

**MINUTES OF THE MEETING OF STATE LEVEL EXPERT APPRAISAL
COMMITTEE, ORISSA HELD ON 12th May, 2010**

The meeting of State Level Expert Appraisal Committee, Orissa was held on 12th, May 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.	Prof. Gagan Bihari Nityananda Chainy .	-	Chairman
2.	Prof. Swoyam Prakash Rout	-	Member
3.	Dr. Moheshwar Patra	-	Member
4.	Prof. R. C. Mohanty	-	Member
5.	Prof. Kumar Das	-	Member
6.	Dr. Harekrishna Nayak	-	Member
7.	Dr. Surendra nath Das	-	Member

The following issues were discussed and decided

1. The minutes of previous meeting was confirmed by the Committee members.

2. **CONSIDERATION OF PREVIOUS PROPOSALS :**

ITEM NO : 1

PROPOSAL OF GROUP HOUSING (“THE COSMOPOLIS”) OF M/S. ASSOTECH BEL INFRASTRUCTURE PVT. LTD AT DUMDUMA, BHUBANESWAR, ORISSA.

The proponent M/s. Assotech BEBL had submitted their clarifications on the points raised and those points were further discussed with the consultant M/s Sun Consultancy and Services, 16/C, Engineers’ Colony, Budheswari, Bhubaneswar.

Based on information furnished and discussion with proponent and consultant M/s Sun Consultancy Services, Bhubaneswar , the SEAC recommended for grant of environmental clearance in favour of the project with validity till 6.4.2012 during which construction should be completed with the following stipulated conditions :

I. GENERAL.

- 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 his project as and when required.
- iii) The applicants 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 applicants 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) Lighting and natural ventilation of buildings.
 - d) Safety from electrical fire, shock and lightening of the buildings.
 - e) Air-conditions, 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. CONSTRUCTION PHASE.

- (i) 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.
- (ii) A First-Aid Room will be provided in the project site both during construction and operation of the project.
- (iii) All the top soil excavated during construction activities should be stored separately for use in land filling, horticulture/landscape development within the project site.
- (iv) 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.
- (v) 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.

- (vi) 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.
- (vii) The diesel generator sets to be used during construction phase shall be low sulphur diesel type and should conform to Environment (Protection) Rules 1986 prescribed for air and noise emission standards.
- (viii) 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.
- (ix) 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.
- (x) 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.
- (xi) 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 on 27th August, 2003. The above condition is applicable as the project site is located within the 100 Km of Thermal Power Stations.
- (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) Permission to draw minimal quantity of ground water shall be obtained from the competent Authority prior to construction/operation of the project.
- (xvi) Separation of grey and black water supplies and collection from residential units 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 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.

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 sulphur 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) Plantation of trees shall be done as per approved layout plan.
- 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.
- xi) Extracts from the CGWB website and letter produced by the consultant stated that Bhubaneswar is covered under safe zone as regards ground water reserves. Any industry (the Housing concern was taken as one of the industrial units) drawing <1,000m³/day does not need permission. They further clarified that they have applied for PHED water supply and the department stated that if supply pipelines are laid in the vicinity in future, they may get water for their housing complex. The proponent shall furnish supportive document in this regard.
- xii) The proponent should specify the number, diameter and exact depth of the bore wells they have put/ going to put for withdrawal of water during the construction phase to SEIAA within a month of receiving the environmental clearance.
- xiii) The proponent shall put sealed water meters to each pump and maintain a log book of daily withdrawals during the construction phase and Minimise water use to save Ground Water reserves.
- xiv) Use of Ground Water may be restricted during operational phase only with permission from competent authority and PHED supplies may be ensured before handing over of the completed dwelling units.

- xv) A reputed ground water survey agency may be employed to make an estimate of the reserves at the spot during summer (February to May) when the water reserves are stabilized and submit it for the approval of SEIAA within July 31st, 2011 failing which construction may be suspended.
- xvi) The grey water generated would be separately treated in STP with secondary (bio) treatments before recycle instead of mixing up with ordinary domestic use water to which they agreed.
- xvii) The consultant could not clarify as to what kind of treatment is required for swimming pool water and where is the facility proposed. So, the swimming pool waste water may be treated in a separate STP like non grey water twice in a week in addition to their earlier commitments in this regard.
- xviii) The unit has only produced an acknowledgement from BMC for their solid waste disposal. The proponent shall furnish copy of the permission to SEIAA within a month of receiving EC.
- xix) The height of the chimneys to be put up for standby diesel generating units, though as per requirement, are still below the height of the buildings close by, which would affect the ambient air quality of the residential units. Further, in order to ensure upward draught of the emissions to the heights proposed, further engineering designs are to be produced to SEIAA to convince that emissions will be propelled to that height. It is also suggested to put black carbon filters to minimise smoke in the emissions.
- xx) The proponent's clarifications on the extent (25%) of use of solar energy for street lighting should be strictly followed and fail safe measures for generation, storage and supplies of solar energy for such purpose should be ensured and annual compliance reports to be furnished to SEIAA by their Environment Cell for the EC period.
- xxi) Traffic congestion near the entry and exit points from the roads adjoining the proposed project site must be avoided. Parking of vehicles by both residents and visitors should be fully internalized and no public space should be utilized for this purpose.
- xxii) 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.
- xxiii) Provisions of solar hot water storage / supplies at the roof top may be made as per statutory norms of CPCB/MoEF/SPCB, Orissa.
- xxiv) 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.

- xxv) The building blocks should have adequate distance between them to allow movement of fresh air and passage of natural light, air and ventilation including plantation/ horticulture.
- xxvi) The proponent shall furnish detailed information on disposal of E-wastes which includes obsolete personal computers and associated components and dispose the e-wastes as per CPCB / MoEF guidelines. A detailed proposal to this effect shall be submitted to the authority (SEIAA).
- xxvii) 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.
- 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 cancellation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.

The committee also decided to visit the site of construction for an on-the-spot verification and furnish report to the SEIAA.

ITEM NO 2:

PROPOSAL OF SANAPATHULI MANGANESE ORE MINE OF M/S. ORISSA MANGANESE AND MINERALS PVT. LTD, VILLAGE SANAPATHOLI, DIST – SUNDARGARH

The proposal is for renewal of mining lease for production of 1388 TPA of manganese ore. The TOR for this project were prescribed on dt. 25.1.08 by the Expert Appraisal Committee of MoEF, Govt. of India. The mine lease area is 23.29 ha. The already broken up area is 2.49 ha.. Life of the mine is 50 years. Working will be opencast and mechanized involving drilling and blasting. The Sanapatholi Manganese Mining Lease of M/s. OMMPL was originally managed by M/s. Young & Company during 1939. Subsequently M/s. Young & Company transferred the lease to the Central Province Manganese Ore Limited to operate the said leases up to 1955. Subsequently the mining lease area have been transferred in favour of M/s. Orissa Manganese & Minerals Pvt. Ltd. on 25.8.1955. The first renewal for the said mines was granted in favour of M/s. Orissa Manganese & Minerals Private Limited for a period of 20 years from 1.1.1960 to 31.12.1979 over an area of 23.29 hectares. The deed in respect to first renewal had been executed on 13.5.1969. The second renewal for the above

Mining Lease was granted for a further period of 20 years from 1.1.1980 to 31.12.1999. The Lease Deed for 2nd renewal was executed on 1.1.1981. The third renewal application has been filed to the state Govt. on 21.12.98. Subsequently the Mining Plan was prepared under Rule 24(A) of MCR 1960, Amendment- 1987 and approved by IBM.

The mine is now enjoying deemed renewal as per Rule 24 (A) of MCR 1960. The water requirement is 9.3 KLD, which will be met from water supply of PHED, Govt. of Orissa. The maximum working depth will be 15 m from 611.17 m AMSL and groundwater table is 21m from 596m AMSL. Working will not intersect groundwater table. The public hearing was conducted on 18.6.08. No National Park/Sanctuary is located within 10 km of the mine lease. The issue raised during public hearing were also presented and discussed during the meeting. The proposal was placed in the Committee during 19th & 20th October, 2009. Compliance to the clarifications sought were received and discussed. Based on the information, documents and clarifications provided and discussion with proponent aided by consultant Sri Rajesh Kanungo of M/s Sun Consultancy Services P Ltd., the SEAC recommends for grant of environmental clearance in favour of the project for a period of five years subject to the following stipulated conditions:

1. 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.
2. 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.
3. The applicant will comply to the points, concerns and issues raised by the people during public hearing on 18.6.08 in accordance with the commitments made by him thereon.
4. The applicant will take statutory clearance/approval/permissions from the concerned authorities in respect of his project as and when required.
5. 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.
6. 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.
7. The proponent shall submit ground tooting baseline data on flora & fauna and CSR activities already carried out within three months to the SEIAA
8. Adequate buffer zone shall be maintained between two consecutive mineral bearing deposits.
9. 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.

10. Maintenance of roads through which transportation of ores are undertaken shall be carried out by the project proponent regularly at its own cost.
11. 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.
12. 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.
13. Rain water harvesting shall be undertaken to recharge the ground water source.
14. 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.
15. 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.
16. 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.
17. 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.
18. 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.
19. 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.
20. The mining operations shall be restricted to above ground water table and it should not intersect the groundwater table.
21. 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.

22. 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.
23. 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.
24. 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.
25. 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.
26. The parent company has apparently signed an MOU with M/s. IPICOL for water drawal permission . IPICOL is processing their water drawing clearance, which is not finalized yet. However, the environmental clearance will be subject to clearance from the competent authorities.
27. 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.

The Committee was very much concerned about the deemed renewal status of all the mining project. The mine has applied for environmental clearance for enhancing their production. The Committee felt that the SEIAA may get the matter clarified from the relevant authorities on the legal status of the mining establishments applying for capacity enhancement while under deemed lease period after which EC may be granted to them by the SEIAA.

ITEM NO 3:

PROPOSAL OF BHANJIKUSUM MANGANESE ORE MINE OF M/S. ORISSA MANGANESE & MINERALS (P) LTD, AT KOIRA, DIST – SUNDARGARH

The proponent made a presentation on the proposal for consideration of the SEAC. The proposal is for renewal of mining lease and enhancement of production of manganese ore from 1800 TPA to 15000 TPA. The TOR for this project were prescribed on dt. 25.1.08 by the EAC of MoEF, Govt. of India. The mine lease area is 8.134 ha. No forest land is involved. Already broken up area is 4.514 ha. Life of the mine is 17 years. Working will be opencast semi-mechanised involving drilling and blasting. The Bhanjikusum Manganese Mining Lease of M/s. OMMPL was originally managed by M/s. Young & Company during 1939. Subsequently M/s. Young & Company transferred the lease to the Central Province Manganese Ore Limited to operate the said leases up to 1955. Subsequently the mining lease area have been transferred in favour of M/s. Orissa Manganese & Minerals Pvt. Ltd. on 25.8.1955. The first renewal for the said mines was granted in favour of M/s. Orissa Manganese & Minerals Private Limited for a period of 20 years from 1.1.1960 to 31.12.1979 over an area of 8.134 hectares. The deed in respect to first renewal had been executed on 13.5.1969. The second renewal for the above Mining Lease was granted for a further period of 20 years from 1.1.1980 to 31.12.1999. The Lease Deed for 2nd renewal was executed on 1.1.1981. The third renewal application has been filed to the state Govt. on 21.12.98. Subsequently the Mining Plan prepared under Rule 24(A) of MCR 1960, Amendment- 1987 and approved by IBM. The mine is now enjoying deemed renewal as per Rule 24 (A) of MCR 1960. The water requirement is 11.4 KLD, which will be met from dug well and nearby nallah. The maximum working depth will be 15 m from 600 m AMSL and groundwater table is 30m from 590 m AMSL. Working will not intersect groundwater table. The public hearing was conducted on 24.6.08. No National Park/Sanctuary is located within 10 km of the mine lease. The proposal was placed in the Committee during 19th & 20th October, 2009. Compliance to the clarifications sought were received and discussed. Based on the information, documents and clarifications provided and discussion with proponent aided by consultant Sri Rajesh Kanungo of M/s Sun Consultancy Services P Ltd., the SEAC recommends for grant of environmental *clearance* in favour of the project for a period of five years subject to the following stipulated conditions:

1. 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.
2. 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.
3. The applicant will comply to the points, concerns and issues raised by the people during public hearing on 24.6.08. in accordance with the commitments made by him thereon.
4. The applicant will take statutory clearance/approval/permissions from the concerned authorities in respect of his project as and when required.

5. 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.
6. 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.
7. The proponent shall submit ground tooting baseline data on flora & fauna and CSR activities already carried out within three months to the SEIAA
8. Adequate buffer zone shall be maintained between two consecutive mineral bearing deposits.
9. 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.
10. Maintenance of roads through which transportation of ores are undertaken shall be carried out by the project proponent regularly at its own cost.
11. 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.
12. 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.
13. Rain water harvesting shall be undertaken to recharge the ground water source.
14. 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.
15. 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.
16. 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.
17. 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.
18. 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.

19. 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.
20. The mining operations shall be restricted to above ground water table and it should not intersect the groundwater table.
21. 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.
22. 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.
23. 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.
24. 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.
25. 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.
26. The parent company has apparently signed an MOU with M/s. IPICOL for water drawal permission . IPICOL is processing their water drawing clearance, which is not finalized yet. However, the environmental clearance will be subject to clearance from the competent authorities.

27. 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.

The Committee was very much concerned about the deemed renewal status of all the mining project. The mine has applied for environmental clearance for enhancing their production. The Committee felt that the SEIAA may get the matter clarified from the relevant authorities on the legal status of the mining establishments applying for capacity enhancement while under deemed lease period after which EC may be granted.

ITEM NO. 4

PROPOSAL OF KUSUMDIHI MANGANESE ORE MINE OF M/S. ORISSA MANGANESE & MINERALS (P) LTD., AT – KUSUMDIHI, DIST – SUNDARGARH

The proponent made a presentation on the proposal for consideration of the SEAC. The proposal is for obtaining environmental clearance with respect to the renewal of mining lease and enhancement of production of manganese ore from 2000 TPA to 17,376 TPA. The TOR for this project were prescribed on dt. 25.1.08 by the EAC of MoEF, Govt. of India. The mine lease area is 31.549 ha. Life of the mine is 11 years. Working will be opencast semi-mechanised involving drilling and blasting. The Kusumdihi Manganese Mining Lease of M/s. OMMPL was originally managed by M/s. Young & Company during 1939. Subsequently M/s. Young & Company transferred the lease to the Central Province Manganese Ore Limited to operate the said leases up to 1955. Subsequently the mining lease area have been transferred in favour of M/s.Orissa Manganese & Minerals Pvt. Ltd. on 25.8.1955.The first renewal for the said mines was granted in favour of M/s.Orissa Manganese & Minerals Private Limited for a period of 20 years from 1.1.1960 to 31.12.1979 over an area of 31.549 hectares. The deed in respect to first renewal had been executed on 13.5.1969. The second renewal for the above Mining Lease was granted for a further period of 20 years from 1.1.1980 to 31.12.1999. The Lease Deed for 2nd renewal was executed on 1.1.1981.The third renewal application has been filed to the state Govt. on 21.12.98. Subsequently the Mining Plan prepared under Rule 24(A) of MCR 1960, Amendment- 1987 and approved by IBM. The mine is now enjoying deemed renewal as per Rule 24 (A) of MCR 1960. The water requirement is 11.5 KLD, which will be met from dug well and nearby nallah. The maximum working depth will be 15 m from 642 m AMSL and groundwater table is 30m from 585m AMSL. Working will not intersect groundwater table. The public hearing was conducted on 18.6.08. No National Park/Sanctuary is located within 10 km of the mine lease. The issues raised during public hearing were also presented and discussed during the meeting. The public hearing was conducted on 18.6.08. No National Park/Sanctuary is located within 10 km of the mine lease.The proposal was placed in the Committee during 19th & 20th October , 2009. Compliance to the clarifications sought were received and discussed. Based on the

information, documents and clarifications provided and discussion with proponent aided by consultant Sri Rajesh Kanungo of M/s Sun Consultancy Services P Ltd. , the SEAC recommends for grant of environmental *clearance* in favour of the project for a period of five years subject to the following stipulated conditions:

1. 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.
2. The mine shall obtain forest clearance from the concerned authority.
3. 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.
4. The applicant will comply to the points, concerns and issues raised by the people during public hearing on 18.6.08. in accordance with the commitments made by him thereon.
5. The applicant will take statutory clearance/approval/permissions from the concerned authorities in respect of his project as and when required.
6. 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.
7. 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.
8. The proponent shall submit ground tooting baseline data on flora & fauna and CSR activities already carried out within three months to the SEIAA
9. Adequate buffer zone shall be maintained between two consecutive mineral bearing deposits.
10. 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.
11. Maintenance of roads through which transportation of ores are undertaken shall be carried out by the project proponent regularly at its own cost.
12. 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.
13. 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.
14. Rain water harvesting shall be undertaken to recharge the ground water source.

15. 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.
16. 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.
17. 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.
18. 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.
19. 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.
20. 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.
21. The mining operations shall be restricted to above ground water table and it should not intersect the groundwater table.
22. 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.
23. 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.

24. 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.
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ITEM NO 5

RESIDENTIAL PROJECT OF AMRI BHUBANESWAR – A MULTI SPECIALTY HOSPITAL AT , KHANDAGIRI, BHUBANESWAR

The proponent M/s. AMRI **BHUBANESWAR – A MULTI SPECIALTY HOSPITAL** had submitted their clarifications on the points raised and those points were further discussed. The proponent clarified that due to paucity of time, their technical consultant could not be present before the Committee. However, they have clarified the points raised on the following matters:

1. BDA approval for the construction, plans etc.
2. Regarding the details of STP, they could not clarify the points raised in absence of the technical consultant.
3. Similarly, the concern on disposal of bio-medical wastes, they being non-technical, the matter could not be clarified.

Since most of the technical matters could not be clarified by the proponent in absence of their technical consultant, the proposal has been deferred to a fresh date for consideration. The proponent may accordingly intimated to present their case again along with technical consultant.

The committee also decided to visit the site of construction for an on-the-spot verification and furnish report to the SEIAA.

(PROF. GAGAN BIHARI NITYANANDA CHAINY)
CHAIRMAN, SEAC

(PROF. SWOYAM PRAKASH ROUT)
MEMBER, SEAC

(PROF. KUMAR DAS)
MEMBER, SEAC

(DR. MOHESHWAR PATRA)
MEMBER, SEAC

(SRI SASANKA SEKHAR PATNAIK)
MEMBER, SEAC

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

(DR. HAREKRISHNA NAYAK)
MEMBER, SEAC

(SRI S. DAS)
SECRETARY, SEAC

(DR. SURENDRA NATH DAS)
MEMBER, SEAC

SECRETARY, SEAC

CHAIRMAN, SEAC