

**MINUTES OF THE MEETING OF STATE LEVEL EXPERT APPRAISAL  
COMMITTEE, ORISSA HELD ON 19<sup>TH</sup> & 20<sup>TH</sup> NOVEMBER, 2009**

The meeting of State Level Expert Appraisal Committee, Orissa was held on 19<sup>th</sup> & 20<sup>th</sup> November, 2009 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   |

The following issues were discussed and decided

1. The minutes of previous meeting was confirmed by the members.
2. The letter of MoEF, Govt. of India No. J-11013/23/2008-IA.II(I) Dt. 28.10.09 was discussed and it was decided to send details of past and present assignments hold by the Chairman and members of State Level Expert Appraisal Committee, Orissa to MoEF, Govt. of India.
3. The committee decided to take the help of experts of various fields as per provision of EIA Notification, 2006 while appraising proposals such as Ports and other activities. Accordingly, provision has to be made in the budget of SEAC for remuneration of TA, DA and sitting fees for the experts.
4. The committee also discussed about fulltime staff/officers of SEAC, Orissa as well as payment of sitting fees to members. It was decided to act as per proceedings of the interactive meeting held on 9.10.09 in the office of SEIAA, Orissa.

A total of 10 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 SANAPATHULI MANGANESE ORE MINE OF M/S. ORISSA MANGANESE AND MINERALS PVT. LTD, VILLAGE SANAPATHOLI, DIST – SUNDARGARH**

The proponent made a presentation on the proposal for consideration of the SEAC. The proposal is for renewal of mining lease for production of 1388 TPA of manganese ore. The TOR for this project were prescribed on dt. 25.1.08 by the Expert Appraisal Committee of MoEF, Govt. of India. The mine lease area is 23.29 ha. The already broken up area is 2.49 ha.. Life of the mine is 50 years. Working will be opencast and mechanized involving drilling and blasting. The Sanapatholi Manganese Mining Lease of M/s. OMMPL was originally managed by M/s. Young & Company during 1939. Subsequently M/s. Young & Company transferred the lease to the Central Province Manganese Ore Limited to operate the said leases up to 1955. Subsequently the mining lease area have been transferred in favour of M/s. Orissa Manganese & Minerals Pvt. Ltd. on 25.8.1955. The first renewal for the said mines was granted in favour of M/s. Orissa Manganese & Minerals Private Limited for a period of 20 years from 1.1.1960 to 31.12.1979 over an area of 23.29 hectares. The deed in respect to first renewal had been executed on 13.5.1969. The second renewal for the above Mining Lease was granted for a further period of 20 years from 1.1.1980 to 31.12.1999. The Lease Deed for 2nd renewal was executed on 1.1.1981. The third renewal application has been filed to the state Govt. on 21.12.98. Subsequently the Mining Plan was prepared under Rule 24(A) of MCR 1960, Amendment- 1987 and approved by IBM.

The mine is now enjoying deemed renewal as per Rule 24 (A) of MCR 1960. The water requirement is 9.3 KLD, which will be met from water supply of PHED, Govt. of Orissa. The maximum working depth will be 15 m from 611.17 m AMSL and groundwater table is 21m from 596m AMSL. Working will not intersect groundwater table. The public hearing was conducted on 18.6.08. No National Park/Sanctuary is located within 10 km of the mine lease. The issue raised during public hearing were also presented and discussed during the meeting.

**During the discussions, the following points emerged.**

1. The mine is not working since, 1979. Copy of mining lease produced before the committee is not clearly visible. The proponent may produce a clearly visible copy of mining lease.
2. The mine is enjoying deemed renewal as per Rule 24(A) of MCR 1960. The mine has to produce letter of the State Mining Department clarifying whether it is appropriate to consider environmental clearance when the mine is enjoying deemed renewal of lease.
3. Final EIA report has not been prepared as per generic structure as given in Appendix- III of EIA notification, 2006. They may modify the structure of EIA report and re-submit again.
4. It was informed that there was a litigation pending against the mine and final order has already been passed by the Hon'ble Court. A copy of the final judgment may be submitted.
5. A perennial river is flowing near mining lease area. The report is silent about the proposed measures to avoid risk to river during mining activities.
6. Detail proposal for plantation around inner periphery lease area and along bank of river flowing nearby may be submitted.
7. Details of CSR activities carried out by the mining authority with cost break up may be submitted.
8. Detail proposal to set up environmental laboratory with staff position may be submitted.
9. In presentation, in one place it was mentioned that the source of water is Suna nadi and at some other place, it was mentioned as PHED supply, Govt. of Orissa. This may be clarified with status of permission for drawl of water.
10. In the report, it has been mentioned that no forest land within the mining lease area, but the mine has paid for compensating afforestation. This may be clarified.
11. The mine has to submit the biological study report.

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. 2**

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

The proponent made a presentation on the proposal for consideration of the SEAC. The proposal is for renewal of mining lease and enhancement of production of manganese ore from 1800 TPA to 15000 TPA. The TOR for this project were prescribed on dt. 25.1.08 by the EAC of MoEF, Govt. of India. The mine lease area is 8.134 ha. No forest

land is involved. Already broken up area is 4.514 ha. Life of the mine is 17 years. Working will be opencast semi-mechanised involving drilling and blasting. The Bhanjikusum Manganese Mining Lease of M/s. OMMPL was originally managed by M/s. Young & Company during 1939. Subsequently M/s. Young & Company transferred the lease to the Central Province Manganese Ore Limited to operate the said leases up to 1955. Subsequently the mining lease area have been transferred in favour of M/s. Orissa Manganese & Minerals Pvt. Ltd. on 25.8.1955. The first renewal for the said mines was granted in favour of M/s. Orissa Manganese & Minerals Private Limited for a period of 20 years from 1.1.1960 to 31.12.1979 over an area of 8.134 hectares. The deed in respect to first renewal had been executed on 13.5.1969. The second renewal for the above Mining Lease was granted for a further period of 20 years from 1.1.1980 to 31.12.1999. The Lease Deed for 2nd renewal was executed on 1.1.1981. The third renewal application has been filed to the state Govt. on 21.12.98. Subsequently the Mining Plan prepared under Rule 24(A) of MCR 1960, Amendment- 1987 and approved by IBM. The mine is now enjoying deemed renewal as per Rule 24 (A) of MCR 1960. The water requirement is 11.4 KLD, which will be met from dug well and nearby nallah. The maximum working depth will be 15 m from 600 m AMSL and groundwater table is 30m from 590 m AMSL. Working will not intersect groundwater table. The public hearing was conducted on 24.6.08. No National Park/Sanctuary is located within 10 km of the mine lease. The issues raised during public hearing were also presented and discussed during the meeting.

During the discussions, the following points emerged.

1. The mine is operating with deemed lease renewal. They may produce supporting document from concerned department to prove that they have been authorized to operate the mine with deemed lease renewal.
2. The mine has to produce letter of the State Mining Department clarifying whether it is appropriate to consider environmental clearance when the mine is enjoying deemed renewal of lease.
3. Copy of supporting document with respect to correspondence regarding renewal of lease from concerned department may be submitted.
4. Status of forest diversion proposal may be furnished.

5. The mine has been given temporary working permission by MoEF, Govt. of India. Copy of the same may be furnished.
6. Details of solid waste management of existing mining activity and proposed mining activity may be furnished.
7. Details of plantation activities over existing mine as well as proposal for plantation activity around mining lease area may be submitted.
8. The mine may clarify regarding applicability of tribal Act for the mine as the mine is surrounded by the tribal people.
9. Details of existing environmental monitoring cell as well as proposed environmental cell may be submitted.
10. Source of water and status of permission for drawal of water from concerned authority may be submitted.
11. Copy of mining lease deed may be submitted.

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. 3**

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

The proponent made a presentation on the proposal for consideration of the SEAC. The proposal is for obtaining environmental clearance with respect to the renewal of mining lease and enhancement of production of manganese ore from 2000 TPA to 17,376 TPA. The TOR for this project were prescribed on dt. 25.1.08 by the EAC of MoEF, Govt. of India. The mine lease area is 31.549 ha. Life of the mine is 11 years. Working will be opencast semi-mechanised involving drilling and blasting.

The Kusumdihi Manganese Mining Lease of M/s. OMMPL was originally managed by M/s. Young & Company during 1939. Subsequently M/s. Young & Company transferred the lease to the Central Province Manganese Ore Limited to operate the said leases up

to 1955. Subsequently the mining lease area have been transferred in favour of M/s.Orissa Manganese & Minerals Pvt. Ltd. on 25.8.1955.The first renewal for the said mines was granted in favour of M/s.Orissa Manganese & Minerals Private Limited for a period of 20 years from 1.1.1960 to 31.12.1979 over an area of 31.549 hectares. The deed in respect to first renewal had been executed on 13.5.1969. The second renewal for the above Mining Lease was granted for a further period of 20 years from 1.1.1980 to 31.12.1999. The Lease Deed for 2nd renewal was executed on 1.1.1981.The third renewal application has been filed to the state Govt. on 21.12.98. Subsequently the Mining Plan prepared under Rule 24(A) of MCR 1960, Amendment- 1987 and approved by IBM. The mine is now enjoying deemed renewal as per Rule 24 (A) of MCR 1960. The water requirement is 11.5 KLD, which will be met from dug well and nearby nallah. The maximum working depth will be 15 m from 642 m AMSL and groundwater table is 30m from 585m AMSL. Working will not intersect groundwater table. The public hearing was conducted on 18.6.08. No National Park/Sanctuary is located within 10 km of the mine lease. The issues raised during public hearing were also presented and discussed during the meeting.

**During the discussions, the following points emerged.**

1. The mine is not working since, 1979. Copy of mining lease produced before the committee is not clearly visible. The mine may produce a clearly visible copy of mining lease.
2. The mine is enjoying deemed renewal as per Rule 24(A) of MCR 1960. The mine has to furnish letter from the State Mining Department clarifying whether it is appropriate to consider environmental clearance when the mine is enjoying deemed renewal of lease.
3. Final EIA report has not been prepared as per generic structure given in Appendix-III of EIA notification, 2006. They have to modify the structure of EIA report and re-submit again.
4. Details of litigation, if any, pending against the mine in the Hon'ble Court and its present status may be furnished.

5. Detail proposal for plantation around the inner periphery of the lease area may be submitted.
6. Details of CSR activity carried out by the mining authority with cost break-up may be submitted.
7. Detail proposal to set up environmental laboratory with staff position may be submitted.
8. Detail of source of water with status of permission for drawl of water may be submitted.

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. 4**

#### **PROPOSAL OF M/s. INDIAN OIL CORPORATION LTD., FOR SETTING UP OF PETROLEUM OIL TERMINAL AT JHARSUGUDA (ISOLATED STORAGE OF HAZARDOUS CHEMICALS)**

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.

M/s Indian Oil Corporation Limited have proposed for a POL terminal at Jharsuguda as a combined resitement of existing Depots at Sambalpur and Rourkela with total tankage of 49229 Kls and allied facilities with hook up to the Paradeep- Ranchi Pipeline (PRPL). This terminal project is proposed to be executed in two phases :

Phase I : To receive white oils like MS, HSD and SKOI through hook up from Paradeep – Ranchi Pipeline and despatch by road through Tank Lorries.

Phase II : To receive Furnace Oil by Tank wagons despatch by road through Tank Lorries, by augmenting facilities like Railway siding, FO tankage (4596 Kls) and gantry.

**Details of storage capacity of tankages are given below:**

<b>Product</b>	<b>No. of tanks</b>	<b>Type</b>	<b>Capacity</b>
MS	3	FRVT	12618 KLS (1X2212 KL & 2 X 5203 KL)
HSD	4	CRVT	30688 KLS (4X 7672 Kls)
SKO	2	CRVT	5723 Kls (1X2301KL & 1X 3422 KL)
Ethanol	1	U/G	200 KL

Additionally, two tank lorry filling gantries with 8 bays each with bottom loading arrangement would be provided to fill tank lorries. Storage and distribution of petroleum products will be done in a closed system. 2 no. CRVT tank for storage of water (total 3986 KI) and Fire pump house with fire hydrant pumps, 2 no. Jockey pumps and tube wells planned. The fire fighting network shall be provided based on OISD-118. The capacity of various fire fighting equipments are designed as per guidelines of OISD 117. the entire network is kept under pressurized condition. In addition to fire water network, Portable Fire extinguishers would also be placed as stipulated.

The land for the terminal has been procured from M/s. IDCO (Industrial Development Corporation) at Jharsuguda town unit No. 8 Malimunda. The plot of land is approx 37.54 Acres on the outskirts of Jharsuguda Town and 4 km away from the SH-10 with approach road of 12 m wide measuring an area of 1.1 Acre.

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.
2. Project Description and Project Benefits shall be given.
3. Land use details of the site based on satellite imagery shall be given.
4. Earmarking of area for parking of lorries at a remote location to avoid congestion shall be given.



5. Adequate width of approach road to avoid congestion and to have safe exit in emergencies shall be provided.
6. Site details including satellite imagery for 10 km around the site shall be given.
7. Land use along with maps & cropping pattern, vegetation ecology, flora & fauna shall be given
8. Process details with animated model shall be given.
9. Animated Computer Model for prospective years regarding truck movement from safety and risk point of view shall be given.
10. Proposal for safety buffer zone around the proposed site with map shall be given.
11. A list of industries within 10 km radius of the project shall be given.
12. Layout plan of A1 size with provision of parking area for trucks shall be given.
13. Details of the storage and technical specifications with safety aspects & standards shall be given.
  
14. Demography & Socio-economics of the area shall be given.
15. Baseline data collection on air, water and soil for:
  - i. Ambient Air Quality monitoring for PM, RPM, 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
  
16. 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.
17. Details of solid waste generation, collection, segregation, recycling and reuse, treatment and disposal shall be given.
18. Assessment of impact on air , water, soil, and noise levels shall be given.

19. Impact of solid/hazardous waste generated , if any, may be assessed.
20. Details of proposed preventive measures for leakages and accident shall be given.
21. Details of Vapour Recovery System shall be given.
22. Type of seismic zone to be intimated.
23. The possibility of blending with ethanol at the central place may be assessed.
24. Environmental Management Plan to be given for the project.
25. Risk Assessment & Disaster Management Plan for
  - i. Identification of hazards
  - ii. Consequence Analysis
  - iii. Risk Assessment & proposed measures for Risk Reduction may be submitted.
26. Details of proposed occupational Health Surveillance program for the employees and other labourers may be submitted.
27. Post-operational Environmental monitoring programme may be furnished.
28. 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.
29. A tabular chart indicating point-wise compliance of the TOR may be submitted.
30. Copy of approved conceptual plan of A1 size has to be submitted.
31. Copy of land allotment letter of IDCO shall be submitted.

**The SEAC also recommended that public hearing may be exempted as per section 7(III) (b) of EIA Notification, 2006 subject to receipt of a copy of the notification regarding location of the project in the notified industrial area of IDCO from the project proponent. If the proponent fails to produce the same, public hearing shall be conducted as per EIA Notification 2006.**

## **ITEM NO. 5**

### **PROPOSAL OF SAMAKOI IRRIGATION PROJECT, PALLAHARA, DIST – ANGUL**

The Chief Engineer, Project Planning & Formulation, Orissa, Bhubaneswar has informed vide letter No. 9683 dt. 19.11.09 that they have already obtained TOR for EIA study for the Samakoi Irrigation Project, Pallahara in the district of Angul from MoEF, Govt. of India. They have under preparation of draft EIA report as per TOR for conducting public hearing. They will submit the final EIA report after conducting public hearing for final appraisal. The committee noted the representation made by the proponent.

## **ITEM NO. 6**

### **PROPOSAL FOR THE DEVELOPMENT OF A MODERN DEEP WATER PORT AT ASTARANGA, PURI OF M/S. NAVAYUGA ENGINEERING CO. LTD.**

The project proponent made a detailed presentation and indicated that the project involves development of a Modern Deep Water Port at Astaranga area in the district of Puri.. Cargo handling capacity of the port will be 4.50 MTPA . Coal, Iron Ore, General Cargo and Containers are the major items that will be handled at the proposed port. Coal and iron ore will be imported /exported in bulk form, while the general cargo will be imported / exported in containers of various sizes depending upon types of cargo. The initial phase of the project has been planned for 15.00m dredged depth to accommodate ships of 80,000 DWT. A berthing of about 1000 meters is being planned for handling coal and general cargo. The projected traffic at the proposed Port at Astaranga is of the order of 4.5 MTPA as presented hereunder.

<b>Sl. No.</b>	<b>Commodity</b>	<b>Phase IA</b>
<b>A.</b>	<b>Export</b>	<b>MTPA</b>
1	Coal (Thermal)	2.5
2	General Cargo	0.5
	Sub Total export	3.0
<b>B.</b>	<b>Import</b>	
1	Coal (Thermal)	0.5
2	Coking Coal / Met. Coke	1.0
	<b>Sub Total Import</b>	<b>1.5</b>
	<b>Total Cargo (in MTPA)</b>	<b>4.5</b>
	<b>Containers (in MTEU)</b>	<b>0.005</b>

Astaranga Area was notified as one of the proposed sites for the development of a port by the Government of Orissa in accordance with the published port policy. The proponent has signed MOU with Govt. of Orissa for development of the port. Expected cost of the project is about Rs.35,000 million (Phase-I Development)

Water requirement is estimated to be about 5,000 cu m/day. Source of water is Devi River from near Bauriakana, 8kms upstream. Around 5000 acres of land area is required for development of this port.

The generally low laying and marshy land area would be reclaimed and raised in level by optimum utilization of the dredge spoil to create a stable platform for the port activities. Approach channel, Turning basin and berthing arm would be dredged to required levels for the passage of the designed vessel. 1000m long typical jetty type berthing structure is proposed. It shall be founded on large diameter bored cast in-situ piles and / or retaining structures like diaphragm walls. Breakwaters one on the Northern side and another on the southern side of the approach channel are proposed. The alignment and design would be finalized after relevant studies and investigations. Approach Channel for the shortest possible navigation and the likely wave climate in the geomorphology around the site is proposed to align the main channel in the easterly direction with sufficient width and side slopes for a free one-way movement of the vessels. A suitably designed inland turning basin is proposed. Navigational aids along the approach channel consisting of leading lights, breakwater lights and a signal station onshore would be provided. Sand trap of appropriate size and configuration would be provided by the side of the south breakwater in order to manage the prevalent littoral drift. Adequate shore protection works are proposed to be carried out. Open and one shore stackyard for storage would be developed for thermal coal import & export, coking coal, steel, agri bulk & general cargo. Damming and Culverting will be done during construction of new approach road. No other changes to the hydrology of watercourses of aquifers is envisaged. Requisite vents would be provided. Administrative / Office buildings, Internal Rail / Road Network, Port user's Building, Canteen, Gate House, Workshop, Sub stations, Fire fighting stations, dispensary etc. will be constructed at the port site. East Coast Railway have, in principle have approved construction of a 85 km long rail link in between Barang – Mancheswar Station to the proposed port. Details survey for this is under progress.

The proposed activity is listed at 7(e) and is of B category under the schedule of EIA Notification, 2006. The project also attracts Coastal Regulation Zone Notification, 1991. The SEAC after detailed discussion, suggested inclusion of following points in the TOR for the preparation of EIA / EMP.

1. Executive summary of the project shall be provided as per EIA notification, 2006.
2. Details of dredging and the environmental impacts due to the dredging activities.
3. Details of the disposal site and the impact of such disposal on the marine environment.
4. A study should be undertaken to find out the impacts of the project on the turtle movement and the turtle breeding site in and around the project area.
5. Details of the berths indicating the impact of the construction of the berth on the marine environment.
6. Details of the construction activities that are to be taken up in the CRZ area.
7. Clearance from the State Coastal Zone Management Authority to be provided.
8. Details of the cargoes to be handled and its impact on air, water and noise pollution may be provided. Dust suppression measures for fugitive emission from coal and iron ore handling plant to be provided.
9. Details of drainage system in the berth and stackyard and the effluent treatment plant to be provided in order to treat the discharged runoff from the stackyard.
10. Details of the environmental monitoring programme may be given.
11. Details of the impact of the port on other infrastructures including the road/rail Master Plan indicating the proposed project and anticipated development for the coming 15 years may be given.
12. Details of waste generation from various sources to be provided along with the treatment facilities including sewage treatment facilities.
13. Detailed EMP report with proposed financial outlays to be provided.
14. Details of the marine structures and the impact of the structures on the shoreline.
15. Details of the water resources for construction and operation of the project and approval from the Competent Authority for drawal of water.
16. Details of transportation and its impact during transportation of the stone and other construction materials for the construction of port facilities.

17. Details of the quarries from where the construction material are to be obtained.
18. Details of reclamation to be undertaken for the project and the terrestrial ecology to be studied where reclamation is proposed.
19. Details of monitoring on the impact of marine ecology (Phytoplankton, Zooplankton, pheophytine and other micro-organism etc.) and shoreline changes during operation of the project.
20. Public hearing points likely to be raised and commitment of the project proponent on the same may be included.
21. Impact of dredging, vessel movement and other post operation on the overall marine productivity of the area may be assessed.
22. Details of the safety majors to be taken keeping in view the depression /cyclonic conditions in the sea may be given.
23. Baseline status, anticipated environmental impacts and proposed mitigating measures for terrestrial and marine and aquatic environment within study area (10 km radius) to be provided.

**ITEM NO. 7.**

**PROPOSAL OF M/S. MAA TARINI MINERALS FOR CHROME ORE BENEFICIATION PLANT OF CAPACITY 9900 TPA, AT -MANGULI , DISTRICT – CUTTACK**

The project proponent submitted prescribed Form -1 and pre-feasibility report along with the draft TORs. It's a proposed project for **CHROME ORE BENEFICIATION PLANT OF CAPACITY 9900 TPA, AT Manguli DISTRICT – Cuttack**. The Applicant aided by the consultant gave a presentation on the salient features of the project and the draft Terms of Reference for undertaking detailed EIA study.

During the discussion, the following points emerged.

1. The process is highly polluting and the unit will discharge critically toxic pollutants such as soluble hexavalent chromium. The toxicity of chromium alloys and compounds varies significantly. Chromium metal does not exhibit toxicity. Divalent and trivalent compounds of chromium have a low order of toxicity. Exposure to the dusts of chromite or ferrochrome alloys may cause lung diseases including pneumoconiosis and pulmonary fibrosis.

Among all chromium compounds, only the hexavalent salts are a primary health hazard. Cr<sup>6+</sup> is more readily taken up by the cells, than any other valence state of the metal. Occupational exposure to these compounds can produce spleen ulceration, dermatitis, perforation of the nasal septa and kidney damage. It can induce

hypersensitive reactions of the spleen and renal tubular necrosis. Examples of hexavalent salts are the chromates and dichromates of sodium, potassium and other metals. The hexavalent chromium salts in PM/RSPM are absorbed into the blood stream through inhalation. Many chromium (VI) compounds are carcinogenic causing lung cancer in animals and human beings. The carcinogenicity may be attributed to intracellular conversion of  $\text{Cr}^{6+}$  to  $\text{Cr}^{3+}$ , which is biologically more active. The trivalent chromium ion can bind with nucleic acid and thus initiate carcinogenesis.

2. The proponent could not explain the reason for selecting the site as it is far away from the source of raw material.
3. The firm proposed to process 9900 TPA low grade chrome ore to produce 4500 TPA product with no clear idea on process details, pollutants involved, material or water balance etc.
4. Location of the proposed plant is in prime area. The process shall be highly polluting and unless proper treatment and technical care is taken during processing. The consultant/proponent is not very much aware of these facts.
5. It has acquired 2.21 acres of land for the plant, out of which one acre is meant for slime disposal. The amount of slime to be generated, its analysis and treatment to render it harmless are not clear.
6. The entire water requirement of 42 KLD is proposed to be drawn from ground water sources with no clear permission for doing so.
7. The treatment system proposed for effluents is not acceptable. This will only further contaminate both surface and ground water.
8. Issuing TOR may not be feasible in absence of technical details of the beneficiation plant with analysis of at least the most polluting chemical Cr(VI) at each stage.

**In view of the above shortcomings, the SEAC decided to reject the proposal in the present form. The proponent should apply afresh for further consideration.**

## **ITEM NO. 8**

**EXPANSION PROPOSAL OF SPONGE IRON PLANT (15,000 TPA TO 45,000 TPA) INSTALLATION OF INDUCTION FURNACE 2X4 T (25,300 TPA) ROLLING MILL, 1X75 TPD (24,000 TPA), PRODUCER GAS PLANT OF CAPACITY 1X2500 NM<sup>3</sup>/HR AND CAPTIVE POWER PLANT OF CAPACITY 6MW (3MW WHRB AND 3MW AFBC BOILER) BY M/S. KHEDERAI ISPAT LTD, NAIKENBAHAL, KUARMUNDA, SUNDARGARH**

The project authorities and their consultant gave a detailed presentation on the salient features of the project. All sponge iron manufacturing units less than 200 TPD capacity are listed at serial no. 3(a)(b) under category B projects in schedule of EIA Notification, 2006.

The unit has proposed for expansion of **Sponge Iron Plant (15,000 TPA to 45,000 TPA), installation of Induction furnace 2x4 T (25,300 TPA) rolling mill, 1x75 TPD (24,000 TPA), producer gas plant of capacity 1x2500 nm<sup>3</sup>/hr and captive power plant of capacity 6mw (3mw WHRB and 3mw AFBC boiler), at- Naikenbahal, Kuarmunda, Sundargarh.** The total area acquired for the proposed expansion of the plant will be 19.85 acre. The total cost of the project will be Rs.23.18 Crores. The expansion of sponge iron production will be through installation of 1 new DRI kiln of capacity 100 TPD. No eco-sensitive areas are located within 10 km periphery of the plant. The details of existing and proposed products and production capacity are given below:

<b>Sl. No</b>	<b>Plant Facility</b>	<b>Product</b>	<b>Existing</b>	<b>Expansion</b>	<b>Total Capacity</b>
1	DRI Plant	Sponge Iron	1 x 50 TPD (15,000 TPA)	1 X100 TPD (30,000 TPA)	45,000 TPA
2	SMS(IF)	Steel Ingots	-	2 x 4T (25,300 TPA)	25,300 TPA
3	Rolling Mill	TMT Rods, Sections	-	1 X 75TPD (24,000 TPA)	24,000 TPA
4	Producer Gas Plant	Producer gas	-	1 X 2500 NM <sup>3</sup> /HR	1 X 2500 Nm <sup>3</sup> /HR
5	Captive Power Plant				
6	WHR Boiler	-	-	1X 15 TPH (3 MW)	6 MW
7	AFBC Boiler	-	-	1X 15 TPH (3 MW)	
8	Turbo-Generator	Power	-	1 X 6 MW	



The steel plants are air polluting in nature. Air emissions will be generated from the kiln and material handling section. E.S.P. will be installed for control of emission from the Sponge Iron Kiln as well as CFBC. Dust Collector will be installed along with the Bag Filer to control the emission from the various material transfer points. Bag Filter with Suction Hood will be installed at Induction furnace for control of particulate emission. Water Spraying will be done to control the fugitive emissions. Ash handling system will be installed to minimize the fugitive dust emissions during handling of ash and the ash will be used as land fill for land levelling as well as supply to Cement and Brick manufactures.

The total water requirement after the expansion of the project will be 2160 KLD which will be sourced from bore well.

After deliberating on the facts presented, the SEAC recommended the proposal for the preparation of EIA/EMP as per the following TORs:

1. Executive summary may be provided as per EIA notification, 2006.
2. Environmental compliance of the existing unit shall be given.
3. Present land use based on satellite imagery shall be given.
4. Location of national parks and reserve forests within 10 km. radius shall be given.
5. A list of industries indicating name and type within 10 km radius should be incorporated.
6. List and amount/analysis of raw material required and source shall be given.
7. Manufacturing process details shall be given.
8. Details of induction furnace and the air pollution control equipments to be provided.
9. Site-specific meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall.
10. Data on emissions, wastewater generation and solid waste management for the existing plant shall be given.

11. Ambient air quality at 8 locations within the study area of 10 km.radius, aerial coverage from project site with one AAQMS in downwind direction shall be carried out.
12. The suspended particulate matter present in the ambient air may be analyzed for the presence of poly-aromatic hydrocarbons (PAH), for benzene soluble fraction.
13. Determination of atmospheric inversion level at the project site and assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features.
14. Air quality modelling for specific pollutants from various sources of the steel plant needs to be done. APCS for the control of emissions from the kiln, CFBC and WHRB etc. may be given.
15. Impact of the transport of the raw materials and end products on the surrounding environment should be assessed and provided.
16. One season data for gaseous emissions other than monsoon season is necessary.
17. An action plan to control and monitor secondary fugitive emissions from all the sources as per CPCB guidelines should be included.
18. Permission for the drawl of water and water balance data including quantity of effluent generated, recycled and reused and discharged is to be provided. Methods adopted/to be adopted for the water conservation should be included.
19. Ground water monitoring, minimum at 8 locations and near solid waste dump zone should be carried out, Geological features and Geo-hydrological status of the study area are ecological status (terrestrial and aquatic) are to be carried out.
20. Action plan may be included for solid/hazardous waste generation, storage, utilization and disposal particularly char and fly ash. Copies of MOU regarding utilization of ash (fly and bottom) should also be included.
21. Identification and details of land to be used for SMS slag disposal should be included. Composition of SMS slag and details of metal recovery from the slag may be given.
22. Risk assessment and damage control needs to be addressed.

23. Occupational health of the workers needs elaboration.
24. Green belt development plan in 33% of the total project area and a scheme for rainwater harvesting have to be put in place. EMP should include a clear map for plantation/green belt.
25. Socio-economic development activities need to be elaborated upon.
26. Plan for the implementation of the recommendations made for the steel plants in the CREP guidelines may be prepared.
27. A note on identification and implementation of Carbon Credit project proposed, if any, may be given.
28. Detailed Environment management Plant (EMP) with specific reference to air pollution control system, water management, monitoring frequency, responsibility and time bound implementation plan may be given.
29. EMP should include the concept of waste-minimisation, recycle/reuse/recover techniques, energy conservation and natural resource conservation etc.
30. A tabular chart of the issues raised and addressed during public hearing/public consultation should be provided.
31. Any litigation/ court case pending against the proposal should also be included.

#### **ITEM NO. 9**

#### **PROPOSAL OF LAIDAPADA IRON AND MANGANESE ORE MINES OF M/S UTKAL MINING AND SALES (P) LTD. AT- LAIDAPADA, KEONJHAR, ORISSA**

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 proposal is for production of iron ore of 31,760 TPA and manganese ore of 15,270 TPA . The mining lease area is 28.328 ha, out of total lease area 23.88 ha is forest area. The 1<sup>st</sup> Lessee Sri S.N. Sen & Co operated the mine from 1953 to 1973. The 2<sup>nd</sup> Lessee

M/s. Hindustan Steel Ltd. (presently know as SAIL) did not work in the ML Area. The 3<sup>rd</sup> and present Lessee M/s. Utkal Mining and Sales Pvt. Ltd., was granted only 28.328 Ha. of lease area on 25<sup>th</sup> September, 1996 with conditions like approval of Mining Plan and Diversion of Forest Land. Till now M/s. Utkal Mining & Sales Pvt. Ltd., has not started only production in the granted lease area. The mine working will be manual opencast for iron ore and semi mechanized for manganese ore. The water requirement is 40 KLD and source of water is Karo river and Bore well.

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

1. Profile of the project proponent and background to establish the financial and entrepreneurial competency to undertake the project
2. Duly attested & certified Mining Plan approved by IBM has to be submitted along with the copy of current lease deed
3. The EIA study area shall encompass 10 km radius from the mine lease boundary.
4. Collection of one season (non-monsoon) primary baseline data on ambient air quality, water quality, noise level, soil and flora and fauna. Site-specific meteorological data should also be collected. The location of the monitoring stations should be justified.
5. Air quality modeling should be carried out for prediction of impact of the project and the existing mines in the vicinity on the air quality of the area focusing more in the villages within 3 kms from the mine. It should also take into account the impact of movement of vehicles for transportation of mineral, handling of minerals & OB including mining activity through volume source modeling. The details of the model used and input parameters used for modeling should be provided. The air quality contours may be shown on a location map clearly indicating the location of the site, location of sensitive receptors, if any, and the habitation. The wind roses showing pre-dominant wind direction may also be indicated on the map. The modeling should take into consideration the existing mines in the study area.
6. Availability of requisite quantity of water and its source to be furnished along with water balance.
7. Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the project should be provided.
8. Details of water bodies and drainage of ML area may be specified
9. The progressive reclamation plan, post mine land use and progressive greenbelt development plan shall be prepared in tabular form and be submitted. Milestones for the above activity may be specified.
10. Location of National Parks, Sanctuaries, Biosphere Reserves, Wildlife corridors, Tiger/Elephant reserves (existing as well as proposed), and existence of rare and

endangered flora and fauna if any, within 10 km of the mine lease should be clearly indicated. Necessary clearance, if any, as may be applicable to such projects due to proximity of the ecologically sensitive areas as mentioned above under the Wildlife (Protection) Act, 1972 and copy may be furnished.

11. A detailed biological study of the study area (core zone & buffer zone- 10 km radius of the mining lease area) shall be carried out. Details of flora & fauna, duly authenticated separately for core & buffer zone 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 & details to be furnished. Necessary cost details for executing the conservation measures should be furnished & incorporated as part of the project cost.
12. Occupational health impact and remedial measures thereof of the project may be studied.
13. Baseline data for health status survey for all the employees including labourers and the residents of the nearby villages within 5 km distance may be carried out..
14. 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) and it should be carried out as the entry point activity as trust building measures.
15. Welfare of mine workers is the prime responsibility of the project proponent. Various activities such as regular health checkups, first-aid, shelter for rest and meals, drinking water etc. are to be taken up at the project cost. Nearby mine owners may form a society and funds for welfare of mineworkers may be created. Besides various Govt. schemes and other sources may be explored. This aspect has to be covered in the EMP.
16. Public hearing points likely to be raised and commitment of the project proponent on the same may be included.
17. 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 and accordingly plan has to be submitted with EIA. [Plantation Scheme]. Total area for which afforestation has been proposed – plan stating how much plantation shall be taken up annually has to be submitted. Plantation of local species may be encouraged. Cost details of the afforestation/ plantation on backfilled reclaimed area to be furnished.
18. Management of OB and other solid waste generated during mining may be addressed through incorporation of a concrete plan for the same.
19. Leachate study of the OB and ore may be conducted and addressed.
20. Depth of ground-water table and its recharging, run off management, rain water harvesting and treatment system for pumped out quarry water to be submitted.
21. Details of noise pollution control measures to be specified
22. Coloured maps depicting land use of the region showing sensitive / fragile features and detailed lay-out of the site clearly showing green-belt (existing & planned) should be furnished.

23. Satellite imagery of the location of mine should be submitted with demarcation of other proposed/in operation mines in nearby area. Location is also to be shown in Tehsil map procured from revenue department. This will be used as baseline information to compare the impact of mining in the area in future.
24. Details of air pollution control measures to be specified.
25. Risk assessment and disaster management plan should be given.
26. EMP and post project monitoring program to be given.
27. Executive summary/ summary EIA report to be given ( as per EIA notification, 2006).
28. Any litigation/ court case pending against the proposal should also be included.
29. Present status of mining lease may be given

**ITEM NO. 10**

**PROPOSAL OF M/S. DALATA IRON AND MANGANESE ORE MINE, RAIRANGPUR, MAYURBHANJ, ORISSA**

The proponent did not attend the meeting. The committee decided to defer the case.

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

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

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

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

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

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

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