F.No.11-60/2013-IA.III
Government of India
Ministry of Environment, Forest & Climate Change
(IA.III Section)

Indira Paryavaran Bhawar
Jor Bagh Roac
New Delhi -

Dated: 28th January, 201

To

The Managing Director,
M/s Navayuga Engineering Co. Ltd,
Plot No A-99, Sahid Nagar,
Bhubaneswar
Odisha– 751007

Sub: Development of an all weather multi user Greenfield port at Astaranga, Puri, Odisha b M/s Navayuga Engineering Co. Ltd –Terms of Reference (ToR) reg.

Ref.: Your letter no NEC/MoEF/066/13-14 dated 01.10.2013.

Sir,

Kindly refer your letter no. NEC/MoEF/066/13-14 dated 01.10.2013 alongwith projec documents including Form-I, Pre-feasibility Report and draft 'Terms of Reference' as per the EI Notification, 2006. It is noted that proposal is for development of an all weather multi user Greenfiel port at Astaranga, Puri, Odisha by M/s Navayuga Engineering Co. Ltd. The Port at Astaranga i proposed to be developed in phases. Present proposal is for Phase-IA of the project designed for a cargo handling capacity of 17.7 MTPA (Export Cargo – 11.7 MTPA and Import Cargo – 6 MTPA) Cargo to be handled in the Port includes Thermal Coal, Cooking Coal, Aluminium products an General Cargo. Design Vessel Size: 85,000 DWT &120,000 DWT vessels light loaded to a draft o 14.0m.

1. **Port Facilities Planned for Phase IA Development**
   - Breakwater : North Breakwater (300m) and South Breakwater (1300m)
   - Approach Channel : Length – 6200m, Width – 180m, Turning Circle – 450m
   - Dredging : Capital Dredging – 23.5 million cum,
     : Maintenance Dredging - 0.95 million cum per annum
   - Total Quay Length 1250m

2. A railway line about 75 km long connecting the port to the main line near Bhubaneswar New station is to be developed. A multilane road about 70 km long is also proposed as a part of the por project connecting NH-5 to the proposed port taking off from near Phulnakra as external Road an Rail Connectivity. Project involved forest land (approximately 50 ha). Natural creek passing through the identified area for port is proposed to be straightened by forming straight cuts and the meandering course is thereafter proposed to be reclaimed and used as port backup area. Water Resources Department, Govt. of Odisha has allotted 5000 KLD of water from River Devi with the intake poin located near Bauriakhana at about 10 km from the port. Power requirement during construction phas is around 2-3 MW, which is proposed to be drawn from nearest 33 /11 KV substation (7 km from the site) and DG sets. Cost of project is Rs. 7,417 Crores.

3. Draft Terms of Reference (TOR) have been discussed and finalized by the 1st Expert Appraisal Committee (Infrastructure -2) held during 21st – 22nd December, 2015 for preparation of EIA/EMP report. The Committee prescribed the following TOR in addition to Standard TOR provided at Annexure-1 for preparation of EIA-EMP report :

i. Importance and benefits of the project.

ii. The water and land requirement should be assessed based on present situation and source of water for construction and operation of port should be reported.

iii. The traffic forecast should be updated and submitted.

iv. The comprehensive land use plan for phased development of port should be detailed and EIA should cater to all the aspects, as the major portion of proposed site falls under agriculture.

v. Various Ports facilities with capacities for the existing as well as proposed project.

vi. List of cargo to be handled along with mode of transportation.

vii. Layout plan of existing Port and Proposed Port.

viii. Permissible activities for development of port should be overlaid on CRZ map.

ix. The augmentation of rail/road infrastructure and connectivity should be detailed.

x. Mangroves at proposed site should be mapped by authorized agency and management plan for replanting mangrove system should be submitted, in case of likely disturbance due to construction of port.

xi. The rerouting of proposed creek system at two places is to be studied in detail through numerical model catering to the flow regime and to maintain free flow of water during flood/cyclone.

xii. The drainage pattern in catchment area should be studied to avoid flooding of adjoining villages due to construction of port including raising of embankments and compound wall towards landward side of the outer boundary of the proposed site. The data on bathymetry and topography of the area with suitable resolution should be collected. The peak flows during monsoon/cyclone should be considered for such study.

xiii. Project Proponent should ensure smooth rehabilitation of village population including religious places based on detailed surveys to be undertaken and the Government of Odisha should ensure proper implementation of the R&R.

xiv. Long-term shoreline change analysis with impact of port on adjacent coast including Devi River should be carried out.

xv. Orissa is known for turtle breeding grounds and hence development of port on nesting grounds should be studied.

xvi. Details of Dredging / Excavation and disposal strategies supported by impact study on marine/aquatic life should be studied.

xvii. Submit a copy of layout superimposed on the HTL/LTL map demarcated by an authorized agency on 1:4000 scale.

xviii. Details of air pollution control measures to be taken as well as cost to be incurred.

xix. Wastewater management plan.

xx. Details of Environmental Monitoring Plan.

xxi. The EIA should include a comprehensive mention to the impacts of allowing the long term accumulation of sand and other dredged material on disposal areas.

xxii. Disaster Management Plan.

xxiii. Layout plan of proposed Greenbelt.

xxiv. Status of court case pending against the project.

xxv. Recommendation of the SCZMA.
xxvi. A tabular chart with index for point wise compliance of above TORs.
xxvii. Public hearing to be conducted and issues raised and commitments made by th project proponent on the same should be included in EIA/EMP Report in the form c tabular chart with financial budget for complying with the commitments made.

4. These 'TORs' should be considered for the preparation of EIA / EMP report for modification c Phase-I for development of an all weather multi user Greenfield port at Astaranga, Puri, Odisha b M/s Navayuga Engineering Co. Ltd. in addition to all the relevant information as per the 'Genera Structure of EIA' given in Appendix III and IIIA in the EIA Notification, 2006. The EIA/EMP as pe TORs should be submitted to the Chairman, Orissa State Pollution Control Board, (OSPCB) for publi consultation. The SPCB shall conduct the public hearing/public consultation as per the provisions c EIA notification, 2006.

5. You are requested to kindly submit the final EIA/EMP prepared as per TORs and incorporatin all the issues raised during Public Hearing / Public Consultation to the Ministry for considering th proposal for environmental clearance *within 3 years as per the MoEF O.M. No. J-11013/41/2006-IA.* *(I) dated 8th October, 2014.*

6. The consultants involved in the preparation of EIA/EMP report after accreditation with Qualit Council of India / National Accreditation Board of Education and Training (QCI/NABET) would need t include a certificate in this regard in the EIA/EMP reports prepared by them and data provided b other Organization(s)/Laboratories including their status of approvals etc.

(A.N. Singh
Scientist 'D

Copy to:

1) Additional Principal Chief Conservator of Forests (C), Ministry of Environment, Forest an Climate Change, Regional Office (EZ), A/3, Chandersekharpur, Bhubaneswar – 751023.
2) Chairman, Orissa Pollution Control Board, Parivesh Bhavan, A/118, Nikanthhanagar, Unit-8 Bhuvaneswar - 751 012, Orissa.

Annexure-I

STANDARD TERMS OF REFERENCE FOR CONDUCTING ENVIRONMENT IMPACT ASSESSMENT STUDY FOR PORT, HARBOURS INFORMATION TO BE INCLUDED IN EIA/EMP REPORT

i. Reasons for selecting the site with details of alternate sites examined/rejected/selected on merit with comparative statement and reason/basis for selection. The examination should justify site suitability in terms of environmental angle, resources sustainability associated with selected site as compared to rejected sites. The analysis should include parameters considered along with weightage criteria for short-listing selected site.

ii. Details of the land use break-up for the proposed project. Details of land use around 10 km radius of the project site. Examine and submit detail of land use around 10 km radius of the project site and map of the project area and 10 km area from boundary of the proposed/existing project area, delineating project areas notified under the wild life (Protection) Act, 1972/critically polluted areas as identified by the CPCB from time to time/notified eco-sensitive areas/interstate boundaries and international boundaries. Analysis should be made based on latest satellite imagery for land use with raw images.

iii. Submit the present land use and permission required for any conversion such as forest, agriculture etc. land acquisition status, rehabilitation of communities/ villages and present status of such activities.

iv. Examine and submit the water bodies including the seasonal ones within the corridor of impacts along with their status, volumetric capacity, quality likely impacts on them due to the project.

v. Submit a copy of the contour plan with slopes, drainage pattern of the site and surrounding area

vi. Submit the details of terrain, level with respect to MSL, filling required, source of filling materials and transportation details etc.

vii. Examine road/rail connectivity to the project site and impact on the existing traffic network due to the proposed project/activities. A detailed traffic and transportation study should be made for existing and projected passenger and cargo traffic.

viii. Submit details regarding R&R involved in the project

ix. Submit a copy of layout superimposed on the HTL/LTL map demarcated by an authorized agency on 1:4000 scale along with the recommendation of the SCZMA.

x. Submit the status of shore line change at the project site

xi. Details of the layout plan including details of channel, breakwaters, dredging, disposal and reclamation.

xii. Details of handling of each cargo, storage, transport along with spillage control, dust preventive measures.

xiii. Submit the details of fishing activity and likely impacts on the fishing activity due to the project.

xiv. Details of oil spill contingency plan.

xv. Details of bathymetry study.

xvi. Details of ship tranquillity study.

xvii. Examine the details of water requirement, impact on competitive user, treatment details, use c treated waste water. Prepare a water balance chart.

xviii. Details of rainwater harvesting and utilization of rain water.

xix. Examine details of Solid waste generation treatment and its disposal.

xx. Details of desalination plant and the study for outfall and intake.

xxi. Examine baseline environmental quality along with projected incremental load due to the propose project/activities.

xxii. The air quality monitoring should be carried out according to the notification issued on 16th Novembe 2009.

xxiii. Examine separately the details for construction and operation phases both for Environmenta Management Plan and Environmental Monitoring Plan with cost and parameters.

xxiv. Submit details of a comprehensive Risk Assessment and Disaster Management Plan includin emergency evacuation during natural and man-made disasters

xxv. Submit details of the trees to be cut including their species and whether it also involves any protecte or endangered species. Measures taken to reduce the number of the trees to be removed should b explained in detail. Submit the details of compensatory plantation. Explore the possibilities c relocating the existing trees.

xxvi. Examine the details of afforestation measures indicating land and financial outlay. Landscape plar green belts and open spaces may be described. A thick green belt should be planned all around th nearest settlement to mitigate noise and vibrations. The identification of species/ plants should b made based on the botanical studies.

xxvii. A detailed draft EIA/EMP report should be prepared in accordance with the above additional TOR an should be submitted to the Ministry in accordance with the Notification.

xxviii. Any further clarification on carrying out the above studies including anticipated impacts due to th project and mitigative measure, project proponent can refer to the model ToR available on Ministr website "http://moef.nic.in/Manual/Port and harbour".

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