

**MINUTES OF THE MEETING OF STATE LEVEL EXPERT APPRAISAL  
COMMITTEE, ORISSA HELD ON 9<sup>TH</sup> & 10<sup>TH</sup> FEBRUARY, 2011**

The meeting of State Level Expert Appraisal Committee, Orissa was held on 9<sup>th</sup> & 10<sup>th</sup> February , 2011 in the Conference Hall of Orissa State Pollution Control Board, Bhubaneswar at 11.00 AM. Sri Sasanka Sekhar Pattnaik, Member, SEAC Orissa chaired the meeting. The following members were present in the meeting.

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| 1. Sri Sasanka Sekhar Pattnaik,        | - | Member |
| 2. Dr. Harekrishna Nayak,              | - | Member |
| 3. Dr. Moheshwar Patra,                | - | Member |
| 4. Professor (Dr.) Swoyam Prakash Rout | - | Member |
| 5. Prof. Kumar Das                     | - | Member |
| 6. Dr. R.C. Mohanty,                   | - | Member |
| 7. Dr. Surendra Nath Das,              | - | Member |

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

**ITEM NO : 1**

**FINAL APPRAISAL FOR EC FOR CONSTRUCTION OF PROPOSED B+G+4 STORIED 7 BLOCKS OF RESIDENTIAL APARTMENT BUILDINGS AT JHARAPADA IN BHUBANESWAR OF M/S. UTKAL BUILDERS LTD. (EC).**

The proposal is a residential complex promoted by **M/s. Utkal Builders Ltd** at Jharpada, Bhubaneswar, Orissa. There will be 7 blocks of **B+G+4** storied buildings. Total Plot Area is 17478.24 Sq,M . Total built up area is 44715 sq.m. The total makeup water requirement is **131.25** KLD. Around.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 78.75 KLD will be discharged to near by Nallah. Total solid waste generation will be 0.5 TPD. The power requirement is 1253 KW. The building is completely residential in nature. Bhubaneswar Development Authority has approved the building plan and drawing.

*SECRETARY, SEAC*

Considering the information/document furnished by the project proponent and presentation made by **the consultant M/s Centre For Envotech & Management Consultancy Pvt. Ltd. Bhubaneswar** the committee decided to consider environmental clearance for the proposal after getting following information/document from the project proponent

1. Technical details of STP presented and explained was not satisfactory. The FAB mediated treatment with fresh air blowing will not maintain the bacterial flora needed for the treatment of sludge. Final treatment with the help of sand filter will not be able to render the treated water free from microorganisms. Additional steps like chlorination and UV exposure may be necessary, which can be incorporated with the help of the consultant.
2. Provision of standby pumps instead of containers in case of maintenance and failure is insufficient for a healthy environment of the residential complex housing ~1,500 people.
3. There should not be any discharge outside the residential complex. The treated water from STP should be used for horticulture and dust suppression/car wash etc. instead of fresh water.
4. The entire water requirement during both construction and operational phases should be from PHD supplies and necessary arrangements for getting connection may be done as per PHD directions.
5. The open space all around the building blocks is not as per NBC -2005 and fire safety requirements as stipulated by Fire Prevention Officer, Orissa.
6. The DG sets provided as standby power supply should be housed together and height of the chimney should be as per CPCB requirements more than the tallest building in the complex. The location is not shown in the map.
7. The exclusive green area is 8.75% of the total built up area as shown in the conceptual drawing seems to be limited to the space in between blocks. The open space has not been properly shown in the map. The green area should be increased. As per BDA Regulation -2008, atleast 20% of land shall be covered by plantation for apartment buildings. Suitable tree species should be planted in multi rows along the boundary for arresting dust etc.Help of a professional landscape designing should be taken for such purpose and desining the green belt and landscape.
8. Rainwater yield calculations based on peak rainfall and number of such days should be clearly brought out. It should not be mixed with storm water for recharge. Treatment of both the water should be separate. While treated storm water can be stored in the lowest area in a pond for reuse during dry periods, the rainwater can be recharged after proper treatment. The order in which fine sand,

- gravel and boulders are put for rain water harvesting seems improper, which should be checked. Recharge pits (both number and locations) shown in the map are impracticable. While some may overflow at lower points, the upper ones will be devoid of water. Practical flow diagram with detailed locations may be given.
9. A realistic calculation of vehicle emissions from the additional number of vehicles may be taking their average condition (PUC and non-PUC) into view and suitable management practice may be proposed.
  10. The details of baseline data on Air environment collected over three months of non-monsoon period, its fallout modeling taking meteorological conditions and increased emission load into consideration may be presented as per MoEF requirements.
  11. There should be minimum two entry /exit point preferably in opposite side of the plots as per the requirement of NBC -2005 and also as stipulated by Fire Prevention Officer, Orissa . The building plan should be modified accordingly and reapproved and resubmitted.

## **ITEM NO. 2**

### **PROPOSAL OF BHANJAPALI IRON ORE MINE OF SRI J. N. PATNAIK, AT-BHANJAPALI, KOIRA BONAI, DIST – SUNDARGARH FOR ENHANCEMENT OF PRODUCTION OF IRON ORE UPTO 260000 TPA OVER MINING LEASE AREA OF 18 Ha. (EC)**

The proposal is for enhancement of production capacity of Iron ore from 55994 TPA to 2,60,000 TPA. The mining lease area is 18 ha. Out of total mining lease area, 12.565 ha. is DLC forest and rest non forest land. The present lease was granted to Sri J. N. Patnaik on 29.2.96 for a period of 30 years. The mining operation commenced on 1.10.97. The mine working will be opencast semi mechanized involving drilling, blasting, excavation and transportation. The water requirement is 80 KLD and source of water is groundwater. The mining method will be open cast Semi-mechanized mines with crushing unit (30 TPH) and screening unit (150 & 200 TPH).Life of the mine is 14 years. TOR was given by SEAC vide letter No. 116 dt. 29.9.09 . The public hearing was conducted on 15.10.2010

Considering the information furnished, presentation made by the consultant **M/s Kalyani Laboratories Pvt. Ltd., Bhubaneswar**, clarifications furnished in response to queries and documents submitted, the committee decided to consider environmental clearance for the proposal after getting following information/document from the project proponent

1. The ultimate pit area at the end of lease period is 11.2ha of 25m depth out of the total area of 18ha, which is almost 2/3<sup>rd</sup> of the lease area. Moreover, 1.224million m<sup>3</sup> of OB on 7850m<sup>2</sup> area in addition to new wastes generated from re-screening of existing dumps, stocking of sub-grade ores during the scheme period will cover most of the space. A realistic land use calculation may be provided leaving out some space for futuristic exploration and working during conceptual period.
2. Pollution load and management practice for the crushing/grinding and screening facility proposed is not shown.
3. Plantation or green area/development plan shown seems unrealistic. For example planting 3,625 trees over 0.17ha in the very first year totaling up to 28,000 trees over 1.99ha at the end of 5years is unrealistic without adequate funds or logistic support. The proposed area is not shown in the map. Plantation around the ML area should be taken up immediately after working of the mine since it is located in close proximity to a number of reserve forests.
4. Back filling of exhausted dumps (11.2ha) during conceptual period is simply shown without any detailed plan.
5. The AAQ data is not as per the MoEF notification No. B-29016/20/PCI/L dated Nov. 18, 2009. Similarly, fall out models are also not shown.
6. Point wise compliance to TOR to be furnished. Status of mining. Till when it is worked and when it is stopped.
7. Status of legal case in regard to use of DLC forest land, decision of court case if any.

### **ITEM NO.3**

#### **FINAL APPRAISAL FOR EC FOR ENHANCEMENT OF PRODUCTION OF MANGANESE ORE UPTO 15,000 TPA AND IRON ORE 30,000 TPA OVER AN AREA 13.27 HA. M/S. KANTHAR-KOIRA IRON & MANGANESE ORE MINE AT KANTHER KOIRA IN THE DISTRICT OF SUNDARGARH OF M/S. B. S. MISHRA. (EC).**

The proposal is for Enhancement Of Production Of Manganese Ore From 4,300 TPA To 15,000 TPA and production Of Iron Ore Upto 30,000 TPA for Kanther-Koira Iron & Manganese Ore Mines Over mining lease area 13.27 Ha, in Sundergarh District, Orissa.. **The lease was granted on** 20.09.1982 over an area of 33.985 Ha. And the renewal Application was filed on 13.09.2001 for 13.27 Ha (Surrendering 20.715 Ha lease). Date of expiry of lease is 19.09.2022. Commencement of mining activities was

on 10.01.2002. Renewal Mining plan was approved on 16.01.2004 and present Scheme period is valid from 2007 to 2012. The mining method will be open cast Semi-mechanized mines. Out of total lease area, 0.54 ha is forest land . Life of the mine is 25 years for Mn Ore and 6 Years for iron ore . TOR was issued by MOEF, Govt. of India on dtd. 4.9.08 for EIA study. The public hearing was conducted on **10.06.2010**.

Considering the information furnished, presentation made by the consultant **M/s Kalyani Laboratories Pvt. Ltd., Bhubaneswar**, clarifications furnished in response to queries and documents submitted, the committee decided to consider environmental clearance for the proposal after getting following information/document from the project proponent

1. Detail of existing dump in addition to new wastes generated from re-screening of existing dumps, stocking of sub-grade ores during the scheme period will cover most of the space. A realistic land use calculation may be provided leaving out some space for futuristic exploration and working during conceptual period.
2. Pollution load and management practice for the crushing/grinding and screening facility proposed are not shown.
3. Detail proposal of Plantation program. Plantation around the ML area should be taken up immediately after working of the mine .
4. Back filling of exhausted dumps during conceptual period is simply shown without any detailed plan.
5. The AAQ data is not as per the MoEF notification No. B-29016/20/PCI/L dated Nov. 18, 2009. Similarly, fall out models are also not shown.
6. Point wise compliance to TOR to be furnished.

#### **ITEM NO. 4**

#### **PROPOSAL FOR 3X150 MW COAL-CUM-BY PRODUCT GAS FIRED CAPTIVE POWER PLANT OF M/S. INDUSTRIAL ENERGY LTD AT VILLAGE GADAPUR, KHURUNTI & CHANDIA IN THE DISTRICT OF JAJPUR. (TOR)**

The proposal was considered by the SEAC to determine the Terms of Reference (TOR) for undertaking detailed EIA study for the purpose of obtaining environmental clearance in accordance with the provisions of the EIA notification, 2006. For this purpose, the proponent had submitted information in the prescribed format (Form-I) along-with

feasibility report. **M/S. INDUSTRIAL ENERGY LTD AT VILLAGE GADAPUR, KHURUNTI & CHANDIA DISTRICT- JAJPUR** has proposed to set up 3X 150 MW Coal based CPP to partially cater to the power requirement of **Tata Steel plant at Kalinga Nagar. Project has been proposed in phased manner in 1st Phase: 2 Units of 150 MW and in 2nd Phase: 1 Unit of 150 MW.** Power plant proposed to be installed at Kalinga Nagar premises, over an area of 298 acres, which is adjacent to the Steel Plant . Water requirement is 1750 m<sup>3</sup>/ hr from Kharsua river. The proponent will use Indian Coal and the requirement will be 2.01 MTPA . Total cost of project is Rs2610 Crores.

Based on the information furnished and presentation made by the consultant **M/s S.S. ENVIRONICS (INDIA) PVT LTD.Bhubaneswar**, the SEAC prescribed the following TORs for undertaking detailed EIA study.

1. The study area should cover an area of 10 km radius around the proposed site. Land use of the study and project area should be given.
2. Location of National Parks, Sanctuaries, Biosphere Reserves, wildlife corridors, Tiger/Elephant reserves (existing as well as proposed), and existence of rare and endangered flora and fauna if any, within 10 km of the project site should be clearly indicated. Necessary clearance, if any, as may be applicable to such projects due to proximity of the ecologically sensitive areas as mentioned above under the Wildlife (Protection) Act, 1972 with copy may be furnished.
3. A detailed biological study of the study area (core zone & buffer zone - 10 km radius) shall be carried out. Details of flora & fauna, duly authenticated separately for core & buffer zones should be furnished based on field survey indicating the schedule of the fauna present. In case of any Schedule-I fauna found in the study area, necessary plan for their conservation should be prepared in consultation with the State Forest & Wildlife Department and details furnished. Necessary cost details for executing the conservation measures should be furnished & incorporated as part of the project cost.
4. 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).
1. 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. Copy of permission to draw water from the competent authority should be obtained.
7. 100% use of fly ash is required to be utilized as per MoEF norms. The proponent may produce MOUs with end-users executed for the purpose.
8. Stacking and use of bottom ash should be specified.
9. The efficiency of ESP is to be substantiated by an independent competent body as well as the manufacturers.
10. Fuel analysis may be provided (sulfur, ash content and mercury) with grade of coal. Details of auxiliary fuel, if any including its quantity, quality, storage etc should also be given.
11. Details regarding ash pond impermeability and whether it would be lined, if so details of the lining etc. may be provided. The steps to ensure long-term storage of ash, if warranted, should also be indicated.
12. 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, PM2.5 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.
13. Details of fugitive emission from Coal Handling Plant (CHP), ash handling and ash disposal area and its control system may be specified.
14. 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.
15. 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.
16. Detail run off management of coal stockyard and ash disposal area to be specified.

17. Details of green belt, i.e. 33% of the total area giving details of species, width of plantation, planning schedule etc. should be furnished.
18. Detailed precautionary measures for handling chlorine, one of the raw materials, needs inclusion.
19. Points raised/likely to be raised during public hearing and commitment of the project proponent on the same may be included.
20. 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.
21. Occupational health impact and remedial measures of the project may be studied.
22. 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).
23. 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 along with environment monitoring programme.
24. EMP should include the concept of waste-minimisation, recycle/reuse/recover techniques, Energy conservation, and natural resource conservation.
25. 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.
26. Points raised/likely to be raised during public hearing and commitment of the project proponent on the same may be included.
27. 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.**
28. The EIA report should includes the specified methodology to be adopted for collection and analysis of 12 air quality parameters as per the Central Pollution Control Board Notification No. B-29016/20/90/PCI-L dated 18th November 2009 published in the Gazette of India Part III-Section 4 No 217 Extraordinary. The analytical methods to be followed is specified in the above notification and to maintain the New National Ambient Air Quality Standards.
29. **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).**

**DAY TWO : Dt. 10.02.11**

**ITEM NO. 5**

**PROPOSAL FOR EXPANSION OF LAXMIPUR GRAPHITE BENEFICIATION PLANT FROM 950 TPA TO 12,000 TPA AT VILLAGE KATRAKANA IN THE DISTRICT OF KORAPUT OF M/S. PRADHAN INDUSTRIES. (TOR).**

The project proponent submitted prescribed Form -1 and pre-feasibility report along with the draft TORs.. The project proponent has proposed to enhance the production capacity of the existing plant (from 950 TPA to 12, 000 TPA throughput) along with modernization and up-gradation of facilities in the existing plant. The concentrate graphite produced at Bandhamandi Beneficiation Plant established within the ML area of Bandhamandi Graphite Mines of Pradhan Industries, will be transported to Laxmipur plant for further up-gradation to increase the fixed carbon from 70-75% to 90-95%. Total Fresh Water (makeup) requirement is 81 m<sup>3</sup>/day. In addition to this, the initial fill of water for processing plant shall be 70m<sup>3</sup> (one time requirement only). Water is proposed to be drawn from Godabandha Nala through intake well. The area ear marked for tailing disposal is 0.9 hectare within the plant area.

Based on the information furnished and presentation made by the consultant **M/s S.S. ENVIRONICS (INDIA) PVT LTD. Bhubaneswar**, the SEAC prescribed the following TORs for undertaking detailed EIA study.

1. The EIA/EMP report should cover the impacts and management plan for the project specific activities on the environment of the region, and the environmental quality, air, water, land, biotic community, etc. through collection of data and information, generation of data on impacts for the rated capacity taking into account the existing and proposed activities in that area so as to address the related environmental issues in an integrated way.
2. A Study area map of the core zone and 10km area of the buffer zone showing major industries/mines and other polluting sources shall be provided.
3. Collection of one-season (non-monsoon) primary base-line data on environmental quality, air, noise, water and land.
4. Credentials of the Technical consultant for supply, installation and operational phases of the beneficiation plant may be given to ensure safe and pollution free performance of the plant.

5. The raw material for the beneficiation plant in Laxmipur is to be drawn from Bandhamunda graphite beneficiation plant (grade: 70-75%). The product will have 90-95% grade with >80% yield. Environmental Clearance status of the Bandhamunda plant shall be provided .
6. A tune of 208 m<sup>3</sup>/day effluent will be generated containing diesel oil, palm oil, traces of graphite and waste materials. Details of ETP and the fate of 1353 m<sup>3</sup>/yr solid waste residue generated and stored in the pond in addition to overlying contaminated water over a pond area of 0.9ha (severely underestimated area with no depth given) may be clarified.
7. Life of the tailing pond is mentioned as 20years after which it is proposed to be rehabilitated with herbs and shrubs. Life of the mine and plant would be much less as it stands today. Management of the effluents and tailing pond is a nagging question, which needs to be addressed.
8. Coal is apparently going to be used for supply of energy for drying of the products; details may be given.
9. Detailed water balance should be provided. The break up of water requirement as per different activities in the beneficiation operations should be given separately. Source of water, sanction of the competent authority in the State Govt.. and examine if the unit can have zero discharge including recycling and reuse of the wastewater for other uses such as green belt, etc. Periodically discharge of waste water if any shall be made after proper treatment and confirming the prescribed standards.
10. Impact of choice of the selected use of technology and impact on environment quality and waste generation shall be provided.
11. Impacts of mineral transportation - the entire sequence of mineral production, transportation, handling, transfer and storage of mineral and waste, if any, and their impacts on air quality should be shown in a flow chart with the specific points where fugitive emissions can arise and the specific pollution control/mitigative measures proposed to be put in place.
12. Details of various facilities to be provided for the personnel involved in mineral transportation in terms of parking, rest areas, canteen, and effluents/pollution load from these activities. Examine whether existing roads are adequate to take care of the additional load of mineral transportation, their impacts.
13. Details of green belt development including cost of EMP (capital and recurring) in the project cost to be provided.
14. Details of run off management to be included.
15. Location of National Parks, Sanctuaries, Biosphere Reserves, wildlife corridors, Tiger/Elephant reserves (existing as well as proposed), and existence of rare and endangered flora and fauna if any, within 10 km of the project site should be clearly indicated. Necessary clearance, if any, as may be applicable to such

projects due to proximity of the ecologically sensitive areas as mentioned above under the Wildlife (Protection) Act, 1972 and copy may be furnished.

16. Plantation in at least 33% of the total area and its maintenance upto five years and regular follow up maintenance thereof has to be ensured; accordingly plan has to be submitted with EIA. [Plantation Scheme]. Total area for which afforestation has been proposed – plan stating how Plantation of local species may be encouraged.
17. Socio economic impact due to project activity to be assessed and based on the study, developmental activity 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).
18. 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 along with Environment Monitoring Programme.
19. EMP should include the concept of waste-minimisation, recycle/reuse/recover techniques, Energy conservation, and natural resource conservation.
20. 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.
21. Points raised/likely to be raised during public hearing and commitment of the project proponent on the same may be included.
22. The EIA report should includes the specified methodology to be adopted for collection and analysis of 12 air quality parameters as per the Central Pollution Control Board Notification No. B-29016/20/90/PCI-L dated 18th November 2009 published in the Gazette of India Part III-Section 4 No 217 Extraordinary. The analytical methods to be followed is specified in the above notification and to maintain the New National Ambient Air Quality Standards.
23. **This Terms of References (TORs) is valid for a period of two years from the date of issue of TORs for submission of the EIA/EMP report after public consultation.(This is in conformity with the MoEF, Govt. of India office memorandum No. J-11013/41/2006-IAII(I) dt. 22.3.10).**

#### **ITEM NO. 6**

#### **PROPOSAL FOR THE PROPOSED 1.0 MTPA CEMENT GRINDING UNIT OF TOSHALI CEMENT PVT. LTD AT CHOUDWAR, DIST – CUTTACK (TOR).**

The project proponent submitted prescribed Form -1 and pre-feasibility report along with the draft TORs. It's a proposed project for a Cement Grinding unit of capacity 1.0 MTPA of Toshali Cement Pvt. Ltd at Choudwar, District Cuttack .Clinker will be transported from Ampavalli, Near sunki (Clinker), and gypsum will be transported from PPL, Paradeep (Gypsum) & fly ash will be transported from CPP of IMFA Choudwar . The total cost of the combined project is Rs 70 Cr. The land required is 33.5 Ac. Total water requirement is 200 KLD. Source of water is ground water.

Based on the information furnished and presentation made by the consultant, **M/s. VISIONTEK CONSULTANCY SERVICES PVT. LTD.**, Bhubaneswar 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, PM 2.5 , 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, land, noise, flora, fauna etc. for one season other than monsoon.
- 4 Ambient air quality monitoring modeling for cement grinding unit
- 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 Site-specific micro-meteorological data including inversion height and mixing height
- 8 Water balance cycle data including quantity of effluent to be generated, recycled and reused and discharged.
- 9 Efforts made to minimize use of ground water. An action plan should be provided. Ground water monitoring minimum at 8 locations.
- 10 Action plan for surface as well as roof top rainwater harvesting and ground water recharge.
- 11 Scheme of proper storage and handling of ash, gypsum and clinker.
- 12 Fugitive emissions and control technologies should be provided.
- 13 Impact of transportation of raw materials and the details of mitigation measures should be included.
- 14 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.
- 15 Land requirement for the project to be optimized. Item-wise break up of land requirement and its availability to be furnished .
- 16 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.
- 17 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.
- 18 Occupational health impact and remedial measures of the project may be studied.
  - 19 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).
  - 20 Green belt (33%) development plan as per CPCB guidelines. EMP should include a clear map for plantation/green belt.
  - 21 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.
  - 22 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 along with Environment Monitoring Programme.
  - 23 EMP should include the concept of waste-minimisation, recycle/reuse/recover techniques, Energy conservation, and natural resource conservation.
  - 24 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.
  - 25 Points raised/likely to be raised during public hearing and commitment of the project proponent on the same may be included.
  - 26 The EIA report should includes the specified methodology to be adopted for collection and analysis of 12 air quality parameters as per the Central Pollution Control Board Notification No. B-29016/20/90/PCI-L dated 18th November 2009 published in the Gazette of India Part III-Section 4 No 217 Extraordinary. The analytical methods to be followed is specified in the above notification and to maintain the New National Ambient Air Quality Standards.
  - 27 **This Terms of References (TORs) is valid for a period of two years from the date of issue of TORs for submission of the EIA/EMP report after public consultation.(This is in conformity with the MoEF, Govt. of India office memorandum No. J-11013/41/2006-IAII(I) dt. 22.3.10).**

#### **ITEM NO. 7**

#### **AUGMENTATION OF STORAGE CAPACITY FROM 22508 KL TO 607817 KL BY M/S. INDIAN OIL CORPORATION LTD AT – CHHANAGARH, JATNI, DIST – KHURDA (TORs).**

The proposal was considered by the SEAC, Orissa to determine the Terms Of Reference (TOR) for undertaking detailed EIA Study for obtaining Environmental Clearance in accordance with the provisions of EIA Notification, 2006. For the purpose, the proponent had submitted information in the prescribed format (Form-1) along with the pre-feasibility report. The project activity is listed at 6 (b) and is of B Category under

the Schedule of EIA Notification, 2006. **The IOCL POL storage facility is located at Village - Chhanagarh Jatni, District - Khurda, Orrisa. IOCL has existing tankage of capacity 22508 KL and proposed additional tankage of 35306 KL. Tankage after augmentation would be 60781 KL. The POL depot area is approx. 39 acres.** They have proposed to hook up with the proposed Paradeep-Ranchi-Raipur Product Pipeline (PRRPL). Other proposed facilities include four additional TLF bays, additional water tanks, new administrative block, fire fighting facilities as per OISD 117 & 118 norms. Currently product receipts are through tank wagons. Post completion of the project, MS/HSD/SKO would be received through pipeline. ATF receipt will continue through tank wagons. The proponent has proposed the following facilities for augmentation of storage capacity .

Sr. No.	Tank No.	Size (Dia x ht.)	Product	Nominal Capacity (KL)	Tank Type
1.	36	28 M.Ø X 15 m. Ht.	MS	8620	IFR
2.	37	28 M.Ø X 15 m. Ht.	MS	8620	IFR
3	38	28 M.Ø X 14.5 m. Ht.	HSD	8898	CR
4	39	28 M.Ø X 14.5 m. Ht.	HSD	8898	CR
5	40	10 M.Ø X 7.5 m. Ht.	TRANSMIX	510	IFR

  

Sr. No.	Size ( Dia x ht.)	Magnitude
1	Administrative Building	20 M. X 10 M.
2	Store /Warehouse	21 M. X 10 M.

Based on the information furnished and presentation made by the proponent, the SEAC prescribed the following TORs for undertaking detailed EIA study.

1. Executive summary of the project shall be given as per EIA Notification, 2006.
2. Project Description and Project Benefits shall be given.
3. Safety precautions planned for any spillage at either end of the pipeline may be elaborated.

4. The quality and quantity of sludge generated in the facility and its disposal methods are to be elaborated.
5. Present land use based on satellite imagery may be given.
6. Location of National Park/Wild life sanctuary/Reserve Forest within 10 km radius of the project.
7. Ambient air quality at 6 locations within the study area of 5 km., aerial coverage from project site. Location of one AAQMS in downwind direction.
8. Baseline data collection on air, water and land for:
  - i. Ambient Air Quality monitoring for PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, NO<sub>x</sub>
  - ii. Background levels of hydrocarbons (methane & non methane HC) and VOCs
  - iii. Soil sample analysis
  - iv. Base line underground and surface water quality in the vicinity of project.
  - v. Climatology & Meteorology including wind speed, wind direction, temperature, rainfall etc.
  - vi. Measurement of noise levels
9. Ground water monitoring minimum at 6 locations should be carried out. Geological features and Geo-hydrological status of the study area and ecological status (Terrestrial and Aquatic) may be provided.
10. DMP and risk analysis to be prepared taking into account the location of the existing industrial units, port, pipelines etc. The proposed measures for Risk Reduction may be submitted.
11. Earmarking of area for parking of lorries at a remote location to avoid congestion shall be given.
12. Adequate width of approach road to avoid congestion and to have safe exit in emergencies shall be provided.
13. Animated Computer Model for prospective years regarding truck movement from safety and risk point of view shall be given.
14. Layout plan of A1 size with provision of parking area for trucks shall be given.
15. Details of water consumption and source of water supply with status of permission for drawal of water, waste water generation, treatment and utilization of treated water generated from the facilities and effluent disposal and measures for release of effluent in case of fire shall be given.
16. Details of proposed preventive measures for leakages and accident shall be given.
17. Details of Vapour Recovery System shall be given.
18. Occupational health of the workers should be incorporated.
19. Scheme for rainwater harvesting may be given.

20. Socio-economic development activities should be in place.
21. Details of the safety measures that are to be taken due to flooding and cyclone.
22. Details of the storage and technical specifications with safety aspects & standards shall be given
28. Type of seismic zone to be intimated.
29. The Environment Management Plan(EMP) and Post-operational Environmental Monitoring Programme may be furnished for the existing as well as expansion project.
30. Any litigation pending against the project and for any direction /order passed by any Court of Law against the project, if so, details thereof may be submitted.
31. Points raised/likely to be raised during public hearing and commitment of the project proponent on the same may be included.
32. The EIA report should includes the specified methodology to be adopted for collection and analysis of 12 air quality parameters as per the Central Pollution Control Board Notification No. B-29016/20/90/PCI-L dated 18th November 2009 published in the Gazette of India Part III-Section 4 No 217 Extraordinary. The analytical methods to be followed is specified in the above notification and to maintain the New National Ambient Air Quality Standards.
33. **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).**
34. **Greening & afforestation effort to be promoted in the study area with a view to improve the environmental commitment of IOC to contour the green house emission measures in the district.**

#### **ITEM NO. 8**

#### **PROPOSAL FOR GRAIN BASED DISTILLERY PLANT OF 25 KLD CAPACITY WITHIN THE EXISTING PREMISES OF NAYAGARH SUGAR COMPLEX LTD AT PANIPOILA, BALUNGAON, DIST – NAYAGARH (TOR).**

The proposal was considered by the SEAC to determine the Terms of Reference (TOR) for undertaking detailed EIA study for the purpose of obtaining environmental clearance in accordance with the provisions of the EIA notification, 2006. For this purpose, the proponent had submitted information in the prescribed format (Form-I) along-with feasibility report. **The proposed project of M/S Nayaagarh Sugar Complex Ltd. Is for 25 KLD Grain Based Distillery Plant And 1MW Captive Power Plant At - Panipoila, P.O.- Balugaon Dist.– Nayagarh, ODISHA. The proposed distillery will produce r 25,000 liters per day Extra neutral alcohol (ENA)/ Rectified Spirit (RS)/**

**Export Quality Rectified Spirit (EQRS) using feed stock as broken rice, maize, sorghum etc. The land required is 143 Acres (existing & owned by NSCL). Water requirement is 625 KLD which will be sourced from Piteijhar reservoir dedicated for the factory. The cost of the project is Rs.30.19 Crores.**

Based on the information furnished and presentation made by the consultant, **M/s. Global Experts** , Bhubaneswar , the SEAC prescribed the following TORs for undertaking detailed EIA study.

1. Detailed break up of the land area alongwith latest photograph of the area.
2. Present land use based on satellite imagery.
3. Gazette Notification indicating location of the project in industrial area, if applicable.
4. Executive summary of the project.
5. Total project cost.
6. Details of site and information related to environmental setting within 10 km radius of the project site.
7. Information regarding eco-sensitive area such as national park / wildlife sanctuary / biosphere reserves within 10 km radius of project area.
8. Number of working days of the distillery unit.
9. Total cost of the project alongwith total capital cost and recurring cost/annum for environmental pollution control measures.
10. Details of raw material and source of raw material. Mode of transportation of raw material to the distillery.
11. Use of 55m<sup>3</sup>/day of water for dust suppression seems to be over estimated. It should be combined with green belt development measures by planting on the dusty roadsides.
12. Extent of feed stock to be used for the distillery may be specified. Attempts should be made to supplement the broken rice with non-conventional starch sources like maize, sorghum, jowar and bajra since the former is the mainstay of starch consumption by local population.
13. It is not clear as to the fate of the recoverable CO<sub>2</sub> to the tune of 0.65MT/1,000L of product. It may be clarified whether it is being recovered or let out to the atmosphere.
14. Sources and quantity of fuel for the boiler. A copy of MoU signed with coal suppliers.. Measures to take care of SO<sub>2</sub> emission.
15. One season site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall and AAQ data (except monsoon) for PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, NO<sub>x</sub> and HC (methane & non methane) should be collected. The monitoring stations should take into account the pre-dominant

- wind direction, population zone and sensitive receptors including reserved forests. Data for water and noise monitoring should also be included.
16. Mathematical modeling for calculating the dispersion of air pollutants and ground level concentration along with emissions from the boiler.
  17. An action plan to control and monitor secondary fugitive emissions from all the sources as per the latest permissible limits issued by the MoEF vide G.S.R. 414(E) dated 30<sup>th</sup> May, 2008.
  18. Details of the use of steam from the boiler.
  19. Ground water quality around existing /proposed spent wash storage lagoon and the project area.
  20. Details of water requirement, water balance chart for Distillery and CPP. Measures for conservation of water by recycling and reuse to minimize the fresh water requirement.
  21. Proposed effluent treatment system and scheme for achieving zero discharge.
  22. Details of the spent wash treatment.
  23. Details of solid waste management including management of boiler ash.
  24. The existing 143Ac of land with proposed green belt development over 51Ac is ambitious and should include details of annual plantation plan with adequate funds allocated for the purpose.
  25. Green belt development (minimum 33% of the total area ) as per the CPCB guidelines.
  26. List of flora and fauna in the study area.
  27. Noise levels monitoring at five locations within the study area.
  28. 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 provide along with Environment Monitoring Programme.
  29. EMP should also include the concept of waste-minimization, recycle/reuse/recover techniques, Energy conservation, and natural resource conservation.
  30. Risk assessment for storage and handling of alcohol and mitigation measure due to fire and explosion and handling areas.
  31. Action plan for rainwater harvesting measures at plant site should be included to harvest rainwater from the roof tops and storm water drains to recharge the ground water.
  32. Details of occupational health surveillance programme.
  33. Break-up for the funds allocation of Rs.1.5crores over 5years may be given and notified through appropriate local governing bodies for the benefit of local population.
  34. Details of socio-economic welfare activities and CSR activities.
  35. Traffic study of the area for the proposed projects in respect of existing traffic, type of vehicles, frequency of vehicles for transportation of materials, additional traffic due to proposed project, parking arrangement etc.
  36. Action plan for post-project environmental monitoring.
  37. Any litigation pending against the project and /or any direction /order passed by any Court of Law against the project, if so, details thereof.

38. Public hearing issues raised and commitments made by the project proponent on the same should be included separately in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.
39. 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 and to maintain the New National Ambient Air Quality Standards.
40. **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).**

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

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

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

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

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

**Approved by**

**CHAIRMAN, SEAC, ORISSA**