SEIAA, Orissa.
 - xvi) The need of the local people should be appropriately addressed in the CSR activities to be undertaken in the area. An action plan in this regard should be prepared and submitted.
 - xvii) The above mentioned stipulated conditions shall be complied in time-bound manner. Failure to comply with any of the conditions mentioned above may result in cancellation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
- v) **PROPOSAL OF 26 MW CAPTIVE THERMAL POWER PLANT INSIDE THE EXISTING WASTE PAPER BASED PAPER MILL OF M/S. EMAMI PAPER MILLS AT – BALGOPALPUR, DIST – BALASORE**

M/s. Emami Paper Mill Ltd is a waste paper based paper mill manufacturing printing and writing (P & W) paper. The industry has existing captive power plant of capacity 20 MW (1 x 15 MW + 1 x 5 MW). It has proposed for installation of another 26 MW captive power plant within the existing premises of the paper mill

for captive use of existing paper mill as well as for future expansion of the mill. Coal requirement for the project is 600 TPD. The industry is located within the IDCO industrial area. The **TOR issued by SEAC vide letter No. 116 dt. 29.9.09.** Public hearing for the proposal is not required as the captive power plant will be installed within the IDCO industrial estate. Representative of M/s. Min Mec consultants, New Delhi presented the final EIA/EMP report in the SEAC meeting held on 19th & 20th July, 10. The committee decided to consider the proposal after receipt of certain information/document from the proponent. The committee also decided to go for visit of the existing paper mill at Balgopalpur, Balasore to verify the present environmental practice of existing unit before taking a decision on the proposal. The committee visited the existing paper mill on 31st July, 2010 and observation of the committee was forwarded to the proponent for compliance. The proponent furnished the desired information as sought for by the SEAC.

Basing on the information furnished, the committee recommended for grant of environmental clearance for a period of 5 years with the following stipulated conditions.

- i) The applicant (Project proponent) will take necessary measures for prevention, control and mitigation of Air Pollution, Water Pollution, Noise Pollution and Land Pollution including solid waste management as mentioned by him in Form-1, Final EIA reports and Environment Management Plan (EMP) in compliance with the prescribed statutory norms and standards.
- ii) The applicant will take necessary steps for socio-economic development of the people of the area on need based assessment for providing employment, education, health care, drinking water and sanitation, road and communication facilities etc.
- iii) The applicant will take statutory clearance/approval/permissions from the concerned authorities in respect of his project as and when required.
- iv) For post environmental clearance monitoring, the applicant will submit half-yearly compliance report in respect of the stipulated terms and conditions of Environmental Clearance to the State Environmental Impact Assessment Authority (SEIAA), Orissa on 1st June and 1st December of each calendar year.
- v) High efficiency Electrostatic Precipitators (ESPs) shall be installed to ensure that particulate emission does not exceed 50 mg/Nm³.

- vi) The proponent shall treat the flue gas through Flue Gas De-sulfurisation (FGD), if SO₂ emission level exceed the prescribed norm.
- vii) The ETP sludge which is used as fuel in the boiler contains heavy metals such as Arsenic, Cadmium, Chromium. Copper , Lead, Nickel, Slufur etc.. Stack analysis of the heavy metals must be done periodically and reported to SPCB, Orissa.
- viii) No ground water shall be extracted for the project work at any stage.
- ix) Adequate dust extraction system such as cyclones/ bag filters and water spray system in dusty areas such as in coal handling and ash handling points, transfer areas and other vulnerable dusty areas shall be provided.
- x) Fly ash shall be collected in dry form and storage facility (silos) shall be provided. 100% fly ash utilization shall be ensured as per fly ash notification of MoEF, Govt. of India. Unutilized fly ash and bottom ash shall be stored in the ash pond separately through high concentration slurry disposal method. Mercury levels along with other heavy metals (Pb, Cr, As etc.) should be monitored in the fly ash / bottom ash, leachates and effluents emanating from the ash pond.
- xi) The ash pond should be constructed with impervious lining and ash pond embankment should be stone pitched.
- xii) The treated effluents conforming to the prescribed standards shall be re-circulated and reused within the plant. There shall be no discharge outside the plant boundary. Arrangements shall be made so that effluents and storm water do not get mixed.
- xiii) A sewage treatment plant shall be provided and the treated sewage shall be used for raising greenbelt/plantation.
- xiv) Rainwater harvesting should be adopted. Central Groundwater Authority/ Board shall be consulted for finalization of appropriate rainwater harvesting technology within a period of three months from the date of clearance and details shall be furnished to the SEIAA, Orissa.
- xv) Adequate safety measures shall be provided in the plant area to check/minimize spontaneous fires in coal yard, especially during summer season. Details of these measures to be taken along with location plant layout shall be submitted to the SEIAA, Orissa.
- xvi) Storage facilities for auxiliary liquid fuel such as LDO and/ HFO/LSHS shall be made in the plant area where risk is minimum. On site and off site Disaster Management Plans shall be prepared to meet any eventuality in case of an accident taking place. Mock drills shall be conducted regularly and based on the same, modifications required, if any shall be incorporated in the Disaster Management Plan (DMP). Sulfur content in the liquid fuel will not exceed 0.5%.

- xvii) Regular monitoring of ground water in and around the ash pond area shall be carried out, records maintained and half yearly reports shall be furnished to the SEIAA, Orissa.
- xviii) A green belt of adequate width and density preferably with local species along the periphery of the plant & alongside roads etc shall be raised so as to provide protection against particulates and noise. It must be ensured that at least 33% of the total land area shall be under permanent green cover. The project proponent shall ensure proper maintenance of green belt throughout the year & for this purpose they may engage professionals in this field for creation and maintenance of the green belt. An action plan for this purpose shall be prepared accordingly and submitted to the SEIAA, Orissa.
- xix) First aid and sanitation arrangements shall be made for the drivers and other contract workers during construction phase.
- xx) Noise levels emanating from turbines and air compressors shall be limited to 75 dBA. For people working in the high noise area, requisite personal protective equipments like earplugs/ear muffs etc. shall be provided. Workers engaged in noisy areas such as turbine area, air compressors etc shall be periodically examined to maintain audiometric record and for treatment for any hearing loss including shifting to non noisy/less noisy areas.
- xxi) Regular monitoring of ground level concentration of SO₂, NO_x, RSPM (PM₁₀ & PM_{2.5}) etc. shall be carried out in the impact zone and records maintained. If at any stage these levels are found to exceed the prescribed limits, necessary control measures shall be provided immediately. The location of the monitoring stations and frequency of monitoring shall be decided in consultation with SPCB, Orissa.
- xxii) Provision shall be made for housing of construction labourers 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.
- xxiii) A separate environment management cell with qualified staff shall be set up for implementation of the stipulated environmental safeguards.
- xxiii) Half yearly report on the status of implementation of the stipulated conditions and environmental safeguards shall be submitted to the appropriate authorities.
- xxiv) Separate funds shall be allocated for implementation of environmental protection measures along with item-wise break-up. These cost shall be included as part of the project cost. The funds earmarked for the environment protection measures shall not be diverted for other purposes and year-wise expenditure should be reported.

- xxv) The need of the local people should be appropriately addressed in the CSR activities to be undertaken in the area. An action plan in this regard should be prepared and submitted.
- xxv) The above mentioned stipulated conditions shall be complied in time bound manner. Failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment Protection (EP) Act, 1986.
- vi) **EXPANSION OF SURGUTURIA IRON ORE MINE OVER ML AREA OF 41.517 HA. OF M/S NAARAAYANI SONS (P) LTD. AT VILLAGE – SURGUTURIA (BHOLBEDA), TEHSIL- BARBIL, DISTRICT KEONJHAR, ORISSA**

The proposal was considered by the SEAC to determine the Terms of Reference (TOR) for taking detailed EIA study for the purpose of obtaining environmental clearance in accordance with the provisions of the EIA notification, 2006. The project proponent had submitted information in the prescribed format (Form-I) along with pre-feasibility report. According to the informations given in Form-I and presentations made by the proponent, the proposal is for enhancement of production of IRON ORE from 36,000 TPA to 1,64,165 TPA and production of dolerite 3,00,160 TPA. The mining lease area is 41.517 ha..Out of 41,517 ha, 38.882 ha is forest land. The mine has applied for DRP on 03.09.2009, which is under process. The Mining Plan & Progressive Mine Closure Plan were approved on 18.12.09 for 5 years (2010-11 to 2014-15). The mine working will be opencast semi mechanized. The water requirement is 50 KLD and **water will be collected from Baitarani river**. The representative of consultant of **M/s S.S Environics (India) Pvt Ltd Patrapada Bhubaneswar of the project proponent** made presentation on the proposal in the SEAC meeting held on 8-9th April, 2010. The SEAC decided to defer the proposal for following reasons.

- i) The mine owner has applied for renewal of 41.517 ha out of 99.784 ha. of ML area. The mine owner has clarified that he had surrendered the lease of 99.784 ha and the remaining mine lease of 41.517 ha has been renewed.

- ii) The mine owner has not submitted supportive documents regarding surrendering of the lease. Since the total lease area is 50 ha, SEAC opined that it would not be appropriate to take any decision without confirming the actual status of the lease at present.

The proponent has furnished the documents related to mining lease area reduction to 41.517 ha. collected from collectorate by RTI Act and given an undertaking that they will submit authenticated documents with respect to reduction of mining lease area from Govt. of Orissa before/at the time of final EC presentation to the SEAC.

Basing on the above undertaking given by the proponent, the SEAC prescribed following TOR for undertaking detail EIA report.

1. Profile of the project proponent and his background to establish the financial and entrepreneurial competency to undertake the project may be included.
2. Duly attested & certified Mining Plan approved by concerned authority may be submitted along with the copy of the current lease deed in the name of the proponent. Present status of mining lease may be given.
3. **Copy of Forest Clearance .**
4. The EIA study area shall encompass 10 km radius from the mine lease boundary as buffer zone.
5. Collection of one season (non-monsoon) primary baseline data on ambient air quality, water quality, noise level, soil and flora and fauna and site-specific meteorological data should also be collected. The location of the monitoring stations should be justified.
6. Air quality modeling should be carried out for prediction of impact of the project and the existing mines in the vicinity on the air quality of the area focusing more in the villages within 3 kms from the mine. It should also take into account the impact of movement of vehicles for transportation and handling of minerals, OB including mining activity through volume source modeling. The details of the model used and input parameters used for modeling should be provided. The air quality contours may be shown on a location map clearly indicating the location of the site, location of sensitive receptors, if any, and the habitation. The wind roses showing pre-dominant wind direction and speed may also be indicated on the map. The modeling should take into consideration the existing mines in the study area as regards their polluting potential rather the existing level.
7. Availability of requisite quantity of surface, sub-surface and ground water and their source to be furnished along with water balance. Necessary clearance from

- the Competent Authority for drawl of requisite quantity of water for the project should be provided.
8. Details of water bodies and drainage pattern of the ML area may be specified.
 9. Progressive reclamation plan, post-mining land use, progressive mine closure and greenbelt development plan should be prepared in tabular form and be submitted. Milestones for the above activities may be specified in the table.
 10. Location of National Parks, Sanctuaries, Biosphere Reserves, Wildlife corridors, Tiger/Elephant reserves (existing as well as proposed), and existence of rare and endangered flora and fauna if any, within 10 km of the mine lease should be clearly indicated. Necessary clearance, if any, as may be applicable to such projects due to proximity of the ecologically sensitive areas as mentioned above under the Wildlife (Protection) Act, 1972 and copy thereof, may be furnished.
 11. A detailed biological study of the core zone and buffer zone (10 km radius of the mining lease area) should be carried out. Details of flora and fauna duly authenticated separately for core and buffer zones should be furnished based on field survey indicating the schedule of the fauna present. In case of any schedule-I fauna found in the study area, necessary plan for their conservation should be prepared in consultation with the State Forest & Wildlife Department and details may be furnished. Necessary cost details for executing the conservation measures should be furnished and incorporated as part of the project cost.
 12. Occupational health impact and remedial measures thereof for the project may be studied.
 13. Baseline data for health status survey for all the employees including labourers and the residents of the nearby villages within 5 km distance may be carried out. Welfare of mine workers is the prime responsibility of the project proponent. Various activities such as regular health check up, first-aid, shelter for rest and meals, drinking water etc. are to be taken up at the project cost. Nearby mine owners may form a society and a common fund for the welfare of mineworkers may be created. Besides various Govt. schemes and other sources may be explored. This aspect has to be covered in the EMP.
 14. Socio-economic impact due to project activity may be assessed and based on the study, developmental activity proposed to be undertaken by the project proponent to be specified and as far as possible, quantitative dimension to be given. Study should include Corporate Social Responsibility (CSR) and it should be carried out as the entry point activity as trust building measures.
 15. Points raised/likely to be raised during public hearing and commitment of the project proponent on the same may be included.
 16. The depth of the ground water table in the area vis-a-vis minable depth of the bodies may be clarified with either primary or authentic secondary data in the EIA report. Rainwater harvesting and treatment system for pumped out quarry water if any may be submitted.

17. Management of OB dumps and other solid wastes generated during mining may be addressed through incorporation of a concrete plan for the same. Proper care should be taken for treating the effluents along with rainwater harvesting and wash offs from OB dumps to adequately recharge the ground water resources.
18. Colored maps depicting land use/change of the region showing sensitive / fragile features and detailed lay-out of the site clearly showing green-belt (existing & planned) should be furnished.
19. Satellite imagery of the location of mine should be submitted with demarcation of other proposed/in-operation mines in nearby area. Location is also to be shown in Tehsil map procured from the Revenue Department. This should be used as baseline information to compare the impact of mining in the area in future.
20. Risk assessment and disaster management plan should be given.
21. EMP taking into account the pre- and post-project environment impacts may be included.
22. Any litigation/ court case pending against the proposal should also be included.
23. The EIA report should includes the specified methodology to be adopted for collection and analysis of 12 air quality parameters as per the Central Pollution Control Board Notification No. B-29016/20/90/PCI-L dated 18th November 2009 published in the Gazette of India Part III-Section 4 No 217 Extraordinary. The analytical methods to be followed is specified in the above notification is to be maintain the New National Ambient Air Quality Standards
24. This Terms of References (TORs) is valid for a period of two years from the date of issue of TORs for submission of the EIA/EMP report after public consultation.(This is in conformity with the MoEF, Govt. of India office memorandum No. J-11013/41/2006-IAII(I) dt. 22.3.10).

NEW PROPOSALS

Seven project proponents were invited for presentation of TOR and Environmental Clearance proposals followed by discussion. The agenda-wise proceedings and recommendations of the committee are detailed below.

ITEM NO 2

SCOPING FOR ENHANCEMENT OF PRODUCTION OF TEHRAI-SONUA IRON & MANGANESE MINES OF M/S. TARINI MINERALS FROM 309 TPA IRON ORE 1025 TPA OF MANGANESE ORE TO 35,000 TPA OF IRON ORE AND 35,000 TPA MANGANESE ORE WITH RENEWAL WHICH WAS APPLIED ON 27.1.1999 FOR 20 YEARS FROM 20.2.2000 TO 19.2.2020 OVER 29.076 HA. WITHIN THE TOPOSHEET NO. 73 G/5 IN TEHERAI AND SONUA VILLAGE, BONEI TEHSIL OF SUNDARGARH DISTRICT, ORISSA (TOR)

The proposal was considered by the SEAC to determine the Terms of Reference (TOR) for undertaking detailed EIA study for the purpose of obtaining environmental clearance

in accordance with the provisions of the EIA notification, 2006. The project proponent had submitted information in the prescribed format (Form-I) along with pre-feasibility report. The proposal is for enhancement of production capacity upto 35,000 TPA iron ore and 35,000 TPA manganese ore with renewal of mining lease over an area of 29.076 ha. The Teharai-Sonua iron & Manganese mines over 29.076 ha. was executed on 20.2.1980 in favour of M/s. Tarini Minerals for a period of 20 years. After expiry of the lease period, renewal for the same area has been applied to Govt. of Orissa vide letter dated 27.1.1999. Out of the total lease area of 29.076 ha is forest land including 5.856 ha. of DLC forest land for which forest clearance application is under process. The mines is in operation as per approved mining plan. As the planned period for the year 2003-04 to 2007-08 ended, the scheme of mining alongwith PMCP has been prepared and submitted to IBM. Teherai nalla is the nearest water course passing within the lease & drainage of the area controlled by Baitarani river. There is no wild life sanctuary, national park within 10 km radius of the area. Opencast manual method of mining will be continued on single shift basis. Height and width of the mine benches would be 3m & 5m respectively. The mine working will be opencast semi-mechanized and will be continued on single shift basis. Height and width of the mine benches would be 3 – 5 mtrs respectively. Overall life of the mine will be 20 years. The water requirement is 50 m³/day. The source of water is ground water.

Considering the information furnished and presentation made by **the representative of consultant of M/s Geomin Consultants (P) Ltd, Bhubaneswar** of the project proponent, the SEAC prescribed the following TORs for undertaking detailed EIA study:

1. Profile of the project proponent and his background to establish the financial and entrepreneurial competency to undertake the project may be included.
2. Duly attested & certified Mining Plan approved by concerned authority may be submitted along with the copy of the current lease deed in the name of the proponent. Present status of mining lease may be given.
- 3. Copy of Forest Clearance may be given.**
4. The EIA study area shall encompass 10 km radius from the mine lease boundary as buffer zone.
5. Collection of one season (non-monsoon) primary baseline data on ambient air quality, water quality, noise level, soil and flora and fauna and site-specific

meteorological data should also be collected. The location of the monitoring stations should be justified.

6. Air quality modeling should be carried out for prediction of impact of the project and the existing mines in the vicinity on the air quality of the area focusing more in the villages within 3 kms from the mine. It should also take into account the impact of movement of vehicles for transportation and handling of minerals, OB including mining activity through volume source modeling. The details of the model used and input parameters used for modeling should be provided. The air quality contours may be shown on a location map clearly indicating the location of the site, location of sensitive receptors, if any, and the habitation. The wind roses showing pre-dominant wind direction and speed may also be indicated on the map. The modeling should take into consideration the existing mines in the study area as regards their polluting potential rather the existing level.
7. Availability of requisite quantity of surface, sub-surface and ground water and their source to be furnished along with water balance. Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the project should be provided.
8. Details of water bodies and drainage pattern of the ML area may be specified.
9. Progressive reclamation plan, post-mining land use, progressive mine closure and greenbelt development plan should be prepared in tabular form and be submitted. Milestones for the above activities may be specified in the table.
10. Location of National Parks, Sanctuaries, Biosphere Reserves, Wildlife corridors, Tiger/Elephant reserves (existing as well as proposed), and existence of rare and endangered flora and fauna if any, within 10 km of the mine lease should be clearly indicated. Necessary clearance, if any, as may be applicable to such projects due to proximity of the ecologically sensitive areas as mentioned above under the Wildlife (Protection) Act, 1972 and copy thereof, may be furnished.
11. A detailed biological study of the core zone and buffer zone (10 km radius of the mining lease area) should be carried out. Details of flora and fauna duly authenticated separately for core and buffer zones should be furnished based on field survey indicating the schedule of the fauna present. In case of any schedule-I fauna found in the study area, necessary plan for their conservation should be prepared in consultation with the State Forest & Wildlife Department and details may be furnished. Necessary cost details for executing the conservation measures should be furnished and incorporated as part of the project cost.
12. Occupational health impact and remedial measures thereof for the project may be studied.
13. Baseline data for health status survey for all the employees including labourers and the residents of the nearby villages within 5 km distance may be carried out. Welfare of mine workers is the prime responsibility of the project proponent. Various activities such as regular health check up, first-aid, shelter for rest and meals, drinking water etc. are to be taken up at the project cost. Nearby mine

owners may form a society and a common fund for the welfare of mineworkers may be created. Besides various Govt. schemes and other sources may be explored. This aspect has to be covered in the EMP.

14. Socio-economic impact due to project activity may be assessed and based on the study, developmental activity proposed to be undertaken by the project proponent to be specified and as far as possible, quantitative dimension to be given. Study should include Corporate Social Responsibility (CSR) and it should be carried out as the entry point activity as trust building measures.
15. Points raised/likely to be raised during public hearing and commitment of the project proponent on the same may be included.
16. The depth of the ground water table in the area vis-a-vis minable depth of the bodies may be clarified with either primary or authentic secondary data in the EIA report. Rainwater harvesting and treatment system for pumped out quarry water if any may be submitted.
17. Management of OB dumps and other solid wastes generated during mining may be addressed through incorporation of a concrete plan for the same. Proper care should be taken for treating the effluents along with rainwater harvesting and wash offs from OB dumps to adequately recharge the ground water resources.
18. Colored maps depicting land use/change of the region showing sensitive / fragile features and detailed lay-out of the site clearly showing green-belt (existing & planned) should be furnished.
19. Satellite imagery of the location of mine should be submitted with demarcation of other proposed/in-operation mines in nearby area. Location is also to be shown in Tehsil map procured from the Revenue Department. This should be used as baseline information to compare the impact of mining in the area in future.
20. Risk assessment and disaster management plan should be given.
21. EMP taking into account the pre- and post-project environment impacts may be included.
22. Any litigation/ court case pending against the proposal should also be included.
23. The EIA report should includes the specified methodology to be adopted for collection and analysis of 12 air quality parameters as per the Central Pollution Control Board Notification No. B-29016/20/90/PCI-L dated 18th November 2009 published in the Gazette of India Part III-Section 4 No 217 Extraordinary. The analytical methods to be followed is specified in the above notification is to be maintain the New National Ambient Air Quality Standards
24. This Terms of References (TORs) is valid for a period of two years from the date of issue of TORs for submission of the EIA/EMP report after public consultation.(This is in conformity with the MoEF, Govt. of India office memorandum No. J-11013/41/2006-IAII(I) dt. 22.3.10).

ITEM NO 3

SCOPING FOR CONSTRUCTION OF JAGAMGUDA M.I.P. IN KORAPUT BLOCK OF KORAPUT DISTRICT (TOR)

Jagamguda Minor irrigation Project is a Reservoir scheme Project going to be constructed across the Baghara Nalla near the village Bagharaguda of Koraput District with a culturable command area is 67 ha. There is a sub-mergency of 63.67 ha. land and no displacement of people. The area is mostly inhabited by ST, SC, small and marginal farmers. The local people entirely depend on the vagaries of nature for agriculture. There is no irrigation facility and as such the people are deprived of getting irrigation, although this stream is flowing by the side of their locality. Hence, there is a big demand from local people for construction of a minor irrigation project. A diversion proposal for acquisition of 0.42 ha of Forest land has already been initiated. The living as well as financial standard of the inhabitants of this area will improve soon after the construction of this Project. There will be no environmental impact during execution or after completion of this irrigation project. The Executive Engineer M.I. Division, Rayagada of the project submitted filled-in application FORM - I and pre-feasibility report and Asst. Engineer, M.I. Division, Rayagada presented the project. **The SEAC considered the project under Category-B2 and exempted it from EIA/EMP studies /reports and recommended for grant of Environmental Clearance with the following stipulated conditions :**

- 1) This environmental clearance is valid for a period of 10 years from the date of issue of EC.
- 2) The project proponent shall submit Review Report on the status of compliance of the stipulated EC conditions including results of monitored data if any (both in hard copies as well as by e-mail) to the SEIAA after 5 years.
- 3) Occurrence of stagnant pools/slow moving water channels during construction and operation of the project providing breeding source for vector mosquitoes and other parasites may be avoided. The water should be properly channelised so that no small pool and poodles are allowed to be formed. Even after taking due precautions, due to unforeseen situations, breeding of mosquitoes and resultant

- malaria or mosquitoes- borne diseases can increase. If such a situation arises, It will be the responsibility of project authorities to take all steps, i.e. spraying of insecticides in all the affected/ likely to be affected project area and surrounding 3 km. area, keeping the flight range of mosquitoes in consideration.
- 4) Statutory Clearance from any other Authority, if required, should be obtained as and when required.
 - 5) Adequate free fuel arrangement should be made for the labour force engaged in the construction work at project cost so that indiscriminate felling of trees is prevented.
 - 6) Medical facilities should also be provided to the labourers, staying at the project sites.
 - 7) All the labourers to be engaged for construction works should be thoroughly examined by health care personnel from time to time and adequately treated if necessary. First -aid medical facilities should be provided at the project site.
 - 8) All the equipment which are likely to generate high noise levels are to be fully mollified (noise reduction measures).
 - 9) Consolidation and compilation of the muck should be carried out in the muck dump sites and the dump sites should be above high flood level.
 - 10) Adequate financial provision should be made in the total budget of the project for implementation of the environmental safeguard measures.
 - 11) The responsibility of implementation of environmental safeguards rests fully with the project proponent .
 - 12) The project proponent would take adequate measures to ensure that the PM in ambient air quality is within the [prescribed](#) limit.
 - 13) Adequate steps shall be taken by the project proponent to protect flora and fauna of the project area.
 - 14) A quick EIA with EMP may be undertaken after the present monsoon recedes completely and submitted as soon as possible bringing out the present baseline data and possible environmental impacts in the long run.
 - 15) Survey of flora and fauna along with conservation measures including peripheral soil conservation measures to avoid extensive siltation, should be done by a competent body.

- 16) Forest submergence clearance from concerned offices is submitted before the actual construction is started.
- 17) In case of change in the scope of the project or implementation, it would require a fresh appraisal.
- 18) The proponent will plant sufficient number of trees along the canal embankments.
- 19) Survey of flora and fauna along with conservation measures including peripheral soil conservation measures to avoid extensive siltation, should be done by a competent body.
- 20) Forest submergence clearance from concerned offices is submitted before the actual construction is started.
- 21) The SEIAA reserves the right to add additional safeguard measures subsequently, if found necessary.

ITEM NO. 4

SCOPING FOR EC FOR KATASAH I & KOLHA RUDUKELA IRON AND MANGANESE MINE FOR PRODUCTION OF 12000 TPA OF MANGANESE ORE OVER AN AREA 21.347 HA AT KATASAH I & KOLHA RUDUKELA, DIST – KEONJHAR (TOR).

The proposal was considered by the SEAC to determine the Terms of Reference (TOR) for undertaking detailed EIA study for the purpose of obtaining environmental clearance in accordance with the provisions of the EIA notification, 2006. The project proponent had submitted information in the prescribed format (Form-I) along with pre-feasibility report. The proposal is for of production of 12000 TPA of manganese ore over mining lease area of 21.347 ha. It is a fresh mining lease, which was granted to the lessee on 8.4.2004. This lease was granted for 20 years. Mining operation will be started after executive of lease. The validity of lease is upto 7.4.2024. The lease area over 21.347 ha. comes under village Katasahi and Kolha Rudukela, Tehsil, Barbil under Champua sub-division in Keonjhar district of Orissa State. The lease area comprises of forest area of 3.85 ha. and non forest area of 17.497 ha. The application for forest clearance for 3.85 ha. has been submitted at the office of the DFO, Keonjhar and it is under final scrutiny. Mining plan has been approved by IBM vide letter No. BBS/KJ/Mn/MP-245 dated 6.7.2005 for production of manganese ore of 12000 TPA. There is no recorded

ecologically sensitive area and historical monuments. However, there are reserve forests namely Uliburu RF, Lakraghat RF, Karo RF, Sidhamath RF, Baitarani RF etc. The mine is proposed to be worked in single shift operation of 8 hours duration within day light hours. The water requirement is 5 KLD. The source of water is ground water. Considering the information furnished and presentation made by representative of **the consultant of ERS(I) (P) Ltd, Bhubaneswar** of the project proponent, the SEAC prescribed the following TORs for undertaking detailed EIA study:

1. Profile of the project proponent and his background to establish the financial and entrepreneurial competency to undertake the project may be included.
2. Duly attested & certified Mining Plan approved by concerned authority may be submitted along with the copy of the current lease deed in the name of the proponent. Present status of mining lease may be given.
- 3. Copy of Forest Clearance .**
4. The EIA study area shall encompass 10 km radius from the mine lease boundary as buffer zone.
5. Collection of one season (non-monsoon) primary baseline data on ambient air quality, water quality, noise level, soil and flora and fauna and site-specific meteorological data should also be collected. The location of the monitoring stations should be justified.
6. Air quality modeling should be carried out for prediction of impact of the project and the existing mines in the vicinity on the air quality of the area focusing more in the villages within 3 kms from the mine. It should also take into account the impact of movement of vehicles for transportation and handling of minerals, OB including mining activity through volume source modeling. The details of the model used and input parameters used for modeling should be provided. The air quality contours may be shown on a location map clearly indicating the location of the site, location of sensitive receptors, if any, and the habitation. The wind roses showing pre-dominant wind direction and speed may also be indicated on the map. The modeling should take into consideration the existing mines in the study area as regards their polluting potential rather the existing level.
7. Availability of requisite quantity of surface, sub-surface and ground water and their source to be furnished along with water balance. Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the project should be provided.
8. Details of water bodies and drainage pattern of the ML area may be specified.
9. Progressive reclamation plan, post-mining land use, progressive mine closure and greenbelt development plan should be prepared in tabular form and be submitted. Milestones for the above activities may be specified in the table.

10. Location of National Parks, Sanctuaries, Biosphere Reserves, Wildlife corridors, Tiger/Elephant reserves (existing as well as proposed), and existence of rare and endangered flora and fauna if any, within 10 km of the mine lease should be clearly indicated. Necessary clearance, if any, as may be applicable to such projects due to proximity of the ecologically sensitive areas as mentioned above under the Wildlife (Protection) Act, 1972 and copy thereof, may be furnished.
11. A detailed biological study of the core zone and buffer zone (10 km radius of the mining lease area) should be carried out. Details of flora and fauna duly authenticated separately for core and buffer zones should be furnished based on field survey indicating the schedule of the fauna present. In case of any schedule-I fauna found in the study area, necessary plan for their conservation should be prepared in consultation with the State Forest & Wildlife Department and details may be furnished. Necessary cost details for executing the conservation measures should be furnished and incorporated as part of the project cost.
12. Occupational health impact and remedial measures thereof for the project may be studied.
13. Baseline data for health status survey for all the employees including labourers and the residents of the nearby villages within 5 km distance may be carried out. Welfare of mine workers is the prime responsibility of the project proponent. Various activities such as regular health check up, first-aid, shelter for rest and meals, drinking water etc. are to be taken up at the project cost. Nearby mine owners may form a society and a common fund for the welfare of mineworkers may be created. Besides various Govt. schemes and other sources may be explored. This aspect has to be covered in the EMP.
14. Socio-economic impact due to project activity may be assessed and based on the study, developmental activity proposed to be undertaken by the project proponent to be specified and as far as possible, quantitative dimension to be given. Study should include Corporate Social Responsibility (CSR) and it should be carried out as the entry point activity as trust building measures.
15. Points raised/likely to be raised during public hearing and commitment of the project proponent on the same may be included.
16. The depth of the ground water table in the area vis-a-vis minable depth of the bodies may be clarified with either primary or authentic secondary data in the EIA report. Rainwater harvesting and treatment system for pumped out quarry water if any may be submitted.
17. Management of OB dumps and other solid wastes generated during mining may be addressed through incorporation of a concrete plan for the same. Proper care should be taken for treating the effluents along with rainwater harvesting and wash offs from OB dumps to adequately recharge the ground water resources.
18. Colored maps depicting land use/change of the region showing sensitive / fragile features and detailed lay-out of the site clearly showing green-belt (existing & planned) should be furnished.

19. Satellite imagery of the location of mine should be submitted with demarcation of other proposed/in-operation mines in nearby area. Location is also to be shown in Tehsil map procured from the Revenue Department. This should be used as baseline information to compare the impact of mining in the area in future.
20. Risk assessment and disaster management plan should be given.
21. EMP taking into account the pre- and post-project environment impacts may be included.
22. Any litigation/ court case pending against the proposal should also be included.
23. The EIA report should includes the specified methodology to be adopted for collection and analysis of 12 air quality parameters as per the Central Pollution Control Board Notification No. B-29016/20/90/PCI-L dated 18th November 2009 published in the Gazette of India Part III-Section 4 No 217 Extraordinary. The analytical methods to be followed is specified in the above notification is to be maintain the New National Ambient Air Quality Standards
24. This Terms of References (TORs) is valid for a period of two years from the date of issue of TORs for submission of the EIA/EMP report after public consultation.(This is in conformity with the MoEF, Govt. of India office memorandum No. J-11013/41/2006-IAII(I) dt. 22.3.10).

ITEM NO 5

FINAL APPRAISAL FOR EC FOR RESIDENTIAL CUM COMMERCIAL HOUSING PROJECT AT PAHALA, BHUBANESWAR, DIST-KHURDA BY HRG FINANCE & INVESTMENT CONSULTANTS (P) LTD, WITH TOTAL PROJECT AREA 34741.974 SQM (8.585 ACRES) AND BUILT UP AREA 113933.86 SQM (EC)

The proposed development is a residential cum commercial building project having multiple floors. The project consists of residential (Basement, ground floor with 22 floors) and commercial (Basement +ground + 17 floors). Total plot area is 34741.974 sqm and total build up area is 113933.86 sqm [57544.82 (Residential) + 56389.04 (Commercial)]. Maximum height of the building is 67.75 m. Total cost of the project is INR 76 crores. The project has been approved by BDA vide letter No. 8687/bpd t. 3.7.2009. Total water requirement is 510 m³/day and fresh water requirement is 300 KLD. The water requirement will be made from PHD supply. Around 347 m³/day of waste water will be generated which will be treated in a Sewage Treatment Plant (STP).The treated water will be re-used for dual flushing, green belt and landscaping. Total solid waste generation will be 1938 KLD. The power requirement is **7985 KW. The representative of consultant of Centre for Envotech & Management Consultancy Pvt. Ltd., Bhubaneswar** made the presentation on the proposal.

During discussion, the STP supplier was present with the proponent. He briefed about the sewage treatment plant to the SEAC. He also informed that they have already installed the sewage treatment plant of similar type at APPOLO Hospital, Bhubaneswar and same is running successfully.

The committee decided to take decision on the proposal after visit to the proposed site by the committee and verification of performance of STP installed at APPOLO Hospital, Bhubaneswar. At the same time, the committee also decided to ask the proponent to furnish the following information/documents.

- i) BDA approved of drawings, plans and structural sufficiency certificate from the competent authority shall be submitted.
- ii) An undertaking to the effect that they have not started any construction work at the site.
- iii) Drainage map of area
- iv) Detail proposal for solid waste management
- v) Detail proposal for treated waste water utilization

ITEM NO 6.

FINAL APPRAISAL FOR EC FOR “ROYAL LAGOON” A RESIDENTIAL CUM COMMERCIAL COMPLEX BY M/S. S.J. DEVELOPERS & HOUSING (P) LTD OVER AN AREA OF 3,72,874 SQ.FT. AND BUILT UP AREA OF 10,29,533.91SQ.FT.(EC)

The proposed development is a residential cum commercial complex (Royal Lagoon) having multiple floors at Raghunathpur area, Bhubaneswar. The project consists of 5 nos. G+ 14 storied AND 4 nos. G+15 storied residential building with total no. of 509 apartment and 1 six storied commercial building. The total land area is 8.56 Ac. (3,72,874 sq.ft) and total built up area is 13,55,412 sqft.. The water requirement is 490 KLD. (400 KLD for residential and 90 KLD for commercial purpose). Source of water is ground water. About 360 KLD of waste water from residential and 81 KLD from commercial complexes will be generated which will be treated in STP and treated water will be discharged to public drain. Power requirement is 5 MW. **The representative of consultant of M/s. Kalyani Laboratory, Bhubaneswar** made the presentation on the

proposal. The committee decided to consider the proposal after receipt of the following from the proponent.

1. The Proponent has not submitted approved BDA plan and intimated that the approval is under process and likely to be approved shortly. The proponent has to submit BDA approved building plans and structural stability certificate from concerned authority .
2. The STP proposed does not have provision for separating grey and normal discharge water. The proposal includes use of STP sludge for gardening, which is not acceptable. So they were advised to consult a professional firm in this regard and present a fool proof plan in the next meeting for consideration.
3. EIA and EMP as regards ambient air quality during construction and operational phase to be submitted.
4. The proposal of disposing off solid wastes to be submitted with supportive documents.
5. The meteorological parameters including the maximum rain intensity required for calculating the extent of rainwater harvest seem to be inappropriate. They should get secondary data from the IMD, Bhubaneswar and present technical details fresh.
6. Detail power requirement and capacity of DG set and location of installation of DG set with chimney height to be furnished. .
7. An undertaking to the effect that they have not started any construction work at the site.
8. Land conversion document
9. Drainage map of area
10. Detail of land scaping
11. Detail proposal for treatment facility for swimming pool waste water
12. An undertaking to the effect that they shall not use ground water during construction phase.
13. Permission status of drawl of water
14. proposal for utilization of treated waste water.

The proposed site to be visited by the committee for verification and the proponent is required for presentation alongwith their experts of STP supplier after submission of above information/document.

ITEM NO 7.

FINAL APPRAISAL FOR EC FOR PRODUCTION OF IRON ORE 290,000 TPA OVER AN AREA OF 42.985 HA IN RESPECT OF M/S. BUDHARAJA IRON & MANGANESE MINE AT BADAMPAHAR IN MAYURBHANJ DISTRICT.(EC).

The proponent intimated that they were unable to attend the presentation meeting as they have to appear before the competent authority of MoEF for forest clearance on the same day and requested to consider their project in the next SEAC meeting. The committee decided to defer the case as per request of the proponent.

ITEM NO 8.

FINAL APPRAISAL FOR EC FOR NAYAGARH IRON ORE MINE OF SRI K. C. PRADHAN OVER AN AREA OF 24.57 HA AT NAYAGARH, KEONJHAR FOR PRODUCTION OF IRON ORE 80,000 TPA (EC).

The proposal was considered by the committee and the proponent made a presentation on the same. The proposal is for opening of a new mine for production of 80,000 TPA of iron ore. Additional terms of reference (TORs) for this project were prescribed on 14.9.07 by MoEF, Govt. of India for including in the EIA report already prepared. The mine lease of the project is 24.57 ha. out of which 22.794 ha is forest land. Forest clearance for diversion of 20.31 ha of forest land has been obtained on 8.2.08. The mine working will be opencast by semi-mechanised method involving drilling and blasting. Life of the mine is 33 years. Baitarni river flows at a distance of 3.5 km in the west direction from the mine lease. No National Park/Sanctuary/Elephant corridor is located within 10 km of the mine lease. A map duly authenticated by DFO cum wildlife warden, Keonjhar division has been submitted in this regard. It is estimated that 0.238 million m³ of OB will be generated during the mine life. An area of 0.824 ha. has been earmarked for temporary storage of OB. Backfilling is proposed, which will start from 6th year and there will be no external OB dump at the end of the mine life. Water requirement is estimated as 20 m³/day which will be obtained from Baitarani river at a distance of 3.5 km. Ultimate working depth will be 541 m AMSL. The ground water table is 530 m AMSL during monsoon. Mine working will not intersect ground water table. The issues raised during public hearing on 20.3.2008 were also clarified. As per the post mine land use plantation will be raised in an area of 21.888 ha. The proposal was appraised before EAC of MoEF,

Govt. of India on July 22-24th, 2008. The EAC observed that the approved mine plan is for a lease area of 27.794 ha. while the lease area of the mine is 24.57 ha. The EAC, therefore, desired that the mine plan should be modified and got approved for the proposed lease area. The EAC also decided that the recommendation on the project will be made after the approved mining plan for the proposed lease area of 24.57 ha has been submitted by the proponent. The proponent submitted the approved mining plan as directed by EAC to them. But, they were told that in the meantime SEIAA & SEAC has already been formed and the file transferred to SEIAA, Orissa. The representative of M/s. Geomin consultants, Bhubaneswar made a presentation on the proposal before SEAC, Orissa. Considering the information furnished and presentation made, the SEAC recommended for grant of environmental clearance in favour of the mine for a period of 5 years with the following stipulated conditions.

- i) The applicant (Project proponent) will take necessary measures for prevention, control and mitigation of Air Pollution, Water Pollution, Noise Pollution and Land Pollution including solid waste management as mentioned by him in Form-1, Final EIA reports and Environment Management Plan (EMP) in compliance with the prescribed statutory norms and standards.
- ii) The applicant will take necessary steps for socio-economic development of the people of the area on need based assessment for providing employment, education, health care, drinking water and sanitation, road and communication facilities etc.
- iii) The applicant will comply to the points, concerns and issues raised by the people during public hearing on **24 July 2008** in accordance with the commitments made by him thereon.
- iv) The applicant will take statutory clearance/approval/permissions from the concerned authorities in respect of his project as and when required.
- v) For post environmental clearance monitoring, the applicant will submit half-yearly compliance report in respect of the stipulated terms and conditions of Environmental Clearance to the State Environmental Impact Assessment Authority (SEIAA), Orissa on 1st June and 1st December of each calendar year.
- vi) The core zone should be monitored intensively with no. of stations as prescribed by CPCB, Delhi and unit of pollutant level should be expressed as NAAQ of CPCB, Delhi. The detail methodology adopted for analysis of samples shall be clearly indicated.
- vii) The proponent shall submit ground toothing baseline data on flora & fauna and CSR activities already carried out within three months to the SEIAA

- viii) Adequate buffer zone shall be maintained between two consecutive mineral bearing deposits.
- ix) Zero waste mining concept shall be implemented either by putting up pelletisation plant or dispose of low grade ores/fines to prospective buyers.
- x) The following shall be implemented viz. (a) dump run-off should be diverted into settling ponds (b) adequate rain water harvesting and ground water recharging facilities should be developed in the core zone; (c) attempt should be made to achieve zero water balance.
- xi) Maintenance of roads through which transportation of ores are undertaken shall be carried out by the project proponent regularly at its own cost.
- xii) Fugitive dust generation shall be controlled. Fugitive dust emission shall be regularly monitored at locations of nearest human habitation (including schools and other public amenities located nearest to sources of dust generation as applicable) and records shall be submitted to the SEIAA, Orissa.
- xiii) Transportation of ore shall be done by covering the trucks with tarpaulin or other suitable mechanism so that no spillage of ore / dust takes place.
- xiv) Rain water harvesting shall be undertaken to recharge the ground water source.
- xv) Monitoring of ground and surface water quality shall be regularly conducted and records should be maintained and data shall be submitted regularly to the SEIAA, Orissa.
- xvi) The proponent shall ensure that no silt originating due to mining activity is transported in the surface water course. Measures for prevention and control of soil erosion and management of silt shall be undertaken. Protection of dumps against erosion shall be carried out with geo textile matting or other suitable material, and thick plantations of native trees and shrubs shall be carried out at the dump slopes. Dumps shall be protected by retaining walls.
- xvii) Trenches / garland drains shall be constructed at foot of dumps to arrest silt from being carried to water bodies. Adequate number of Check Dams shall be constructed across seasonal/perennial nallahs (if any) flowing through the ML area and silts be arrested. De- silting at regular intervals shall be carried out.
- xviii) Provision shall be made for the housing of the labourers 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.
- xix) Occupational health and safety measures for the workers including identification of work related health hazards, training on malaria eradication, HIV, and health effects on exposure to mineral dust etc. shall be carried out. The Proponent shall engage a full time qualified doctor who is trained in occupational health. Periodic monitoring for exposure to respirable mineral dust on the workers shall be conducted and records maintained including health records of the workers. Awareness programme for workers on impact of mining on their health and

precautionary measures like use of personal equipments etc. shall be carried out periodically. Review of impact of various health measures undertaken (at interval of five years or less) shall be conducted followed by follow up action wherever required. Occupational Health Centre shall be established near the mine site itself.

- xx) Shelter belt i.e Wind Break of 15 m width and consisting of at least 5 tiers around lease facing the human habitation, school / agricultural fields etc. (if any in the vicinity), in the safety zone/ back-filled & reclaimed areas, around voids & roads shall be raised. Green belt development and selection of plant species shall be as per CPCB guidelines. Density of the trees has to be around 2500 plants per hectare. Herbs and shrubs shall also form a part of afforestation programme besides tree plantation. Help & guidance of local DFO may be sought in the matter. Details of year wise afforestation programme including rehabilitation of mined out area shall be submitted to the SEIAA, Orissa within six months.
- xxi) This Environmental clearance is subject to Forest clearance under the Forest (Conservation) Act, 1980.
- xxii) The mining operations shall be restricted to above ground water table and it should not intersect the groundwater table.
- xxiii) The top soil shall temporarily be stored at earmarked site(s) only and it should not be kept unutilized for long (not more than 3 years). The topsoil shall be used for land reclamation and plantation.
- xxiv) The over burden (OB) generated during the mining operation shall be stacked at earmarked dump site(s) only and it should not be kept active for a long period of time and its phase-wise stabilization shall be carried out. Proper terracing of OB dump shall be carried out so that the overall slope shall not exceed 28^o Backfilling shall be done as per approved mining plan. Back-filling to start from 3rd year onwards of the mining operation & the entire quantity of waste generated shall be backfilled & liquidated within five years. There shall be no external over-burden dumps after the 6th year of the mining operation. The backfilled area shall be afforested. Back-filling has to be done in a manner that it is restored to the normal ground level. Monitoring & management of rehabilitated areas should continue till the vegetation is established & becomes self-generating. Compliance status to be reported to the appropriate authorities.
- xxv) The funds earmarked for the environment protection measures shall be judiciously utilized. Under no circumstances this funds shall be diverted for other purposes. Year-wise expenditure for this fund should be reported to the SEIAA, Orissa.
- xxvi) The critical parameters such as SPM, RSPM, NOX in the ambient air within the impact zone, peak particle velocity at 300m distance or within the nearest habitation, whichever is closer shall be monitored periodically. Further, quality of discharged water shall also be monitored [(TDS, DO, PH and Total Suspended Solids (TSS)]. The monitored data shall be uploaded on the website of the company as well as displayed on a display board at the project site at a suitable location near the main gate of the Company in public domain. The circular No. J-

20012/1/2006-IA.II(M) dated 27.05.2009 issued by Ministry of Environment and Forests, which is available on the website of the Ministry www.envfor.nic.in shall also be referred in this regard for its compliance.

- xxvi) A Final Mine Closure Plan along with details of Corpus Fund shall be submitted to the SEIAA 5 years in advance of final mine closure for approval.
- xxvii) The project proponent shall obtain necessary prior permission of the competent authorities for drawl of requisite quantity of water (surface water and ground water) required for the project.
- xxviii) The project proponent shall prepare wild life conservation plan in consultation with DFO and adequate safety and mitigation measures should be incorporated to protect the wild life, flora, fauna to mitigate adverse impact.
- xxix) The above mentioned stipulated conditions shall be complied in time bound manner. Failure to comply with any of the conditions mentioned above may result in withdrawal of this environmental clearance and attract action under the provisions of Environment Protection (EP) Act, 1986.

(DR. GAGAN BIHARI NITYANANDA CHAINY)
CHAIRMAN, SEAC

(DR. SWOYAM PRAKASH ROUT)
MEMBER, SEAC

(DR. HAREKRISHNA NAYAK)
MEMBER, SEAC

(DR. MOHESHWAR PATRA)
MEMBER, SEAC

(DR. R. C. MOHANTY)
MEMBER, SEAC

(PROF. KUMAR DAS)
MEMBER, SEAC

(SRI. S. DAS)
SECRETARY, SEAC