

The Dhamra Port Company Limited

(A joint venture of I. & T and Tata Steel)

Second Floor, Fortune Towers, Chandrasekharapur, Bhubaneswar - 751023.

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Website : www.dhamraport.com

CIN-U45205OR1998PLC005448



DPCL/ENV-06/03/2014

6th June, 2014

The Additional Principal Chief Conservator of Forests
Ministry of Environment and Forests,
Government of India,
Eastern Regional Office,
A/3, Chandrasekharapur,
Bhubaneswar- 751023

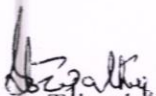
*Sub: Half Yearly Compliance Report of Dhamra Port Expansion Project at
Village Dosinga, Chandbali Tehsil, Bhadrak District of Odisha.*

*Ref: Environmental Clearance vide Letter No. PD/26017/98-PDZ (CRZ)
Dated 4th January, 2000 of Govt. of India, Ministry of Surface Transport
(MoST).*

Dear Sir,

The Half Yearly Compliance to the conditions stipulated in the Environmental Clearance for Dhamra Port Expansion Project, for the period of October 2013 to March 2014, is submitted herewith in both hard & soft copy for your kind reference.

Thanking You,
Yours Sincerely,


(Subrat Tripathy)
Chief Operating Officer



19/06/14

HALF-YEARLY COMPLIANCE REPORT

Name of the Project	Expansion of Dhamra Port Company Limited, Located at Village Dosinga, Tehsil Chandbali, Bhadrak District of Odisha
Environmental Clearance Letter No.	Letter No. PD/26017/8/98-PDZ (CRZ) Dated 4 th January, 2000 of MoST For Cargo Handling Capacity of 25 MTPA
Period of Compliance Report	October 2013 to March 2014

Conditions & Compliance of Environment Clearance

Si. No.	Environment Clearance Conditions	Compliances
i)	<p><i>All Construction design/drawings relating to construction activities must have the approval of the concerned Government Departments/Agencies of the State Government of Odisha.</i></p> <p><i>Ground water should not be tapped for construction activities as the drawl of ground water for industrial use from the CRZ area is a prohibited activity.</i></p>	<p>All Construction drawings and designs of Phase I Expansion of Dhamra Port were approved by State Government of Odisha vide letter no. DPP-4/07.1331/Com dated February 19, 2007 and Memo no. 1153/Com dated February 14, 2007 of Commerce and Transport Department.</p> <p>Groundwater is not drawn for construction activities. The water requirement for Dhamra Port is being met from Matai River.</p>
ii)	<p><i>Adequate provision for all infrastructural facilities such as water supply, fuel, sanitation etc. must be extended for laborers during the construction period in order to avoid damage to the environment.</i></p>	<p>The facilities such as water supply, fuel, sanitation etc. for laborers have been provided during both construction & operation of the port.</p>
iii)	<p><i>Dredging operations if any, should be undertaken in consultation with either the Central Water and Power Research Station, Pune or National Institute of Oceanography, Goa or any other authorized agency to ensure that dredging operations do not cause adverse impact on water quality and marine productivity in the vicinity. Dredging operation as far as possible should be kept to the minimum for avoiding any adverse impact on marine life.</i></p>	<p>DPCL had engaged NIO, Goa to study impacts of dredging operation. Dredging activities have been executed under Expert guidance and supervision of IUCN to ensure conservation of marine life.</p> <p>The capital dredging has been completed since 2010-11. However the marine water quality and productivity is being monitored by engaging approved laboratories.</p>

iv)	<p><i>Disposal sites for excavated material should be so designed that the revised land use after dumping and changes in the land use pattern do no interfere with the natural drainage.</i></p>	<p>The excavated material was disposed off at the designated site beyond 20 meter contour in the deep sea.</p> <p>DPCL has ensured that the change in land use pattern do not interfere with the natural drainage. The natural drainage system has been maintained.</p>															
v)	<p><i>To meet with any emergency situation, adequate foam containers should be kept ready with supporting fire fighting system and water pipeline.</i></p>	<p>DPCL has formulated and implemented Disaster Management Plan, Health & Safety Policy and Fire Fighting Training Programmes. Adequate safety equipments such as foam containers, fire extinguishers have been kept at strategic locations to ensure safety.</p>															
vi)	<p><i>Staff posted in sensitive areas should be trained in implementation of the Crisis Management Plan already drawn by the authorities. Mock Drill(s) for this purpose should be conducted on a regular basis. Provisions of Dock Safety Act and the Guidelines issued by the DG, FASLI/CLI, Mumbai for the safety and health of the workers should be followed.</i></p>	<p>The employees of DPCL have been trained on safety guidelines. Regular Mock Drills are conducted as per the Crisis Management Plan. The Drill and Safety Performance report is monitored by the EHS Department.</p> <p>The following trainings for environmental safeguard have been conducted from Oct-13 to Mar-14.</p> <table border="1" data-bbox="841 1136 1425 1440"> <tr> <td>1</td> <td>Number of Safety induction training Organized</td> <td>126</td> </tr> <tr> <td>2</td> <td>Tool box Talk conducted</td> <td>3240</td> </tr> <tr> <td>3</td> <td>Safety awareness program</td> <td>36</td> </tr> <tr> <td>4</td> <td>Driving and On the job training</td> <td>11</td> </tr> <tr> <td>5</td> <td>Fire fighting training & mock drill</td> <td>12</td> </tr> </table>	1	Number of Safety induction training Organized	126	2	Tool box Talk conducted	3240	3	Safety awareness program	36	4	Driving and On the job training	11	5	Fire fighting training & mock drill	12
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 <p>Fig:1-Fire fighting training & mock drills conducted by Safety Department</p>																	
vii)	<p><i>For development of Green Buffer including mangroves wherever feasible, the authorities should start growing large nursery of multipurpose species</i></p>	<p>A large nursery of multipurpose species has been established for raising quality planting material for the green belt. Strip plantation on both the edges of the 62.5 km railway corridor</p>															

	<p><i>such as Eucalyptus, Casuarina, Dalbergia, Terminalia etc. The norm of about 2000-2500 trees per Hectare may be adopted for raising of green belt. Necessary permission may be obtained for cutting of trees, if any, for the project</i></p>	<p>has been taken up & 1, 60,000 plants have been planted. Plantation of suitable species has been taken up in and around port bulb and Administration /Residential area with effect from 2010 and is continuing. So far 1, 88,000 plants suitable for the site have been planted inside the port area. Details regarding plant species & cost have been furnished at Annexure-III. Lawns and gardens are maintained at various location inside the port covering an area of 42, 100 sq.ft.</p> <p>Necessary permission for cutting of 267 miscellaneous trees was obtained from Forest Department & handed over to Odisha Forest Development Corporation for felling & disposal.</p>
viii)	<p><i>To prevent discharge of sewage and other liquid wastes including ballast into marine environment, adequate system for collection, treatment and disposal of liquid wastes must be provided to the satisfaction of the Odisha Pollution Control Board, Bhubaneswar.</i></p>	<p>DPCL ensures that, no sewage, liquid wastes including ballast is discharged into marine environment. MARPOL and Ballast Water Convention are enforced by the port for ships visiting the port.</p> <p>DPCL has installed a Sewage Treatment Plant (STP) to handle 140 KLD of sewage generated at port site.</p>
ix)	<p><i>Adequate noise control measures must be provided to noise levels at various work places within the standard prescribed by the competent authorities. If need be, ear plugs and ear muffs should be provided to the workers in the project area</i></p>	<p>This has been followed at the work site both onshore and offshore. Well maintained equipment meeting regulatory standards are being used. Personal Protective Equipments (PPEs i.e. Helmet, Safety Shoes, Safety Goggles, Reflective Jackets) are mandatory for workers in noisy areas. Noise monitoring at site is being done weekly by engaging approved agencies.</p>
x)	<p><i>The quality of treated effluents, solid wastes and emissions must confirm to the standards laid down by the competent authority including State Pollution Control Board, Govt. of Odisha, Bhubaneswar</i></p>	<p>DPCL's Sewage Treatment Plant discharge is conforming to the standards laid down by Odisha State Pollution Control Board (OPCB).</p>

xi)	<p><i>An Environmental Cell should be set up immediately and made operational with adequate laboratory facilities, equipments and a mobile van for collecting air samples. The record and data should be submitted with proper analysis and corrective measures required, if any, for maintaining the levels within the prescribed limits to the Eastern Regional Office, Ministry of Environment & Forests, Govt of India, Bhubaneswar. The Environment Cell should coordinate and monitor environmental mitigative measures executed in the project area. The Project Proponent is advised to institutionalize their Environmental Monitoring through some recognized Scientific Institution for the project.</i></p>	<p>DPCL has a well structured Environmental Monitoring Cell, staffed with qualified man power for implementation and monitoring of the Environmental Management Plan.</p> <p>Additional laboratory facility has been out sourced and regular monitoring is conducted by engaging approved agencies.</p>
xii)	<p><i>Necessary leakage detection devices with early warning system must be provided at strategic locations.</i></p>	<p>Fire detection devices with early warning system have been provided at all strategic locations.</p> <p>No gaseous/hazardous substances are handled in the port at this stage.</p>
xiii)	<p><i>Standby DG sets must be provided to ensure uninterrupted power supply (to) the pump house and the fire fighting system</i></p>	<p>12 DG Sets with acoustic enclosure were installed for emergency backups & uninterrupted power supply which includes the water supply system and fire fighting system.</p>
xiv)	<p><i>Third party inspection should be ensured during the construction and operational phases with adequate insurance cover. The Project authorities should confirm on regular intervals of six months to the Ministry about the implementation of the suggested safeguard measures and the data/report</i></p>	<p>Six monthly reports are regularly submitted to the Eastern Regional Office of MoEF, Bhubaneswar. Monthly reports are submitted to OPCB.</p> <p>MoEF Regional Office and OPCB are regularly inspecting the project site. Safeguard measures as advised by inspection team are implemented.</p>

	<i>should be opened for inspection by the Team which would be constituted by the Ministry, If found necessary</i>	
xv)	<i>Full support should be extended to the Eastern Regional Office, Ministry of Environment & Forests, Govt of India, Bhubaneswar during inspection of the project for monitoring purposes by the project proponents by furnishing full details and action plans including action taken report on mitigative measures.</i>	Full support is always extended to the Eastern Regional Office, Ministry of Environment & Forests, Bhubaneswar for inspection of the Project. All the details are submitted as and when required by the Ministry.
xvi)	<i>Adequate funding provisions, year-wise and item-wise, must be made for implementation of the above mentioned safeguard measures.</i>	Adequate funding has been provided for the implementation of all safeguard measures. A sum of INR 76.81 Crores was allocated and INR 64.45 Crores has been spent for implementing the environmental management plan from 2008-2014. Details of item & year wise fund allocation break up are enclosed at Annexure-I.
xvii)	<i>The Rapid Environmental Impact Assessment Studies for the construction of the above project by M/s Kirloskar Consultants Ltd. should be expedited. The project proponent was advised to keep in mind the proneness of the coast of Odisha to sever cyclonic storms while going ahead with their project.</i>	The Rapid Environmental Impact Assessment Study has been conducted in time & the said report has been submitted. DPCL has already formulated detailed Disaster Preparedness & Management Plan to handle any natural calamities such as cyclones, storms, quakes etc., along the Coast.

Compliance of National Environment Appellate Authority order dt. 7th May 2000

Sl. No.	Conditions of the National Environment Appellate Authority order Dt. 7th May 2000	Compliances
1)	<i>Mangrove patch of 200 plants, to be excluded from the project area, fencing & maintenance to be done by project proponent</i>	This mangrove patch has been excluded from the project area and fenced for conservation.
2)	<i>Constitution of Environment Monitoring Committee</i>	Environment Monitoring Committee has been constituted by the State Government on 14 th January 2008.

LIST OF ANNEXURES

Sl. No.	Matter Concerned therewith	Annexure No.
1	Monitoring Performa duly filled in	Annexure -I
2	Salient Features of the Project	Annexure-I A
3	Environment Management Plan	Annexure-I-B
4	Brief Status of Construction	Annexure-II
5	Particulars on Green Belt/Plantation	Annexure-III

Annexure-I

**Ministry of Environment & Forests
Regional Office
BHUBANESWAR
Monitoring Report
Part-I**

DATA-SHEET

1. Project type: River-valley/Mining : Expansion of Port
Industry/Thermal/Nuclear/Other
(Specify).
2. Name of the Project : Dhamra Port Expansion Project
3. Clearance letter(s)/OM No. & Date : PD/26017/8/98-PDZ (CRZ)
Dated 04.01.2000
4. Locations:
 - a) District(s) : Bhadrak
 - b) State(s) : Odisha
 - c) Latitude/Longitudes : Lat 20° 48' N to 20° 52' N
: Long 86° 56' E to 86° 59' E
5. Address of Correspondence:
 - a. Address of concerned project : Chief Operating Officer, (COO)
Chief Engineer/Manager (with pin : The Dhamra Port Company Ltd.
code & telephone/telex/ fax numbers 2nd floor, Fortune Tower
Chandrasekharpur,
Bhubaneswar-751 023
0674-2303829, Fax-0674-303828
 - b. Address of Executive Project : Chief Operating Officer, (COO)
Engineer/ Manager (with pin code : The Dhamra Port Company Ltd.
telephone/telex/fax numbers) Village-Dosinga,
Dhamra, Bhadrak-756171
Tel: 06786-212068
6. Salient Features:
 - a. of the project :Enclosed as Annexure-I-A
 - b. of the environmental management plan :Enclosed as Annexure-I- B

7. Break up of the Project areas:

- a. Submergence area (forest & non-forest) : Not Applicable
 b. Others : Port Area- 300.25 Ha
 Rail Road Corridor- 908.52 Ha

Total Area allotted and occupied = **1208.77 Ha**

8.

- Break up of Project affected population, with enumeration of those losing houses/dwelling units only, agricultural land and land less labourers/artisans
- a) Losing House – 181 families
 b) Total rehabilitated – 177 families
 c) Compensation paid – Rs. 8.57 crores
 ii) Rural Artisans – Not Applicable
 iii) Land Less Labours- Not Applicable

- a. SC, ST/Adivasis : SC - 6 families, ST/ Adivasi: 0
 b. Others : General Category: 175 families

9. Financial Details

	: Year	Project cost (In INR Crores)
a. Project cost as originally	1998	1197.43
Planned and subsequent revised	2003	1520.00
Estimates and the years of	2013-14	3639.00
Price reference		

Item wise Project Cost in Crores (Rs.)

1.	Advance to Government of Odisha for Land Acquisition	98.00
2.	Construction Contract	1652.00
3.	Dredging & Reclamation	826.00
4.	Navigational Aids	10.00
5.	Railway Locos	2.00
6.	Repayment of unsecured bridge loan	0
7.	Purchase of miscellaneous Fixed Assets & ERP	75.00
8.	Margin Money	5.00
9.	Pre & Post Operative Expenses	276.00
10.	Contingency	172.00
11.	Interest Paid	523.00
	Total	3639.00

b. Allocation made for environmental management plans, with item-wise & years-wise break up:

S. No	Allocation Item	In Crores				
		Up to 2011	2011-12	2012-13	2013-14	Total
1	Monitoring of Environment Parameters by IMMT	1.05	0.3	0.25	0.41	2.01
2	IUCN	3.9	0.2328	0.66	0.32	5.113
3	WTP	46.5	0.68	0.768	0.684	48.63
4	Shoreline Changes Study by NIO and others	0.63	0	0	0	0.63
5	Water Drainage Management	4.5	2.47	3.44	0.11	10.52
6	Environment Awareness & Outreach Programmes	0.13	0	0	0.03	0.16
7	Demarcation of Gahiramatha Marine Sanctuary	0.24	0	0	0	0.24
8	Providing Trawler to Forest Dept for Patrolling	0.14	0.02	0.0714	0.18	0.411
9	Plantation	4.17	0.07	1.01	0.151	5.401
10	Contingent expenses for Phase II	0.42	0.109	0	0.1	0.629
11	ISO 14001 Certification	0	0.04	0.025	0	0.065
12	Water Sprinkling on Road	0.05	0.024	1	0.2	1.274
13	Safety	0.14	0.27	0.28	0.835	1.525
	Total	61.87	4.416	7.5044	3.02	76.81

c. Benefit cost ratio/internal rate of return and the year of assessment : IRR-14%
2013-2014

d. Whether (c) includes the cost of environmental management as shown in (b) above. : YES

e. Actual expenditure incurred on the project : INR 3639 Cr.

f. Actual expenditure incurred on the environmental management so far

ENVIRONMENTAL EXPENDITURE		In Crores				
S. No.	Item	Up to 2010-11	2011-2012	2012-13	2013-14	Total
1	Water Treatment Plant	28.39	0.678	0.726	0.6675	30.462
2	Drainage Management	1.4	0.607	0.063	0.5625	2.633
3	IUCN Fees for advice on Environmental Management	4.14	0	0	0.905	5.045
4	Green belt Development	2.91	0.53	0.43	0.4064	4.276
5	Monitoring of Environment Parameters	0.725	0.3	0.253	0.04	1.318
6	Establishment & Functioning of Environment Laboratory	0.08	0.075	0.0108	0.0108	0.177
7	Turtle Conservation measure and Awareness Programmes	0.15	0	0.005	0.005	0.160
8	Providing Trawler to Forest Dept for Patrolling (including fuel)	0.11	0.07	0.0783	0.0941	0.352
9	Dredging Monitoring for marine life protection	2.24	0.33	0.03		2.600
10	Installation, O & M of 140 KLD STP	0.35	0.092	0.0944	0.0944	0.631
11	Fire Tenders & Fire Fighting System	0.063	0.096	0.334	0.435	0.928
12	Demarcation of Gahirmatha Marine Sanctuary	0.177	0	0	0	0.177
13	Fees deposited to Statutory Bodies	0.1	0.0075	0.174	2.4637	2.745
14	Safety	0	0	0.0416	0.0757	0.117
15	Oil Boom and Skimmers	0	0.62	0	0	0.620
16	Solid Waste management	0	0	0.104	0.301	0.405
17	IUCN Environment Management Plan	0.0168	0.116	0	0	0.133
18	Dust Suppression Measures	0.12	0.0395	1.008	0.18	1.348
19	EIA Study	0.3105	0.1	0.1442	0.02	0.575
20	Dark Sky Lighting	2.7	0	0	0.12	2.820
21	Settling Pond	5.82	0	0.03	0	5.850
22	Covered Conveyor Belt	0.08	0	0	0.008	0.088
	Additional Studies					
23	NIO Shoreline Changes Study	0.22	0	0	0	0.220
24	NIO Study on Dredging Impacts	0.42	0	0	0	0.420
25	NIO Study on Hydrodynamics	0.21	0	0	0	0.210
26	HTL, LTL Demarcation by NIO	0.11	0.011	0	0	0.121
27	Mangrove Mapping by SPARC	0.02	0	0	0	0.020
	Total	50.8623	3.672	3.5263	6.3491	64.450

Total

= INR 64.45 Cr

10. The status of clear felling in Non-forest areas (such as sub-mergence area of reservoir, approach roads), If any, with quantitative information : Permission has been obtained for felling of 267 trees from non-forest land on approach road. Odisha Forest Development Corporation Ltd has executed the felling.
11. Status of construction:
a. Date of commencement (actual) : Commencement in 2002.
b. Date of completion (actual) : Commencement of Operation – 06.05.2011
12. Reasons for the delay if the project is yet to start. : Not Applicable.

Annexure-I-A

The Dhamra Port Company Limited, a special purpose vehicle sponsored by TATA Steel and Larsen & Toubro Limited is committed to develop an all weather and deep water port in the State of Odisha, on the eastern coast of India at north mouth of River Dhamra. The Project is developed on BOOST basis under a Concession Agreement awarded by Government of Odisha.

SALIENT FEATURES OF THE PROJECT:

- Cargo handling capacity - 25 MTPA
- Quay Length - 700 m with two berths
- Navigation channel: 18 km long
 - Outer channel: 240m width, 18.3 m depth
 - Inner channel: 170m width , 17.5 m to 17.0 m depth
- Turning circle of 600 m diameter, 17 m depth
- Bulk Material Handling System such as Covered Conveyors, Wagon tippler complex, Stacker and Reclaimer, Ship Loaders and Unloaders, Silo (rapid loading facility)
- Stack Yards for Coal, Limestone and Iron Ore
- Dust Suppression System
- Water Source-Matai River, Raw Water Reservoir (6.7 Lakh m³) and WTP of 5 MLD Capacity
- 140 KLD Capacity Sewage Treatment Plant (STP)
- Storm Water Drainage System
- 62Km long 132KV Power Supply Line
- 62.5 Km rail corridor from Bhadrak to Dhamra for transportation of cargo

Annexure-I-B

ENVIRONMENT MANAGEMENT PLAN

Following are the main areas of the Environment Management Plan

- 1. Land Management**
- 2. Wildlife Management**
- 3. Air Management**
- 4. Water Management**
- 5. Noise Management**
- 6. Light Management**
- 7. Miscellaneous**

1. LAND MANAGEMENT

ITEM	ACTION	STATUS
1. Plantation	<p>1. Create Green Belt (Conditions vii. of Env Clearance).</p> <p>2. Permission from concerned authorities for cutting of trees. (Condition vii of environment clearance).</p>	<p>1. Strip Plantation of 1, 60,000 trees has been done along the rail/road corridor. Besides, 1, 88,000 trees have been planted in the Port bulb. A Nursery has been established at site for plantation. Lawns and gardens are maintained inside the port covering an area of 42, 100 sq.ft.</p> <p>2. Permission has been obtained for felling of 267 miscellaneous species of trees from non-forest land. Odisha Forest Development Corporation (OFDC) has executed the work.</p>
2. Mangrove Conservation	<p>1. Patch of about 200 mangroves located closer to port area be excluded, fenced and maintained. (Order of NEAA)</p>	<p>1. The patch containing mangroves has been excluded from Project activity area and fenced for conservation.</p>
3. Land development & changes in Land Use patterns	<p>1. Changes in the Land use pattern after reclamation should not interfere with the natural drainage. (condition iv. of Environment Clearance)</p>	<p>1. Adequate measures have been taken to retain natural drainage. Hume pipe culverts and bridges have been provided all along rail embankment in consultation with Dept of Water Resources & The Directorate of Water Management (<i>formerly WTCER</i>) to ensure that the rail embankment does not obstruct natural drainage.</p> <p>2. Berths are on dolphin type jetty on the sea thereby allowing natural flow of the tides & creeks.</p>

2. WILDLIFE MANAGEMENT

ITEM	ACTION	STATUS
1. Mitigation of Dredging impact	1. Water quality monitoring by authorized institution to ensure that it doesn't affect marine productivity (condition iii. of environment clearance)	1. Water quality is being monitored by engaging approved agencies.
	2. Fitting of Deflectors in the dredgers to prevent harm to marine species (recommendation of IUCN)	2. Deflectors have been fitted in all Trailer Suction Hopper Dredgers (TSHD) as per design and under guidance of IUCN scientists and engineers.
2. Mitigation of Lighting Impact	1. Dark sky friendly lighting without sea ward glare (recommendation of IUCN)	1. DPCL's light management protocol has been developed and implemented under the guidance of IUCN and in line with International Dark Sky Association.
3. Awareness for Conservation	1. Undertaking of awareness campaigns amongst fishermen and villagers to minimize harm to Olive ridley turtles. (recommendations of IUCN)	1. Awareness programmes including street plays and interactions with fishing community have been undertaken by IUCN and DPCL during past years. Further 9000 school children of fishing communities have been covered by outreach programmes. IUCN-DPCL together with the collaboration of Forest Department, Odisha have organized workshop on " Fisherman Awareness and Use of Turtle Excluder Device " that covered the various aspects of conservation of marine life. Turtle awareness programme has been initiated in 25 different schools in and around the port.


3. WATER MANAGEMENT

ITEM	ACTION	STATUS
1. Ground Water	1. Ground Water should not be drawn from CRZ area for industrial use. (condition i. of environment clearance)	1. No drawl of ground water from CRZ area is either planned or undertaken. Water is drawn from the River Matai (10 km away) and stored in a water reservoir of capacity 6.7 lakh m ³ , before treatment at WTP and supply.

2. Sea Water	1. Monitoring of Water quality by authorized institution to ensure that dredging doesn't affect marine productivity (condition iii. of environment clearance & 11 of OPCB consent)	1. Water quality is being monitored by engaging approved agencies.
3. Effluent	1. Effluent to conform to specified standards. (Condition 5 & 6. of OPCB consent and condition x. of environment clearance). 2. Sewage to be treated according to standards (condition 4. of OPCB consent)	1. Being a Port no industrial effluent is generated as no processing of raw material is involved. During rains the runoff from stockyard is collected through the RCC toe drains finally leading to settling ponds. The settled materials then are retrieved. The supernatant water is recycled for dust suppression and fire fighting. 2. A STP of 140 KLD capacity has been installed and operational. The treated water from STP is being used for irrigation of greenbelt and plantation.
4. Ballast	1. Ballast should be scientifically treated (condition 19 of OPCB consent and viii. Of environment clearance)	1. DPCL ensures that, no sewage, liquid wastes including ballast is discharged into marine environment. Guidelines of MARPOL and Ballast Water Convention have been enforced for ships visiting the port.
5. Hazardous Waste	1. Generation, handling, collection, storage and disposal of hazardous waste should be as per authorization granted by OPCB	1. DPCL has engaged vendors authorized by OPCB/CPCB to collect waste oil from the ships and port for disposal. Prescribed Returns are regularly submitted to OPCB.

4. AIR MANAGEMENT

ITEM	ACTION	STATUS
1.Dust Suppression	1. Adequate dust suppression systems in the material handling to minimize emission. (Condition 8. of OPCB consent)	1. The material handling is fully mechanized and through covered conveyer belts to reduce dusts. Water sprinklers have been installed and commissioned at BMH area, transfer points of conveyor belt, loader and unloader on the jetty to

	<p>2. Captive Stone crushing to be undertaken with adequate dust control measures. (Condition 14 of OPCB consent)</p> <p>3. Ambient air quality inside port premises to confirm to standards prescribed under EP rules 1986. Port to install three air monitoring stations.</p>	<p>reduce fugitive dust emission. Green belt in and around port bulb also acts as sink for fugitive dust. Dust busters are used to control dust emission in work areas which could not be covered by the water tankers.</p>  <p>Fig:2-Nevis make truck mounted dust buster</p> <p>2. Captive stone crushing was undertaken during construction stage with Consent to Establish and Consent to Operate from OSPCB. The Port became operational from 6th May 2011 and no more stone crusher is in use now.</p> <p>3. Ambient air quality monitoring is conducted at 5 (Five) different locations in and around the Port. Regular monitoring is conducted by approved laboratory and report submitted to OPCB. Ambient air quality confirms the prescribed standards of EP rules 1986.</p>
<p>2.Green Belt Plantation</p>	<p>1. Adequate plantation around the port area (condition vii. of environment clearance)</p>	<p>1. More than 1, 88,000 plants have been planted inside the port area surrounding the BMH bulb. Plantation is continuing in the Port area.</p>

3. LIGHT MANAGEMENT

ITEM	ACTION	STATUS
<p>1.Environment Friendly Lighting System</p>	<p>1. Glare created by light can disturb/disorient hatchlings of Olive ridley turtles. Lights may be so designed that they do not create glare through spillage by following best practices adopted globally (recommendations of IUCN)</p>	<p>1. Lighting Protocol developed by IUCN has been adopted & regularly monitored to eliminate glare to sky from the Port area. It is in line with International Dark Sky Association.</p>

4. NOISE MANAGEMENT

ITEM	ACTION	STATUS
1.Noise Control Measures	1. Adequate noise control measures to keep noise within prescribed standards. (Condition ix. of environment clearance)	1. The predominant noise levels will be confined to the work zones in the Port. The noise levels are being monitored at all the sources and ambient noise levels are not exceeding the prescribed limit. Community noise levels are not likely to be affected because of the Green Belt and attenuation due to physical barriers. DG sets are covered with acoustic lining to reduce ambient noise level.

5. MISCELLANEOUS

ITEM	ACTION	STATUS
1.Approval of Design	1. Design drawings to be approved by concerned Government authorities. (Condition i.e. of environment clearance)	1. Approvals obtained from the Government of Odisha.
2.Facilities for Labourers	1. Infrastructural facilities to be provided to labour during construction to avoid damage to environment (condition ii of environment clearance)	1. Required infrastructure facilities have been provided for labourers at the project site.
3.Crisis Management	1. Fire fighting system to be provided (condition v of environment clearance) 2. Response for Oil Spill	1. Fire fighting system has been installed with required fire tenders. 2. DPCL developed a customized Oil Spill Contingency Plan for Phase I expansion of Dhamra Port. Following resources are there with DPCL for combating spills <ul style="list-style-type: none"> • Sentinel boom with accessories • Disc Skimmer with transfer pump • Oil spill dispersant • Tugs with OSD spray system • Dedicated Oil Spill Response Tug with crew • Absorbent Pads Personnel are trained to handle emergency situations.

	<p>3. Staff be trained in crisis management as per guidelines of DG,FASLI and Provisions of Doc Safety Act (condition vi of environment clearance)</p> <p>4. Leakage detection devices with early warning system at strategic locations (condition xii of environment clearance)</p> <p>5. Standby DG set to be provided (condition xiii of environment clearance)</p>	<p>3. Necessary training has been imparted to the staffs. (<i>DMP, HSE MP, Oil spill plan previously submitted</i>).</p> <p>4. Not necessary at this stage as liquid cargo is not being planned for the first phase. It shall be installed whenever and wherever necessary.</p> <p>5. 12 DG Sets covered with acoustic enclosure have been installed at site for emergency backups & uninterrupted power supply at the work site which includes the water supply system and fire fighting system.</p>
4.Environment Cell	<p>1. Environment cell to be set up and made operational with laboratory facilities through recognized scientific institution (condition xi of environment clearance)</p>	<p>1. Environment Cell has been constituted consisting of Deputy Manager, Jr. Manager and by outsourcing laboratory facility with all required instruments for regular environmental monitoring.</p>
5.Reporting, Monitoring & Funding	<p>1. Half Yearly report to be sent to Eastern Regional Office of MoEF who should be given full cooperation and information. (conditions xiv and xv of environment clearance)</p> <p>2. A Monitoring Committee be constituted during construction and operation in which a representative of Beach Protection Council be included. (condition of NEAA in their judgment)</p> <p>3. Adequate funding be provided.</p>	<p>1. Half Yearly Reports are submitted to the Eastern Regional Office of MoEF on regular basis.</p> <p>2. Monitoring Committee with representation of Beach Protection Council has been constituted by the Government of Odisha for monitoring the project.</p> <p>3. Adequate funding has been provided.</p>

Annexure-II

Brief Status of Construction:

The work which had commenced in 2002 has been resumed and completed by May 2011.

S. No.	Work	Completion Status
1.	Berth	Completed
2.	Navigational Channel	Completed
3.	Bulk Material Handling Yard	Completed
4.	Railway Line	Completed
5.	Water Supply System	Completed
6.	Power Transmission Line	Completed

Annexure-III

MINISTRY OF ENVIRONMENT & FORESTS
EASTERN REGIONAL OFFICE
A/3, CHANDERSEKHARPUR, BHUBANESWAR-751023

**PARTICULARS ON GREEN BELT/PLANTATION UNDER FOREST
(CONSERVATION) ACT 1980**

1. a) Name of the Organization: Dhamra Port Company Limited (DPCL)
b) Env't. /Forest clearance Order Nos.: PD/26017/8/98-PDZ (CRZ)
Dated 04.01.2000
2. Location: Block/Sub. Division./Dist/ Dhamra/ Bhadrak/ Odisha
State:
3. Address for Communication: The Dhamra Port Company Ltd.
2nd Floor, Fortune Tower,
Chandrasekharapur, Bhubaneswar 751 023
0674-2303829, Fax-0674-2303828
4. Existing Vegetation in the area/
Region:
 - a) Species (tree/shrubs/grasses/
Climbers):
 - 1) *Amaranthus spinosus*
 - 2) *Croton bonplandianum*
 - 3) *Cynodon dactylon*
 - 4) *Cyperus rotundus*
 - 5) *Acanthus ilicifolius*
 - 6) *Caesalpinia crista*
 - 7) *Suaeda maritima*
 - b) Major prevalent species of
each type (grasses)
 - 1) *Cynodon dactylon*
 - 2) *Suaeda maritima*
5. Land coverage by the Project:

	Submitted for Env. Clearance	Acquired in First phase
a) Total area under the project:	4300 acres	2986 acres
b) Area covered for basic Infra- Structure (roads/railway/ building/factory etc,)		2623 acres

6. Details about natural vegetation:

a) Name and number of tree/
Species felled. : *With prior permission from regulatory authority
267 miscellaneous trees have been felled from non-
forest land and OFDC Ltd has executed the felling.*

b) Name and number of plant
Species still available
in the area : 1) *Acanthus ilicifolius*
2) *Croton bonplandianum*
3) *Cynodon dactylon*
4) *Suaeda maritima*

Not enumerated
since mostly herbs
and grasses

c) By protecting the area will
indigenous stock come up ? : *Affirmative (indigenous sp. are coming up
naturally in protected areas)*

d) Extent of green belt developed : *Green Belts have been developed over 62 Km
long Rail-Road Corridor and also in and around
the Port bulb.*

7. Plantation required to be carried out as per

a) Conditions of Environmental
Clearance in has./nos : *Green Belt of 50 mtr width @ 2000 – 2500/Ha.*

b) Conditions of Forest (Conservation)
Act. Clearance in ha./nos. : *Not Applicable*

c) Voluntarily in Ha/nos. : *Strip Plantation on both sides of the Rail-Road
Corridor over 62 Km.*

8. Details about Plantation :

a) Total area available for Plantation in each category (in Acre)

i) <u>Green Belt</u>	ii) <u>Dumps</u>	iii) <u>Back filled areas</u>	iv) <u>Rail/Road sides</u>	v) <u>Block plantation</u>
93	Not Applicable	Not Applicable	110	7.8

b) Plantation details (Category wise & methodology used)

i) Green Belt

Year of Plantation	Species Planted	Spacing	Height Attained	Total Area Covered	Area Still Available
2010-2014	<i>Casuarina equisetifolia</i> <i>Acacia mangium</i> <i>Acacia auriculiformis</i> <i>Peltophorum ferrugineum</i> <i>Terminalia arjuna</i> <i>Syzygium cumini</i> <i>Azadirachta indica</i> <i>Phyllanthus emblica</i> <i>Pongamia pinnata</i> <i>Aegle marmelos</i> <i>Albizia lebbbeck</i> <i>Dalbergia sissoo</i> <i>Simarouba glauca</i> <i>Haldinia cordifolia</i> <i>Terminalia bellirica</i> <i>Pterospermum acerifolium</i> <i>Terminalia tomentosa</i> <i>Swietenia mahagoni</i> <i>Oroxylum indicum</i>	2mX2.5m 2mX2m 1mX1m	8m	93Acre	Nil

iv) Railway Corridor Plantation

Year of Plantation	Species Planted	Spacing	Height Attained	Total Area Covered	Area Still Available
2008-2014	<i>Pithecellobium dulce</i> <i>Terminalia catappa</i> <i>Acacia auriculiformis</i> <i>Acacia mangium</i> <i>Delonix regia</i> <i>Peltophorum ferrugineum</i> <i>Bambusa sp.</i> <i>Ficus religiosa</i> <i>Terminalia arjuna</i> <i>Albizia lebbbeck</i> <i>Thespesia sp.</i> <i>Syzygium cumini</i> <i>Azadirachta indica</i> <i>Dalbergia sissoo</i> <i>Calophyllum inophyllum</i>	1mX1m	9m	106Acre	4 Acre

v) **Block Plantation**

Year of Plantation	Species planted	Spacing	Height Attained	Total Area Covered	Area Still available
2011-14	<i>Casuarina equisetifolia</i> <i>Acacia mangium</i> <i>Acacia auriculiformis</i> <i>Delonix regia</i> <i>Azadirachta indica</i> <i>Phyllanthus emblica</i> <i>Pongamia pinnata</i> <i>Aegle marmelos</i> <i>Albizia lebbek</i> <i>Dalbergia sissoo</i> <i>Simarouba glauca</i> <i>Haldinia cordifolia</i> <i>Terminalia bellirica</i> <i>Pterospermum acerifolium</i> <i>Terminalia tomentosa</i> <i>Swietenia mahagoni</i> <i>Oroxylum indicum</i>	2mX2m	6m	7.8 Acre	Nil

c) Survival % of plantation

<u>1st</u> <u>Year</u>	<u>2nd</u> <u>Year</u>	<u>3rd</u> <u>Year</u>	<u>4th</u> <u>Year</u>	<u>5th</u> <u>Year</u>
100%	100%	95%	85%	80%

09. Financial details (Year-wise)

Plantation wise and item wise :

Sl. No.	Year	Funds allocated (INR Crores)	Expenditure made (INR Crores)	Average cost of each surviving plant in Rupees
1	Up to 2011	4.17	2.91	
2	2011-2012	0.07	0.53	120
3	2012-2013	1.01	0.46	
4	2013-2014	0.151	1.1124	

10. Inspection of plantation by field experts and their comments and follow up action.

Plantation was inspected by the Director(S), MoEF (Eastern Regional Office) during their annual inspections and have communicated their comments.
: The observations of director (S) have been complied with and the action taken reports have been submitted.

11. Remarks / any other information

: Not Applicable