

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

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

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

1. The minutes of previous meeting was confirmed by the members.
2. Next meeting of the committee would be held on 1st October, 2010 for finalization of minutes of the meeting held on 20th and 21st September, 2010 and to discuss the clarifications submitted by the proponent whose applications are under consideration. The committee also decided to hold the meeting on 20th and 21st October, 2010 for consideration of new proposals.
3. M/s. Bhusan Energy Ltd applied for environmental clearance for 185 MW Thermal Power Plant at Meramundali, (Block Odapada) Dist – Dhenkanal. The proposal was forwarded by SEIAA, Orissa for determination of Terms of Reference (TOR) for undertaking detail EIA study. The proponent was called for a presentation of their proposal in the item No. 10 of the agenda. However, after scrutinisation of the proposal, it was found that the proposed location (i.e., Block Odapada) is coming under critically polluted area of Talcher-Angul notified by MoEF, Govt. of India. The MoEF, Govt. of India vide Notification: J11013/5/2010-IA-II(I) dated 15.3.2010, put restrictions on

consideration of environmental clearance of projects on critically polluted cluster/areas for a period up to 31st October, 2010. Moreover, the category-B project located within the critically polluted area will be treated as category-A project as per EIA notification of MoEF, Govt. of India. So, it was decided not to allow the proponent for presentation as per agenda. The committee also decided to return the proposal to SEIAA for the above reason. The proposal for construction of housing project by Air Force Naval Housing Board, Bhubaneswar was received from SEIAA, Orissa. They have requested to present their proposal before SEAC in place of M/s. Bhusan Energy Ltd at item No. 10 of agenda in consultation with the Chairman, SEAC.

4. The SEAC, Orissa while scrutinizing the proposal received from SEIAA, Orissa for final appraisal for environment clearance observed that most of the proponents are not furnishing filled-in questionnaires as prescribed by MoEF, Govt. of India for different categories of projects. So, it was decided to request SEIAA, Orissa to instruct the project proponents to furnish the required questionnaire duly filled in while submitting the EIA/EMP reports for final appraisal for environmental clearance. The SEAC office would also instruct the proponents to circulate the above filled in questionnaire along with summary EIA to all the members.
5. The NODAL Officer, SEAC informed that presently the work of SEAC is being managed by the officials and staff of State Pollution Control Board, Orissa in addition to their existing work load of the Board. The work of SEAC is now increasing day-by-day with increase in number of proposals. For smooth functioning of SEAC office, Non-technical staff is more essential for official record maintenance and data management. Both technical and non-technical staff of the Board who are working in SEAC office are as such overloaded with the works of SPC Board. It is no longer possible to depute staff of SPC Board for SEAC work as strengthening proposal of the Board has not yet been approved by the Govt. It is therefore necessary to appoint two engineers, two data entry operators and one office attendant on contractual basis exclusively for work of SEAC office. The committee agreed with the

proposal and decided that Secretary, SEAC-cum-Member Secretary, SPC Board may take up the matter with the Govt. for recruitment of the contractual staff for SEAC office.

6. **Irrigation project with culturable command area < 10,000 ha. will come under category-B and culturable command area ≥ 10,000 ha as category A project as per EIA notification 2006 and amended thereof. However, irrigation projects not involving submergence or inter-state domain shall be appraised by the SEIAA as category – B projects as per general condition of amended EIA notification, 2009. The notification is not clear whether irrigation project having ≥ 10,000 ha. culturable command area which are not involving submergence or inter-state domain shall be appraised by the SEIAA as category – B project or irrigation project < 10,000 ha. of culturable command area involving sub-mergence or inter-state domain shall be appraised as category – A project in MoEF, Govt. of India. The committee decided to seek a clarification from MoEF, Govt. of India in this regard before final appraisal for environmental clearance of the proposal.**

Twelve 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

PROPOSAL OF AHERAJORE BARRAGE PROJECT AT DEBDARHA IN LAKHANPUR BLOCK OF JHARSUGUDA DISTRICT.

Aherajore Medium irrigation Project is a Reservoir scheme Project going to be constructed across the Aherajore Nallah near the village Debdarha in Lakhanpur Block of Jharsuguda District. The length of Barrage is 174.00 M. This is a Barrage Project which intercepts a catchment area of 133.4Sq.Km. lying in Jharsuguda and Sundargarh districts of Orissa. The total requirement of land for Head Works & Pond of the project is 18.05 Ha (Govt. land-9.53 Ha., Pvt. Land-5.40 Ha., Forest land-3.12 Ha.). The project

at Pond Level 202.5 m. will submerge 18.05 Ha. of land (Govt. land-9.53 Ha., Pvt. Land-5.40 Ha., Forest land-3.12 Ha.). One village namely (Debdarha) will be partly submerged. But there is no displacement of any family. The farmers are facing a lot of problems in cultivation every year due to non availability of irrigation facilities to this area . In order to meet the irrigation requirements of the farmers of this area, construction of this Project is essential. A diversion proposal for acquisition of 13.60 ha of Forest land has already been initiated with Competent Authority. There will not be any displacement of the inhabitants. This Project will provide assured irrigation to 2220.00 ha of land during kharif. The living as well as financial standard of the inhabitants of this area will improve soon after the construction of this Project.

The Engineer in Chief of the project submitted filled in application FORM-I and pre-feasibility report and presented the project before SEAC.

The committee observed that the proposed location is likely to come under critically polluted area, i.e Ib Valley area notified by MoEF, Govt. of India. The MoEF, Govt. of India put restrictions on consideration of environmental clearance of projects in critically polluted areas up to 31st October, 2010. Moreover, category-B projects located within the critically polluted area will be treated as category-A project as per EIA notification of Govt. of India. The issue of location of any project with respect to the critically polluted industrial cluster can be resolved by the CPCB as per MoEF, Govt. of India notification dated 15th March, 2010. The MoEF Env. (Protection) Rules, 1986 amended in 2009 under 1/© states that irrigation projects not involving submergence or inter-state domain shall be appraised by SEIAA as category B projects. Moreover, the project is of public interest without any pollution potential but located within critically polluted area. The SEIAA is competent to decide in this matter as per MoEF Notification No. 3-1101/5/2010-1A.II(I), dated January 13, 2010.

Therefore, the Committee decided that the SEIAA may clarify the above matter and suggest to SEAC to take an appropriate decision for issue of EC.

ITEM NO 2

PROPOSAL OF KARAPANI IRRIGATION PROJECT AT BARGHAT OF BONAI SUB DIVISION OF SUNDERGARH DISTRICT

Karapani Medium Irrigation Project is a Reservoir scheme Project going to be constructed across the Karapani Nallah near the village Barghat Of Bonai sub division of Sundergarh District. This Irrigation Project is designed to irrigate 3500 Ha of CCA (Kharif-3325 Ha & Rabi-2100Ha.) in Bonai & Lahunipada Blocks under Bonai Revenue Sub-Division of Sundargarh District. The project at FRL 190.50m. will submerge 400.59 Ha. of land (Pvt Land-230.00 Ha, Govt. Land-91.62 Ha. Forest land-78.97 Ha). Two numbers of villages namely Dhanijam and Sulabhdihhi will be fully submerged & 3 nos of villages namely Angul, Ranja & Barghat will be partly submerged, affecting to 303 nos of Population. The farmers are facing a lot of problems in cultivation every year due to non availability of irrigation facilities to this area. In order to meet the irrigation requirement of the farmers of this area, construction of this Project is much more essential. A diversion proposal for acquisition of 88.97 ha of Forest land has already been initiated Project as this area will be green soon after its construction. This Project will provide assured irrigation to 3325 ha of land during kharif and 2100 ha land during Rabi .The living as well as financial standard of the inhabitants of this area will improve soon after the construction of this Project.

The Engineer-in-Chief of the project submitted filled in application FORM-I and pre-feasibility report Considering the information furnished and presentation made by the Engineer in Chief, the SEAC prescribed the following TORs for undertaking detailed EIA study:

1. Hydrology, Design of reservoir and other components including a clear map showing the sites corresponding reservoir boundaries including its depth should be given.
2. The unit shall furnish location Map, Topo sheet, Contour of entire area, Index map, Submergence plan cross section of barrage, flow diagram, , Catchments of upstream and downstream.

3. A complete information on month-wise filling and drawal with respect to crop water need should be provided with reference overflow water over spillway.
4. The study area should include the following aspects:
 - Entire Command Area.
 - Area within 10km radius of the main Project Components
5. Collection of one season (non-monsoon) primary baseline data on ambient air quality, water quality, noise level, soil and flora and fauna and site-specific meteorological data should also be collected. The location of the monitoring stations should be justified.
6. 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 study area should be clearly indicated. Necessary clearance, if any, as may be applicable to such projects due to proximity of the ecologically sensitive areas as mentioned above under the Wildlife (Protection) Act, 1972 and copy thereof, may be furnished
7. 250 ha of Govt. land for resettlement of displaced personnel have not been identified yet. Cash for Land deal should be avoided and the displaced be given homestead land as far as possible.
8. Since Jharkhand and Chhatisgarh States are involved in the catchment area for the project, they may be informed in advance to avoid later complications.
9. Drinking and irrigation requirements may be given priority for after use of the impounded water.
10. Since there is a possibility that a part of the water after using for drinking and irrigation purposes may be supplied to industries, being located in an industrial belt, higher cess and strict regulation may be applied to recover a part of the loss in this project of public interest.
11. The cost to benefit ratio (1.628) may be reduced once the revised RR Plan of GoO is fully implemented and cost of forest submergence including the net

present value (NPV) and so the projected cost of Rs.134.62 crores at 2009 price level may go up considerably.

12. It should be ensured that the project does not affect the yield of water to Brahmani and Rengali dam situated downstream of the river.
13. Regarding prevention of silts entering into the reservoir, standard peripheral catchments area soil conservation and plantation measures may be adopted sincerely to increase the life of the barrage beyond the projected 25-50yrs period.
14. The Dept. of Water Resources being primarily responsible for the framing, execution and maintenance of the project, they should take special care on the following aspects of environmental management though other GoO agencies are responsible for their respective execution:
 - a) De-weeding of reservoir and ayacuts to keep those free from blocking and organic pollution.
 - b) Compensatory afforestation though money will be deposited with the Forest Dept.
 - c) Lining may be taken up in the main canals to prevent loss of water due to leaks and percolation as far as possible.
 - d) Analysis of downstream water particularly for nutrients, insecticides and pesticides (wash-offs from agriculture) at least in 3-4 points periodically, especially during Rabi crops as a part of the after project environment management plan.
15. The unit shall prepare EMP taking into account the followings:
 - Environmental safeguards (management) during construction activities.
 - Management to arrest salinity / alkalinity in the wake of irrigation.
 - Action plan for control of irrigation strategies and policies including water logging, salinity etc, with choice of species / crop for optimum use of water for agriculture to reduce adverse impacts of excessive irrigation including water logging.

- Action plan for command area development in respect of irrigation potential.
- Land use management with special emphasis on water logging problem.
- Soil fertility management plan.
- Action plan for release of assured lean season flow
- Creation of Green Belt Plan around the Periphery of the reservoir and Compensatory Afforestation Scheme in consultation with the State Forest Department.
- Conservation and preservation of endemic, rare and endangered species of flora and fauna (in consultation with State Wildlife Department).
- Fishery Management, plan for the conservation / management of fishes.
- Muck disposal plan (Suitable sites for dumping of excavated material should be identified in consultation with the State Pollution Control Board and Forest Department).
- Public Health Delivery System including the provisions for drinking water facility for the local community if required under the scheme.
- Sanitation & Solid Waste Management Plan for domestic waste from colonies and labor camps etc.
- Water quality Management during construction and post-construction periods.
- Environmental monitoring programme (with physical & financial details covering all the aspects from EMP).
- Disaster management, i.e., Dam break analysis should be provided which includes preparedness, management of disasters, awareness prevention and mitigation, response and relief.
- Provision as per rehabilitation plan and R&R policy of Govt. of Orissa.

16. Any litigation/ court case pending against the proposal should also be included.

17. Occupational health impact and remedial measures thereof for the project may be studied.
18. Socio-economic impact due to project activity may be assessed and based on the study, developmental activity proposed to be undertaken by the project proponent to be specified and as far as possible, quantitative dimension to be given. Study should include Corporate Social Responsibility (CSR) and it should be carried out as the entry point activity as trust building measures.
19. Points raised/likely to be raised during public hearing and commitment of the project proponent on the same may be included.
20. The EIA report should include the ambient air quality parameters.

The Terms of References (TORs) is valid for a period of two years from the date of issue of TORs for submission of the EIA/EMP report after public consultation. (This is in conformity with the MoEF, Govt. of India office memorandum No. J-11013/41/2006-IAII(I) dt. 22.3.10).

ITEM NO 3

PROPOSAL OF LAMDORA IRRIGATION PROJECT, KUCHINDA, SAMBALPUR

Lamodara Medium Irrigation Project is a Reservoir scheme Project going to be constructed across the Lamdora Nallah near the village Kadogarh of Kuchinda sub division of Sambalpur District. The Project is designed to irrigate 7300 Ha. of CCA in Jamankira and Kuchinda Block under Kuchinda Revenue Sub-Division of Sambalpur District . The project at FRL 280 m. will submerge 633.00 Ha. of land (Govt. land-50.70 Ha., Pvt. Land- 280.65 Ha., Forest land- 301.65 Ha.). Fifteen numbers of villages will be affected out of which Habitation of 12 nos of villages are not affected and only land will be submerged Land and habitation of 03 nos of villages will be affected. Total 222 Nos. of people will be displaced. The farmers are facing a lot of problems in cultivation every year due to non availability of irrigation facilities to this area. In order to meet the irrigation requirement of the farmers of this area, construction of this Project is much more essential. A diversion proposal for acquisition of 353.65 ha of Forest land has already been initiated. This Project will provide assured irrigation to 6882.00 ha of land

during kharif and 730ha land during Rabi. The living as well as financial standards of the inhabitants of this area will improve soon after the construction of this Project.

The Engineer-in-Chief of the project submitted filled in application FORM-I and pre-feasibility report. Considering the information furnished and presentation made by the Engineer in Chief, the SEAC prescribed the following TORs for undertaking detailed EIA study:

1. Hydrology, Design of reservoir and other components including a clear map showing the sites corresponding reservoir boundaries including its depth should be given.
2. The unit shall furnish location Map, Topo-sheet, Contour of entire area, Index map, Submergence plan cross section of barrage, , flow diagram, , Catchments of upstream and downstream.
3. A complete information on month-wise filling and drawl with respect to crop water need should be provided with reference overflow water over spillway.
4. The study area should include the following areas:
 - Entire Command Area.
 - Area within 10km radius of the main Project Components
5. Collection of one season (non-monsoon) primary baseline data on ambient air quality, water quality, noise level, soil and flora and fauna and site-specific meteorological data should also be collected. The location of the monitoring stations should be justified.
6. 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 study area should be clearly indicated. Necessary clearance, if any, as may be applicable to such projects due to proximity of the ecologically sensitive areas as mentioned above under the Wildlife (Protection) Act, 1972 and copy thereof, may be furnished
7. A total of 633ha including 301ha of forest land and habitation in 3 villages along with land of 12 more villages are going to be submerged. These figures on area to be submerged are different at different places of the Report submitted, which should be finalized and submitted by the proponent.
8. With a catchment of 412.75 sq.km, soil conservation measures to prevent extensive siltation should be undertaken not only in the reservoir periphery but also in the critically degraded area in the upper reaches by plantation and other standard measures to extend the life of this medium irrigation project.

9. It should be ensured that the project does not affect the yield of water to Kharla-Bhedan-Sankh riverine network downstream and ultimately affect the water inflow to Hirakud dam.
10. The Dept. of Water Resources being primarily responsible for the framing, execution and maintenance of the project, they should take special care on the following aspects of environmental management though other GoO agencies are responsible for their respective execution:
 - a) De-weeding of reservoir and ayacuts to keep those free from blocking and organic pollution.
 - b) Compensatory afforestation though money will be deposited with the Forest Dept.
 - c) Lining may be taken up in the main canals to prevent loss of water due to leaks and percolation as far as possible.
 - d) Analysis of downstream water particularly for nutrients, insecticides and pesticides (wash-offs from agriculture) at least in 3-4 points periodically, especially during Rabi crops as a part of the after project environment management plan.
11. The unit shall prepare EMP taking into account the followings
 - a) Environmental safeguards (management) during construction activities.
 - b) Management to arrest salinity / alkalinity in the wake of irrigation.
 - c) Action plan for control of irrigation strategies and policies including water logging, salinity etc, with choice of species / crop for optimum use of water for agriculture to reduce adverse impacts of excessive irrigation including water logging.
 - d) Action plan for command area development in respect of irrigation potential.
 - e) Land use management with special emphasis on water logging problem.
 - f) Soil fertility management plan.
 - g) Action plan for release of assured lean season flow

- h) Creation of Green Belt Plan around the Periphery of the reservoir and Compensatory Afforestation Scheme in consultation with the State Forest Department.
 - i) Conservation and preservation of endemic, rare and endangered species of flora and fauna (in consultation with State Wildlife Department).
 - j) Fishery Management, plan for the conservation / management of fishes.
 - k) Muck disposal plan (Suitable sites for dumping of excavated material should be identified in consultation with the State Pollution Control Board and Forest Department).
 - l) Public Health Delivery System including the provisions for drinking water facility for the local community if required under the scheme.
12. Any litigation/ court case pending against the proposal should also be included.
 13. Occupational health impact and remedial measures thereof for the project may be studied.
 14. Socio-economic impact due to project activity may be assessed and based on the study, developmental activity proposed to be undertaken by the project proponent to be specified and as far as possible, quantitative dimension to be given. Study should include Corporate Social Responsibility (CSR) and it should be carried out as the entry point activity as trust building measures.
 15. Points raised/likely to be raised during public hearing and commitment of the project proponent on the same may be included.
 - a) Environmental safeguards (management) during construction activities.
 - b) Management to arrest salinity / alkalinity in the wake of irrigation.
 - c) Action plan for control of irrigation strategies and policies including water logging, salinity etc, with choice of species / crop for optimum use of water for agriculture to reduce adverse impacts of excessive irrigation including water logging.
 - d) Action plan for command area development in respect of irrigation potential.

- e) Land use management with special emphasis on water logging problem.
- f) Soil fertility management plan.
- g) Action plan for release of assured lean season flow
- h) Creation of Green Belt Plan around the Periphery of the reservoir and Compensatory Afforestation Scheme in consultation with the State Forest Department.
- i) Conservation and preservation of endemic, rare and endangered species of flora and fauna (in consultation with State Wildlife Department).
- j) Fishery Management, plan for the conservation / management of fishes.
- k) Muck disposal plan (Suitable sites for dumping of excavated material should be identified in consultation with the State Pollution Control Board and Forest Department).
- l) Public Health Delivery System including the provisions for drinking water facility for the local community if required under the scheme.
- m) Environmental safeguards (management) during construction activities.
- n) Management to arrest salinity / alkalinity in the wake of irrigation.
- o) Action plan for control of irrigation strategies and policies including water logging, salinity etc, with choice of species / crop for optimum use of water for agriculture to reduce adverse impacts of excessive irrigation including water logging.
- p) Action plan for command area development in respect of irrigation potential.
- q) Land use management with special emphasis on water logging problem.
- r) Soil fertility management plan.
- s) Action plan for release of assured lean season flow

- t) Creation of Green Belt Plan around the Periphery of the reservoir and Compensatory Afforestation Scheme in consultation with the State Forest Department.
- u) Conservation and preservation of endemic, rare and endangered species of flora and fauna (in consultation with State Wildlife Department).
- v) Fishery Management, plan for the conservation / management of fishes.
- w) Muck disposal plan (Suitable sites for dumping of excavated material should be identified in consultation with the State Pollution Control Board and Forest Department).
- x) Public Health Delivery System including the provisions for drinking water facility for the local community if required under the scheme.

16. The EIA should include the Ambient Air Quality Parameters.

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 4.

PROPOSAL OF GHATAKESWAR MULTIPURPOSE PROJECT AT KANISI OF GANJAM DISTRICT

Ghatakeswar Multipurpose Project is a minor irrigation Project going to be constructed across the river Ghadaka Nallah near the village Koillikote of Ganjam District. This Project is designed to irrigate 500 Ha. of CCA in Kukudakhandi Block under Berhampur Sub-Division of Ganjam District .It will also provide drinking water supply to 75000 population in the sub-urban areas of Berhampur town.The project at FRL 101.70 m. will submerge 107.1827 Ha. of land (Govt. land-24.782 Ha., Pvt. Land- 17.6493 Ha., Forest land- 64.7514 Ha.). Only one village named Koillikote will be fully submerged and 41 scheduled tribe family will be displaced. The farmers are facing a lot of problems in cultivation every year due to non availability of irrigation facilities to this area. In order to

meet the irrigation requirement of the farmers of this area, construction of this Project is much more essential. A diversion proposal for acquisition of 64.7514 ha of Forest land has already been initiated. This Project will provide assured irrigation to 500 Ha ha of land during khariff .The living as well as financial standard of the inhabitants of this area will improve soon after the construction of this Project. The project is at an advanced stage with TAC clearance in Sept. 2006, Administrative approval in July 2006 and other issues almost finalized.

The Engineer in Chief of the project submitted filled in application FORM-I and prefeasibility report Considering the information furnished and presentation made by the Engineer in Chief, the SEAC prescribed the following TORs for undertaking detailed EIA study:

1. Hydrology, Design of reservoir and other components including a clear map showing the sites corresponding reservoir boundaries including its depth should be given.
2. The unit shall furnish location Map, Topo sheet, Contour of entire area, Index map, Submergence plan cross section of barrage, , flow diagram, , Catchments of upstream and downstream.
3. A complete information on month wise filling and drawal with respect to crop water need should be provided with reference overflow water over spillway.
4. The study area should include the following aspects
 - Entire Command Area.
 - Area within 10 km radius of the main Project Components
5. Collection of one season (non-monsoon) primary baseline data on ambient air quality, water quality, noise level, soil and flora and fauna and site-specific meteorological data should also be collected. The location of the monitoring stations should be justified.
6. 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 study area should be clearly indicated. Necessary clearance, if any, as may be applicable to such projects due to proximity of the ecologically sensitive areas as mentioned above under the Wildlife (Protection) Act, 1972 and copy thereof, may be furnished
7. Regarding prevention of silts entering into the reservoir, standard peripheral catchment area soil conservation measures may be adopted sincerely to increase the life of the barrage beyond the projected 25-50yrs period.

8. The Dept. of Water Resources being primarily responsible for the framing, execution and maintenance of the project, they should take special care on the following aspects of environmental management though other GoO agencies are responsible for their respective execution:
 - a) De-weeding of reservoir and ayacuts to keep those free from blocking and organic pollution.
 - b) Compensatory afforestation though money will be deposited with the Forest Dept.
 - c) Lining may be taken up in the main canals to prevent loss of water due to leaks and percolation as far as possible.
 - d) Analysis of downstream water particularly for nutrients, insecticides and pesticides (wash-offs from agriculture) at least in 3-4 points periodically, especially during Rabi crops as a part of the after project environment management plan.
9. The water impounded may be used as drinking water supplied not only to Berhampur urban area but also to the nearer rural areas, especially to the resettled colonies, after proper treatment and purification on priority basis.
10. Survey of flora and fauna along with conservation measures including peripheral soil conservation measures to avoid extensive siltation, should be done by a competent body.
11. The unit shall prepare EMP taking into account the followings
 - Environmental safeguards (management) during construction activities.
 - Management to arrest salinity / alkalinity in the wake of irrigation.
 - Action plan for control of irrigation include water logging, salinity etc including strategies and policies with choice of species / crop for optimum use of water for agriculture to reduce adverse impacts of excessive irrigation including water logging.
 - Action plan for command area development in respect of irrigation potential.
 - Land use management with special emphasis on water logging problem.
 - Soil fertility management plan.
 - Action plan for release of assured lean season flow
 - Creation of Green Belt Plan around the Periphery of the reservoir and Compensatory Afforestation Scheme in consultation with the State Forest Department.
 - Conservation and preservation of endemic, rare and endangered species of flora and fauna (in consultation with State Wildlife Department).
 - Fishery Management, plan for the conservation / management of fishes.

- Muck disposal plan (Suitable sites for dumping of excavated material should be identified in consultation with the State Pollution Control Board and Forest Department).
 - Public Health Delivery System including the provisions for drinking water facility for the local community if required under the scheme.
 - Sanitation & Solid Waste Management Plan for domestic waste from colonies and labour camps etc.
 - Water quality Management during construction and post construction periods.
 - Environmental monitoring programme (with physical & financial details covering all the aspects from EMP).
 - Disaster management i.e. Dam break analysis should be provided which includes preparedness, management of disasters, awareness prevention and mitigation, response and relief.
 - Provision as per rehabilitation plan and R&R policy of Govt. of Orissa.
12. Any litigation/ court case pending against the proposal should also be included.
 13. Occupational health impact and remedial measures thereof for the project may be studied.
 14. Socio-economic impact due to project activity may be assessed and based on the study, developmental activity proposed to be undertaken by the project proponent to be specified and as far as possible, quantitative dimension to be given. Study should include Corporate Social Responsibility (CSR) and it should be carried out as the entry point activity as trust building measures.
 15. Points raised/likely to be raised during public hearing and commitment of the project proponent on the same may be included.
 16. The EIA should include the Ambient Air Quality Parameters.

This Terms of References (TORs) is valid for a period of two years from the date of issue of TORs for submission of the EIA/EMP report after public consultation.(This is in conformity with the MoEF, Govt. of India office memorandum No. J-11013/41/2006-IAII(I) dt. 22.3.10).

ITEM NO. 5

PROPOSAL OF ARJUN NALLA M.I.P. IN DIGAPAHANDI BLOCK IN DIGAPAHANDI TAHASIL OF GANJAM DISTRICT, ORISSA

Arjun Nalla Minor irrigation Project is a Reservoir scheme Project going to be constructed across the Arjun Nalla near the village Digapahandi of Ganjam District. The catchment area and 225 ha of CCA . There is a minor submergence of 18.30ha of

village forest and no displacement of people. This area is coming under the drought prone area of Ganjam District for which the farmers are facing a lot of problems in cultivation every year due to non availability of irrigation facilities to this area. In order to meet the irrigation requirement of the farmers of this area, construction of this Project is much more essential. A diversion proposal for acquisition of 18.30 ha of Forest land has already been initiated. The living as well as financial standard of the inhabitants of this area will improve soon after the construction of this Project. There will be no environmental impact during execution or after completion of this irrigation project.

The Executive Engineer M.I. Division, Ganjam No. I, Berhampur of the project submitted filled-in application FORM - I and pre-feasibility report and Asst. Engineer, M.I. Division, Ganjam – I presented the project. **The SEAC considered the project under Category-B2 and exempted it from EIA/EMP studies /reports and recommended for grant of Environmental Clearance with the following stipulated conditions :**

- 1) This environmental clearance is valid for a period of 10 years from the date of issue of EC.
- 2) The project proponent shall submit Review Report on the status of compliance of the stipulated EC conditions including results of monitored data if any (both in hard copies as well as by e-mail) to the SEIAA after 5 years.
- 3) Occurrence of stagnant pools/slow moving water channels during construction and operation of the project providing breeding source for vector mosquitoes and other parasites may be avoided. The water should be properly channelised so that no small pool and poodles are allowed to be formed. Even after taking due precautions, due to unforeseen situations, breeding of mosquitoes and resultant malaria or mosquitoes- borne diseases can increase. If such a situation arises, It will be the responsibility of project authorities to take all steps, i.e. spraying of insecticides in all the affected/ likely to be affected project area and surrounding 3 km. area, keeping the flight range of mosquitoes in consideration.
- 4) The unit shall obtain Forest clearance and statutory Clearance from any other Authority, if required, should be obtained as and when required.

- 5) Adequate free fuel arrangement should be made for the labour force engaged in the construction work at project cost so that indiscriminate felling of trees is prevented.
- 6) Medical facilities should also be provided to the labourers, staying at the project sites.
- 7) All the labourers to be engaged for construction works should be thoroughly examined by health care personnel from time to time and adequately treated if necessary. First -aid medical facilities should be provided at the project site.
- 8) All the equipment which are likely to generate high noise levels are to be fully mollified (noise reduction measures).
- 9) Consolidation and compilation of the muck should be carried out in the muck dump sites and the dump sites should be above high flood level.
- 10) Adequate financial provision should be made in the total budget of the project for implementation of the environmental safeguard measures.
- 11) The responsibility of implementation of environmental safeguards rests fully with the project proponent .
- 12) The project proponent would take adequate measures to ensure that the PM in ambient air quality is within the prescribed limit.
- 13) Adequate steps shall be taken by the project proponent to protect flora and fauna of the project area.
- 14) A rapid EIA with EMP may be undertaken after the present monsoon recedes completely and submitted as soon as possible bringing out the present baseline data and possible environmental impacts in the long run.
- 15) Survey of flora and fauna along with conservation measures including peripheral soil conservation measures to avoid extensive siltation, should be done by a competent body.
- 16) In case of change in the scope of the project or implementation, it would require a fresh appraisal.
- 17) The proponent will plant sufficient number of trees along the canal embankments.

- 18) The SEIAA reserves the right to add additional safeguard measures subsequently, if found necessary.
- 19) The SEIAA reserves the rights to cancel this EC and to take action the as per the provisions of the Environment (Protection) Act, 1986, in case of noncompliance of any of the above stipulated conditions.

ITEM NO 6.

PROPOSAL OF SONO BARRAGE PROJECT VILLAGE: JAIDA , TAHASIL: KAPTIPADA, DISTRICT: MAYURBHANJ

Sono Barrage Project is a Reservoir scheme Project going to be constructed across the Sono river near the village Kaptipada of Maurbhanj District. This Project is having a pond area of 403ha (Agriculture land 120.9 ha, Forest land 5.51 ha, Government land 276.59 ha) designed to irrigate an ayacut of 9990 ha. in drought prone area of Mayurbhanj and Balasore Districts. It does not submerge any house hold property and will not cause any displacement. This area is coming under the drought prone area of Mayurbhanj and Balasore District for which the farmers are facing a lot of problems in cultivation every year due to non availability of irrigation facilities to this area. In order to meet the irrigation requirement of the farmers of this area, construction of this Project is much more essential. A diversion proposal for acquisition of 26.01 ha of Forest land has already been initiated & it is still pending due to non availability of Environmental Clearance. There will not be any displacement of the inhabitants.. This Project will provide assured irrigation to 9900 ha of land during khariff.. The living as well as financial standard of the inhabitants of this area will improve soon after the construction of this Project. There will be no environmental impact during execution or after completion of this irrigation project.

The Engineer in Chief of the project submitted filled in application FORM-I and pre-feasibility report and presented the proposal. **The SEAC considered the project under Category-B2 and exempted it from EIA/EMP studies /reports and recommended for grant of Environmental Clearance with the following stipulated conditions :**

- 1) This environmental clearance is valid for a period of 10 years from the date of issue of EC.
- 2) The project proponent shall submit Review Report on the status of compliance of the stipulated EC conditions including results of monitored data if any (both in hard copies as well as by e-mail) to the SEIAA after 5 years.
- 3) Occurrence of stagnant pools/slow moving water channels during construction and operation of the project providing breeding source for vector mosquitoes and other parasites may be avoided. The water should be properly channelised so that no small pool and poodles are allowed to be formed. Even after taking due precautions, due to unforeseen situations, breeding of mosquitoes and resultant malaria or mosquitoes- borne diseases can increase. If such a situation arises, It will be the responsibility of project authorities to take all steps, i.e. spraying of insecticides in all the affected/ likely to be affected project area and surrounding 3 km. area, keeping the flight range of mosquitoes in consideration.
- 4) The unit shall obtain Forest Clearance and other statutory Clearance from any other Authority, if required, should be obtained as and when required.
- 5) Adequate free fuel arrangement should be made for the labour force engaged in the construction work at project cost so that indiscriminate felling of trees is prevented.
- 6) Medical facilities should also be provided to the labourers, staying at the project sites.
- 7) All the labourers to be engaged for construction works should be thoroughly examined by health care personnel from time to time and adequately treated if necessary. First -aid medical facilities should be provided at the project site.
- 8) All the equipment which are likely to generate high noise levels are to be fully mollified (noise reduction measures).
- 9) Consolidation and compilation of the muck should be carried out in the muck dump sites and the dump sites should be above high flood level.

- 10) Adequate financial provision should be made in the total budget of the project for implementation of the environmental safeguard measures.
- 11) The responsibility of implementation of environmental safeguards rests fully with the project proponent .
- 12) The project proponent would take adequate measures to ensure that the PM in ambient air quality is within the prescribed limit.
- 13) Adequate steps shall be taken by the project proponent to protect flora and fauna of the project area.
- 14) A rapid EIA with EMP may be undertaken after the present monsoon recedes completely and submitted as soon as possible bringing out the present baseline data and possible environmental impacts in the long run.
- 15) Survey of flora and fauna along with conservation measures including peripheral soil conservation measures to avoid extensive siltation, should be done by a competent body.
- 16) In case of change in the scope of the project or implementation, it would require a fresh appraisal.
- 17) The proponent will plant sufficient number of trees along the canal embankments.
- 18) The SEIAA reserves the right to add additional safeguard measures subsequently, if found necessary.
- 19) THE SEIAA reserves the rights to cancel this EC and to take action the as per the provisions of the Environment (Protection) Act, 1986, in case of noncompliance of any of the above stipulated conditions.

ITEM NO 7.

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

M/S. ULTRA Tech Cement Ltd. is operating with 2MTPA cement grinding unit. The unit has proposed for expansion of grinding unit 2 MTPA TO 4 MTPA and 20 MW power plant to meet the captive power requirement for the above cement grinding unit Mr. K.V.

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

The committee observed that the proposed location is likely to come under critically polluted area notified by MoEF, Govt. of India. The MoEF, Govt. of India put restrictions on consideration of environmental clearance of projects in critically polluted cluster/areas up to 31st October, 2010. Moreover, the category-B project located within the critically polluted area will be treated as category-A project as per EIA notification of MoEF, Govt. of India. The proponent informed that the location of their existing unit is not coming under critically polluted area as notified by MoEF, Govt. of India. But, they were unable to produce any supportive documents. The issue of location of any industrial unit with respect to the critically polluted industrial cluster / area can be resolved by the CPCB, Delhi as per MoEF, Govt. of India notification dated 15.3.10

The committee decided to consider TOR for undertaking detailed EIA study after receipt of following clarification/documents from the proponent.

- 1. The unit shall obtain information from CPCB, Delhi that the proposed site is not coming under critically polluted area as declared in the notification of MoEF, Govt. of India and submit the copy of the letter to SEAC .**

2. The claim that BIS specification allows the use of 35% fly ash in cement mix keeping its ultimate strength, hydration potential and setting properties unaltered, may be explained with supportive document.
3. Exact source and analysis of raw coal along with allocations/MOUs if any regarding assured supplies, may be produced.
4. Use of phosphogypsum, a waste of phosphatic fertilizer plants having higher amounts of residual acidity, fluoride and phosphate in the cement mix may be justified keeping BIS specifications and environmental safety in view.
5. The proponent shall give detailed information on quantity of fly ash and bottom ash generated from CPP, analysis report and mode of disposal of bottom ash.
6. Use of other safety and environmental protection measures in raw material stacking, handling, sizing, operation of TPP, boilers/power generation units, effluent/waste management etc. may be clarified.
7. Addition of only 2 ha of plantation area to the claimed existing area of 20.37 ha of greenery while doubling the grinding capacity and putting up a new 20 MW CPP is inadequate. The area under greenery existing or proposed is not shown in the map.
8. Use of 2X6 MW DG sets would call for extra safety and environmental protection measures. Such higher capacity DG sets as standbys should be justified. In stead, why does the proponent not consider increasing the capacity of TPP since they are proposing to put up 20 MW facilities afresh.
9. Justification that the pollution load will not increase by the proposed expansion may be provided for consideration of exemption of public consultation.

DAY TWO : 21.9.2010

ITEM NO . 8

PROPOSAL OF M/S NR INTERNATIONAL LTD., FOR ESTABLISHMENT OF A COAL WASHERY PLANT OF CAPACITY – 0.9 MTPA AT BAINCHUA, TANGI DISTRICT – CUTTACK

This is a proposal for coal washery plant of capacity – 0.9MTPA at Bainchua, Tangi, Cuttack. Applicant, aided by the consultant Sri Sarangi of M/s. Geomin Consultants, presented the proposal while the proponent was present. The coal beneficiation plant of 0.9 MTPA capacity would use raw coal from MCL on behalf of M/s. Surya Sponge Iron Ltd. for beneficiation and the final products including the rejects would be used by the same sponge iron plant. The raw coal analyzing >44% ash and 0.5% S would be beneficiated in heavy media cyclone. 0.63 MTPA of beneficiated coal having ~33% ash and 0.2% S would be used for sponge production while 0.27MTPA of rejects having

76.56% ash and other impurities and 0.3%S will be used for power generation. The unit has obtained NOC from CGWA for withdrawal of 65cum of water on 02.09.2009. TOR has been granted by SEAC, Orissa vide letter No. 33/SEAC-13 dated 07.07.2009. Public Hearing Conducted on 18.04.2009 The Total Investment for proposed unit is Rs. 7.3 crores

The Committee would need following clarifications before considering EC:

1. The status (Technology followed, Environmental Clearance and other statutory clearances) of M/s. Surya Sponge, on whose behalf raw coal will be received, beneficiated and finished product with rejects will be delivered is not known.
2. CFBC boilers can use coal containing maximum 60 - 62% ash and of minimum 6,200kcal/kg calorific value. The unit shall justify the use of coal rejects generated by M/s. NR International having such high ash (70.84%) and low calorific value (1899kcal/kg) in CPP of AFBC.
3. Sulfur content of 0.9MT raw coal is stated to be 0.5% (Total S = 4,500T) producing 0.63MT washed coal of 0.2%S (S = 1,260 T) and 0.27MT rejects of 0.3%S (S = 810T), together accounting for 2,070T of S. There is a mismatch in material balance accounting for a short-fall of 2,470T of S and its equivalent of SO₂ would be 4,940T, which may be explained.
4. The EIA report mentions the depth of ground water to be 2.56 to 6.11m BGL at the plant site. The unit will clarify whether they are using this source for their process as make-up water (25m³/day) and for domestic consumption (20m³/day). The unit also clarify why such high quantity of water required for domestic consumption for the facility, where there is no residential colony.
5. The raw feed water from ground water sources amounting to 65 m³ per day is to be drawn using pumps of 50m³ per hour, The unit shall clarify why higher capacity pump is used? Will there be a meter to measure and keep a log record of daily withdrawals for check-up later or verification on the spot? The number of wells, diameter and depth of wells are not mentioned.
6. The unit shall give details of rainwater harvest measures.
7. In their clarification xvii on TOR at pg. 27 of presentation, the unit has mentioned a storage tank to store surface runoff water during monsoons and to use it for plant activities after treatment which is not shown in the water balance.
8. The unit shall clarify what will happen to the 15 + 5 = 20m³/day water adhering to products and rejects. It may pollute the ground and sub-surface/surface water quality of the area.
9. There is no mention of quantity and nature of the heavy media reagent or surfactant that will be used in the beneficiation process, their ultimate fate and effect on water/ soil environment. Since these are long-chain organic

compounds, their effects on water and soil is quite detrimental. This may be elaborated.

10. The SPM prediction model shows fall-outs 4,000m to north and west of the facility and the NH-5 is just about 300m north of it. Beyond that there are agriculture fields and populated villages. A number of people in the Public hearing have already complained about dust problem, especially eye burning etc. The SPM being mainly fine coal particles would cause respiratory and other health hazards in animals and plants. The proposed preventive measures may be provided.
11. The fall-out pattern shows 6-9 micro gram /m³ at about 500-1,000m north, which increases over distance from the source (the slide is not very clear and readable). The only distribution diagram (there should have been some more on RSPM, SO₂, NO_x etc. as per standard requirements of EIA/EMP), is not clear and shows increasing dust load as the distance increases. This may be explained.

The proposal may be considered for environmental clearance **provided the response of the project proponent to the aforesaid observations is to the satisfaction of the SEAC.**

ITEM NO . 9

AUGMENTATION OF STORAGE CAPACITY FROM 49395 KL TO 72827 KL OF PARADEEP POL TERMINAL BY M/S. HINDUSTAN PETROLEUM CORPORATION AT PARADIP PORT AREA, JAGATSINGHPUR DIST.

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 HPCL storage facility is located within PPT area over 49.8Ac and is in operation for the last 30yrs, catering to the growing demands of petroleum and allied products of the National Company. Their current demand of 550KL/month received through ocean tankers and dispatched through rail and road is likely to increase up to 850KL/month by 2012 calling for additional storage capacity. The existing and proposed storage capacity of POL Terminal is as follows :

STORAGE CAPACITY AT PARADEEP TERMINAL

Sl. No.	Product	Total quantity (KL)		Tank wise inventory & tank type	
		Existing	Proposed	Existing	Proposed
1.	MS	7000	10000	(2x3500 KL/A/G	(2x5000 KL A/G
2.	SKO	17740	-	(2x8800 KL A/G) + (2x70 KL A/G Horizontal)	-
3.	HSD	24000	13432	(2x12000 KL A/G)	(2x6716 KL A/G)
4.	FO	540	-	(1x540 KL A/G)	-
5.	Ethanol	115	-	(1x70 KL U/G) + 1x45 KL U/G)	-

N. B. : A/G - Above Ground, U/G – Under Ground

After detailed deliberations, the SEAC recommended inclusion of the following points in the TOR for preparation of EIA/ EMP.

1. Executive summary of the project shall be given as per EIA Notification, 2006.
2. Project Description and Project Benefits shall be given.
3. Baseline data on the analysis of water at their current berthing facility inside the wet basin area at two to three different points on tanker non-berthing and berthing time may be included.
4. Since there are a number of large size vessels and tankers inside the wet basin at any given point of time taking appropriate precautions at the time of unloading of petroleum tankers are required, which would be at par or even better than at their storage facilities. This may be brought out clearly.
5. Safety precautions planned for any spillage at either end of the pipeline may be elaborated.
6. The quality and quantity of sludge generated in the facility and its disposal methods are to be elaborated.
7. Present land use based on satellite imagery may be given.

8. Location of National Park/Wild life sanctuary/Reserve Forest within 10 km radius of the project.
9. 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.
10. Baseline data collection on air, water and soil for:
 - i. Ambient Air Quality monitoring for PM, RPM, SO₂, NO_x
 - 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
11. 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.
12. 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.
13. Earmarking of area for parking of lorries at a remote location to avoid congestion shall be given.
14. Adequate width of approach road to avoid congestion and to have safe exit in emergencies shall be provided.
15. Animated Computer Model for prospective years regarding truck movement from safety and risk point of view shall be given.
16. Layout plan of A1 size with provision of parking area for trucks shall be given.
17. 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.
18. Details of proposed preventive measures for leakages and accident shall be given.
19. Details of Vapour Recovery System shall be given.
20. Occupational health of the workers should be incorporated.
21. Scheme for rainwater harvesting may be given.
22. Socio-economic development activities should be in place.

23. Details of the safety measures that are to be taken due to flooding and cyclone.
24. Details of the storage and technical specifications with safety aspects & standards shall be given
28. Type of seismic zone to be intimated.
29. Post-operational Environmental monitoring programme may be furnished.
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.

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 -10

PROPOSAL FOR CONSTRUCTION OF DEFENCE WELFARE HOUSING PROJECT OF AIR FORCE NAVAL HOUSING PROJECT AT CHANDRASEKHARPUR, BHUBANESWAR

The proposed development is a Building Project having multiple floors.. Wing Commander Srikant Mishra introduced the project and details were presented by their Architect Shri Dhananjay Rath. They propose to construct Lower Stilt + Upper Stilt + 8 Floors officer block , Lower Stilt + Upper Stilt + 11 Floor sailor block , Community Center Ground + 1 Floor. There shall be 128+128=256 residential units housing approximately for 1,000 Air Force and Naval personnel and their families, it becomes all the more essential for extra precautions on their environment. Total built up area is 3,48,480 Sft The cost of the project is Rs. 55.54 Cr.

The following points may be clarified before consideration of EC

1. BDA approved of drawings, plans and structural sufficiency certificate from the competent authority shall be submitted.
2. Sanction letter from PHED regarding water supply to the extent during construction and operation may be submitted.
3. Methods of solid waste disposal may be given.

4. Rainwater amount available and recharge pits/methods may be elaborated. Instead of building 4.5X4.5m recharge pits, smaller pits would be more efficient. A commercial firm dealing with rainwater harvest structure may be consulted.
5. Details of STP to be used and disposal of sludge may be elaborated. Possibility of Municipal sewerage line may be explored.
6. The unit shall clarify if they separate grey and normal discharge water lines.
7. Post-construction and occupation environmental monitoring and safety measures need a little elaboration. Preferably a professional consultant may be employed part-time if the management is proposed to be looked after by the residential society.
8. Details of DG standby sets along with chimney height may be elaborated keeping dispersal of generated fumes/emission quality in view.
9. Since there will be huge parking space (open, stilt and covered stilt) catering to a large resident population, proper traffic and emission measures to be implemented may be specified.

The proposal may be considered for environmental clearance **provided the response of the project proponent to the aforesaid observations is to the satisfaction of the SEAC.**

ITEM NO. 11.

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

The proposed development is a Building Project having multiple floors. The said project comprises of 144 no. of 3 bed room flats, 72 no. of 2 bed room flats and 24 no. of single bed room flats. All the 3 and 2 bedroom flats are housed in four no of stilt + 9 storied building. The single bedroom flats are accommodated in building of basement + stilt + three upper storied. The building is completely residential in nature. Bhubaneswar Development Authority has approved the building plan. The Housing Finance wing of LIC having HO in Mumbai is the proponent represented by Mr. H.C.Mishra was present and representative of their consultants, Dr. Debashis Biswal of M/s. Kalyani Laboratory, Bhubaneswar presented the proposal. Originally it was named as housing complex for senior citizens in the age group of ≥ 50 years. The Committee objected to the use of the term 'Senior Citizens' since it is a tem having different specified age ranging from ≥ 60 (for Rlys), ≥ 65 (for IT) etc. for different purposes, to which the proponents agreed. There

will be 240 flats in a built up area of 3,28,402 sq.ft. covering 54,736 sq.ft. of ground. There are other facilities like Yoga center, community hall etc.

The following clarifications are need to be considered before considering EC approval:

1. The modified terminology in place of Senior Citizens may be intimidated.
2. BDA approved drawings, plans and structural sufficiency certificate from the competent authority shall be submitted along with allotment of Govt. land in favor of LIC.
3. There is a plan to have shopping area of 1200 sq.ft. for commercial use. These should be small provisional and miscellaneous stores meant for the residents of this complex rather than for out side commercial use which should be clarified.
4. There is mention of meditation center in the center of rainwater harvest pool in slide 6, of which there is no plan or drawing or pathway etc.
5. The unit shall give copy of permission from PHD for supply of municipal water during construction and occupation with extent of water to be drawn daily.
6. Use of STP (300KL capacity) could be temporary till municipal sewerage line is in place. But there are a lot of technical incompatibilities as enumerated below, which should be clarified:
 - a) Whether it is commercially designed and supplied, operated and maintained by established experts?
 - b) The drawing is not clear on bio-treatment devices and method, nature of residue to be cleared and its end use.
 - c) Provision of only a standby storage facility in case of maintenance of the STP with holding capacity for just 24hrs (270KLD) will not serve the purpose. Alternate standby arrangements may be thought of.
 - d) Mixing of grey and ordinary waste water collected separately in the STP will be wastage of residence time and treatment.
7. Putting up of a bio-gas unit to use bio-degradable solid wastes is far fetched since separate collection of such wastes and management of the plant as well as distribution/use of gas including its location may pose problems.
8. The project proponent shall furnish copy of agreement with BMC for disposal of solid waste. Selling out of recyclable solid waste may be enumerated including segregation after collection. Construction waste is stated to be used for land development and plantation. Plantation needs suitable soil, not construction debris.
9. Since there will be 1296 people with at least 240 aged people (≥ 50 yrs) as owners, post construction management through residential society would need professional environmental manager to assist.

10. In slide 8, there is a mismatch between the parking space in still is coming to 39,531 sq.ft. whereas later on in the same slide it is shown as 41,021sq.ft. out of the total parking area of 1,03,737sq.ft. Similarly, road area is shown as 65,601 sq.ft. whereas it is coming to 10,933 sq.ft. when open space and greenery are taken into consideration. Traffic and emission management from this huge number of vehicles may be explained.
11. No base line data for different environments were presented including additional loads and fall-outs during construction and occupation phases.
12. Details of rainwater collection calculation based on peak rainfall and collection area etc, are not presented. Rainwater recharge is envisaged through open pond in which surface run off will also join. The former should be separately dealt and preferably by a competent personnel designing the collection, channeling and recharging after treatment.
13. The source of electrical power, consumption amount and standby DG set details including storage of fuel, emission control etc. are not mentioned at all.
14. Safety and fire detection, fire escape arrangements may be enumerated. The area is 6km away from Bhubaneswar airport by road and so may be less aerially. Such high-rise apartments in the funnel of take-offs and landing of aircrafts may be brought to the notice of BDA/Airport Management and approval to that effect may be produced.

The proposal may be considered for environmental clearance **provided the response of the project proponent to the aforesaid observations is to the satisfaction of the SEAC.**

ITEM NO. 12.

PROPOSAL OF M/S. ESSAR POWER LTD FOR 2X30 MW (PHASE I) COAL BASED CPP AT PARADEEP, DIST. JAGATSINGHPUR

M/s. Essar Steel Orissa Limited (ESOL) is in the process of setting up of a 6 MTPA Integrated Steel Plant (ISP) including a 12 MTPA Pellet Plant at Paradeep, Kujang Tehsil, Jagatsinghpur District, Orissa . M/s Essar Power Ltd. (EPOL) has also proposed to set up 120 MW (4 x 30 MW) coal based CPP in two phases to partially cater to their power requirements. Out of this 120 MW project, MoEF Govt. of India already issued ToR for 2x30 MW (Phase I) vide letter No. F.N0. J-13012/76/2008 dt. 11.9.2008 and SEAC issued ToR for 2x30 MW (Phase II) vide letter No. 220 dt. 22.1.10. The present proposal is for environmental clearance of 2x30 MW (PHASE –I) coal based captive thermal power project at Paradeep in the district of Jagatsinghpur, Orissa. Land

requirement is 50 acres. Water requirement is 256 m³/hr, which will be taken from Taladanda canal. They propose to use AFBC system using 1400TPD Talcher coal having 45% ash and 0.5% S. 256m³/hr water is to be drawn from Taldanda canal intake point is not specified. Total cost of project is Rs. 254 crores. Baseline data collected during Dec. 2008 – Feb. 2009 by the approved environmental laboratory by M/s S.S.Environmentics and public hearing held in 24th January 2010. Their integrated steel plant with EC from MoEF is under construction. So environment pollution potential and protection measures for all the units located in the same campus and owned by the same concerned (though different wings), should be considered in totality. A number of large scale industries and nationally important facilities like PPL, IFFCO, PPT including its own three units and many more, proposed and on-going, are located in close proximity in an environmentally sensitive area. Therefore, it needs a close look. In this connection, the following points need clarification:

1. Allotment of 50Ac. land in favor of Essar Power by the parent concern with due approval of competent authority may be proved. This area is surrounded by paddy fields (48% of the local land use pattern), cultivated in Kharif season. The soil is porous and salinity of subsurface water could be high due to its close proximity to sea. Principle of zero discharge should be proved with provision of actual water balance sheet, treatment methods followed for waste water for recycle etc. But in public hearing it was clarified by the plant representative that treated water will be discharged into Mahanadi river. This is contradictory and may be clarified.
2. Reason for selecting bubbling type AFBC as against the latest CFBC combustion system, designed to reduce air pollutant emission and complete combustion of coal, are stated to be commercial. Amount of lime added to the feed in AFBC is not specified. The amount of NO_x and SO₂ to be generated seem underestimated.
3. Water to the tune of 256m³/hr amounting to 2.24255 million m³ per year will be supplied by ESOL, the parent Company. The allotment of water from the Dept. of Water Resources, GoO is in favor M/s Hygrade Pellets Ld. (Essar Group). The

- proponents may submit a copy of their original application to the Dept. to verify the purpose for which this water was applied and sanctioned.
4. The Committee had earlier observed in connection with issue of TOR for the second phase of TPP that they should conduct a realistic survey of up-stream and down-stream water demands in Taldanda canal vis-à-vis the average annual flow for the past 5years. The demand should include use by the local population for their day to day needs and irrigation demand in the CCA. This was stipulated with a view to get an idea on the total water flow and the net availability of the scanty water resources for industrial use after meeting the priority sectors like social and agricultural uses.
 5. The unit has no coal linkage . The unit shall furnish the source of getting coal of 0.5%S content to the tune of 0.456MTPA for their 60MW plant in the first phase. The unit is also proposed to use imported coal of 0.8%S but low ash content. Source of the imported coal, grade and to what extent it is to be used has not been specified.
 6. 150TPH coal handling for screening, grinding and re-screening is proposed with closed conveyor and water sprinkling etc. Details are lacking regarding dust generation potential and system efficiency for dust suppression.
 7. The amount of fly ash to be generated (@450TPD=164,250TPA) is proposed to be used for bricks, land filling and the rest with most of the bed ash (40,500TPA) will be stored as high density slurry in 15Ac of ash pond. The unit shall furnish details of ash utilization plan with the life of the ash pond .
 8. Chlorine is proposed to be used to prevent algae formation. The risk of chlorine gas leakage is mentioned as one of the risk factors. Preventive measures planned to attend to such emergency may be given.
 9. The issues of dredging and discharge into Mahanadi river were raised in Public Hearing. There is no mention of the river as the discharge point or water withdrawal source. This may be elaborated.

10. Essential features like ESP, chimney, water management, ash handling and storage etc. are shown as Environment management cost to escalate to Rs.28 crores against the total investment of 250 crores. Actual investments or recurring expenses on environment are negligible.
11. The results of ambient air quality monitoring are shown in only one Table though 10 locations in the buffer zone were monitored. The model results showing dispersal pattern of air pollutants are not included. So it is suggested that EIA/EMP monitoring for AAQ may be repeated keeping the latest specifications of CPCB in view .

The proposal may be considered for environmental clearance **provided the response of the project proponent to the aforesaid observations is to the satisfaction of the SEAC.**

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