

**MINUTES OF THE MEETING OF STATE LEVEL EXPERT APPRAISAL  
COMMITTEE, ORISSA HELD ON 25<sup>TH</sup> JANUARY , 2011**

The meeting of State Level Expert Appraisal Committee, Orissa was held on **25<sup>th</sup> January , 2011** in the Conference Hall of Orissa State Pollution Control Board, Bhubaneswar at 2.30 PM. 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. | Sri Sasanka Sekhar Pattnaik,        | - | Member   |
| 6. | Prof. Kumar Das                     | - | Member   |
| 7. | Dr. R.C. Mohanty,                   | - | Member   |

The following issues were discussed and decided :

1. Next meeting of the committee would be held on 3<sup>rd</sup> & 4<sup>th</sup> March, 2011 for consideration of new proposals

**2. CONSIDERATION OF OLD PROPOSALS**

- i) PROPOSAL OF RESIDENTIAL COMPLEX OF MANITIRUMALA APARTMENTS RESIDENTIAL COMPLEX PROMOTED BY ALL ORISSA STATE BANK OFFICERS HOUSING COOPERATIVE SOCIETY LTD., BHUBANESWAR. AT PLOT NO.21, MOUZA: KALARAHANGA, NANDANA KANANA ROAD, BHUBANESWAR, ORISSA**

The proposal is a residential complex promoted by All Orissa State Bank Officers Housing Cooperative Society Ltd., Bhubaneswar at Plot No.21, Mouza: Kalarahanga, Nandana Kanana Road, Bhubaneswar, Orissa. There will be 11 blocks of G+14 storied buildings; a total of 603 flats in which 3,317 persons are likely to reside. It has provision for a Club House in which 302 persons can be accommodated at a time.. Total Plot Area is 41075.2 Sq,M . Total built up area is 76050.80 sq.m. The total makeup water requirement is 307.5 KLD. The water requirement will be met from municipal supplies. Around 428.165 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 and 168.9 KLD will be discharged to municipal sewer. Total solid waste generation will be 1.5 TPD. The power requirement is 3938 KW. The building is completely

residential in nature. Bhubaneswar Development Authority has approved the building plan and drawing .The proposal was first placed in the SEAC meeting held on 26.5. 2010. The committee felt that the proponent has to submit certain basic documents after which a fresh date will be decided and communicated to the proponent for appraisal. The proponent furnished basic documents and it was again called for appraisal in the SEAC meeting held on 6<sup>th</sup> & 7<sup>th</sup> December, 2010. The **consultant M/s EHS Consultant Pvt. Ltd., Bangalore**, presented in details of ETP plant in response to earlier query. The committee again opined that certain clarifications, have been found to be not satisfactory and decided to ask the proponent to furnish further clarifications for consideration of environmental clearance.

The proponent furnished the compliance to the observation of SEAC. 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 on post-environmental monitoring in respect of the stipulated terms and conditions in the Environmental Clearance to the State Environmental Impact Assessment Authority (SEIAA), Orissa, on 1<sup>st</sup> June and 1<sup>st</sup> December of each calendar year.
- iv) The project proponent shall obtain Periodic Occupancy Renewal Certificate from the competent authority at an interval of 3 to 5 years as per the provisions of National Building Code( NBC) 2005.
- v) The project proponent shall comply to all the conditions stipulated by the Fire Prevention Officer, Orissa.
- vi) 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 lightning 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 area 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 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.
- (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 neighbouring 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 emission and noise 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, covered 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, adequacy of fire fighting equipments etc. as per National Building Code of India, 2005 including protection measures from lightning 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 disposed off to composted and dry / inert solid waste should be disposed off to a certified agency for safe disposal. 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 and should be more than the highest building height. 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 over atleast 20% of the site area shall be done using native tree species/plants improving greenery & keeping in view aesthetics considerations in the whole campus. Professional landscape architects should be engaged to design the green layout to provide for multi tier plantation and green fencing all around, mitigating various environmental parameters like dust, noise, emissions etc. and pathway for joggers.
- 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. Rainwater recharge should be through specified recharge pits of required numbers. The surface runoff water should be stored suitably treated and reused for land scaping. 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. Care must be taken so that there is no water logging in the territory and drainage is 100%.
- x) The ground water level and its quality should be monitored regularly in consultation with Central / State Ground Water Authority.
- xi) 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. Alternate entry and exit must be provided to handle excess traffic and emergency situations.
- xii) 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.
- xiii) Provisions of solar hot water storage / supplies at the roof top may be made as per statutory norms of CPCB/MoEF/SPCB, Orissa.
- xiv) 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.
- xv) The building blocks should have adequate distance between them to allow movement of fresh air and passage of natural light, air and ventilation.

- xvi) 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.
- xvii) 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.

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) FINAL APPRAISAL FOR EC OF MANMORA MANGANESE MINES OF M/s. TATA STEEL LTD. FOR PRODUCTION OF 12000 TPA MANGANESE ORE, AT-JODA OVER ML AREA 16.35 Ha IN THE DISTRICT OF KEONJHAR**

The proposal is for production of 12,000 TPA Manganese ore from Manmora Manganese Mine over a lease area of 16.35ha, which is a part of the existing Joda East Iron mine (JEIM) of M/s. TATA Steel with a total leasehold area of 671.093ha. The proponent has also applied for use of the mined out pit for storing slimes generated from their existing iron ore beneficiation plant. The TOR was issued by MoEF in Nov. 2008 based on which the EIA/EMP reports were submitted. The mine has obtained Forest Clearance and Consent to operate till March 2011. Public hearing of the proposal was conducted on 1.2.2010.

It was clarified during the presentation that the proponent has already exhausted the mineable manganese ore reserve of the Manmora Manganese Mine and are presently interested in slime storage and thereby reclaim a part of the mined out pit. The facts and figures presented shows that they had a residual reserve of 18,867T of mineable manganese ore in April, 2008, which they wanted to mine at a rate of 12,000TPA and so the expected life was 2 years. The proposed slime storage pond [dim. 430m (L) X 150 to 270m (W) X 77m (D)] is going to cover a surface area of 6.46ha to store 1.5 million m<sup>3</sup> of slime to a depth of 33m in four years period. About 50% of the pit circumference is proposed to be built with 0.4 million m<sup>3</sup> of OB material to a height of 35m. M/s. WAPCOS, a Govt. of India undertaking, has provided the designs and has carried out permeability test of the soil.

The proposal was placed in the SEAC meeting held on 6<sup>th</sup> & 7<sup>th</sup> December. Considering the information furnished and presentation made by **the consultant, M/s S.S Environics (India) Pvt. Ltd, Bhubaneswar**, clarifications furnished in response to queries and keeping documents submitted in view, the Committee decided to request SEIAA to forward original application of the Proponent submitted to MoEF, Govt. of India. SEIAA forwarded the original application. The committee went through the application and observed the following:

- I. Since the proposal was submitted with dual objectives of extension of lease for the MMM and use a part of it for storing iron ore slimes and their present objective is only in storage of slimes having exhausted the mineable manganese ore. Moreover, the TOR issued by the MoEF was in response to their application of extension of lease, which can not be held valid for the dual objectives now proposed, though it is aimed at reclamation of a part of the mined out pit due to its additional environmental implications. The proponent has to clarify the same.
- II. The Committee is not in a position to comment on the renewal of lease since its objective of mining the left out manganese reserves has already been over. Status of EC and deemed leasehold for mining in the MMM etc. may be looked into by the Competent Authority.
- III. The present modified objective being use of a part of the mined out pit for storage of slimes and the EIA/EMP reports submitted valid, clarifications on the following aspects may be furnished for consideration of the SEAC:
  - a) The present number and technical details of beneficiation plants with capacity and slime out pits, water content, year of storage etc. may be provided. Similar details of slime to be stored should also be provided.
  - b) Details of design and safety aspects with ultimate fate of the stored slime as worked out by the consultant may be furnished. Long-term management of the pit through plantation may be justified with similar examples elsewhere so as to be sure of the long-term safety and environmental restoration aspects.
  - c) The original Form 1 submitted, TOR (only extracts have been included in the detailed report) given by the MoEF, Progressive mine closure plan approved by IBM may also be submitted.
  - d) Relative distance of AAQ stations from the mine, Air quality modeling with possible fall outs of pollutants and proposed mitigation measures may be provided.
  - e) The TDS of all the stations seem to be on the higher side. Specific reasons and measures proposed to arrest TDS in these water sources may be mentioned.
  - f) The soil pH at all the stations seems to be in the acidic side. Since the distance of these sampling stations are not mentioned, the Committee could not ascertain the reason(s) and it could be due to acidic discharges or seepage out of the OB dumps or stored slimes.
  - g) The percolation rate determined by the consultant seems to be on the lower side ( $10^{-7}$ cm/s amounting to 22.1cm/yr) considering the type of soil as mentioned in the document. It may be ascertained which sample was taken for testing and whether this rate of percolation will hold good for the material being used for construction of the dyke and the bottom of the pit under pressure generated by 33m high slimes stored.
  - h) Details of dyke design with slope and compaction may be furnished.

**After receiving the above clarifications, the proposal will be reconsidered in a future meeting.**



**III) EXPANSION PROPOSAL OF CEMENT GRINDING CAPACITY FROM 2 MTPA TO 4 MTPA & 20 MW COAL BASED CPP OF M/S. ULTRATECH CEMENT, DHUTRA, KIRMIRA, JHARSUGUDA DIST.**

M/S. ULTRA Tech Cement Ltd. is operating with 2MTPA cement grinding unit. The unit has proposed for expansion of grinding unit 2 MTPA to 4 MTPA and 20 MW power plant to meet the captive power requirement for the above cement grinding unit. The company gets clinkers for its existing 2MTPA grinding unit from Hirmi and Rawan near Raipur (CG) and would also get the additional clinker for expansion of grinding capacity to 4MTPA from similar facilities of M/s. Aditya Birla group. They get mineral gypsum from Rajasthan and Bhutan while equal amounts (0.04+0.04 MTPA) of phosphogypsum from PPL/IFFCO units of Paradip or Coromandel Fertilizers are used/proposed to be used. The fly ash requirements are to be met from thermal power plants of Hindalco and nearby Thermal Power Plants. The coal based 20MW CPP is proposed for its own captive consumption. Coal (0.144million tons per annum) analyzing 2-6% S and 35-40% ash is proposed to be transported from Bihar/WB. It would also put up 2X6MW diesel generators for standby use for which, they would require 25,920KL of fuel oil (imported) from Haldia. The total cost of the combined project is Rs.250 crores. Expansion of grinding capacity would call for doubling of raw material requirements, power consumption, storage space etc., ultimately resulting in a higher pollution potential.

The proposal was placed in the SEAC meeting held on 20<sup>th</sup> & 21<sup>st</sup> September 2010. The committee decided to consider TOR for undertaking detailed EIA study after receipt of certain clarification/documents from the proponent. The proponent also asked to **obtain information from CPCB, Delhi that the proposed site is not coming under critically polluted area as declared in the notification of MoEF, Govt. of India and submit the copy of the letter to SEAC .The project proponent furnished the compliance. The committee went through the documents.**

Based on the information furnished and presentation made by the consultant **J. M. Environet Pvt. Ltd, Gurgaon, Haryana**, the SEAC prescribed the following TORs for undertaking detailed EIA study

- 1 Present land use of study area for 10 Km radius should be included.
- 2 One season (other than monsoon) site-specific meteorological data shall be provided. The AAQ data for the period may be given along with the dates of monitoring. The parameters to be covered shall include PM10, RSPM, SO<sub>2</sub> NO<sub>x</sub> and Ozone (ground level). The location of the monitoring stations should be so

decided as to take into consideration the predominant downwind direction, population zone and sensitive receptors including reserved forests. There should be at least one monitoring station in the upwind direction.

- 3 Collection of baseline data on air, water, soil, noise, flora, fauna etc. for one season other than monsoon.
- 4 Ambient air quality monitoring modelling data of the existing unit and projected data for the proposed expansion.
- 5 Sources of secondary emissions, its control and monitoring as per the CPCB guidelines.
- 6 Necessary clearance from the Competent Authority for drawal of requisite quantity of water for the project should be provided.
- 7 Water balance cycle data including quantity of effluent to be generated, recycled and reused and discharged.
- 8 Efforts made to minimize use of ground water. An action plan should be provided. Ground water monitoring minimum at 8 locations.
- 9 Action plan for surface as well as roof top rainwater harvesting and ground water recharge.
- 10 Scheme of proper storage of ash, gypsum, clinker, coal .
- 11 Fugitive emissions and control technologies should be provided.
- 12 Impact of transportation of raw materials and the details of mitigation measures should be included.
- 13 The proponent proposes to use 100% of their fly ash as fillers . The proponent shall clarify the extent of production of OPC/PPC/PSC grade cement in their works and in which grade the fly ash is proposed to be used and to what extent.
- 14 Stacking and use of bottom ash should be specified.
- 15 The efficiency of ESP is to be substantiated by an independent competent body as well as the manufacturers.
- 16 Land requirement for the project to be optimized. Item-wise break up of land requirement and its availability to be furnished as per the norms prescribed by Central Electricity Authority (CEA).
- 17 Fuel analysis may be provided (sulphur, ash content and mercury) with grade of coal. Details of auxiliary fuel, if any including its quantity, quality, storage etc should also be given.
- 18 The steps to ensure long-term storage of ash should be indicated.
- 19 Details of fugitive emission from Coal Handling Plant (CHP), ash handling and ash disposal area and its control system may be specified.
- 20 Adequate space shall be earmarked for installation of Flue Gas Desulphurisation (FGD) system in future if required. This should also include for management and disposal of solid waste to be generated from FGD system. Details of flue gas management system may also be provided.

- 21 Details of rainwater harvesting and how it will be used in the plant shall be provided. Water conservation measures proposed in different units of operation of the project should also be given. Quantity of water requirement for the project should be optimized. Details of water balance taking into account reuse and re-circulation of effluents may be provided.
- 22 Detail run off management of coal stockyard and ash disposal area to be specified.
- 23 Detailed precaution measures for handling chlorine, one of the raw materials, needs inclusion.
- 24 Risk assessment should be carried out. It should take into account the maximum inventory of storage at site at any point in time. The risk contours should be plotted on the plant layout map clearly showing which of the proposed activities would be affected in case of an accident taking place. Based on the same, proposed safeguard measures should be provided.
- 25 Occupational health impact and remedial measures of the project may be studied.
- 26 Socio-economic impacts due to project activity are to be assessed and based on the study. Developmental activities proposed to be undertaken by the project proponent to be specified. 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.
- 27 Green belt (33%) development plan as per CPCB guidelines. EMP should include a clear map for plantation/green belt.
- 28 Scheme for compliance to the recommendations mentioned in the CREP guidelines.
- 29 Details of location of wildlife sanctuary and national parks within 10 km radius of the plant and plan for conservation and protection of the same should be included.
- 30 Detailed Environment management Plan (EMP) with specific reference to details of air pollution control system, water & wastewater management, monitoring frequency, responsibility and time bound implementation plan for mitigation measure should be provided.
- 31 EMP should include the concept of waste-minimisation, recycle/reuse/recover techniques, Energy conservation, and natural resource conservation.
- 32 Any litigation pending against the project and /or any direction /order passed by any Court of Law against the project, if so, details thereof should be provided.
- 33 Points raised/likely to be raised during public hearing and commitment of the project proponent on the same may be included.
- 34 The unit shall apply for final appraisal **only after the firm coal linkage as per the circular** [# J11013/41/2006-IA.II(I)] of MoEF, Govt. of India dated Nov. 01, 2010.

- 35 The EIA report should include 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.
- 36 **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).**

**IV) PROPOSAL FOR CONSTRUCTION OF RESIDENTIAL COMPLEX BY LIC HFL CARE HOMES LTD AT AIGINIA AND GHATIKIA, BHUBANESWAR WITH TOTAL LAND AREA 2,17,800 SQ.FT. AND BUILT UP AREA 3,28,402 SQ.FT.**

The proposed development is a Building Project having multiple floors. The said project comprises of 144 no. of 3 bed room flats, 72 no. of 2 bed room flats and 24 no. of single bed room flats. All the 3 and 2 bedroom flats are housed in four no of stilt + 9 storied building. The single bedroom flats are accommodated in building of basement + stilt + three upper storied. The building is completely residential in nature. Bhubaneswar Development Authority has approved the building plan. Originally it was named as housing complex for senior citizens in the age group of  $\geq 50$  years. The Committee objected to the use of the term 'Senior Citizens' since it is a term having different specified age ranging from  $\geq 60$  (for Rlys),  $\geq 65$  (for IT) etc. for different purposes, to which the proponents agreed. There will be 240 flats in a built up area of 3,28,402 sq.ft. covering 54,736 sq.ft. of ground. There are other facilities like Yoga center, community hall etc. The proposal was placed in the SEAC meeting held on 20-21, Sept., 2010. The Housing Finance wing of LIC having Head Office in Mumbai is the proponent represented by Mr. H.C.Mishra was present and representative of their consultants, **Dr. Debashis Biswal of M/s. Kalyani Laboratory, Bhubaneswar** presented the proposal. The committee decided to consider the proposal after receipt of certain information/document/clarification from the proponent. The proponent furnished the information/document/clarification and the committee verified the same.

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 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.
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  - 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**

### **B. CONSTRUCTION PHASE.**

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- (ii) Provision shall be made for the 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.
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- (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 emission and noise 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, covered 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, adequacy of fire fighting equipments etc. as per National Building Code of India, 2005 including protection measures from lightning 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 disposed off to composted and dry / inert solid waste should be disposed off to a certified agency for safe disposal. 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 and should be more than the highest building height. 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 over atleast 20% of the site area shall be done using native tree species/plants improving greenery & keeping in view aesthetics considerations in the whole campus. Professional landscape architects should be engaged to design the green layout to provide for multi tier plantation and green fencing all around, mitigating various environmental parameters like dust, noise, emissions etc. and pathway for joggers.
- 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. Rainwater recharge should be through specified recharge pits of required numbers. The surface runoff water should be stored suitably treated and reused for land scaping. 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. Care must be taken so that there is no water logging in the territory and drainage is 100%.
- x) The ground water level and its quality should be monitored regularly in consultation with Central / State Ground Water Authority.
- xi) 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. Alternate entry and exit must be provided to handle excess traffic and emergency situations.

- xii) A Report on the energy conservation measures conforming 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.
- xiii) Provisions of solar hot water storage / supplies at the roof top may be made as per statutory norms of CPCB/MoEF/SPCB, Orissa.
- xiv) 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.
- xv) The building blocks should have adequate distance between them to allow movement of fresh air and passage of natural light, air and ventilation.
- xvi) 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.
- xvii) 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.

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) FINAL APPRAISAL FOR EC OF M/s. ACRUX REALCON (P) LTD. FOR RESIDENTIAL HOUSING PROJECT AT GOTHAPATANA IN THE DISTRICT OF KHURDA HAVING TOTAL BUILT-UP AREA 108,709.915 SQ.M.**

The proposal is for construction of 1062 residential units in 12 blocks (S+5 - 6 blocks & G+5 – 6 blocks) of 18m maximum height from the ground level. The building plan is approved by the local BDO since it falls just outside BDA jurisdiction. The total land area is 59,751 m<sup>2</sup> with 18,347.7 m<sup>2</sup> ground coverage and 108,709.916 m<sup>2</sup> built-up area. Occupancy at a rate of 4.5 persons per unit (as per standard norms) with service personnel would amount to (4779+service persons) ~5,000 persons. Since it is a housing project, the proponent's presentation was for final appraisal for EC.

The proposal was placed in the SEAC meeting held on 6<sup>th</sup> and 7<sup>th</sup> December, 2010. The consultant M/s. Centre for Envotech & Management Consultancy (P) Ltd., Bhubaneswar of the project proponent made presentation of the proposal. The committee decided to consider the proposal after receipt of certain information/document/clarification from the proponent. The proponent furnished the information/document/clarification and the committee verified the same.

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 on post-environmental monitoring in respect of the stipulated terms and conditions in the Environmental Clearance to the State Environmental Impact Assessment Authority (SEIAA), Orissa, on 1<sup>st</sup> June and 1<sup>st</sup> December of each calendar year.
- iv) The project proponent shall obtain Periodic Occupancy Renewal Certificate from the competent authority at an interval of 3 to 5 years as per the provisions of National Building Code( NBC) 2005.
- v) The project proponent shall comply to all the conditions stipulated by the Fire Prevention Officer, Orissa.
- vi) 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 lightning 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 area 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**

### **C. 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 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.
- (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 neighbouring 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 emission and noise 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, covered 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, adequacy of fire fighting equipments etc. as per National Building Code of India, 2005 including protection measures from lightning 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 disposed off to composted and dry / inert solid waste should be disposed off to a certified agency for safe disposal. 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 and should be more than the highest building height. 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 over atleast 20% of the site area shall be done using native tree species/plants improving greenery & keeping in view aesthetics considerations in the whole campus. Professional landscape architects should be engaged to design the green layout to provide for multi tier plantation and green fencing all around, mitigating various environmental parameters like dust, noise, emissions etc. and pathway for joggers.
- 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. Rainwater recharge should be through specified recharge pits of required numbers. The surface runoff water should be stored suitably treated and reused for land scaping. 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. Care must be taken so that there is no water logging in the territory and drainage is 100%.
- x) The ground water level and its quality should be monitored regularly in consultation with Central / State Ground Water Authority.
- xi) 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. Alternate entry and exit must be provided to handle excess traffic and emergency situations.
- xii) 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.
- xiii) Provisions of solar hot water storage / supplies at the roof top may be made as per statutory norms of CPCB/MoEF/SPCB, Orissa.
- xiv) 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.
- xv) The building blocks should have adequate distance between them to allow movement of fresh air and passage of natural light, air and ventilation.
- xvi) 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.
- xvii) 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.

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.

**VI) M/S. MAA TARINI MINERALS, PLOT NO. 99, AT – MANGULI, PO – CHOUDWAR, CUTTACK-754025**

The proposed project for Chrome Ore Beneficiation Plant is of Capacity 9900 TPA, a At- Manguli District – Cuttack. The proposal was placed in the SEAC meeting held on 19-20 Nov 2009 . The committee decided to reject the proposal in the present form and suggested the proponent should apply afresh for further consideration complying the certain observation . **The unit has applied without complying to the observations made by the SEAC . The case was placed in SEAC meeting held on 8<sup>th</sup> , 9<sup>th</sup> & 10<sup>th</sup> November 2010 and it was decided to return the proposal to SEIAA as the proponent not applied as per observation. Again the proponent applied complying to the observation. It was decided to distribute the compliance to the members and take decision on the proposal in future meeting.**

**VI) FINAL APPRAISAL FOR EC FOR M/S. ULTRA MINERALS & FERRO ALLOYS PVT. LTD FOR CHROME ORE BENEFICIATION PLANT AT NISCHINTA, DIST – CUTTACK (EC).**

The unit has submitted the documents which was discussed during presentation held on 6<sup>th</sup> and 7<sup>th</sup> December, 2010. The committee has already rejected the proposal in the present form and returned to SEIAA. The committee decided to return the document to SEIAA.

**VIII) WITHDRAWAL OF TOR OF GANDHABHALI GRAPHITE MINE FOR PRODUCTION OF GRAPHITE ORE OF 4202 TPA OVER AN AREA OF 20.234 HA. AT GANDABHALI OF NUAPADA DISTRICT.**

The unit has intimated that it will revise the mining plan and withdraw the application of environmental clearance as the unit will apply the mining plan afresh. .SEAC decided to close the file and delist the proposal and returned it to SEIAA .

**IX) APPEAL OF M/S. TERMINAL GRAPHITE MINES, SHANTIKUNJ FARM ROAD, MODIPADA, SAMBALPUR FOR EXTENSION OF TIME FOR SUBMISSION OF EIA REPORT.**

The appeal of the proponent is not clear. SEAC decided to return the appeal as no action is required by the SEAC as the **Terms of References (TORs) is valid for a period of four years as conformity with the MoEF, Govt. of India office memorandum No. J-11013/41/2006-IAII(I) dt. 22.3.10).**

**3. SCREENING OF NEW PROPOSALS**

**I) FINAL APPRAISAL FOR EC FOR PRODUCTION OF 2.04 LAKH MT/ANNUM FOR IRON ORE FROM 0.93 LAKH MT/ANNUM & 0.12 LAKH MT/ANNUM FOR MANGANESE ORE AT NUAGAON IRON & MANGANESE ORE MINES OVER 12.942 HA OF SHRI SHIV DUTTA SHARMA. (EC).**

The proponent is required to submit the following for consideration

- a) Copy of mining lease
- vii) Environmental status of existing mine
- viii) Status of forest clearance.
- ix) Copy of permission from the concerned authority for drawal of water

**VI) FINAL APPRAISAL FOR EC FOR EXPANSION OF SPONGE IRON FROM 15000 TPA TO 45000 TPA ALONGWITH ESTABLISHMENT OF SMS (25,300), ROLLING MILL (24,000 TPA) & CAPTIVE POWER PLANT (6 MW) OF M/S. KHEDERIA ISPAT LTD AT NAIKENBAHAL, KUARMUNDA, SUNDARGARH (EC).**

The proponent is required to submit the following for consideration

- a) Details of raw material linkage agreement
- b) Status of permission from CGWA for drawal of additional water of quantity 476 m<sup>3</sup>/day.
- c) Justification of total land 19 Acres will be sufficient for the existing and proposed plant.
- d) Quantity of solid waste generated and details of area earmarked for solid waste disposal
- e) AAQ data collected if any with respect PM<sub>10</sub> PM<sub>2.5</sub>.



**III) FINAL APPRAISAL FOR EC FOR PRODUCTION OF 2462 TPA OF MANGANESE ORE OF M/S. ANAJORE MANGANESE ORE MINE AT VILLAGE ANAJORE, DISTRICT RAYAGADA. (EC).**

The proponent is required to submit the following for consideration

- a) Copy of valid mine lease document & copy of transfer of lease
- b) Approved mining plan
- c) Status of Forest Clearance if applicable
- d) Present status of mining
- e) Environmental safe guard measures undertaken for existing mines.

**IV) FINAL APPRAISAL FOR EC FOR CONSTRUCTION OF FOUR STAR HOTEL COMPLEX OF M/S. ROYALE HOTELS PVT LTD AT CHANDAKA INDUSTRIAL ESTATE, BHUBANESWAR WITH BUILT UP AREA 21529.35 SQ.M. (EC).**

The proponent is required to submit the following for consideration

- a) Permission status of water drawal.
- b) Drainage pattern of area.
- c) Detail water balance diagram.
- d) Detail proposal for solid waste management and agreement for disposal of solid waste.
- e) Detail proposal for treated waste water utilization.
- f) Detailed specification of STP.
- g) Filled-in questionnaire
- h) BDA approval letter with approved building plans.
- i) Structural safety certificate from competent authority with drawing.
- j) Undertaking to the effect that construction work has not been started.
- k) Rain water harvesting details.
- l) Details of conservation of energy.

**V) FINAL APPRAISAL FOR EC FOR CONSTRUCTION OF RESIDENTIAL HOUSING COMPLEX OF M/S. M. J. DEVELOPERS AT JAGANATHPRASAD, BHUBANESWAR, DIST – KHURDA WITH TOTAL BUILT UP AREA 43879 SQ.M. (EC).**

The proponent is required to submit the following for consideration

- a) Permission status of water drawal.
- b) Drainage pattern of area.
- c) Detail water balance diagram.

- d) Detail proposal for solid waste management and agreement for disposal of solid waste.
- e) Detail proposal for treated waste water utilization.
- f) Detailed specification of STP.
- g) Filled-in questionnaire
- h) Structural safety certificate from competent authority with drawing.
- i) Undertaking to the effect that construction work has not been started.
- j) Rain water harvesting details.
- k) Details of conservation of energy
- l) Source of water other than ground water during construction phase.

**VI) FINAL APPRAISAL FOR EC FOR CONSTRUCTION OF HOUSING COLONY AND SHOPPING MALL OF M/S. Z-ESTATES PVT. LTD. AT KALARAHANGA, BHUBANESWAR WITH BUILT UP AREA 105962.1 SQ.M (EC).**

The proponent is required to submit the following for consideration

- a) Permission status of water drawal.
- b) Drainage pattern of area.
- c) Detail water balance diagram.
- d) Detail proposal for solid waste management and agreement for disposal of solid waste.
- e) Detail proposal for treated waste water utilization.
- f) Detailed specification of STP.
- g) Filled-in questionnaire
- h) BDA approved building plans (Elevation plant etc.).
- i) Structural safety certificate from competent authority with drawing.
- j) Undertaking to the effect that construction work has not been started.
- k) Rain water harvesting details.

**VII) DETAILS OF CONSERVATION OF ENERGY.PROPOSAL FOR 23 MW BIOMASS BASED POWER PLANT OF M/S. RAKE POWER LTD. (TOR).**

SEAC decided to return the proposal as the proposed project is 23 MW based biomass power plant falls under Category A as per EIA Notification 2006 and amended thereon.

**VIII) PROPOSAL FOR EC FOR EXPANSION OF ROURKELA POWER PROJECT (1X250 MW ) OF M/S. NTPC-SAIL POWER CO. LTD. AT ROURKELA WITHIN THE BOUNDARY OF ROURKELA STEEL PLANT IN SUNDARGARH DISTRICT (TOR)**

The proponent is required to submit the following for consideration

- a) Environmental compliance of the existing unit.
- b) Details of land use break up.
- c) Filled in questionnaires.
- d) Analysis report of coal.
- e) Permission status of water drawal
- f) Detail water balance.
- g) Quantity of generation ash and detail of utilization of ash.
- h) Proposed pollution control measures.

**(DR. GAGAN BIHARI NITYANANDA CHAINY )  
CHAIRMAN, SEAC**

**(DR. SWOYAM PRAKASH ROUT)  
MEMBER, SEAC**

**( DR. HAREKRISHNA NAYAK)  
MEMBER, SEAC**

**( DR. MOHESHWAR PATRA)  
MEMBER, SEAC**

**(SRI SASANKA SEKHAR PATNAIK)  
MEMBER, SEAC**

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

**(PROF. KUMAR DAS)  
MEMBER, SEAC**

**(SRI S. DAS )  
SECRETARY, SEAC**