



**Ports and
Logistics**

DPCL/ENV/MOEFCC/2019-41

21.05.2019

To

- ✓ **The Additional Principal Chief Conservator of Forests (C),**
Ministry of Environment, Forest and Climate Change,
Eastern Regional Office (EZ),
A/3, Chandrasekharapur,
Bhubaneswar- 751023
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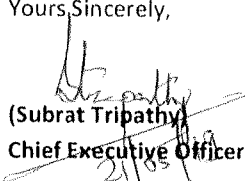
Sub : Half yearly Compliance report of Environment and CRZ Clearance for expansion of Dhamra Port at Dhamra, Bhadrak District of Odisha by M/s Dhamra Port Company Limited for the period of Oct 2018 – Mar-2019

- Ref:** 1) Environmental Clearance for Expansion of Dhamra Port Project vide letter dated 4th January 2000 bearing No. PD/26017/8/98-PDZ (CRZ).
2) CRZ recommendation letter for phase-II expansion vide letter dated 20th December, 2012 bearing no. OCZMA-1/2012-13/No.17
3) Environmental and CRZ Clearance for expansion at Dhamra Port dated 1st January 2014 bearing F.No.11-104/2009-IA.III
4) Amendment in Environmental and CRZ clearance vide letter dated 25th March 2015 bearing F.No.11-104/2009-IA.III

Dear Sir,

With reference to the above mentioned letters for the said subject matter, please find enclosed herewith the compliance to the conditions stipulated in the letters for the period of October 2018 – March-2019 in soft copy (CD) for your kind reference. The said period compliance is also being E-mailed on roez.bsr-mef@nic.in

Thanking you,
Yours Sincerely,


(Subrat Tripathy)
Chief Executive Officer

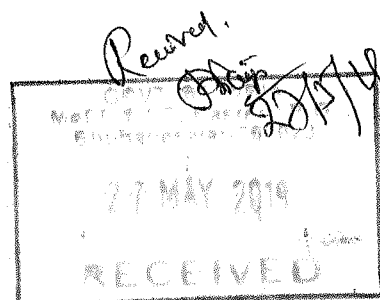
Encl: As above

Copy to:

- 1) The Director (Monitoring –IA-III Division), Ministry of Environment, Forest & Climate Change, Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi – 110003
- 2) Zonal Office, Central Pollution Control Board, Southern Conclave, Block 502, 5th & 6th Floors, 1582 Rajdanga Main Road, Kolkata - 700 107 (W. B.)
- 3) The Member Secretary, State Pollution Control Board, Odisha, Parivesh Bhawan, A/118, Unit 8, Nilakantha Nagar, Nayapalli, Bhubaneswar-751012
- 4) The Regional Officer, State Pollution Control Board, Odisha, Plot No. 1602, Ganeshwarpur, Januganj, Balasore – 756019
- 5) Member Secretary OCZMA & Director, Env-cum-Spl. Secretary to Govt., Forest & Env Dept., Govt. of Odisha, Plot No 108, Surya Nagar, Unit VII, Bhubaneswar-751003.

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Phase – I: Half yearly Compliance report of the conditions stipulated in Environmental Clearance for Expansion of Dhamra Port Project vide letter dated 4th January 2000 bearing No. PD/26017/8/98-PDZ (CRZ)

Sr. No.	Conditions	Compliance Status
i	<p>All Construction design/drawings relating to construction activities must have the approval of the concerned Government Departments/ Agencies of the State Government of Odisha.</p> <p>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.</p>	<p>Complied.</p> <p>The Project is under Operation phase inline to Phase-I development.</p>
ii	<p>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.</p>	<p>Complied.</p> <p>The Project is under Operation phase inline to Phase-I development.</p>
iii	<p>Dredging operations if any should be undertaken in consultation with 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.</p>	<p>Complied.</p> <p>3.73 million m3 capital dredging is being carried out during the period Oct 2018 - Mar 2019. Marine water quality and productivity is being monitored by MoEF & CC accredited laboratory, there are no adverse impact on water quality and marine productivity in the vicinity. The details of Marine Water quality monitoring reports for the period Oct 2018 – Mar 2019 are enclosed as Annexure I. No impact on water quality and marine productivity has been envisaged during this period.</p>
iv	<p>Disposal sites for excavated material should be so designed that the revised land use after dumping and changes in the land use pattern do not interfere with the natural drainage.</p>	<p>Complied.</p> <p>Dredging activity has been completed and at present the Project is under Operation phase inline to Phase-I development</p>
v	<p>To meet with any emergency situation, adequate foam containers should be kept ready with supporting firefighting system and water pipeline.</p>	<p>Complied.</p> <p>DPCL has a fire fighting team consisting of 35 crews including 1 officer, 1 supervisor, equipped with two fire tenders having water storage capacity of 4500 L and foam storage capacity of 500 L for each, and CO2- 4.5 kg type (267nos.) CO2- 3kg type(15 nos.) DCP type- 5kg (165 nos.), DCP type- 6kg (26 nos.), DCP Type-10</p>

Phase – I: Half yearly Compliance report of the conditions stipulated in Environmental Clearance for Expansion of Dhamra Port Project vide letter dated 4th January 2000 bearing No. PD/26017/8/98-PDZ (CRZ)

Sr. No.	Conditions	Compliance Status
		kg(02 nos.), DCP Type- 2kg (12 nos.)& Foam (26 nos.) type of extinguishers. Detail list of fire extinguishers is attached as Annexure-II .
vi	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 on a regular basis. Provisions of Dock Safety Act and the Guidelines issued by the DG, FASLI/CLI, and Mumbai for the safety and health of the workers should be followed.	Complied. No operations are being carried out in sensitive areas. However, the employees of DPCL have been trained on safety guidelines. Regular Mock Drills are conducted as per the Crisis Management Plan. The details of drills conducted towards dock safety for the period Oct 2018 - Mar 2019 is enclosed as Annexure III .
vii	For development of Green Buffer including mangroves wherever feasible, the authorities should start growing large nursery of multipurpose species 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	Complied. A large nursery of multi species has been established for greenbelt development. DPCL has obtained Environment & CRZ clearance for Phase-II expansion. Site is undergoing expansion inline to Immediate Development Plan (Phase-II development). Greenbelt is being developed inline to this. Port layout is enclosed as Annexure IV . Plantation has been done along the both edges of the 62.5 km rail corridor, in adjacent villages and inside the port premises. Photographs are enclosed as Annexure V .
viii	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.	Complied. DPCL has two nos. of Sewage Treatment Plant (STP) to handle 140 KLD & 15 KLD of sewage generated at port site & township. The treated water is being used for horticulture. The monitoring reports for the period Oct 2018- Mar 2019 are enclosed as Annexure I . All results are well within the prescribed standards. MARPOL and Ballast Water Convention guidelines are enforced by DPCL for visiting ships.

Phase – I: Half yearly Compliance report of the conditions stipulated in Environmental Clearance for Expansion of Dhamra Port Project vide letter dated 4th January 2000 bearing No. PD/26017/8/98-PDZ (CRZ)

Sr. No.	Conditions	Compliance Status
ix	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	Complied. Suitable personal protective equipment's (PPEs) (Ear muffs & ear plugs) are kept mandatory for workers in noise prone areas. Noise monitoring (once in a month) at site is being carried out by NABL and MoEF&CC accredited agency and levels have been found below the standards. The reports for the period Oct 2018 - Mar 2019 are enclosed as Annexure I .
x	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	Complied. DPCL has two nos. of Sewage Treatment Plant (STP) to handle 140 KLD & 15 KLD of sewage generated at port site & township. All the treated waste water from STP is being used for horticulture purpose. Monitoring is being carried out by NABL & MoEF&CC recognized laboratory. Monitoring reports for the period Oct 2018 - Mar 2019 are enclosed as Annexure I . All results are well within the prescribed standards. We have colour coded waste bins for segregating different category of solid waste. Waste generated is being handled in line to 5R concept of waste management, as per the vision of APSEZ to become "A Zero Waste Company" by the year 2020. Ambient Air Quality Monitoring (twice in a week) is also being carried out by NABL & MoEF & CC accredited agency, Reports for the period Oct 2018 - Mar 2019 is enclosed as Annexure I . All emissions are well with the prescribed standards.
xi	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	Complied. DPCL has a well-structured Environmental Management Cell, staffed with qualified man power at site supported by team at Head Office in Ahmedabad . Environment monitoring is being carried out by NABL & MoEF&CC accredited

Phase – I: Half yearly Compliance report of the conditions stipulated in Environmental Clearance for Expansion of Dhamra Port Project vide letter dated 4th January 2000 bearing No. PD/26017/8/98-PDZ (CRZ)

Sr. No.	Conditions	Compliance Status
	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.	agency, the monitoring results for the period Oct 2018 - Mar 2019 (enclosed in Annexures I) are well within the permissible limits. Monitoring data is being submitted along with half yearly compliance reports to the Eastern Regional Office, MoEF&CC, MoEF&CC New Delhi, CPCB-Kolkata and Odisha Pollution Control Board. Our Last Half Yearly compliance report was submitted vide letter dated 20 th November 2018.
xii	Necessary leakage detection devices with early warning system must be provided at strategic locations.	Not applicable at present. As presently no gaseous cargo is being handled by the port.
xiii	Standby DG sets must be provided to ensure uninterrupted power supply (to) the pump house and the firefighting system	Complied. 5 nos of standby DG Sets of capacity ranging from 160 KVA to 200 KVA have been provided for emergency backups & uninterrupted power supply to the water supply system and firefighting system. DG set Monitoring (Half yearly basis) is being carried out by NABL & MoEF&CC recognized laboratory. Monitoring reports for the period Oct 2018 - Mar 2019 are enclosed as Annexure I . All results are well within the prescribed standards.
xiv	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 should be opened for inspection by the Team which would be constituted by the Ministry, if found necessary	Complied. Six monthly compliance reports are regularly submitted to the Eastern Regional Office of MoEF&CC, Bhubaneswar, MoEF&CC-New Delhi, CPCB-Kolkata, Odisha Pollution Control Board and Odisha Coastal Zone Management Authority. The last report was submitted vide our letter dated 20 th November 2018. Officials from MoEF&CC Regional Office and OPCB are regularly inspecting the project site. Safeguard measures as advised by inspection team are taken into consideration for implementation.

Phase – I: Half yearly Compliance report of the conditions stipulated in Environmental Clearance for Expansion of Dhamra Port Project vide letter dated 4th January 2000 bearing No. PD/26017/8/98-PDZ (CRZ)

Sr. No.	Conditions	Compliance Status
xv	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.	Complied. Full support is being extended to the Eastern Regional Office of Ministry of Environment & Forests & Climate Change, Bhubaneswar during their visit. Details required are being submitted to the Authorities.
xvi	Adequate funding provisions, year-wise and item-wise, must be made for implementation of the above mentioned safeguard measures.	Complied. Separate budget for the Environment protection is earmarked every year. No separate bank account is maintained for the same however all the expenses are recorded in advanced accounting system of the organization. Budget for Environment Management measures for the Oct 2018 - Mar 2019 is in the tune of Rs. 4.03 crore Detailed breakup of expenditure is enclosed as Annexure-VI .
xvii	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 severe cyclonic storms while going ahead with their project.	Complied. The Rapid Environmental Impact Assessment Study was conducted in time & submitted. DPCL has already formulated detailed Disaster Preparedness & Management Plan to handle any natural calamities such as cyclones, storms, quakes etc., along the Coast.
1	In case of any deviation or alteration in the project including the implementation agency, a fresh reference should be made to the Ministry for modification in the clearance condition or Imposition of new ones for ensuring environmental protection. The project authorities would be responsible for implementing the above suggested safeguard measures.	Complied and noted.
2	The Ministry reserves the right to revoke clearance, if the conditions stipulated as above are not implemented to the satisfaction of the Ministry	Point noted
3	These stipulations would be enforced among others under the provisions of	Point noted

Phase – I: Half yearly Compliance report of the conditions stipulated in Environmental Clearance for Expansion of Dhamra Port Project vide letter dated 4th January 2000 bearing No. PD/26017/8/98-PDZ (CRZ)

Sr. No.	Conditions	Compliance Status
	Water (Prevention and control of pollution) Act, 1974, the Air (Prevention and control of pollution) Act, 1981, the Environment (Protection) Act, 1986 and the Public Liability (Insurance) Act, 1991 along with their amendments and rules from time to time.	

Phase – II: Compliance report of the condition stipulated in CRZ recommendation for Phase II expansion vide letter dated 20th December, 2012 bearing no. OCZMA-1/2012-13/No. 17

Sr. No.	Conditions	Compliance Status
1	The Ballast Water Management has to be scrupulously followed to ensure that no harmful exotic organisms or pathogens are transferred to the coastal/marine water. In this regard, the DPCL should approach the Ministry of Shipping, Govt. of India to evolve a suitable ballast water management plan to maintain the health of the coastal/marine ecosystems	Complied. DPCL ensure that the ships visiting at port are in compliance to guidelines issued by Ministry of Shipping Notification No 13/2001.
2	The marine water and sediment (biogeochemical parameters including phytoplankton community structure) should be monitored regularly by a reputed scientific institute/university	Complied. Monitoring of marine water and sediment (biogeochemical parameters including phytoplankton community structure) is being carried out by NABL & MoEF&CC accredited agency. Results of the same for the period Oct 2018 - Mar 2019 are enclosed as Annexure – I.
3	One of the objectives of the CRZ guidelines is to ensure the livelihood of the fishermen community vis-à-vis developmental activities. Hence the DPCL should approach the Director, Indian National Centre for Ocean Information Services (INCOIS), Govt. of India, Hyderabad, to get PFZ advisories / installation of Electronic Display Board (EDB) to disseminate the prospective fishing ground information to the fishing community for their livelihoods. The	Complied. INCOIS display board has been installed at fishing harbor, Dhamra. The same is in working condition. (Please refer Annexure VII for Photograph of INCOIS displayed) DPCL provides support for repair services as and when required.

Phase – II: Compliance report of the condition stipulated in CRZ recommendation for Phase II expansion vide letter dated 20th December, 2012 bearing no. OCZMA-1/2012-13/No. 17

Sr. No.	Conditions	Compliance Status
	DPCL is also to indicate any change that has occurred in the fishing zone due to operation of the Port.	
4	The use of unclaimed/salvaged coal for local people may be explored.	<p>Complied.</p> <p>DPCL has examined this issue. So far there has not been any unclaimed coal and the quantity of salvaged coal is negligible. The procedure required under relevant rules is to auction such unclaimed coal with custom's permission to meet unpaid duties and port charges; and to account salvaged coal back to the stock of original importer. Any other method would contravene customs and other laws.</p>
5	DPCL shall ensure that the dust/fine grained particles of the jetty must be cleaned regularly and methodically so that there is no spillage to the coastal waters to avoid turbidity of the water column.	<p>Complied.</p> <p>DPCL ensures that the dust/fine grained particles present on jetty are cleaned on regular basis both by mechanically and manually so to avoid spillage into the marine/coastal waters.</p>
6	The mangrove vegetation around the port should be conserved both during construction and operation phase.	<p>Complied.</p> <p>DPCL has taken great efforts by creating bamboo fencing around the present scattered mangroves towards southern boundary as well as carried out plantation of mangrove saplings in the blank patches since 2016 within the fenced area, as part of conservation efforts.</p> <p>Continuous awareness is being created among the port employees and workers regarding importance of mangrove and its conservation needs.</p> <p>However, due to cyclonic storms and biotic interference of local population there have been some damages on southern side scattered mangrove patch.</p>
7	Coastal erosion and accretion shall be monitored on a regular basis. The impact of dredging and dumping of the sediment on Dhamra Shoreline change and on the ecologically sensitive areas including the Kanika Sand Islands has to be assessed at regular interval by a recognized	<p>Complied.</p> <p>NIOT Chennai, has carried out shoreline change study alongside Dhamra and Kanika sand shore and also impact of dredging and dumping of sediment on Dhamra Shoreline Change and on ecologically sensitive areas. Both this</p>

Phase – II: Compliance report of the condition stipulated in CRZ recommendation for Phase II expansion vide letter dated 20th December, 2012 bearing no. OCZMA-1/2012-13/No. 17

Sr. No.	Conditions	Compliance Status
	institute.	studies concludes that there are no significant impacts observed on the shoreline and nearby ecologically sensitive areas because of this ongoing activity. The report already has been submitted in last EC compliance Report vide letter no. DPCL/ENV/MOEFC/2018-155 dated 20 th November 2018.
8	Provision shall be made for treatment/recycle of toxic contents, such as used oil, fertilizers (if any) and similar other toxic materials	Complied. DPCL has made an agreement with OSPCB approved vendor for collection of used oil. Details of the same are submitted to OSPCB as a part of Hazardous waste annual return (Form 4) on regular basis.
9	Environmental Impact Assessment (EIA) study of dredging material should be done on a regular basis with special emphasis to turbidity.	Complied. Offshore water quality monitoring is being done on regular basis (including turbidity parameter) and the results for the period Oct 2018 - Mar 2019 can be referred at Annexure-I .
10	The DPCL should ensure that the suspended sediments generated during excavation and during disposal of the dredged materials do not adversely affect the health of the coastal ecosystems within the port area including eco-sensitive areas along the coast.	Complied. 3.73 million m3 capital dredging is being carried out during the period Oct 2018 - Mar 2019. This material is being disposed at approved location in the sea. Marine water quality monitoring is being carried out regularly & submitted to OSPCB & MOEFCC Annexure - I .
11	A conservation plan for Kanika Island will be prepared and implemented by the Forest Department, the cost of which will be met by the DPCL.	Kanika Island Conservation Plan has been approved by Forest Department as per DFO Bhadrak letter no. 1889/3F-192/2018 dated 28.05.2018 and 3148/1F-256/2018 dated 31.08.2018. Copy enclosed as Annexure-VIII . DPCL has already released an amount of Rs 40 Lakhs to DFO Bhadrak Wildlife Division as first phase payment of 1 st year contribution amount on 24.09.2018 for implementation of Kanika Island Conservation plan. The acknowledgement

Phase – II: Compliance report of the condition stipulated in CRZ recommendation for Phase II expansion vide letter dated 20th December, 2012 bearing no. OCZMA-1/2012-13/No. 17

Sr. No.	Conditions	Compliance Status
		of receipt of fund from DFO, Bhadrak , Wild life division is enclosed as Annexure-IX Balance amount will be released as and when required by the DFO.
12	Mangrove plantation around the port will be protected by the DPCL under the supervision of the Forest Department.	Complied.
13	Shoreline Changes in and around Kanika Island shall be monitored on monthly basis	Complied. NIOT Chennai, has carried out shoreline change study at Dhamra and Kanika sand shore. The report already has been submitted in last EC compliance Report vide letter no. DPCL/ENV/MOEFCC/2018-155 dt: 20 th November 2018.

Phase – II: Compliance report of the condition stipulated in Environmental and CRZ Clearance for expansion at Dhamra Port dated 1st January, 2014 bearing F. No. 11-104/2009-IA.III and subsequent amendment dated 25th March, 2015

Sr. No.	Conditions	Compliance Status
6. Specific Condition		
i	Consent to Establishment shall be obtained from Odisha Pollution Control Board under Air and Water Act and a copy shall be submitted to the Ministry before start of any construction work at site	Complied. Consent to Establish has been obtained.
ii	Prior clearance from National Board of Wildlife shall be obtained	The project boundary falls outside the notified Eco sensitive zone of Bhitakranika and Gahirmatha Sanctuary, declared as per Gazette Notification 16.06.2015. The approved map from Forest department Govt of Odisha is enclosed as Annexure-X .
iii	The proponent shall submit undertaking that there shall be no acquisition of grazing/grave land for the project.	Complied. Undertaking has already been submitted vide our earlier compliance letter dated 20.11.2015.
iv	The Regional Office of MoEF may conduct a site visit every year to verify compliance.	Point noted.
v	The Natural creek and drainage pattern of the area should not be disturbed and the cross drainage passing through cargo	Complied. Drainage pattern is being maintained. The creeks are trained to ensure proper

Phase – II: Compliance report of the condition stipulated in Environmental and CRZ Clearance for expansion at Dhamra Port dated 1st January, 2014 bearing F. No. 11-104/2009-IA.III and subsequent amendment dated 25th March, 2015

Sr. No.	Conditions	Compliance Status
	stack yards shall be released into settling ponds as committed.	drainage both from outside and inside. Runoff from the cargo stack yard is diverted to settling pond. Supernatant water after primary treatment is being used for dust suppression.
vi	No housing component is permitted in CRZ area i.e. within 500m from HTL.	Complied. No housing constructed in CRZ area.
vii	The dredging materials shall be at depths 25m or more up to fill up of 30cm or less. Initial and final sounding records for depth of the disposal sites and GPS records shall be maintained for vessels carrying out disposal. The disposal shall be carried out in the ebb tides and shall be ensured that water quality (SS less than 500mg/l) is maintained during disposal near the vessel.	Complied. 3.73 million m ³ capital dredging is being carried out during the period Oct 2018 - Mar 2019. This material is being disposed at approved location in the sea. Marine water quality monitoring is being carried out regularly & submitted to OSPCB. Copy enclosed as Annexure I .
viii	Commitment for all the recommendations provided by OCZMA and NIO for protection of Kanika island and earmark specific amount for the conservation plan. The plan can be prepared in consultation with the OCZMA and forest department.	Kanika Island Conservation Plan has been approved by Forest Department as per DFO Bhadrak letter no. 1889/3F-192/2018 dated 28.05.2018 and 3148/1F-256/2018 dated 31.08.2018. Copy enclosed as Annexure-VIII . DPCL has released an amount of Rs 40 Lakhs to DFO Bhadrak Wildlife Division as first phase payment of 1 st year contribution amount on 24.09.2018 for implementation of Kanika Island Conservation plan. The acknowledgement of receipt of fund from DFO, Bhadrak, Wildlife division is enclosed as Annexure-IX
ix	The village forest adjacent to the project site should be developed with tree plantation, in consultation with the revenue department/forest department	Permission has been granted by the Collector, Bhadrak and Divisional Forest Officer, Bhadrak Wildlife Division to carry out plantation in the village forest patch adjacent to the port. The copy letter from DFO is enclosed as Annexure- XI
x	As discussed during the meeting the dumping area should be at the latitude 20° 55' 5" and longitude 87° 10' 5" in the offshore region	Point noted.
xi	All the commitments made during the	Commitments made during Public hearing

Phase – II: Compliance report of the condition stipulated in Environmental and CRZ Clearance for expansion at Dhamra Port dated 1st January, 2014 bearing F. No. 11-104/2009-IA.III and subsequent amendment dated 25th March, 2015

Sr. No.	Conditions	Compliance Status
	Public Hearing shall be complied with.	are being complied.
xii	Regular air quality monitoring should be conducted at the site and all the parameters should be within limits.	Complied. Air quality monitoring is done by a MoEF&CC accredited agency and all parameters are well within standards Results of the monitoring carried out during the period Oct 2018 - Mar 2019 are enclosed as Annexure –I .
xiii	All the recommendation of the EIA/EMP & Risk Assessment and Disaster Management Report shall be complied with letter and spirit. All the mitigation measures submitted in the EIA report shall be prepared in a matrix format and the compliance for each mitigation plan shall be submitted to MoEF along with half yearly compliance report to MoEF-RO.	Complied. Compliance towards mitigation plans are enclosed as Annexure XII .
xiv	All the recommendations and conditions stipulated by Odisha Coastal Zone Management Authority (OCZMA) No. OCZMA-1/2012-13 dated 20.12.2012 shall be complied with	Complied. Compliance report of the OCZMA recommendation is enclosed.
xv	The green belt shall be provided all around the periphery and storage yards.	Complied. Site is undergoing expansion inline to Immediate Development Plan (phase-II clearance). Greenbelt is being developed inline to this. Total 47,030 nos. of plantation has been carried out for the period Oct 2018 - Mar 2019. Layout enclosed as Annexure IV . Plantation has been done along the both edges of the 62.5 km rail corridor. Please refer Annexure V for photographs of the same.
xvi	There shall be no ground water drawl within CRZ area	Complied. No ground water withdrawal in the CRZ area is done
xvii	Sewage shall be treated and the Treatment Facility shall be provided in accordance with the Coastal Regulation Zone Notification, 2011. The disposal of	Complied. DPCL has two nos. of Sewage Treatment Plant (STP) of capacity 140 KLD & 15 KLD to treat sewage generated at port site &

Phase – II: Compliance report of the condition stipulated in Environmental and CRZ Clearance for expansion at Dhamra Port dated 1st January, 2014 bearing F. No. 11-104/2009-IA.III and subsequent amendment dated 25th March, 2015

Sr. No.	Conditions	Compliance Status
	treated water shall confirm the regulation of State Pollution Control Board.	township. Treated water of STP is regularly monitored and all the results are found to be well within the prescribed standard. The monitoring report for the period Oct 2018 - Mar 2019 is enclosed as Annexure-I .
xviii	Solid Waste Management shall be as per Municipal Solid (Management and Handling) Rules, 2000	Complied. DPCL has developed a vision for making itself – “A Zero Waste Port” by the year 2020. DPCL vision is based on adoption of 5R principle of waste management i.e Reduce, Reuse, Reprocess, Recycle & Recover. We have colour coded bins for segregating different category of solid waste. Biodegradable wastes are used for compost preparation. Recyclable wastes are handed over to authorized recyclers.
xix	The project shall be executed in such a manner that there shall not be any disturbance to the fishing activity.	Complied. Approach channel of the port is from South to North east, whereas Fishing boats travels from South to East. Fishing is carried out in deep Sea. Hence, no impact on fishing is envisaged because of this project.
xx	It shall be ensured that there is no displacement of people, houses or fishing activity as a result of the project.	Complied. The port development is in intertidal area and henceforth there is no need for displacement of people and the houses. Suitable approaches are available for fishermen to conduct their activities and hence, there won't be any impact on fishing activities. DPCL is closely working with fishermen communities to provide them required support through its CSR activities.
xxi	No construction work other than those permitted in Coastal Regulation Zone Notification shall be carried out in Coastal Regulation Zone area.	Complied. Construction work is being carried out inline to CRZ notification 2011, amended till date and Environment / CRZ clearances obtained for the project.
xxii	The project proponent shall set up	Complied.

Phase – II: Compliance report of the condition stipulated in Environmental and CRZ Clearance for expansion at Dhamra Port dated 1st January, 2014 bearing F. No. 11-104/2009-IA.III and subsequent amendment dated 25th March, 2015

Sr. No.	Conditions	Compliance Status
	separate environmental management cell for effective implementation of the stipulated environmental safeguards under the supervision of a senior executive	DPCL has a well-structured Environmental Management Cell, staffed with qualified personnel at site supported by team at Head Office in Ahmedabad.
xxiii	The funds earmarked for environment management plan shall be included in the budget and this shall not be diverted for any other purposes.	Complied. Separate budget for the Environment Protection is earmarked every year. All the expenses are recorded in advanced accounting system of the organization. Budget for Environment Management measures for the Period Oct 2018-Mar 2019 is in the tune of Rs. 4.03 crore. Detailed breakup of expenditure is enclosed as Annexure-VI .
7. General Conditions		
i	Appropriate measures must be taken while undertaking digging activities to avoid any likely degradation of water quality.	Complied
ii	Full support shall be extended to the officers of this Ministry/Regional Office at Bhubaneswar by the project proponent during inspection of the project for monitoring purposes by furnishing full details and action plan including action taken reports in respect of mitigation measures and other environmental protection activities.	Complied. DPCL is always extending full support to the regulatory authorities during their visit to port site. Details sought for by the Authorities are furnished as and when required.
iii	A six-monthly monitoring report shall need to be submitted by the project proponents to the Regional Office of this Ministry at Bhubaneswar regarding the implementation of the stipulated conditions.	Complied. Six monthly compliance report is regularly submitted to Regional Office of MoEF & CC, Bhubaneswar. Last compliance report for Apr 2018 – Sep 2018 period was submitted vide our letter dated 20.11.2018.
iv	Ministry of Environment & Forests or any other competent authority may stipulate any additional conditions or modify the existing ones, if necessary in the interest of environment and the same shall be complied with.	Point noted
v	The Ministry reserves the right to revoke	Point noted

Phase – II: Compliance report of the condition stipulated in Environmental and CRZ Clearance for expansion at Dhamra Port dated 1st January, 2014 bearing F. No. 11-104/2009-IA.III and subsequent amendment dated 25th March, 2015

Sr. No.	Conditions	Compliance Status
	this clearance if any of the conditions stipulated are not complied with the satisfaction of the Ministry.	
vi	In the event of a change in project profile or change in the implementation agency, a fresh reference shall be made to the Ministry of Environment and Forests.	No change in the project profile or implementing agency of the development at Dhamra Port. However DPCL has now proposed Revised Master Plan for Dhamra Port for which, necessary procedure inline to the EIA notification 2006 & CRZ Notification 2019, has already been initiated.
vii	The project proponents shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of start of land development work.	DPCL had informed the Regional Office MOEF& CC regarding the financial closure and the date of start of land development work. Date of last financial closure was on 30th September, 2014. The same has been submitted vide our earlier compliance submitted to RO-MOEF&CC, Bhubaneshwar
viii	A copy of the clearance letter shall be marked to concern Panchayat/local NGO, if any, from whom any suggestion/representation has been made received while processing the proposal.	Complied. Copy of clearance letter was submitted to concerned panchayat office vide our letter dated 23.01.2014 for any suggestion. The copy is enclosed as Annexure-XIII .
ix	Odisha State Pollution Control Board shall display a copy of the clearance letter at the Regional Office, District Industries Center and Collector's Office/Tehsildar's office for 30 days.	-
8	These stipulations would be enforced among others under the provisions of Water (Prevention and Control of Pollution) Act 1974, the Air (Prevention and Control of Pollution) Act 1981, the Environment (Protection) Act, 1986, the Public Liability (Insurance) Act 1991 and EIA Notification 1994, including the amendments and rules made thereafter.	Point noted
9	All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department, Forest Conservation Act, 1980 and	Complied. License on storage of explosives from PESO and NOC from Fire Dept. is enclosed as Annexure-XIV .

Phase – II: Compliance report of the condition stipulated in Environmental and CRZ Clearance for expansion at Dhamra Port dated 1st January, 2014 bearing F. No. 11-104/2009-IA.III and subsequent amendment dated 25th March, 2015

Sr. No.	Conditions	Compliance Status
	Wildlife (Protection) Act, 1972 etc. shall be obtained, as applicable by project proponents from the respective competent authorities.	
10	The project proponent shall advertise in at least two local Newspapers widely circulated in the region, one of which shall be in the vernacular language informing that the project has been accorded Environmental and CRZ Clearance and copies of clearance letters are available with the Odisha State Pollution Control Board and may also be seen on the website of the Ministry of Environment and Forests at http://www.envfor.nic.in . The advertisement should be made within 10 days from the date of receipt of the Clearance letter and a copy of the same should be forwarded to the Regional Office of this Ministry at Bhubaneswar.	Complied. Advertisement copies are attached as Annexure-XV .
11	This clearance is subject to final order of the Hon'ble Supreme Court of India in the matter of Goa Foundation Vs. Union of India in Writ Petition (Civil) No. 460 of 2004 as may be applicable to this project.	Point noted
12	Any appeal against this clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.	Point noted
13	Status of compliance to the various stipulated environmental conditions and environmental safeguards will be uploaded by the project proponent in its website	Complied. Compliance report for each period is uploaded on the company's website (http://www.adaniports.com/ports-downloads) and the same is being updated twice in a year.
14	A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zilla Parishad/Municipal Corporation, Urban Local Body and the Local NGO, if any, from whom suggestions/representations, if any, were	Complied.

Phase – II: Compliance report of the condition stipulated in Environmental and CRZ Clearance for expansion at Dhamra Port dated 1st January, 2014 bearing F. No. 11-104/2009-IA.III and subsequent amendment dated 25th March, 2015

Sr. No.	Conditions	Compliance Status
	received while processing the proposal. The clearance letter shall also be put on the website of the company by the proponent.	
15	The proponent shall upload the status of compliance of the stipulated clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MoEF, the representative Zonal Office of CPCB and the SPCB.	Complied. Compliance report for each period is uploaded on the company's website and the same is being updated twice in a year. Results of environmental monitoring are enclosed as Annexures-I to the compliance report. Hard copy as well as soft copy of the same are submitted to all concerned authorities.
16	The project proponent shall also submit six monthly reports on the status of compliance of the stipulated clearance conditions including results of monitored data (both in hard copies as well as by e-mail) to the respective Regional Office of MoEF, the respective Zonal Office of CPCB and the SPCB.	Complied. Compliance report for each period is uploaded on the company's website and the same is being updated twice in a year. Results of environmental monitoring are enclosed as Annexures-I to the compliance report. Hard copy as well as soft copy (Email) of the same are submitted to all concerned authorities.
17	The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of clearance conditions and shall also be sent to the respective Regional Office of MoEF by email.	Complied. Environmental Statement for FY 2017-18 was submitted to OSPCB with a copy to the Regional Office of MoEF & CC vide our letter no DPCL/ENV/OSPCB/2018-145 dated 19 th Sep 2018. Copy of the same is enclosed as Annexure – XVI . All Submitted Environment Statements as well as Half Yearly Compliance Reports are available on our company website and can be viewed publicly.
Conditions stipulated in the amendment dated 25th March, 2015		
i	The port shall ensure that the ships under operation follow the MARPOL Convention with regard to discharge or spillage of any toxic, hazardous or polluting material like ballast water, oily water or sludge, sewage, garbage etc.	Complied. MARPOL and Ballast Water Convention guidelines are enforced by DPCL for visiting ships.

Phase – II: Compliance report of the condition stipulated in Environmental and CRZ Clearance for expansion at Dhamra Port dated 1st January, 2014 bearing F. No. 11-104/2009-IA.III and subsequent amendment dated 25th March, 2015

Sr. No.	Conditions	Compliance Status
ii	Dust screens shall be provided with height of two meter above the stack height. Water sprinkling shall be carried out for settling dust. Three layers of green belt of tall growing tress shall be provided on all sides of the stack area.	<p>Complied.</p> <p>Site is undergoing expansion inline to Revised Master Plan. Stack yard expansions are planned accordingly. Detailed engineering design for dust screen will be prepared inline to Site condition and further be implemented. Water sprinkling is being done on regular basis to ensure dust suppression in cargo storage area and Mechanized sweeping machine has been engaged on vehicular paths/roads for cleaning of road on daily basis.</p> <p>Greenbelt development is also being developed inline Revised Master Plan.</p>
iii	Transportation of iron ore shall be by covered conduit/closed trucks/rails only. Closed conveyor belt shall be used for unloading the product.	<p>Complied.</p> <p>Transportation of Coal/Iron ore is done in covered conveyor belt system</p>
iv	Water sprinklers will be provided in the area of ore storage and vehicular path/roads.	<p>Complied.</p> <p>Water sprinkling is being done on regular basis to ensure dust suppression in coal storage area and vehicular paths/roads.</p>
v	All the recommendations of EMP and Disaster Management Plan (DMP) shall be complied with	<p>Complied.</p> <p>Compliance of EMP is enclosed as Annexure XII.</p>

LIST OF ANNEXURES

<u>S. No</u>	<u>Annexure Number</u>	<u>Details</u>
1	Annexure-I	Environment Monitoring Report
2	Annexure – II	Types and quantity of Fire Extinguishers
3	Annexure-III	Details of Mock Drills
4	Annexure-IV	Port Layout
5	Annexure-V	Green Belt Details
6	Annexure-VI	Cost Break up of Environment Expenditure
7	Annexure-VII	INCOIS Board
8	Annexure-VIII	Kanika Conservation Plan Approved Letter
8	Annexure-IX	Acknowledge copy of DFO, Wild Life Division
9	Annexure-X	Approved Map from Forest Department Government of Odisha
10	Annexure- XI	Permission letter from DFO to carry out the plantation in Forest village
11	Annexure-XII	EMP & Action Plan Compliance
12	Annexure-XIII	Environmental Clearance copy to Zillaparisad
13	Annexure-XIV	License and NOC from Fire Dept.
14	Annexure-XV	Advertisement in Local Newspapers intimating grant of Environmental & CRZ Clearance
15	Annexure-XVI	Environment Statement for FY 2017-18

ANNEXURE-I

ENVIRONMENT MONITORING REPORT



CENTRE FOR ENVOTECH AND MANAGEMENT CONSULTANCY PVT. LTD.

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Enlisted in Construction Industry Development Council (CIDC) established by the Planning Commission (Govt. of India)
MoEF&CC, Govt. of India, Recognised Environment Laboratory under Environment (Protection) Act, 1986.

Report no. - CEMC/TDPCL/031118/A1

Issued Date-03.11.2018

AMBIENT AIR QUALITY MONITORING TEST REPORT

Client Name & Address	M/s. The Dhamra Port Company Ltd., Dosinga, Bhadrak
Work Order No.	4800035134, dtd-30.07.2018
Reference No.	CEMC-03112018A1
Nature of Sampling	Ambient Air Sample
Sampling Location	Colony Area
Sampling By	Mr. Sunil Kumar Samal
Sampling Duration	01.10.2018 to 31.10.2018

ANALYSIS RESULT

Date	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	SO ₂ (µg/m ³)	NOx (µg/m ³)	CO (mg/m ³)	NH ₃ (µg/m ³)	O ₃ (µg/m ³)	Ph (µg/m ³)	Ni (ng/m ³)	As (ng/m ³)	Benzene (µg/m ³)	BaP (ng/m ³)
01.10.2018	55.7	31.4	7.8	13.1	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
04.10.2018	54.8	31.1	7.6	12.8	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
08.10.2018	56.2	31.9	7.8	13.0	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
11.10.2018	57.1	32.3	7.9	13.1	0.3	<20	<10	<0.06	<0.6	<0.44	<1	<1
15.10.2018	50.4	28.7	7.4	12.3	0.3	<20	<10	<0.06	<0.6	<0.44	<1	<1
18.10.2018	51.3	28.9	7.3	12.5	0.3	<20	<10	<0.06	<0.6	<0.44	<1	<1
22.10.2018	53.6	29.4	7.5	12.7	0.3	<20	<10	<0.06	<0.6	<0.44	<1	<1
25.10.2018	56.9	32.1	7.9	12.9	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
NAAQ* Standard	100	60	80	80	4	400	100	1.0	20	6	5	1
Methods of Analysis	IS: 5182 (Part-23)	Gravimetric Method as per CPCB method	IS: 5182 (Part-2)	IS: 5182 (Part-6)	IS: 5182 (Part-10)	Indophenol Blue Method followed by CPCB	IS: 5182 (Part-9)	IS: 5182 (Part-22)	As per CPCB method followed by AAS	As per CPCB method followed by AAS	IS: 5182 (Part-11)	IS: 5182 (Part-12)

N.B- *NAAQ- National Ambient Air Quality Standard as per 18th Nov, 2009 Gatt. Notification.

Dr. T. S. Sahoo, Env. Sc

Authorized Signatory ST

GAZETTE NO-1357, Dt-03-06-2016

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GIS, Baseline Survey, Hydrological & Geological Studies, Socio-economic Studies, DGPS & ETS Survey.

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E-mail- ccmc_consultancy@yahoo.co.in, ccmc122@gmail.com, website: www.ccmc.in, Landline: 0674-2360344.

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E-mail: ccmclab@yahoo.in, Mobile: 7752014842



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Report no. - CEMC/TDPCL/031118/A2

Issued Date-03.11.2018

AIR QUALITY MONITORING TEST REPORT

Client Name & Address	M/s. The Dhamra Port Company Ltd., Dosinga, Bhadrak
Work Order No.	4800035134, dtd-30.07.2018
Reference No.	CEMC-03112018A2
Nature of Sampling	Ambient Air Sample
Sampling Location	Kanakaprasad Village
Sampling By	Mr. Sunil Kumar Samal
Sampling Duration	01.10.2018 to 31.10.2018

ANALYSIS RESULT

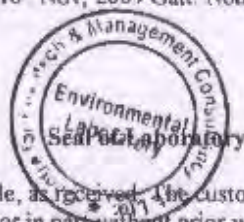
Date	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	SO ₂ (µg/m ³)	NO _x (µg/m ³)	CO (mg/m ³)	NH ₃ (µg/m ³)	O ₃ (µg/m ³)	Pb (µg/m ³)	Ni (ng/m ³)	As (ng/m ³)	Benzene (µg/m ³)	BaP (ng/m ³)
01.10.2018	50.6	29.1	7.3	12.5	0.3	<20	<10	<0.06	<0.6	<0.44	<1	<1
04.10.2018	52.1	30.5	7.4	12.7	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
08.10.2018	51.8	30.2	7.3	12.4	0.3	<20	<10	<0.06	<0.6	<0.44	<1	<1
11.10.2018	50.2	29.0	7.2	12.1	0.3	<20	<10	<0.06	<0.6	<0.44	<1	<1
15.10.2018	46.5	26.1	7.0	11.8	0.2	<20	<10	<0.06	<0.6	<0.44	<1	<1
18.10.2018	50.9	30.2	7.4	12.2	0.3	<20	<10	<0.06	<0.6	<0.44	<1	<1
22.10.2018	52.8	30.6	7.5	12.6	0.3	<20	<10	<0.06	<0.6	<0.44	<1	<1
25.10.2018	54.1	31.2	7.6	12.8	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
NAAQ* Standard	100	60	80	80	4	400	100	1.0	20	6	5	1
Methods of Analysis	IS: 5182 (Part-23)	Gravimetric Method as per CPCB method	IS: 5182 (Part-2)	IS: 5182 (Part-6)	IS: 5182 (Part-10)	Indophen ols Blue Method followed by CPCB	IS: 5182 (Part-9)	IS: 5182 (Part-22)	As per CPCB method followed by AAS	As per CPCB method followed by AAS	IS: 5182 (Part-11)	IS: 5182 (Part-12)

N.B- *NAAQ- National Ambient Air Quality Standard as per 18th Nov, 2009 Gatt. Notification.

Dr. T. Samal, PhD Env. Sc

Authorized Signatory

(GAT) No. 31/01/03-06-2016



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Report no. - CEMC/TDPCL/031118/A3

Issued Date-03.11.2018

AMBIENT AIR QUALITY MONITORING TEST REPORT

Client Name & Address	M/s. The Dhamra Port Company Ltd., Dosinga, Bhadrak
Work Order No.	4800035134, dtd-30.07.2018
Reference No.	CEMC-03112018A3
Nature of Sampling	Ambient Air Sample
Sampling Location	Near BMH
Sampling By	Mr. Sunil Kumar Samal
Sampling Duration	01.10.2018 to 31.10.2018

ANALYSIS RESULT

Date	PM ₁₀ ($\mu\text{g}/\text{m}^3$)	PM _{2.5} ($\mu\text{g}/\text{m}^3$)	SO ₂ ($\mu\text{g}/\text{m}^3$)	NO _x ($\mu\text{g}/\text{m}^3$)	CO (mg/m^3)	NH ₃ ($\mu\text{g}/\text{m}^3$)	O ₃ ($\mu\text{g}/\text{m}^3$)	Pb ($\mu\text{g}/\text{m}^3$)	Ni (ng/m^3)	As (ng/m^3)	Benzene ($\mu\text{g}/\text{m}^3$)	BaP (ng/m^3)
01.10.2018	59.2	32.4	8.2	13.5	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
04.10.2018	57.6	31.3	7.9	13.2	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
08.10.2018	58.5	32.0	7.8	13.4	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
11.10.2018	51.7	29.6	7.4	12.2	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
15.10.2018	49.3	28.5	7.2	12.0	0.3	<20	<10	<0.06	<0.6	<0.44	<1	<1
18.10.2018	53.1	30.4	7.7	12.1	0.3	<20	<10	<0.06	<0.6	<0.44	<1	<1
22.10.2018	55.3	32.4	7.8	12.9	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
25.10.2018	58.9	33.2	8.1	13.3	0.5	<20	<10	<0.06	<0.6	<0.44	<1	<1
NAAQ* Standard	100	60	80	80	4	400	100	1.0	20	6	5	1
Methods of Analysis	IS: 5182 (Part-23)	Gravimetric Method as per CPCB method	IS: 5182 (Part-2)	IS: 5182 (Part-6)	IS: 5182 (Part-10)	Indophenol Blue Method followed by CPCB	IS: 5182 (Part-9)	IS: 5182 (Part-22)	As per CPCB method followed by AAS	As per CPCB method followed by AAS	IS: 5182 (Part-11)	IS: 5182 (Part-12)

N.B- *NAAQ- National Ambient Air Quality Standard as per 18th Nov, 2009 Gatt. Notification.

Dr. J. Sahu, PhD, Env Sc

Authorized Signatory
(GATE No. 105, Dt-03-06-2016)

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MoEF&CC, Govt. of India, Recognised Environment Laboratory under Environment (Protection) Act, 1986.

Report no. - CEMC/TDPCL/031118/A4

Issued Date-03.11.2018

AMBIENT AIR QUALITY MONITORING TEST REPORT

Client Name & Address	M/s. The Dhamra Port Company Ltd., Dosinga, Bhadrak
Work Order No.	4800035134, dtd-30.07.2018
Reference No.	CEMC-03112018A4
Nature of Sampling	Ambient Air Sample
Sampling Location	Near Jetty
Sampling By	Mr. Sunil Kumar Samal
Sampling Duration	01.10.2018 to 31.10.2018

ANALYSIS RESULT

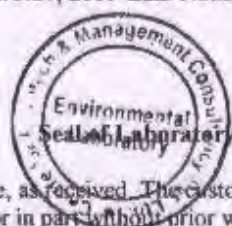
Date	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	SO ₂ (µg/m ³)	NO _x (µg/m ³)	CO (mg/m ³)	NH ₃ (µg/m ³)	O ₃ (µg/m ³)	Pb (µg/m ³)	Ni (ng/m ³)	As (ng/m ³)	Benzene (µg/m ³)	BaP (ng/m ³)
01.10.2018	67.2	39.4	8.7	13.3	0.6	<20	<10	<0.06	<0.6	<0.44	<1	<1
04.10.2018	67.9	40.2	8.8	12.8	0.6	<20	<10	<0.06	<0.6	<0.44	<1	<1
08.10.2018	68.3	38.5	8.4	13.1	0.5	<20	<10	<0.06	<0.6	<0.44	<1	<1
11.10.2018	66.7	39.5	8.1	13.2	0.5	<20	<10	<0.06	<0.6	<0.44	<1	<1
15.10.2018	54.6	30.4	7.6	12.5	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
18.10.2018	51.3	28.9	7.5	12.6	0.5	<20	<10	<0.06	<0.6	<0.44	<1	<1
22.10.2018	64.8	38.6	8.1	13.2	0.6	<20	<10	<0.06	<0.6	<0.44	<1	<1
25.10.2018	68.9	37.2	8.6	12.9	0.6	<20	<10	<0.06	<0.6	<0.44	<1	<1
NAAQ* Standard	100	60	80	80	4	400	100	1.0	20	6	5	1
Methods of Analysis	IS: 5182 (Part-23)	Gravimetri c Method as per CPCB method	IS: 5182 (Part-2)	IS: 5182 (Part-6)	IS: 5182 (Part-10)	Indophe nols Blue Method followed by CPCB	IS: 5182 (Part-9)	IS: 5182 (Part-22)	As per CPCB method followe d by AAS	As per CPCB metho d followe d by AAS	IS: 5182 (Part- 11)	IS: 5182 (Part- 12)

N.B. *NAAQ- National Ambient Air Quality Standard as per 18th Nov, 2009 Gatt. Notification

Dr. T. Sahu, Ph.D. Env. Sc
Authorized Signatory

GAZETTE No-1357, Dt-03-06-2016

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Report no. - CEMC/TDPCL/031118/A6

Issued Date-03.11.2018

AMBIENT AIR QUALITY MONITORING TEST REPORT

Client Name & Address	M/s. The Dhamra Port Company Ltd., Dosinga, Bhadrak
Work Order No.	4800035134, dtd-30.07.2018
Reference No.	CEMC-03112018A6
Nature of Sampling	Ambient Air Sample
Sampling Location	Bhitarkanika (Eco Sensitive)
Sampling By	Mr. Sunil Kumar Samal
Sampling Duration	01.10.2018 to 31.10.2018

ANALYSIS RESULT

Date	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	SO ₂ (µg/m ³)	NO _x (µg/m ³)	CO (mg/m ³)	NH ₃ (µg/m ³)	O ₃ (µg/m ³)	Pb (µg/m ³)	Ni (ng/m ³)	As (ng/m ³)	Benzene (µg/m ³)	BaP (ng/m ³)
01.10.2018	50.4	29.9	7.2	11.0	0.3	<20	<10	<0.06	<0.6	<0.44	<1	<1
04.10.2018	46.8	27.1	6.9	10.8	0.3	<20	<10	<0.06	<0.6	<0.44	<1	<1
08.10.2018	49.6	29.5	7.0	10.9	0.3	<20	<10	<0.06	<0.6	<0.44	<1	<1
11.10.2018	45.2	27.8	6.6	10.2	0.2	<20	<10	<0.06	<0.6	<0.44	<1	<1
15.10.2018	41.3	26.5	6.3	9.7	0.2	<20	<10	<0.06	<0.6	<0.44	<1	<1
18.10.2018	48.6	29.2	6.8	9.9	0.2	<20	<10	<0.06	<0.6	<0.44	<1	<1
22.10.2018	51.3	30.2	7.2	11.3	0.3	<20	<10	<0.06	<0.6	<0.44	<1	<1
25.10.2018	51.8	30.4	7.1	11.1	0.3	<20	<10	<0.06	<0.6	<0.44	<1	<1
NAAQ Standard	100	60	80	80	4	400	100	1.0	20	6	5	1
Methods of Analysis	IS: 5182 (Part- 23)	Gravimetric Method as per CPCB method	IS: 5182 (Part-2)	IS: 5182 (Part-6)	IS: 5182 (Part-10)	Indophe not Blue Method followed by CPCB	IS: 5182 (Part-9)	IS: 5182 (Part-22)	As per CPCB method followed by AAS	As per CPCB method followed by AAS	IS: 5182 (Part- 11)	IS: 5182 (Part- 12)

N.B- *NAAQ- National Ambient Air Quality Standard as per 18th Nov, 2009 Gatt. Notification.

Dr. J. S. Choudhary, Env. Sc.
Authorized Signatory
Notes: 20/11/18



GAZETTING OFFICER, 06.11.2018

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Report no. - CEMC/TDPCL/031118/A5

Issued Date-03.11.2018

AMBIENT AIR QUALITY MONITORING TEST REPORT

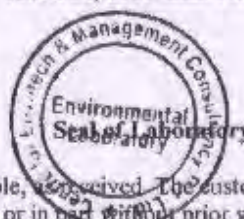
Client Name & Address	M/s. The Dhamra Port Company Ltd., Dosinga, Bhadrak
Work Order No.	4800035134, dtd-30.07.2018
Reference No.	CEMC-03112018A5
Nature of Sampling	Ambient Air Sample
Sampling Location	Dosinga Village
Sampling By	Mr. Sunil Kumar Samal
Sampling Duration	01.10.2018 to 31.10.2018

ANALYSIS RESULT

Date	PM ₁₀ ($\mu\text{g}/\text{m}^3$)	PM _{2.5} ($\mu\text{g}/\text{m}^3$)	SO ₂ ($\mu\text{g}/\text{m}^3$)	NO _x ($\mu\text{g}/\text{m}^3$)	CO (mg/m^3)	NH ₃ ($\mu\text{g}/\text{m}^3$)	O ₃ ($\mu\text{g}/\text{m}^3$)	Pb ($\mu\text{g}/\text{m}^3$)	Ni (ng/m^3)	As (ng/m^3)	Benzene ($\mu\text{g}/\text{m}^3$)	BaP (ng/m^3)
01.10.2018	55.6	33.8	8.1	13.1	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
04.10.2018	57.5	32.3	7.9	12.8	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
08.10.2018	56.1	32.9	8.0	13.1	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
11.10.2018	54.2	31.5	7.8	12.7	0.3	<20	<10	<0.06	<0.6	<0.44	<1	<1
15.10.2018	52.7	29.3	7.6	12.4	0.3	<20	<10	<0.06	<0.6	<0.44	<1	<1
18.10.2018	52.4	32.2	7.8	12.9	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
22.10.2018	57.1	32.6	8.1	13.0	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
25.10.2018	57.2	34.1	8.1	13.1	0.5	<20	<10	<0.06	<0.6	<0.44	<1	<1
NAAQ* Standard	100	60	80	80	4	400	100	1.0	20	6	5	1
Methods of Analysis	IS: 5182 (Part- 23)	Gravimetri c Method as per CPCB method	IS: 5182 (Part-2)	IS: 5182 (Part-6)	IS: 5182 (Part-10)	Indophe nols Blue Method followed by CPCB	IS: 5182 (Part-9)	IS: 5182 (Part-22)	As per CPCB method followe d by AAS	As per CPCB method followe d by AAS	IS: 5182 (Part- 11)	IS: 5182 (Part- 12)

N.B- *NAAQ- National Ambient Air Quality Standard as per 18th Nov, 2009 Gatt. Notification.

Dr. F. Babu Ph.D. Env. Sc
Authorised Analyst
Notarized
16/05/2016, Dt-03-06-2016



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NOISE LEVEL MONITORING REPORT

Client Name & Address	M/s. The Dhamra Port Company Ltd., Dosinga, Bhadrak
Work Order No.	4800035134, dtd-30.07.2018
Analysis No.	CEMC/TDPCL-D00N1
Nature of Sampling	Noise Sample
Sampling By	Mr. Sunil Kumar Samal
Sampling Date	01.10.2018 to 31.10.2018

ANALYSIS RESULT

Date	Location	NL Day Time dB (A)			NL Night Time dB (A)		
		Max	Min	Avg	Max	Min	Avg
09.10.2018	Near Jetty (I)	71.3	66.7	69.0	68.4	61.2	64.8
05.10.2018	Near BMH-I	72.1	63.5	67.8	65.1	60.3	62.7
02.10.2018	Colony Area (R)	53.8	49.6	51.7	43.3	37.9	40.6
19.10.2018	Kanakaprasad Village (R)	54.1	50.5	52.3	43.8	39.6	41.7
12.10.2018	Dosinga village (R)	54.2	50.8	52.5	42.9	39.7	41.3
16.10.2018	Ecosensitive Zone	51.4	44.6	48.0	41.5	37.9	39.7

*NL- Noise Level, I- Industrial, R- Residential

National Standard of Noise Level

Area Code	Category of Area/Zone	Permissible Limit in dB (A)	
		Day Time	Night Time
A	Industrial Area	75	70
B	Commercial Area	65	55
C	Residential Area	55	45
D	Silence Zone	50	40

Dr. J. Sabu B.D. Env. Sc
Authorized Signatory ST

Notes: GAZE: LE NO-7357 Dt-03-06-2016



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Report no. - CEMC/TDPCL/031118/W1

Issued Date-03.11.2018

STP TEST REPORT

Name & Address of the Customer	: M/s. The Dhamra Port Company Ltd., Dosinga, Bhadrak
Work order No.	: 4800035134, dtd-30.07.2018
Sampling by	: Mr. Sunil Kumar Samal
Date of Sampling	: 13.10.2018 & 23.10.2018
Date of Receiving	: 15.10.2018 & 24.10.2018
Sampling & Testing Procedure	: APHA 23 rd Edition
Sample Description	: Waste Water
Sample Quantity	: 1.0 Ltr each
Sample Location	: STP - 15 KLD (Inlet)
Reference Number	: CEMC-03112018W1

STP INLET ANALYSIS RESULT

Sl. No.	Parameter	Unit of Measurement	Result		Design parameter for Raw Sewage
			1 st Fortnight	2 nd Fortnight	
1	Appearance	—	Turbid	Turbid	—
2	Colour	—	Blackish	Blackish	—
3	Odour	—	Foul	Foul	—
4	pH Value @ 25°C	—	6.31	6.79	6.0-8.5
5	Total Suspended Solids	mg/l	114.8	127.9	1000
6	B.O.D for 3 days @ 27°C	mg/l	170	200	300-350
7	Oil & Grease	mg/l	<5	<5	100
8	COD	mg/l	610	720	—
9	Ammonical Nitrogen	mg/l	5.9	6.3	—
10	Total Nitrogen	mg/l	24.6	29.1	—
11	Faecal Coliform	MPN/100ml	1600	1600	—

Dr. T. S. Sahoo, Env. Sc
Authorized Signatory
Notary Analyst

GAZETTE NOTIFICATION 03.06.2016

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Report no. - CEMC/TDPCL/031118/W2

Issued Date-03.11.2018

STP TEST REPORT

Name & Address of the Customer	: M/s. The Dhamra Port Company Ltd., Dosinga, Bhadrak
Work order No.	: 4800035134, dtd-30.07.2018
Sampling by	: Mr. Sunil Kumar Samal
Date of Sampling	: 13.10.2018 & 23.10.2018
Date of Receiving	: 15.10.2018 & 24.10.2018
Sampling & Testing Procedure	: APHA 23rd Edition
Sample Description	: Waste Water
Sample Quantity	: 1.0 Ltr each
Sample Location	: STP - 15 KLD (Outlet)
Reference Number	: CEMC-03112018W2

STP OUTLET ANALYSIS RESULT

Sl. No.	Parameter	Unit of Measurement	Result		Standards for New STPs Design after notification 2015
			1 st Fortnight	2 nd Fortnight	
1	Appearance	--	Clear	Clear	-
2	Colour	--	Colorless	Colorless	-
3	Odour	--	Odourless	Odourless	-
4	pH Value @ 25°C	--	7.03	7.36	6.5-9.0
5	Total Suspended Solids	mg/l	12.2	13.9	<20
6	B.O.D for 3 days @ 27°C	mg/l	8.4	8.8	<10
7	Oil & Grease	mg/l	<5	<5	-
8	COD	mg/l	18	20	<50
9	Ammonical Nitrogen	mg/l	0.66	0.84	<5
10	Total Nitrogen	mg/l	3.3	3.9	<10
11	Faecal Coliform	MPN/100ml	16	17	<100

Dr. T. Sahoo And, Env. Sc

Authorized Signatory
Note: GIVE SIGNATURE

GAZETTE No. 19/03/03-06-2016



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Report no. - CEMC/TDPCL/031118/W3

Issued Date-03.11.2018

STP TEST REPORT

Name & Address of the Customer	: M/s. The Dhamra Port Company Ltd., Dosinga, Bhadrak
Work order No.	: 4800035134, dtd-30.07.2018
Sampling by	: Mr. Sunil Kumar Samal
Date of Sampling	: 13.10.2018 & 23.10.2018
Date of Receiving	: 15.10.2018 & 24.10.2018
Sampling & Testing Procedure	: APHA 23 rd Edition
Sample Description	: Waste Water
Sample Quantity	: 1.0 Ltr each
Sample Location	: STP - 140 KLD (Inlet)
Reference Number	: CEMC-03112018W3

STP INLET ANALYSIS RESULT

Sl. No.	Parameter	Unit of Measurement	Result		Design parameter for Raw Sewage
			1st Fortnight	2nd Fortnight	
1	Appearance	--	Turbid	Turbid	-
2	Colour	--	Blackish	Blackish	-
3	Odour	--	Foul	Foul	-
4	pH Value @ 25°C	--	6.42	6.68	6.0-8.5
5	Total Suspended Solids	mg/l	122.5	136.8	1000
6	B.O.D for 3 days @ 27°C	mg/l	210	240	300-350
7	Oil & Grease	mg/l	6.4	7.1	100
8	COD	mg/l	720	780	--
9	Ammonical Nitrogen	mg/l	5.8	6.9	--
10	Total Nitrogen	mg/l	25.6	28.3	--
11	Faecal Coliform	MPN/100ml	>1600	>1600	--

Dr. T. S. B. Mishra, D. Env. Sc
Authorized Signatory
Notes: GAZETTE NOTIFIED Dt-03-06-2016



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Report no. - CEMC/TDPCL/031118/W4

Issued Date-03.11.2018

STP TEST REPORT

Name & Address of the Customer	: M/s. The Dhamra Port Company Ltd., Dosinga, Bhadrak
Work order No.	: 4800035134, dtd-30.07.2018
Sampling by	: Mr. Sunil Kumar Samal
Date of Sampling	: 13.10.2018 & 23.10.2018
Date of Receiving	: 15.10.2018 & 24.10.2018
Sampling & Testing Procedure	: APHA 23rd Edition
Sample Description	: Waste Water
Sample Quantity	: 1.0 Ltr each
Sample Location	: STP - 140 KLD (Outlet)
Reference Number	: CEMC-03112018W4

STP OUTLET ANALYSIS RESULT

Sl. No.	Parameter	Unit of Measurement	Result		Standards for New STPs Design after notification 2015
			1 st Fortnight	2 nd Fortnight	
1	Appearance	--	Clear	Clear	-
2	Colour	--	Colorless	Colorless	-
3	Odour	--	Odourless	Odourless	-
4	pH Value @ 25°C	--	7.38	7.62	6.5-9.0
5	Total Suspended Solids	mg/l	13.4	14.9	<20
6	B.O.D for 3 days @ 27°C	mg/l	8.6	8.8	<10
7	Oil & Grease	mg/l	<5	<5	-
8	COD	mg/l	16	20	<50
9	Ammonical Nitrogen	mg/l	0.51	0.63	<5
10	Total Nitrogen	mg/l	4.8	5.2	<10
11	Faecal Coliform	MPN/100ml	17	17	<100

Dr. T. S. S. P. D. Env. Sc

Notes: Govt. ANALYST

GAZETED 03.06.2016

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Report no. - CEMC/TDPCL/031218/A1

Issued Date-03.12.2018

AMBIENT AIR QUALITY MONITORING TEST REPORT

Client Name & Address	M/s. The Dhamra Port Company Ltd., Dosinga, Bhadrak
Work Order No.	4800035134, dtd-30.07.2018
Reference No.	CEMC-03122018A1
Nature of Sampling	Ambient Air Sample
Sampling Location	Colony Area
Sampling By	Mr. Bhaktahari Dash
Sampling Duration	01.11.2018 to 30.11.2018

ANALYSIS RESULT

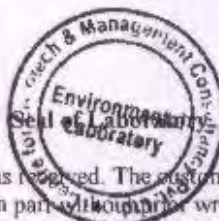
Date	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	SO ₂ (µg/m ³)	NO _x (µg/m ³)	CO (mg/m ³)	NH ₃ (µg/m ³)	O ₃ (µg/m ³)	Pb (µg/m ³)	Ni (ng/m ³)	As (ng/m ³)	Benzene (µg/m ³)	BaP (ng/m ³)
01.11.2018	59.7	33.9	7.9	13.3	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
05.11.2018	57.6	32.2	7.7	13.0	0.3	<20	<10	<0.06	<0.6	<0.44	<1	<1
08.11.2018	60.1	34.2	8.0	13.4	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
12.11.2018	59.4	33.6	7.9	13.2	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
15.11.2018	58.9	33.4	7.8	12.7	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
19.11.2018	60.4	34.3	8.1	13.3	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
22.11.2018	58.3	33.5	7.9	13.1	0.3	<20	<10	<0.06	<0.6	<0.44	<1	<1
24.11.2018	60.7	34.4	8.1	13.3	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
NAAQ* Standard	100	60	80	80	4	400	100	1.0	20	6	5	1
Methods of Analysis	IS: 5182 (Part-23)	Gravimetric Method as per CPCB method	IS: 5182 (Part-2)	IS: 5182 (Part-6)	IS: 5182 (Part-10)	Indophenol Blue Method followed by CPCB	IS: 5182 (Part-9)	IS: 5182 (Part-22)	As per CPCB method followed by AAS	As per CPCB method followed by AAS	IS: 5182 (Part-11)	IS: 5182 (Part-12)

N.B- *NAAQ- National Ambient Air Quality Standard as per 18th Nov, 2009 Gatt. Notification.

Dr. T. Sahu, Director, SC

Authorized Signatory

GAZETED NO. 1057, Dtd. 03-06-2016



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Report no. - CEMC/TDPCL/031218/A2

Issued Date-03.12.2018

AIR QUALITY MONITORING TEST REPORT

Client Name & Address	M/s. The Dhamra Port Company Ltd., Dosinga, Bhadrak
Work Order No.	4800035134, dtd-30.07.2018
Reference No.	CEMC-03122018A2
Nature of Sampling	Ambient Air Sample
Sampling Location	Kanakaprasad Village
Sampling By	Mr. Bhaktahari Dash
Sampling Duration	01.11.2018 to 30.11.2018

ANALYSIS RESULT

Date	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	SO ₂ (µg/m ³)	NO _x (µg/m ³)	CO (mg/m ³)	NH ₃ (µg/m ³)	O ₃ (µg/m ³)	Pb (µg/m ³)	Ni (ng/m ³)	As (ng/m ³)	Benzene (µg/m ³)	BaP (ng/m ³)
01.11.2018	53.4	31.4	7.5	12.8	0.3	<20	<10	<0.06	<0.6	<0.44	<1	<1
05.11.2018	54.2	31.9	7.7	12.9	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
08.11.2018	53.8	31.7	7.6	12.8	0.3	<20	<10	<0.06	<0.6	<0.44	<1	<1
12.11.2018	54.5	32.1	7.8	13.0	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
15.11.2018	55.1	32.6	7.9	12.9	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
19.11.2018	53.6	32.0	7.7	13.0	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
22.11.2018	55.2	32.4	7.9	13.0	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
24.11.2018	54.8	32.1	7.8	12.9	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
NAAQ* Standard	100	60	80	80	4	400	100	1.0	20	6	5	1
Methods of Analysis	IS: 5182 (Part-23)	Gravimetric Method as per CPCB method	IS: 5182 (Part-2)	IS: 5182 (Part-6)	IS: 5182 (Part-10)	Indophen ols Blue Method followed by CPCB	IS: 5182 (Part-9)	IS: 5182 (Part-22)	As per CPCB method followe d by AAS	As per CPCB method followe d by AAS	IS: 5182 (Part-11)	IS: 5182 (Part-12)

N.B- *NAAQ- National Ambient Air Quality Standard as per 18th Nov, 2009 Gatt. Notification.

Dr.T. Sabu, Ph.D, Env. Sc

Authorized Signatory

GATE No. 1323 Dtd 03.06.2018

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Report no. - CEMC/TDPCL/031218/A3

Issued Date-03.12.2018

AMBIENT AIR QUALITY MONITORING TEST REPORT

Client Name & Address	M/s. The Dhamra Port Company Ltd., Dosinga, Bhadrak
Work Order No.	4800035134, dtd-30.07.2018
Reference No.	CEMC-03122018A3
Nature of Sampling	Ambient Air Sample
Sampling Location	Near BMH
Sampling By	Mr. Bhaktahari Dash
Sampling Duration	01.11.2018 to 30.11.2018

ANALYSIS RESULT

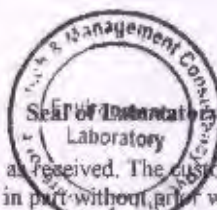
Date	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	SO ₂ (µg/m ³)	NOx (µg/m ³)	CO (mg/m ³)	NH ₃ (µg/m ³)	O ₃ (µg/m ³)	Pb (µg/m ³)	Ni (ng/m ³)	As (ng/m ³)	Benzene (µg/m ³)	BaP (ng/m ³)
01.11.2018	62.3	34.2	8.4	13.8	0.5	<20	<10	<0.06	<0.6	<0.44	<1	<1
05.11.2018	60.7	33.1	8.0	13.5	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
08.11.2018	61.8	33.7	8.2	13.4	0.5	<20	<10	<0.06	<0.6	<0.44	<1	<1
12.11.2018	62.6	34.4	8.3	13.7	0.5	<20	<10	<0.06	<0.6	<0.44	<1	<1
15.11.2018	60.4	33.0	7.9	13.2	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
19.11.2018	59.7	32.8	7.7	12.9	0.3	<20	<10	<0.06	<0.6	<0.44	<1	<1
22.11.2018	61.5	33.4	8.0	13.1	0.5	<20	<10	<0.06	<0.6	<0.44	<1	<1
24.11.2018	59.8	32.9	8.1	13.2	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
NAAQ ^a Standard	100	60	80	80	4	400	100	1.0	20	6	5	1
Methods of Analysis	IS: 5182 (Part-23)	Gravimetric Method as per CPCB method	IS: 5182 (Part-2)	IS: 5182 (Part-6)	IS: 5182 (Part-10)	Indophenol Blue Method followed by CPCB	IS: 5182 (Part-9)	IS: 5182 (Part-22)	As per CPCB method followed by AAS	As per CPCB method followed by AAS	IS: 5182 (Part-11)	IS: 5182 (Part-12)

N.B- ^aNAAQ- National Ambient Air Quality Standard as per 18th Nov, 2009 Gatt. Notification.

Dr. T. S. Dash, Env. Sc
Authorized Signatory
Notes:

GATEWAY

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Report no. - CEMC/TDPCL/031218/A4

Issued Date-03.12.2018

AMBIENT AIR QUALITY MONITORING TEST REPORT

Client Name & Address	M/s. The Dhamra Port Company Ltd., Dosinga, Bhadrak
Work Order No.	4800035134, dtd-30.07.2018
Reference No.	CEMC-03122018A4
Nature of Sampling	Ambient Air Sample
Sampling Location	Near Jetty
Sampling By	Mr. Bhaktahari Dash
Sampling Duration	01.11.2018 to 30.11.2018

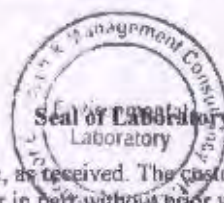
ANALYSIS RESULT

Date	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	SO ₂ (µg/m ³)	NO _x (µg/m ³)	CO (mg/m ³)	NH ₃ (µg/m ³)	O ₃ (µg/m ³)	Pb (µg/m ³)	Ni (ng/m ³)	As (ng/m ³)	Benzene (µg/m ³)	BaP (ng/m ³)
01.11.2018	69.3	40.2	8.9	13.4	0.6	<20	<10	<0.06	<0.6	<0.44	<1	<1
05.11.2018	68.1	39.8	8.8	13.1	0.5	<20	<10	<0.06	<0.6	<0.44	<1	<1
08.11.2018	69.1	40.0	9.0	13.2	0.5	<20	<10	<0.06	<0.6	<0.44	<1	<1
12.11.2018	67.9	39.7	8.6	12.9	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
15.11.2018	69.4	40.3	9.1	13.5	0.6	<20	<10	<0.06	<0.6	<0.44	<1	<1
19.11.2018	67.7	39.4	8.7	13.2	0.5	<20	<10	<0.06	<0.6	<0.44	<1	<1
22.11.2018	68.9	40.0	8.8	13.1	0.5	<20	<10	<0.06	<0.6	<0.44	<1	<1
24.11.2018	70.1	40.6	9.2	13.4	0.6	<20	<10	<0.06	<0.6	<0.44	<1	<1
NAAQ* Standard	100	60	80	80	4	400	100	1.0	20	6	5	1
Methods of Analysis	IS: 5182 (Part-23)	Gravimetric Method as per CPCB method	IS: 5182 (Part-2)	IS: 5182 (Part-6)	IS: 5182 (Part-10)	Indophe nols Blue Method followed by CPCB	IS: 5182 (Part-9)	IS: 5182 (Part-22)	As per CPCB method followed by AAS	As per CPCB method followed by AAS	IS: 5182 (Part-11)	IS: 5182 (Part-12)

N.B- *NAAQ- National Ambient Air Quality Standard as per 18th Nov, 2009 Gatt. Notification

Dr. T. Sahu, Ph.D. Env. Sc

Authorised Signatory
GAZETED No. 135/NR/2006-2016



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Report no. - CEMC/TDPCL/031218/A5

Issued Date-03.12.2018

AMBIENT AIR QUALITY MONITORING TEST REPORT

Client Name & Address	M/s. The Dhamra Port Company Ltd., Dosinga, Bhadrak
Work Order No.	4800035134, dtd-30.07.2018
Reference No.	CEMC-03122018A5
Nature of Sampling	Ambient Air Sample
Sampling Location	Dosinga Village
Sampling By	Mr. Bhaktahari Dash
Sampling Duration	01.11.2018 to 30.11.2018

ANALYSIS RESULT

Date	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	SO ₂ (µg/m ³)	NO _x (µg/m ³)	CO (mg/m ³)	NH ₃ (µg/m ³)	O ₃ (µg/m ³)	Pb (µg/m ³)	Ni (ng/m ³)	Az (ng/m ³)	Benzene (µg/m ³)	BaP (ng/m ³)
01.11.2018	57.4	33.5	8.2	13.3	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
05.11.2018	56.8	32.7	8.0	13.1	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
08.11.2018	57.9	33.8	8.2	13.4	0.5	<20	<10	<0.06	<0.6	<0.44	<1	<1
12.11.2018	58.1	34.6	8.4	13.5	0.5	<20	<10	<0.06	<0.6	<0.44	<1	<1
15.11.2018	56.6	32.8	7.9	13.0	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
19.11.2018	57.5	33.6	8.1	13.2	0.5	<20	<10	<0.06	<0.6	<0.44	<1	<1
22.11.2018	58.4	34.7	8.4	13.3	0.5	<20	<10	<0.06	<0.6	<0.44	<1	<1
24.11.2018	57.8	33.9	8.2	13.5	0.5	<20	<10	<0.06	<0.6	<0.44	<1	<1
NAAQ* Standard	100	60	80	80	4	400	100	1.0	20	6	5	1
Methods of Analysis	IS: 5182 (Part- 23)	Gravimetri c Method as per CPCB method	IS: 5182 (Part-2)	IS: 5182 (Part-6)	IS: 5182 (Part-10)	Indophe nols Blue Method followed by CPCB	IS: 5182 (Part-9)	IS: 5182 (Part-22)	As per CPCB method followe d by AAS	As per CPCB method followe d by AAS	IS: 5182 (Part- 11)	IS: 5182 (Part- 12)

N.B- *NAAQ- National Ambient Air Quality Standard as per 18th Nov, 2009 Gatt. Notification.

Dr. T. S. Sahoo
Authorized Signatory
Govt. of Odisha

Notes:

GAS: 11

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Report no. - CEMC/TDPCL/031218/A6

Issued Date-03.12.2018

AMBIENT AIR QUALITY MONITORING TEST REPORT

Client Name & Address	M/s. The Dhamra Port Company Ltd., Dosinga, Bhadrak
Work Order No.	4800035134, dtd-30.07.2018
Reference No.	CEMC-03122018A6
Nature of Sampling	Ambient Air Sample
Sampling Location	Bhitarkanika (Eco Sensitive)
Sampling By	Mr. Bhaktahari Dash
Sampling Duration	01.11.2018 to 30.11.2018

ANALYSIS RESULT

Date	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	SO ₂ (µg/m ³)	NO _x (µg/m ³)	CO (mg/m ³)	NH ₃ (µg/m ³)	O ₃ (µg/m ³)	Pb (µg/m ³)	Ni (ng/m ³)	As (ng/m ³)	Benzene (µg/m ³)	BaP (ng/m ³)
01.11.2018	49.7	29.8	7.1	11.2	0.3	<20	<10	<0.06	<0.6	<0.44	<1	<1
05.11.2018	47.3	27.9	6.8	10.9	0.3	<20	<10	<0.06	<0.6	<0.44	<1	<1
08.11.2018	48.8	29.1	6.9	11.0	0.3	<20	<10	<0.06	<0.6	<0.44	<1	<1
12.11.2018	51.2	30.4	7.3	11.4	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
15.11.2018	49.6	29.7	7.0	10.9	0.3	<20	<10	<0.06	<0.6	<0.44	<1	<1
19.11.2018	50.4	30.1	7.1	11.1	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
22.11.2018	51.3	30.5	7.3	11.2	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
24.11.2018	49.9	30.1	7.0	11.1	0.3	<20	<10	<0.06	<0.6	<0.44	<1	<1
NAAQ Standard	100	60	80	80	4	400	100	1.0	20	6	5	1
Methods of Analysis	IS: 5182 (Part- 23)	Gravimetri c Method as per CPCB method	IS: 5182 (Part-2)	IS: 5182 (Part-6)	IS: 5182 (Part-10)	Indophe nol Blue Method followed by CPCB	IS: 5182 (Part-9)	IS: 5182 (Part-22)	As per CPCB method followe d by AAS	As per CPCB method followe d by AAS	IS: 5182 (Part- 11)	IS: 5182 (Part- 12)

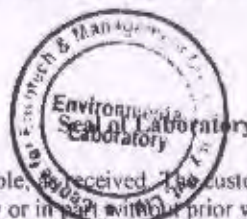
N.B- *NAAQ- National Ambient Air Quality Standard as per 18th Nov, 2009 Gatt. Notification.

Dr. T. S. Singh, Env. Sc

Authorized Signatory

Notes: No. 311/10-03-06-2016

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Report no. - CEMC/TDPCL/031218/N

Issued Date-03.12.2018

NOISE LEVEL MONITORING REPORT

Client Name & Address	M/s. The Dhamra Port Company Ltd., Dosinga, Bhadrak
Work Order No.	4800035134, dtd-30.07.2018
Analysis No.	CEMC/TDPCL-D00N1
Nature of Sampling	Noise Sample
Sampling By	Mr. Bhaktahari Dash
Sampling Date	01.11.2018 to 30.11.2018

ANALYSIS RESULT

Date	Location	NL Day Time dB (A)			NL Night Time dB (A)		
		Max	Min.	Avg.	Max.	Min.	Avg.
13.11.2018	Near Jetty (I)	72.3	65.4	68.8	69.1	62.7	65.9
09.11.2018	Near BMH-I	71.4	64.2	67.8	66.8	61.4	64.1
06.11.2018	Colony Area (R)	54.1	49.7	51.9	43.6	38.2	40.9
23.11.2018	Kanakaprasad Village (R)	53.6	49.2	51.4	42.9	38.7	40.8
16.11.2018	Dosinga village (R)	54.1	50.3	52.2	43.2	40.4	41.8
20.11.2018	Ecosensitive Zone	52.6	45.8	49.2	40.9	38.1	39.5

*NL- Noise Level, I- Industrial, R- Residential

National Standard of Noise Level

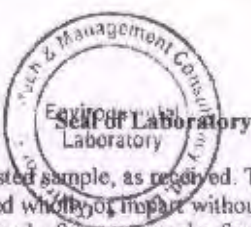
Area Code	Category of Area/Zone	Permissible Limit in dB (A)	
		Day Time	Night Time
A	Industrial Area	75	70
B	Commercial Area	65	55
C	Residential Area	55	45
D	Silence Zone	50	40

Dr. T. S. ... Env. Sc

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Report no. - CEMC/TDPCL/031218/W1

Issued Date-03.12.2018

STP TEST REPORT

Name & Address of the Customer	: M/s. The Dhamra Port Company Ltd., Dosinga, Bhadrak
Work order No.	: 4800035134, dtd-30.07.2018
Sampling by	: Mr. Bhaktahari Dash
Date of Sampling	: 17.11.2018 & 24.11.2018
Date of Receiving	: 18.11.2018 & 25.11.2018
Sampling & Testing Procedure	: APHA 23 rd Edition
Sample Description	: Waste Water
Sample Quantity	: 1.0 Ltr each
Sample Location	: STP - 15 KLD (Inlet)
Reference Number	: CEMC-03122018W1

STP INLET ANALYSIS RESULT

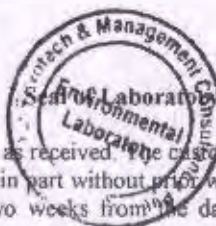
Sl. No.	Parameter	Unit of Measurement	Result		Design parameter for Raw Sewage
			1 st Fortnight	2 nd Fortnight	
1	Appearance	--	Turbid	Turbid	-
2	Colour	--	Blackish	Blackish	-
3	Odour	--	Foul	Foul	-
4	pH Value @ 25°C	--	6.44	6.65	6.0-8.5
5	Total Suspended Solids	mg/l	122.6	119.3	1000
6	B.O.D for 3 days @ 27°C	mg/l	190	180	300-350
7	Oil & Grease	mg/l	<5	<5	100
8	COD	mg/l	650	640	--
9	Ammonical Nitrogen	mg/l	6.1	5.8	--
10	Total Nitrogen	mg/l	28.7	27.6	--
11	Faecal Coliform	MPN/100ml	1600	1600	--

Dr. T. S. Singh, Ph.D. Env. Sc

Authorized Signatory
Notes: 03.06.2016

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Report no. - CEMC/TDPCL/031218/W2

Issued Date-03.12.2018

STP TEST REPORT

Name & Address of the Customer	: M/s. The Dhamra Port Company Ltd., Dosinga, Bhadrak
Work order No.	: 4800035134, dtd-30.07.2018
Sampling by	: Mr. Bhaktahari Dash
Date of Sampling	: 17.11.2018 & 24.11.2018
Date of Receiving	: 18.11.2018 & 25.11.2018
Sampling & Testing Procedure	: APHA 23rd Edition
Sample Description	: Waste Water
Sample Quantity	: 1.0 Ltr each
Sample Location	: STP - 15 KLD (Outlet)
Reference Number	: CEMC-03122018W2

STP OUTLET ANALYSIS RESULT

Sl. No.	Parameter	Unit of Measurement	Result		Standards for New STPs Design after notification 2015
			1 st Fortnight	2 nd Fortnight	
1	Appearance	--	Clear	Clear	-
2	Colour	--	Colorless	Colorless	-
3	Odour	--	Odourless	Odourless	-
4	pH Value @ 25°C	--	7.16	7.29	6.5-9.0
5	Total Suspended Solids	mg/l	13.8	14.1	<20
6	B.O.D for 3 days @ 27°C	mg/l	8.4	8.4	<10
7	Oil & Grease	mg/l	<5	<5	--
8	COD	mg/l	16	16	<50
9	Ammonical Nitrogen	mg/l	0.62	0.71	<5
10	Total Nitrogen	mg/l	3.2	3.4	<10
11	Faecal Coliform	MPN/100ml	16	17	<100

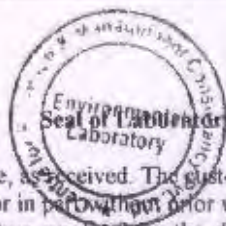
Dr. T. Sahoo, B.Ph., Env. Sc

Authorized Signatory

Notes:

GAZC No. 1811/03-116-2016

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Report no. - CEMC/TDPCL/031218/W3

Issued Date-03.12.2018

STP TEST REPORT

Name & Address of the Customer	: M/s. The Dhamra Port Company Ltd., Dosinga, Bhadrak
Work order No.	: 4800035134, dtd-30.07.2018
Sampling by	: Mr. Bhaktahari Dash
Date of Sampling	: 17.11.2018 & 24.11.2018
Date of Receiving	: 18.11.2018 & 25.11.2018
Sampling & Testing Procedure	: APHA 23 rd Edition
Sample Description	: Waste Water
Sample Quantity	: 1.0 Ltr each
Sample Location	: STP - 140 KLD (Inlet)
Reference Number	: CEMC-03122018W3

STP INLET ANALYSIS RESULT

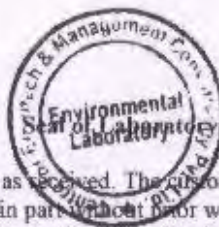
Sl. No.	Parameter	Unit of Measurement	Result		Design parameter for Raw Sewage
			1st Fortnight	2nd Fortnight	
1	Appearance	--	Turbid	Turbid	-
2	Colour	--	Blackish	Blackish	-
3	Odour	--	Foul	Foul	-
4	pH Value @ 25°C	--	6.57	6.61	6.0-8.5
5	Total Suspended Solids	mg/l	127.9	129.6	1000
6	B.O.D for 3 days @ 27°C	mg/l	250	270	300-350
7	Oil & Grease	mg/l	6.9	6.8	100
8	COD	mg/l	740	770	--
9	Ammonical Nitrogen	mg/l	6.1	6.2	--
10	Total Nitrogen	mg/l	26.4	27.2	--
11	Faecal Coliform	MPN/100ml	>1600	>1600	--

Dr. T. Sahu, Ph.D. Env. Sc

Authorized Signatory

Notes: 1. Date: 03-06-2018

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Report no. - CEMC/TDPCL/031218/W4

Issued Date-03.12.2018

STP TEST REPORT

Name & Address of the Customer	: M/s. The Dhamra Port Company Ltd., Dosinga, Bhadrak
Work order No.	: 4800035134, dtd-30.07.2018
Sampling by	: Mr. Bhaktahari Dash
Date of Sampling	: 17.11.2018 & 24.11.2018
Date of Receiving	: 18.11.2018 & 25.11.2018
Sampling & Testing Procedure	: APHA 23rd Edition
Sample Description	: Waste Water
Sample Quantity	: 1.0 Ltr each
Sample Location	: STP - 140 KLD (Outlet)
Reference Number	: CEMC-03122018W4

STP OUTLET ANALYSIS RESULT

Sl. No.	Parameter	Unit of Measurement	Result		Standards for New STPs Design after notification 2015
			1 st Fortnight	2 nd Fortnight	
1	Appearance	--	Clear	Clear	-
2	Colour	--	Colorless	Colorless	-
3	Odour	--	Odourless	Odourless	-
4	pH Value @ 25°C	--	7.64	7.73	6.5-9.0
5	Total Suspended Solids	mg/l	13.9	13.8	<20
6	B.O.D for 3 days @ 27°C	mg/l	8.8	9.0	<10
7	Oil & Grease	mg/l	<5	<5	--
8	COD	mg/l	18	18	<50
9	Ammonical Nitrogen	mg/l	0.56	0.58	<5
10	Total Nitrogen	mg/l	4.7	4.9	<10
11	Faecal Coliform	MPN/100ml	17	17	<100

Dr. T. S. Jyoti, B.Sc. Env. Sc

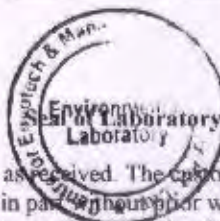
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Signature

GAZETED NO. 1337 Dt: 03.06.2016

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Report no. - CEMC/TDPCL/030119/A1

Issued Date-03.01.2019

AMBIENT AIR QUALITY MONITORING TEST REPORT

Client Name & Address	M/s. The Dhamra Port Company Ltd., Dosinga, Bhadrak
Work Order No.	4800035134, dtd-30.07.2018
Reference No.	CEMC-03012019A1
Nature of Sampling	Ambient Air Sample
Sampling Location	Colony Area
Sampling By	Mr. Bhaktahari Dash
Sampling Duration	01.12.2018 to 31.12.2018

ANALYSIS RESULT

Date	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	SO ₂ (µg/m ³)	NO _x (µg/m ³)	CO (mg/m ³)	NH ₃ (µg/m ³)	O ₃ (µg/m ³)	Pb (µg/m ³)	Ni (µg/m ³)	As (ng/m ³)	Benzene (µg/m ³)	BaP (ng/m ³)
03.12.2018	56.2	30.7	7.8	13.2	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
06.12.2018	57.6	31.5	7.9	13.1	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
10.12.2018	56.9	31.2	7.7	13.0	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
13.12.2018	58.1	32.3	8.0	13.4	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
17.12.2018	52.7	29.6	7.6	12.9	0.3	<20	<10	<0.06	<0.6	<0.44	<1	<1
20.12.2018	49.4	27.8	7.2	12.3	0.3	<20	<10	<0.06	<0.6	<0.44	<1	<1
24.12.2018	51.3	28.5	7.8	12.8	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
26.12.2018	56.8	31.8	7.9	13.5	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
NAAQ* Standard	100	60	80	80	4	400	100	1.0	20	6	5	1
Methods of Analysis	IS: 5182 (Part- 23)	Gravimetric Method as per CPCB method	IS: 5182 (Part-2)	IS: 5182 (Part-6)	IS: 5182 (Part- 10)	Indophenol Blue Method followed by CPCB	IS: 5182 (Part-9)	IS: 5182 (Part- 22)	As per CPCB method followed by AAS	As per CPCB method followed by AAS	IS: 5182 (Part- 11)	IS: 5182 (Part- 12)

N.B- *NAAQ- National Ambient Air Quality Standard as per 18th Nov, 2009 G.Ot. Notification.

Dr. T. S. Sahoo, PhD, Env. Sc.

Authorized Signatory

GAZ. No. 100/2018, Dt-03.06.2018

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Report no. - CEMC/TDPCL/030119/A2

Issued Date-03.01.2019

AMBIENT AIR QUALITY MONITORING TEST REPORT

Client Name & Address	M/s. The Dhamra Port Company Ltd., Dosinga, Bhadrak
Work Order No.	4800035134, dtd-30.07.2018
Reference No.	CEMC-03012019A2
Nature of Sampling	Ambient Air Sample
Sampling Location	Kanakaprasad Village
Sampling By	Mr. Bhaktahari Dash
Sampling Duration	01.12.2018 to 31.12.2018

Date	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	SO ₂ (µg/m ³)	NO _x (µg/m ³)	CO (mg/m ³)	NH ₃ (µg/m ³)	O ₃ (µg/m ³)	Pb (µg/m ³)	Ni (µg/m ³)	As (ng/m ³)	Benzene (µg/m ³)	BaP (ng/m ³)
03.12.2018	51.6	29.8	7.8	12.9	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
06.12.2018	51.8	29.4	7.6	12.6	0.3	<20	<10	<0.06	<0.6	<0.44	<1	<1
10.12.2018	53.1	30.7	7.9	12.8	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
13.12.2018	52.9	31.2	7.8	12.9	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
17.12.2018	50.4	29.6	7.4	12.5	0.3	<20	<10	<0.06	<0.6	<0.44	<1	<1
20.12.2018	48.2	28.9	7.3	12.1	0.2	<20	<10	<0.06	<0.6	<0.44	<1	<1
24.12.2018	51.5	30.3	7.8	12.7	0.3	<20	<10	<0.06	<0.6	<0.44	<1	<1
26.12.2018	53.7	31.5	7.7	12.8	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
NAAQ* Standard	100	60	80	80	4	400	100	1.0	20	6	5	1
Methods of Analysis	IS: 5182 (Part-23)	Gravimetric Method as per CPCB method	IS: 5182 (Part-2)	IS: 5182 (Part-6)	IS: 5182 (Part-10)	Indophen ols Blue Method followed by CPCB	IS: 5182 (Part-9)	IS: 5182 (Part-22)	As per CPCB method followed by AAS	As per CPCB method followed by AAS	IS: 5182 (Part-11)	IS: 5182 (Part-12)

N.B.- *NAAQ- National Ambient Air Quality Standard as per 18th Nov, 2009 Gatt. Notification.

Dr.T. Sahu, PhD, Env. Sc

Authorised Signatory

GAZETED No. 1037, Dt-03-06-2016

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Report no. - CEMC/TDPCL/030119/A3

Issued Date-03.01.2019

AMBIENT AIR QUALITY MONITORING TEST REPORT

Client Name & Address	M/s. The Dhamra Port Company Ltd., Dosinga, Bhadrak
Work Order No.	4800035134, dtd-30.07.2018
Reference No.	CEMC-03012019A3
Nature of Sampling	Ambient Air Sample
Sampling Location	Near BMH
Sampling By	Mr. Bhaktahari Dash
Sampling Duration	01.12.2018 to 31.12.2018

Date	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	SO ₂ (µg/m ³)	NO _x (µg/m ³)	CO (mg/m ³)	NH ₃ (µg/m ³)	O ₃ (µg/m ³)	Pb (µg/m ³)	Ni (ng/m ³)	As (ng/m ³)	Benzene (µg/m ³)	BaP (ng/m ³)
03.12.2018	55.4	33.2	8.3	13.4	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
06.12.2018	53.7	32.6	7.9	13.6	0.5	<20	<10	<0.06	<0.6	<0.44	<1	<1
10.12.2018	54.5	33.0	8.2	13.3	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
13.12.2018	58.2	34.4	8.1	13.5	0.5	<20	<10	<0.06	<0.6	<0.44	<1	<1
17.12.2018	54.6	32.9	8.2	13.4	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
20.12.2018	49.3	28.5	7.7	12.2	0.3	<20	<10	<0.06	<0.6	<0.44	<1	<1
24.12.2018	52.8	31.7	8.2	13.6	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
26.12.2018	54.9	32.8	8.4	13.7	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
NAAQ* Standard	100	60	80	80	4	400	100	1.0	20	6	5	1
Methods of Analysis	IS: 5182 (Part-23)	Gravimetri c Method as per CPCB method	IS: 5182 (Part-2)	IS: 5182 (Part-6)	IS: 5182 (Part- 10)	Indophe nol Blue Method followed by CPCB	IS: 5182 (Part-9)	IS: 5182 (Part-22)	As per CPCB method followe d by AAS	As per CPCB method followe d by AAS	IS: 5182 (Part-11)	IS: 5182 (Part- 12)

N.B- *NAAQ- National Ambient Air Quality Standard as per 18th Nov, 2009 Gatt. Notification.

Dr.T. Sahu, B.D. Env. Sc

Authorised Signatory

GAZETED No-1357, Dt-03-06-2016

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Report no. - CEMC/FDPCL/030119/A4

Issued Date-03.01.2019

AMBIENT AIR QUALITY MONITORING TEST REPORT

Client Name & Address	M/s. The Dhamra Port Company Ltd., Dosinga, Bhadrak
Work Order No.	4800035134, dtd-30.07.2018
Reference No.	CEMC03012019A4
Nature of Sampling	Ambient Air Sample
Sampling Location	Near Jetty
Sampling By	Mr. Bhaktahari Dash
Sampling Duration	01.12.2018 to 31.12.2018

Date	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	SO ₂ (µg/m ³)	NO _x (µg/m ³)	CO (mg/m ³)	NH ₃ (µg/m ³)	O ₃ (µg/m ³)	Pb (µg/m ³)	Ni (ng/m ³)	As (ng/m ³)	Benzene (µg/m ³)	BaP (ng/m ³)
03.12.2018	57.2	34.7	7.9	13.1	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
06.12.2018	59.4	35.2	8.0	13.3	0.5	<20	<10	<0.06	<0.6	<0.44	<1	<1
10.12.2018	62.7	36.4	8.2	13.4	0.5	<20	<10	<0.06	<0.6	<0.44	<1	<1
13.12.2018	61.5	35.8	8.1	13.0	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
17.12.2018	51.3	30.9	7.8	12.6	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
20.12.2018	50.9	31.3	7.6	12.2	0.3	<20	<10	<0.06	<0.6	<0.44	<1	<1
24.12.2018	62.6	33.5	7.9	12.7	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
26.12.2018	65.8	37.5	8.3	13.4	0.5	<20	<10	<0.06	<0.6	<0.44	<1	<1
NAAQ* Standard	100	60	80	80	4	400	100	1.0	20	6	5	1
Methods of Analysis	IS: 5182 (Part-23)	Gravimetric Method as per CPCB method	IS: 5182 (Part-2)	IS: 5182 (Part-6)	IS: 5182 (Part-10)	Indophenols Blue Method followed by CPCB	IS: 5182 (Part-9)	IS: 5182 (Part-22)	As per CPCB method followed by AAS	As per CPCB method followed by AAS	IS: 5182 (Part-11)	IS: 5182 (Part-12)

N.B- *NAAQ- National Ambient Air Quality Standard as per 18th Nov, 2009 Gatt. Notification

Dr. T. G. G. Ph.D., Env. Sc.
Authorized Signatory
ANALYST

GAZETTE No. 1357, Dt. 03.06.2016

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Report no. - CEMC/TDPCL/030119/A5

Issued Date-03.01.2019

AMBIENT AIR QUALITY MONITORING TEST REPORT

Client Name & Address	M/s. The Dhamra Port Company Ltd., Dosinga, Bhadrak
Work Order No.	4800035134, dtd-30.07.2018
Reference No.	CEMC-03012019A5
Nature of Sampling	Ambient Air Sample
Sampling Location	Dosinga Village
Sampling By	Mr. Bhaktahari Dash
Sampling Duration	01.12.2018 to 31.12.2018

Date	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	SO ₂ (µg/m ³)	NO _x (µg/m ³)	CO (mg/m ³)	NH ₃ (µg/m ³)	O ₃ (µg/m ³)	Pb (µg/m ³)	Ni (ng/m ³)	As (ng/m ³)	Benzene (µg/m ³)	BaP (ng/m ³)
03.12.2018	51.4	29.8	8.0	13.6	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
06.12.2018	53.7	30.6	7.9	13.4	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
10.12.2018	54.5	31.2	8.2	13.8	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
13.12.2018	53.9	31.1	8.1	13.5	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
17.12.2018	50.6	29.7	7.8	12.9	0.3	<20	<10	<0.06	<0.6	<0.44	<1	<1
20.12.2018	51.2	29.5	7.7	12.6	0.3	<20	<10	<0.06	<0.6	<0.44	<1	<1
24.12.2018	52.8	30.3	7.9	12.8	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
26.12.2018	54.3	32.9	8.4	13.7	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
NAAQ* Standard	100	60	80	80	4	400	100	1.0	20	6	5	1
Methods of Analysis	IS: 5182 (Part- 23)	Gravimetri c Method as per CPCB method	IS: 5182 (Part-2)	IS: 5182 (Part-6)	IS: 5182 (Part-10)	Indophe nols Blue Method followed by CPCB	IS: 5182 (Part-9)	IS: 5182 (Part-22)	As per CPCB method followe d by AAS	As per CPCB method followe d by AAS	IS: 5182 (Part- 11)	IS: 5182 (Part- 12)

N.B- *NAAQ- National Ambient Air Quality Standard as per 18th Nov, 2009 Gatt. Notification.

Dr. T. Sahu, Ph.D. Env. Sc

Authorized Signatory

Notes: No. 2018/03-06-2018

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Report no. - CEMC/TDPCL/030119/A6

Issued Date-03.01.2019

AMBIENT AIR QUALITY MONITORING TEST REPORT

Client Name & Address	M/s. The Dhamra Port Company Ltd., Dosinga, Bhadrak
Work Order No.	4800035134, dtd-30.07.2018
Reference No.	CEMC-03012019A6
Nature of Sampling	Ambient Air Sample
Sampling Location	Bhitarkanika (Eco Sensitive)
Sampling By	Mr. Bhaktahari Dash
Sampling Duration	01.12.2018 to 31.12.2018

Date	PM ₁₀ ($\mu\text{g}/\text{m}^3$)	PM _{2.5} ($\mu\text{g}/\text{m}^3$)	SO ₂ ($\mu\text{g}/\text{m}^3$)	NO _x ($\mu\text{g}/\text{m}^3$)	CO (mg/m^3)	NH ₃ ($\mu\text{g}/\text{m}^3$)	O ₃ ($\mu\text{g}/\text{m}^3$)	Pb ($\mu\text{g}/\text{m}^3$)	Ni (ng/m^3)	As (ng/m^3)	Benzene ($\mu\text{g}/\text{m}^3$)	BaP (ng/m^3)
03.12.2018	44.8	25.1	6.8	10.6	0.3	<20	<10	<0.06	<0.6	<0.44	<1	<1
06.12.2018	46.1	26.2	6.9	10.8	0.3	<20	<10	<0.06	<0.6	<0.44	<1	<1
10.12.2018	43.4	25.0	6.8	10.7	0.3	<20	<10	<0.06	<0.6	<0.44	<1	<1
13.12.2018	45.7	26.5	6.9	10.9	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
17.12.2018	42.2	24.6	6.4	10.1	0.3	<20	<10	<0.06	<0.6	<0.44	<1	<1
20.12.2018	40.1	24.3	6.3	9.5	0.2	<20	<10	<0.06	<0.6	<0.44	<1	<1
24.12.2018	43.9	25.2	6.8	10.4	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
26.12.2018	45.3	26.4	6.9	10.8	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
NAAQ Standard	100	60	80	80	4	400	100	1.0	20	6	5	1
Methods of Analysis	IS: 5182 (Part- 23)	Gravimetri c Method as per CPCB method	IS: 5182 (Part-2)	IS: 5182 (Part-6)	IS: 5182 (Part-10)	Indophe nol Blue Method followed by CPCB	IS: 5182 (Part-9)	IS: 5182 (Part-22)	As per CPCB method followe d by AAS	As per CPCB method followe d by AAS	IS: 5182 (Part- 11)	IS: 5182 (Part- 12)

N.B- *NAAQ- National Ambient Air Quality Standard as per 18th Nov, 2009 Gatt. Notification.

Dr. T. Sahu, Ph.D. Env. Sc

Authorized Signatory

GAZETTE NO-1157, Dt-03-06-2016

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Report no. - CEMC/TDPCL/030119/N

Issued Date-03.01.2019

NOISE LEVEL MONITORING REPORT

Client Name & Address	M/s. The Dhamra Port Company Ltd., Dosinga, Bhadrak
Work Order No.	4800035134, dtd-30.07.2018
Analysis No.	CEMC/TDPCL-D00N1
Nature of Sampling	Noise Sample
Sampling By	Mr. Bhaktahari Dash
Sampling Date	01.12.2018 to 31.12.2018

Date	Location	NL Day Time dB (A)			NL Night Time dB (A)		
		Max	Min.	Avg.	Max	Min.	Avg.
11.12.2018	Near Jetty (I)	69.4	62.1	65.8	64.9	61.8	63.4
07.12.2018	Near BMH-I	70.3	62.8	66.6	64.6	59.3	62.0
04.12.2018	Colony Area (R)	54.1	50.3	52.2	42.9	38.3	40.6
14.12.2018	Kanakaprasad Village (R)	53.8	51.2	52.5	42.6	37.2	39.9
18.12.2018	Dosinga village (R)	54.1	49.8	51.9	43.1	38.5	40.0
21.12.2018	Ecosensitive Zone	48.8	43.1	45.9	40.1	36.9	38.5

*NL- Noise Level, I- Industrial, R- Residential

National Standard of Noise Level

Area Code	Category of Area/Zone	Permissible Limit in dB (A)	
		Day Time	Night Time
A	Industrial Area	75	70
B	Commercial Area	65	55
C	Residential Area	55	45
D	Silence Zone	50	40

Dr. T. S. Dash, Ph.D. Env. Sc
Authorized Signatory
ANALYST
GAZETTE No. 1357 dt. 03.06.2017



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Issued Date-03.01.2019

Name & Address of the Customer

Work order No. _____

: 4800035134, dtd-30.07.2018

Sampling by

: Mr. Bhaktahari Dash

Date of Sampling

: 05.12.2018 & 19.12.2018

Date of Receiving

: 06.12.2018 & 20.12.2018

Sampling & Testing Procedure

: APHA 23rd Edition

Sample Description

: Waste Water

Sample Quantity

: 1.0 Ltr each

Sample Location with Job Code

: STP - 15 KLD (Inlet)

Reference Number

: CEMC-03012019W1

Sl. No.	Parameter	Unit of Measurement	Result		Design parameter for Raw Sewage
			1 st Fortnight	2 nd Fortnight	
1	Appearance	--	Turbid	Turbid	-
2	Colour	--	Blackish	Blackish	-
3	Odour	--	Foul	Foul	-
4	pH Value @ 25°C	--	6.57	6.69	6.0-8.5
5	Total Suspended Solids	mg/l	136.2	142	1000
6	B.O.D for 3 days @ 27°C	mg/l	240	220	300-350
7	Oil & Grease	mg/l	<5	<5	100
8	COD	mg/l	750	710	--
9	Ammonical Nitrogen	mg/l	7.2	6.9	--
10	Total Nitrogen	mg/l	32.0	29.2	--
11	Faecal Coliform	MPN/100ml	1600	1600	--

Dr. T. S. Subramanian, Ph.D., Env. Sc
Authorized Signatory
Govt. ANALYST

GAZETTE Notelresult 01/03/2016 20:16

FF No. 1 result dated 03-06-2011 related to the tested sample, as requested. The customer asked for the above test only

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Report no. - CEMC/TDPCL/030119/W2

Issued Date-03.01.2019

STP TEST REPORT

Name & Address of the Customer	: M/s. The Dhamra Port Company Ltd., Dasinga, Bhadrak
Work order No.	: 4800035134, dtd-30.07.2018
Sampling by	: Mr. Bhaktahari Dash
Date of Sampling	: 05.12.2018 & 19.12.2018
Date of Receiving	: 06.12.2018 & 20.12.2018
Sampling & Testing Procedure	: APHA 23rd Edition
Sample Description	: Waste Water
Sample Quantity	: 1.0 Ltr each
Sample Location with Job Code	: STP - 15 KLD (Outlet)
Reference Number	: CEMC-03012019W2

STP OUTLET ANALYSIS RESULT

Sl. No.	Parameter	Unit of Measurement	Result		Standards for New STPs Design after notification 2015
			1 st Fortnight	2 nd Fortnight	
1	Appearance	—	Clear	Clear	—
2	Colour	—	Colorless	Colorless	—
3	Odour	—	Odourless	Odourless	—
4	pH Value @ 25°C	—	7.36	7.39	6.5-9.0
5	Total Suspended Solids	mg/l	14.8	13.2	<20
6	B.O.D for 3 days @ 27°C	mg/l	8.5	8.8	<10
7	Oil & Grease	mg/l	<5	<5	—
8	COD	mg/l	16	14	<50
9	Ammonical Nitrogen	mg/l	0.82	0.78	<5
10	Total Nitrogen	mg/l	3.6	3.3	<10
11	Faecal Coliform	MPN/100ml	17	17	<100

Dr. T. Sahu, PhD, Env. Sc
Authorized Signatory
GAZETTE NO. 157 DI-03-06-2016



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Report no. - CEMC/TDPCL/030119/W3

Issued Date-03.01.2019

STP TEST REPORT

Name & Address of the Customer	: M/s. The Dhamra Port Company Ltd., Dosinga, Bhadrak
Work order No.	: 4800035134, dtd-30.07.2018
Sampling by	: Mr. Bhaktahari Dash
Date of Sampling	: 05.12.2018 & 19.12.2018
Date of Receiving	: 06.12.2018 & 20.12.2018
Sampling & Testing Procedure	: APHA 23 rd Edition
Sample Description	: Waste Water
Sample Quantity	: 1.0 Ltr each
Sample Location with Job Code	: STP - 140 KLD (Inlet)
Reference Number	: CEMC-03012019W3

STP INLET ANALYSIS RESULT

Sl. No.	Parameter	Unit of Measurement	Result		Design parameter for Raw Sewage
			1st Fortnight	2nd Fortnight	
1	Appearance	—	Turbid	Turbid	—
2	Colour	—	Blackish	Blackish	—
3	Odour	—	Foul	Foul	—
4	pH Value @ 25°C	—	6.72	6.94	6.0-8.5
5	Total Suspended Solids	mg/l	143.8	134.5	1000
6	B.O.D for 3 days @ 27°C	mg/l	260	230	300-350
7	Oil & Grease	mg/l	7.2	6.6	100
8	COD	mg/l	780	690	—
9	Ammonical Nitrogen	mg/l	8.2	7.92	—
10	Total Nitrogen	mg/l	33.8	30.6	—
11	Faecal Coliform	MPN/100ml	>1600	>1600	—

Dr. T. P. Dash, Env. Sc

Authorized Signatory

Notes:

GAZETTE NO. 3347, Dt-03-06-2016



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Issued Date-03.01.2019

Name & Address of the Customer

Work order No. _____

: 4800035134, dtd-30.07.2018

Sampling by

Mr. Bhaktahari Dash

Date of Sampling

: 05.12.2018 & 19.12.2018

Date of Receiving

: 06.12.2018 & 20.12.2018

Sampling & Testing Procedure

† APHA 23rd Edition

Sample Description

: Waste Water

Sample Quantity

: 1.0 Ltr each

Sample Location with Job Code

± STP - 140 KLD (Outlet)

Reference Number

: CEMC-03012019W4

Sl. No.	Parameter	Unit of Measurement	Result		Standards for New STPs Design after notification 2015
			1 st Fortnight	2 nd Fortnight	
1	Appearance	--	Clear	Clear	-
2	Colour	--	Colorless	Colorless	-
3	Odour	--	Odourless	Odourless	-
4	pH Value @ 25°C	--	7.52	7.59	6.5-9.0
5	Total Suspended Solids	mg/l	14.2	13.9	<20
6	B.O.D for 3 days @ 27°C	mg/l	9.0	8.6	<10
7	Oil & Grease	mg/l	<5	<5	--
8	COD	mg/l	26	22	<50
9	Ammonical Nitrogen	mg/l	0.59	0.48	<5
10	Total Nitrogen	mg/l	5.8	5.4	<10
11	Faecal Coliform	MPN/100ml	22	24	<100



GAZETTE No. 1357, 6/10/2014

TE No. 1357, Dated 03-06-2016

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Report no. - CEMC/TDPCL/030119/St1

Issued Date-03.01.2019

DG STACK ANALYSIS REPORT

Client Name & Address	M/s. The Dhamra Port Company Ltd., Dosinga, Bhadrak
Work Order No.	4800035134, dtd-30.07.2018
Reference No.	CEMC-03012019St1
Nature of Sampling	DG Stack Monitoring
Sampling Location	GSS DG Set (200KVA) 160KW-hr
Sampling By	Mr. B.K.Samantray
Sampling Date	11.12.2018

ANALYSIS RESULT

Sl. No.	Parameters	Result	Standard as per MoEF & CC in g/kW-hr (2014)	Method of Testing
1.	Flue Gas Temp.(K)	397	--	IS:11255 (Part-3)
2.	Average Flue Gas Velocity(m/s)	9.2	--	IS:11255 (Part-3)
3.	PM (g/kwh)	0.11	0.2	IS:11255 (Part-1)
4.	SO ₂ (g/kwh)	0	--	IS:11255 (Part-2)
5.	NO _x +HC (g/kwh)	2.3	4.0	IS:11255 (Part-7)
6.	CO (g/kwh)	1.3	3.5	IS-13270

$H = h - 0.2x (KVA)^{1/2}$ (H - Total height of stack in metre, h - Height of the building in metres where the generator set is installed, KVA = Total generator capacity of the set in KVA)



Dr. T. S. Samantray, Govt. Analyst

GAZETTE No. 1357, Dt. 09.08.2016

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Report no. - CEMC/TDPCL/030119/St2

Issued Date-03.01.2019

DG STACK ANALYSIS REPORT

Client Name & Address	M/s. The Dhamra Port Company Ltd., Dosiuga, Bhadrak
Work Order No.	4800035134, dtd-30.07.2018
Reference No.	CEMC-03012019St2
Nature of Sampling	DG Stack Monitoring
Sampling Location	Kalibhanja Guest House DG Set (63KVA) 50KW-hr
Sampling By	Mr. B.K.Samantray
Sampling Date	11.12.2018

ANALYSIS RESULT

Sl. No.	Parameters	Result	Standard as per MoEF & CC in g/kW-hr (2014)	Method of Testing
1.	Flue Gas Temp.(K)	384	—	IS:11255 (Part-3)
2.	Average Flue Gas Velocity(m/s)	7.7	—	IS:11255 (Part-3)
3.	PM (g/kwh)	0.13	0.3	IS:11255 (Part-1)
4.	SO ₂ (g/kwh)	0	—	IS:11255 (Part-2)
5.	NO _x +HC (g/kwh)	2.5	4.7	IS:11255 (Part-7)
6.	CO (g/kwh)	1.4	3.5	IS : 13270

$H = h + 0.2x (KVA)^{1/2}$ (H = Total height of stack in metre, h = Height of the building in metres where the generator set is installed, KVA = Total generator capacity of the set in KVA)



Dr. Anupama Kumar, Env. Sc

Notes: 1. The results are valid only for the sample tested.

2. The results are valid only for the sample tested.

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Report no. - CEMC/TDPCL/030119/St3

Issued Date-03.01.2019

DG STACK ANALYSIS REPORT

Client Name & Address	M/s. The Dhamra Port Company Ltd., Dosinga, Bhadrak
Work Order No.	4800035134, dtd-30.07.2018
Reference No.	CEMC-03012019St3
Nature of Sampling	DG Stack Monitoring
Sampling Location	Township DG Set (180KVA) 144KW-hr
Sampling By	Mr. B.K.Samantray
Sampling Date	11.12.2018

ANALYSIS RESULT

Sl. No.	Parameters	Result	Standard as per MoEF & CC (2014)	Method of Testing
1.	Flue Gas Temp.(K)	399	—	IS:11255 (Part-3)
2.	Average Flue Gas Velocity(m/s)	8.6	—	IS:11255 (Part-3)
3.	PM (g/kwh)	0.12	0.2	IS:11255 (Part-1)
4.	SO ₂ (g/kwh)	0	—	IS:11255 (Part-2)
5.	NO _x +HC (g/kwh)	1.9	4.0	IS:11255 (Part-7)
6.	CO (g/kwh)	1.2	3.5	IS : 13270

$H = h + 0.2x(KVA)^{1/2}$ (H = Total height of stack in metre, h = Height of the building in metres where the generator set is installed, KVA = Total generator capacity of the set in KVA)

Dr. T. Ananta Kumar, Env. Sc

Notes:

GAZETTE No. 1397, Dt. 09.06.2016

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Report no. - CEMC/TDPCL/030119/St4

Issued Date-03.01.2019

DG STACK ANALYSIS REPORT

Client Name & Address	M/s. The Dhamra Port Company Ltd., Dosinga, Bhadrak
Work Order No.	4800035134, dtd-30.07.2018
Reference No.	CEMC-03012019St4
Nature of Sampling	DG Stack Monitoring
Sampling Location	MCC-1 (160KVA) 128 KW-hr
Sampling By	Mr. B.K.Samantray
Sampling Date	11.12.2018

ANALYSIS RESULT

Sl. No.	Parameters	Result	Standard as per MoEF & CC (2014)	Method of Testing
1.	Flue Gas Temp.(K)	402	—	IS:11255 (Part-3)
2.	Average Flue Gas Velocity(m/s)	8.5	—	IS:11255 (Part-3)
3.	PM (g/kwh)	0.11	0.2	IS:11255 (Part-1)
4.	SO ₂ (g/kwh)	0	—	IS:11255 (Part-2)
5.	NO _x +HC (g/kwh)	2.1	4.0	IS:11255 (Part-7)
6.	CO (g/kwh)	1.3	3.5	IS - 13270

$H = h + 0.2x (KVA)^{1/2}$ (H = Total height of stack in metre, h = Height of the building in metres where the generator set is installed, KVA = Total generator capacity of the set in KVA)

Dr. J. K. Samantray, Env. Sc

Govt. ANALYST

GAZETTE No. 1357 Dtd. 08.08.2018



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Issued Date-03.01.2019

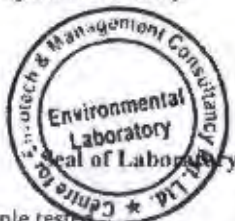
DG STACK ANALYSIS REPORT

Client Name & Address	M/s. The Dhamra Port Company Ltd., Dosinga, Bhadrak
Work Order No.	4800035134, dtd-30.07.2018
Reference No.	CEMC-03012019St5
Nature of Sampling	DG Stack Monitoring
Sampling Location	PSS DG Set (160KVA) 128 KW-hr
Sampling By	Mr. B.K.Samantray
Sampling Date	11.12.2018

ANALYSIS RESULT

Sl No.	Parameters	Result	Standard as per MoEF & CC (2014)	Method of Testing
1.	Flue Gas Temp.(K)	398	--	IS:11255 (Part-3)
2.	Average Flue Gas Velocity(m/s)	8.5	--	IS:11255 (Part-3)
3.	PM (g/kwh)	0.13	0.2	IS:11255 (Part-1)
4.	SO ₂ (g/kwh)	0	--	IS:11255 (Part-2)
5.	NO _x +HC (g/kwh)	2.2	4.0	IS:11255 (Part-7)
6.	CO (g/kwh)	1.3	3.5	IS:13270

$H = h + 0.2x (KVA)^{1/3}$ (H = Total height of stack in metre, h = Height of the building in metres where the generator set is installed, KVA = Total generator capacity of the set in KVA)



Dr. T. S. Samantray, Env. Sc
Govt. Analyst
GAZETTE No. 139, D.0306.2016

The results of the sample tested

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Report no. - CEMC/TDPCL/030119/S16

Issued Date-03.01.2019

DG STACK ANALYSIS REPORT

Client Name & Address	M/s. The Dhamra Port Company Ltd., Dosinga, Bhadrak
Work Order No.	4800035134, dtd-30.07.2018
Reference No.	CEMC-03012019S16
Nature of Sampling	DG Stack Monitoring
Sampling Location	MCC-4 (160KVA) 128 KW-hr
Sampling By	Mr. B.K.Samantray
Sampling Date	11.12.2018

ANALYSIS RESULT

Sl. No.	Parameters	Result	Standard as per MoEF& CC (2014)	Method of Testing
1.	Flue Gas Temp.(K)	395	—	IS:11255 (Part-3)
2.	Average Flue Gas Velocity(m/s)	8.7	—	IS:11255 (Part-3)
3.	PM (g/kwh)	0.13	0.2	IS:11255 (Part-1)
4.	SO ₂ (g/kwh)	0	—	IS:11255 (Part-2)
5.	NO _x +HC (g/kwh)	2.1	4.0	IS:11255 (Part-7)
6.	CO (g/kwh)	1.2	3.5	IS 13270

$H = h + 0.2x (KVA)^{1/2}$ (H = Total height of stack in metre, h = Height of the building in metres where the generator set is installed, KVA = Total generator capacity of the set in KVA)

Dr.  Env. Sc

Govt. ANALYST

GAZETTE NO-1357, D-03-06-2018

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DG STACK ANALYSIS REPORT

ANALYSIS RESULT

$H = h - 0.2x (KVA)^{-0.2}$ (H - Total height of stack in metre, h - Height of the building in metres where the generator set is installed, KVA - Total generator capacity of the set in KVA)

GAZETTE No. 357, Dt. 03-06-2016



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Report no. - CEMC/TDPCL/030119/N

Issued Date-03.01.2019

NOISE LEVEL MONITORING REPORT

Client Name & Address	M/s. The Dhamra Port Company Ltd., Dosinga, Bhadrak
Work Order No.	4800035134, dtd-30.07.2018
Analysis No.	CEMC/TDPCL-D00N
Nature of Sampling	Noise Sample
Sampling By	Mr. B.K.Samantray
Monitoring Date	11.12.2018

Date	Location	NL Day Time dB (A)			NL Night Time dB (A)		
		Max.	Min.	Avg.	Max.	Min.	Avg.
11.12.2018	GSS DG Set (200KVA)	74.1	70.8	72.4	69.7	66.3	68
11.12.2018	Kalibhanja Guest House DG Set (63KVA)	73.7	70.5	72.1	68.9	66.3	67.6
11.12.2018	Township DG Set (180KVA)	74.0	71.1	72.55	69.3	67.1	68.2
11.12.2018	MCC-1 (160KVA)	74.2	70.6	72.4	68.8	67.2	68
11.12.2018	PSS DG Set (160KVA)	73.8	71.4	72.6	69.1	65.7	67.4
11.12.2018	MCC-4 DG Set (160KVA)	73.6	70.8	72.2	68.9	66.3	67.6
11.12.2018	DAV School, Kuamara (100KVA)	73.2	70.4	71.8	68.4	66.6	67.5

*NL- Noise Level, I- Industrial, R- Residential

National Standard of Noise Level

Area Code	Category of Area/Zone	Permissible Level in dB (A)	
		Day Time	Night Time
A	Industrial Area	75	70
B	Commercial Area	65	55
C	Residential Area	55	45
D	Silence Zone	50	40

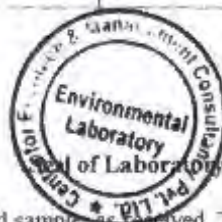
Dr. T. Sahu, PhD. Env. Sc

Principal ANALYST

Signature Date: 03-06-2016

Notes:

- The result given above related to the tested sample, as received. The customer asked for the above test only.
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Report no. - CEMC/TDPCL/030119/W

Issued Date-03.01.2019

SEA WATER ANALYSIS REPORT

Name & Address of the Customer	: M/s. The Dhamra Port Company Ltd., Dosinga, Bhadrak
Work order No.	: 4800035134, dtd-30.07.2018
Date of Sampling	: 10.12.2018
Sampling by	: Bikash Samantaray
Sample Description	: Sea Water

STATION DESCRIPTION

SL. NO.	STATION	Sample Location	GPS COORDINATES
01	STATION-1	Dhamra river mouth	20°47'01.42" N 86°57'39.87" E
02	STATION-2	Dry bulk cargo birth face	20°48'59.82" N 86°58'11.78" E
03	STATION-3	Liquid/Gas cargo birth face	20°50'30.10" N 86°58'30.40" E
04	STATION-4	Along channel at 4 km	20°50'58.09" N 86°59'21.43" E
05	STATION-5	Along channel at 8 km	20°52'47.18" N 87°01'08.53" E
06	STATION-6	Along channel at 12 km	20°55'10.48" N 87°02'12.58" E
07	STATION-7	Dragging dumping site inside sea	20°50'01.18" N 86°58'18.86" E
08	STATION-8	Near Kanika Island	20°49'41.56" N 86°59'09.53" E

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SEA WATER ANALYSIS REPORT

WATER ANALYSIS DATA									
Locations		Temp. (°C)	Turbidity (NTU)	Conductivity (µS/cm)	pH	Salinity (ppt)	DO (mg/l)	BOD (mg/l)	COD (mg/l)
Station-1	SW	20	62	10986.5	7.6	25.92	7.2	4.2	38
	BW	21	56	11284.6	7.2	17.24	6.5	4.6	42
Station-2	SW	22	36	15772.7	7.8	26.78	7.2	4.4	32
	BW	20	44	16342.5	7.3	27.86	6.8	3.4	24
Station-3	SW	22	32	16648.2	7.8	23.45	7.0	3.4	28
	BW	21	40	16642.0	7.2	26.04	6.4	2.8	22
Station-4	SW	22	34	15580.4	7.7	26.64	7.2	3.4	38
	BW	21	40	15295.3	7.2	27.12	6.4	3.2	36
Station-5	SW	23	20	15968.2	7.9	27.56	6.8	3.6	34
	BW	21	36	16246.0	7.4	28.64	6.6	3.2	28
Station-6	SW	23	48	10324.0	7.7	26.42	7.2	4.2	30
	BW	21	44	10582.9	7.4	27.88	6.5	3.2	24
Station-7	SW	23	44	12998.2	8.1	26.84	7.2	3.6	46
	BW	20	56	13608.4	7.4	27.86	6.7	4.1	38
Station-8	SW	23	38	15556.8	7.7	25.12	6.9	4.6	40
	BW	21	56	15772.5	7.2	27.98	6.3	3.4	26

*SW= Surface Water, BW= Bottom Water

WATER ANALYSIS DATA									
Locations		Copper (mg/l)	Cadmium (mg/l)	Mercury (mg/l)	Phosphate (mg/l)	Sulphate (mg/l)	Nitrite (mg/l)	Nitrate (mg/l)	TSS (mg/l)
Station-1	SW	<0.03	<0.01	<0.001	<0.05	1342	0.22	7.2	342.4
	BW	<0.03	<0.01	<0.001	<0.05	1616	0.28	12.1	446.2
Station-2	SW	<0.03	<0.01	<0.001	<0.05	1664	0.14	5.6	440.5
	BW	<0.03	<0.01	<0.001	<0.05	1788	0.28	13.6	342.8
Station-3	SW	<0.03	<0.01	<0.001	<0.05	1634	0.12	6.8	224.0
	BW	<0.03	<0.01	<0.001	<0.05	1744	0.3	13.4	342.0
Station-4	SW	<0.03	<0.01	<0.001	<0.05	1656.0	0.2	8.8	156.0
	BW	<0.03	<0.01	<0.001	<0.05	1742.0	0.28	13.56	478.0
Station-5	SW	<0.03	<0.01	<0.001	<0.05	1664.0	0.24	8.4	165.5
	BW	<0.03	<0.01	<0.001	<0.05	1795.0	0.28	13.6	682
Station-6	SW	<0.03	<0.01	<0.001	<0.05	1712.0	0.28	6.6	180.0
	BW	<0.03	<0.01	<0.001	<0.05	1793.0	0.30	12.8	421.0
Station-7	SW	<0.03	<0.01	<0.001	<0.05	1664	0.28	7.4	264.0
	BW	<0.03	<0.01	<0.001	<0.05	1796	0.36	14.8	384.2
Station-8	SW	<0.03	<0.01	<0.001	<0.05	1680	0.18	7.8	273.5
	BW	<0.03	<0.01	<0.001	<0.05	1820	0.24	12.6	384.2

*SW= Surface Water, BW= Bottom Water

Dr. T. S. Sahoo, M. Sc.
Authorized Signatory
Govt. Analyst



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Issued Date-03.01.2019

SEA WATER ANALYSIS REPORT

WATER ANALYSIS DATA

Locations		Calcium Hardness (mg/l)	Magnesium Hardness (mg/l)	Total Hardness (mg/l)	Total Dissolved Solids (mg/l)	Ammonical Nitrogen (mg/l)	Total Nitrogen (mg/l)
Station-1	SW	1750.0	1036.0	2786.0	6042.0	ND	11.2
	BW	1846.0	1096.0	2942.0	6334.0	ND	14.9
Station-2	SW	3945.0	1703.0	5648.0	8964.0	ND	12.8
	BW	4026.0	1766.0	5792.0	9128.0	ND	14.8
Station-3	SW	4211.0	1617.0	5828.0	9321.0	ND	12.8
	BW	4143.0	1821.0	5964.0	9256.0	ND	15.6
Station-4	SW	3885.0	1591.0	5476.0	8678.0	ND	13.2
	BW	3974.0	1608.0	5582.0	8538.0	ND	15.8
Station-5	SW	3897.0	1768.0	5665.0	8892.0	ND	12.8
	BW	4188.0	1654.0	5842.0	9014.0	ND	14.6
Station-6	SW	1698.0	862.0	2560.0	5961.0	ND	11.2
	BW	1785.0	895.0	2680.0	6014.0	ND	13.4
Station-7	SW	2245.0	797.0	3042.0	7284.0	ND	11.7
	BW	2458.0	920.0	3378.0	7568.0	ND	14.4
Station-8	SW	3564.0	1292.0	4856.0	8648.0	ND	13.2
	BW	3968.0	1074.0	5042.0	8873.0	ND	15.4

*SW= Surface Water, BW= Bottom Water

WATER ANALYSIS DATA

Locations		Total Chromium (mg/l)	Phenolic Compounds (mg/l)	Hexavalent Chromium (mg/l)	Petroleum Hydrocarbon (mg/l)	Chlorinity (‰)	Oil and Grease (mg/l)
Station-1	SW	< 0.05	< 0.001	< 0.05	0.4	12.24	4.2
	BW	< 0.05	< 0.001	< 0.05	ND	14.26	ND
Station-2	SW	< 0.05	< 0.001	< 0.05	0.4	12.78	5.2
	BW	< 0.05	< 0.001	< 0.05	ND	14.12	ND
Station-3	SW	< 0.05	< 0.001	< 0.05	0.6	12.8	4.9
	BW	< 0.05	< 0.001	< 0.05	ND	14.2	ND
Station-4	SW	< 0.05	< 0.001	< 0.05	0.92	12.82	5.6
	BW	< 0.05	< 0.001	< 0.05	ND	14.68	ND
Station-5	SW	< 0.05	< 0.001	< 0.05	0.6	12.98	4.6
	BW	< 0.05	< 0.001	< 0.05	ND	14.42	ND
Station-6	SW	< 0.05	< 0.001	< 0.05	0.8	12.68	4.8
	BW	< 0.05	< 0.001	< 0.05	ND	14.12	ND
Station-7	SW	< 0.05	< 0.001	< 0.05	0.24	12.56	6.9
	BW	< 0.05	< 0.001	< 0.05	ND	14.28	ND
Station-8	SW	< 0.05	< 0.001	< 0.05	0.8	13.34	6.1
	BW	< 0.05	< 0.001	< 0.05	ND	14.42	ND

*SW= Surface Water, BW= Bottom Water

Dr. T. Saha, Ph.D. Env. Sc

Authorized Signatory

GAZETTE No. 1357 Dt-03-06-2016



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Report no. - CEMC/TDPCL/030/19/W

Issued Date-03.01.2019

SEA WATER ANALYSIS REPORT

PHYTOPLANKTON MONITORING DATA

PHYTOPLANKTON MONITORING DATA					
Locations		Total Count/L	No. of Species	Chlorophyll-a (µg/L)	Major Species
Station-1	SW	1632	16	1.6217	<i>Pleurosigma, C. pentagonum, N. striata, Bacillaria, Skeletonema costatum</i>
	BW	1521	7	1.2152	<i>C. pentagonum, Pleurosigma, N. longisigma, Bacillaria, Chaetoceros</i>
Station-2	SW	3201	22	1.6122	<i>C. pentagonum, Skeletonema, N. longisigma, Bacillaria, N. striata, Chaetoceros</i>
	BW	4002	10	1.7131	<i>Podosira, C. pentagonum, N. striata, Pleurosigma</i>
Station-3	SW	6541	18	2.3517	<i>C. pentagonum, N. striata, C. furca, Ceratium, N. longisigma, Biddulphia</i>
	BW	7241	8	2.3201	<i>C. pentagonum, Chaetoceros, Bacillaria</i>
Station-4	SW	3011	12	1.5374	<i>Podosira, Bacillaria, N. striata, Pleurosigma</i>
	BW	2045	6	1.6325	<i>C. furca, Pleurosigma, C. pentagonum, Bacillaria, Podosira, Biddulphia</i>
Station-5	SW	1150	17	0.7623	<i>Bacillaria, Chaetoceros, Podosira, C. furca</i>
	BW	7015	4	0.5016	<i>N. longisigma, Podosira, Ceratium, C. furca, C. pentagonum, Ceratium fusus</i>
Station-6	SW	1381	16	1.3652	<i>C. pentagonum, Bacillaria, Podosira, N. striata</i>
	BW	1362	7	1.1584	<i>C. pentagonum, Chaetoceros, Bacillaria, N. striata, Coscinodiscus sp</i>
Station-7	SW	1548	22	1.5627	<i>Bacillaria, Chaetoceros, Ceratium,</i>
	BW	1607	16	1.3241	<i>C. pentagonum, Bacillaria, Podosira, Skeletonema, C. furca,</i>
Station-8	SW	1385	19	0.3401	<i>C. pentagonum, N. striata, C. furca, N. striata, N. longisigma, Chaetoceros</i>
	BW	1056	4	0.5426	<i>C. pentagonum, Pleurosigma, N. longisigma, Bacillaria, Chaetoceros</i>

*SW= Surface Water, BW= Bottom Water.

ZOOPLANKTON MONITORING DATA

ZOOPLANKTON MONITORING DATA				
Locations		Total Count/L	No. of Species	Major Species
Station-1	SW	1564	20	Ostracoda, Protozoa, Copepod, Rotifera, Ctenophora
	BW	1342	12	Protozoa, Rotifera, Copepod, Nematoda
Station-2	SW	1488	17	Cladocera, Crustacean Larvae, Protozoa, Nematoda, Rotifers
	BW	1225	9	Protozoa, Nematoda, Cladocera, Copepod
Station-3	SW	2642	24	Anostraca, Cladocera, Cladocera, Rotifera, Ctenophora
	BW	2178	12	Rotifera, Protozoa, Nematoda, Crustacean Larvae
Station-4	SW	2346	20	Cladocera, Copepod, Rotifera, Ostracoda
	BW	1846	10	Ostracoda, Protozoa, Copepod, Rotifera, Larvae
Station-5	SW	1886	18	Cladocera, Nematoda, Cladocera
	BW	1278	8	Nematoda, Copepod, Rotifera, Ostracoda, Protozoa
Station-6	SW	1424	16	Protozoa, Rotifera, Nematoda, Ostracoda
	BW	1098	10	Rotifera, Anostraca, Cladocera, Nematoda, Larvae
Station-7	SW	1348	11	Crustacean Larvae, Protozoa, Nematoda
	BW	1068	8	Rotifera, Nematoda, Cladocera, Ostracoda, Ctenophora
Station-8	SW	1228	16	Ostracoda, Rotifera, Protozoa, Nematoda, Cladocera, Larvae
	BW	992	10	Cladocera, Nematoda, Rotifera, Ostracoda

*SW= Surface Water, BW= Bottom Water

Dr. T. S. Sahoo, Env. Sc
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Environmental Studies, EIA, EMP, Forest Diversion Planning, Wildlife Management Plan, Hazardous & Safety Studies, RS&GIS, Baseline Survey, Hydrological & Geological Studies, Socio-economic Studies, Dugout PETS Survey.

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Report no. - CEMC/TDPCL/030119/W

Issued Date-03.01.2019

SEA WATER ANALYSIS REPORT

MICROBIOLOGICAL MONITORING DATA					
Locations		Total Bacterial Count (CFU/ml)	Total Coliform (CFU/ml)	Faecal Coliform (CFU/ml)	E.coli (CFU/ml)
Station-1	SW	900	72	8	ND
	BW	510	68	10	ND
Station-2	SW	290	32	4.2	ND
	BW	270	18	3.2	ND
Station-3	SW	440	74	9.2	ND
	BW	210	56	8.4	ND
Station-4	SW	128	28	8	ND
	BW	310	16	<1.8	ND
Station-5	SW	98	10	<1.8	ND
	BW	170	14	<1.8	ND
Station-6	SW	310	98	10	ND
	BW	220	18	<1.8	ND
Station-7	SW	170	28	6	ND
	BW	370	62	8	ND
Station-8	SW	280	42	6.8	ND
	BW	220	30	5.6	ND

*SW= Surface Water, BW= Bottom Water

MICROBIOLOGICAL MONITORING DATA					
Locations		Enterococcus (CFU/ml)	Salmonella (CFU/ml)	Shigella (CFU/ml)	Vibrio (CFU/ml)
Station-1	SW	ND	ND	ND	ND
	BW	ND	ND	ND	ND
Station-2	SW	ND	ND	ND	ND
	BW	ND	ND	ND	ND
Station-3	SW	ND	ND	ND	ND
	BW	ND	ND	ND	ND
Station-4	SW	ND	ND	ND	ND
	BW	ND	ND	ND	ND
Station-5	SW	ND	ND	ND	ND
	BW	ND	ND	ND	ND
Station-6	SW	ND	ND	ND	ND
	BW	ND	ND	ND	ND
Station-7	SW	ND	ND	ND	ND
	BW	ND	ND	ND	ND
Station-8	SW	ND	ND	ND	ND
	BW	ND	ND	ND	ND

*SW= Surface Water, BW= Bottom Water

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IGAZETTE No-1357, Dt-01-06-2015



Environmental Studies (EIA & EMP), Monitoring, Forest Diversion Planning, DPR, Wildlife Management Plan, Hazardous & Safety Studies, RS & GIS, Baseline Survey, Hydrological & Geological Studies, Socio-economic Studies, DGPS & ETS Survey.

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Report no. - CEMC/TDPCL/030119/W

Issued Date-03.01.2019

SEA WATER ANALYSIS REPORT

PRIMARY PRODUCTIVITY MONITORING DATA

Locations		Gross Primary Productivity (mgC/ L/ day)	Net Primary Productivity (mgC/ L/ day)
Station-1	SW	2.5	1.5
	BW	2.2	1.2
Station-2	SW	2.9	1.8
	BW	2.4	1.3
Station-3	SW	2.4	2.1
	BW	1.5	1.6
Station-4	SW	2.2	1.9
	BW	1.8	1.4
Station-5	SW	2.4	1.6
	BW	1.8	1.3
Station-6	SW	2.4	1.8
	BW	1.6	1.3
Station-7	SW	1.9	1.7
	BW	2.2	1.6
Station-8	SW	2.3	1.8
	BW	1.7	1.5

*SW= Surface Water, BW= Bottom Water

PHYTOBENTHOS MONITORING DATA

Locations		Fungus (CFU/1ml dry wt.)	Total Count/ 50g wet sediment	No. of Species	Diversity Index	Major Species
Station-1	SW	2562	252	11	0.6277	<i>N. longisigma, Ctenophora</i>
	BW	2575	271	16	0.6962	<i>Podosira</i>
Station-2	SW	2794	170	14	0.542	<i>Podosira, N. longisigma, Rotifers</i>
	BW	4001	212	4	0.4982	<i>Podosira, N. longisigma, Ditylum</i>
Station-3	SW	3281	184	15	0.6826	<i>Ditylum, Copepods</i>
	BW	1360	157	6	0.4672	<i>Podosira, N. longisigma, Echinodermata</i>
Station-4	SW	2941	251	11	0.5001	<i>Podosira, Copepoda</i>
	BW	4520	2154	5	0.5242	<i>Ditylum, Rotifers</i>
Station-5	SW	2013	352	12	0.8451	<i>Podosira, Rotifers</i>
	BW	1064	438	6	0.9461	<i>Podosira</i>
Station-6	SW	1784	547	7	0.8564	<i>Podosira, Ditylum</i>
	BW	1842	321	8	0.8723	<i>Podosira, Ditylum, Echinodermata</i>
Station-7	SW	2011	357	5	0.5623	<i>Podosira, N. longisigma, Ditylum</i>
	BW	1954	276	10	0.6853	<i>Podosira, N. longisigma, Ditylum</i>
Station-8	SW	3722	571	15	0.5646	<i>N. longisigma</i>
	BW	1823	615	13	0.6277	<i>Ditylum, Rotifers</i>

*SW= Surface Water, BW= Bottom Water

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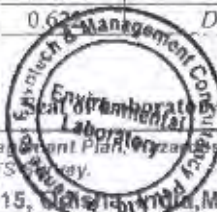
Environmental Studies (EIA & BIA), Monitoring, Forest Diversion Planning, DPR, Wildlife Management Plan, Environmental Impact Assessment & Safety Studies, RS& GIS, Baseline Survey, Hydrological & Geological Studies, Socio-economic Studies, DGPS & ETS Study.

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Report no. - CEMC/TDPC/L030/19/W

Issued Date-03.01.2019

SEA WATER ANALYSIS REPORT

TOTAL FAUNA MONITORING DATA				
Locations		Name of Phylum, Class and Number of individuals encountered	Total number of species Encountered	Total Fauna per m ³
Station-1	SW	1. Phylum- Arthropoda, Class- Malacostraca-15 2. Phylum- Annelida, Class- Polychaeta-6	28	112
	BW	1. Phylum- Arthropoda Class- Malacostraca-07 2. Phylum- Annelida Class- Polychaeta-29	24	198
Station-2	SW	1. Phylum- Annelida, Class- Polychaeta-17 2. Phylum- Arthropoda Class- Copepoda-20	19	128
	BW	1. Phylum- Annelida Class- Polychaeta-18 2. Phylum- Arthropoda Class- Copepoda-22	22	164
Station-3	SW	1. Phylum- Arthropoda Class- Malacostraca-10 2. Phylum- Annelida Class- Polychaeta-19 3. Phylum- Mollusca Class- Gastropoda-14 Class- Pelecypoda-11	88	968
	BW	1. Phylum- Arthropoda Class- Malacostraca-23 2. Phylum- Annelida Class- Polychaeta-13 3. Phylum- Mollusca Class- Gastropoda-19 Class- Pelecypoda-02	86	942
Station-4	SW	1. Phylum- Annelida Class- Polychaeta-19 2. Phylum- Mollusca Class- Gastropoda-16 Class- Pelecypoda-12 Class- Bivalvia-05	64	682
	BW	1. Phylum- Annelida Class- Polychaeta-30 2. Phylum- Mollusca Class- Gastropoda-36 Class- Pelecypoda-29 Class- Bivalvia-21	76	742
Station-5	SW	1. Phylum- Arthropoda Class- Amphipoda-39 2. Phylum- Annelida Class- Polychaeta-24 3. Phylum- Mollusca Class- Pelecypoda-21 Class- Bivalvia-10 Class- Gastropoda-7	56	782
	BW	1. Phylum- Arthropoda Class- Amphipoda-21 2. Phylum- Annelida Class- Polychaeta-13 3. Phylum- Mollusca Class- Pelecypoda-9 Class- Bivalvia-19 Class- Gastropoda-16	80	978
Station-6	SW	1. Phylum- Annelida Class- Polychaeta-52 2. Phylum- Mollusca Class- Bivalvia-20	67	482
	BW	1. Phylum- Annelida Class- Polychaeta-17 2. Phylum- Mollusca Class- Bivalvia-11	18	546
Station-7	SW	1. Phylum- Annelida Class- Polychaeta-17 2. Phylum- Mollusca Class- Gastropoda-10 Class- Bivalvia-14 Class- Scaphopoda-4	56	472
	BW	1. Phylum- Annelida Class- Polychaeta-29 2. Phylum- Mollusca Class- Gastropoda-23 Class- Bivalvia-28 Class- Scaphopoda-30	40	548
Station-8	SW	1. Phylum- Annelida Class- Polychaeta-36 2. Phylum- Mollusca Class- Bivalvia-20	48	564
	BW	1. Phylum- Annelida Class- Polychaeta-30 2. Phylum- Mollusca Class- Gastropoda-18 Class- Pelecypoda-9	34	456

*SW= Surface Water, BW= Bottom Water

Dr. T. Sahu, Ph.D. Env. Sc

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Environmental Studies (EIA & EMP) Monitoring, Forest Diversion Planning, Draft Wildlife Management Plan, Hazardous & Safety Studies, RS& GIS, Baseline Survey, Hydrological & Geological Studies, Socio-economic Studies, Impact Assessment Survey.

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Report no. - CEMC/TDPCL/030119/Sed

Issued Date-03.01.2019

SEDIMENT ANALYSIS REPORT

Name & Address of the Customer : M/s. The Dhamra Port Company Ltd., Dosinga,
Bhadrak
Work order No. : 4800035134, dtd-30.07.2018
Date of Sampling : 10.12.2018
Sampling by : Bikash Samantaray
Sample Description : Sediment

SEA SEDIMENT ANALYSIS REPORT

SEDIMENT ANALYSIS DATA									
Locations	pH	Organic Matter	Moisture Content (%)	Conductivity (mS/cm)	Iron (%)	Sodium (%)	Copper (mg/kg)	Nickel (mg/Kg)	Zinc (mg/kg)
Station-1	6.7	4.1	7.8	5.22	3.4	23.82	<5	<1	<3
Station-2	6.8	4.3	8.2	5.31	3.1	23.66	<5	<1	<3
Station-3	6.6	4.8	8.4	5.3	3.5	22.48	<5	<1	<3
Station-4	6.5	6.1	8.8	5.28	3.6	19.64	<5	<1	<3
Station-5	6.4	5.8	7.8	5.27	3.3	18.1	<5	<1	<3
Station-6	6.7	6.2	8.1	5.32	3.5	17.48	<5	<1	<3
Station-7	7.1	4.6	7.9	3.06	3.1	15.14	<5	<1	<3
Station-8	7.2	4.8	8.3	3.88	3.5	15.82	<5	<1	<3

SEDIMENT ANALYSIS DATA									
Locations	Manganese (mg/kg)	Lead (mg/kg)	Boron (mg/kg)	Phosphate (mg/kg)	Chloride (mg/kg)	Sulphate (mg/kg)	Sulphide (mg/kg)	Pesticide (mg/kg)	Potassium (mg/kg)
Station-1	<1	<5	<0.5	<0.5	842.5	1882.4	ND	ND	1.28
Station-2	<1	<5	<0.5	<0.5	798.3	1804.6	ND	ND	1.36
Station-3	<1	<5	<0.5	<0.5	994.6	1798.8	ND	ND	0.98
Station-4	<1	<5	<0.5	<0.5	955.5	1856.2	ND	ND	0.84
Station-5	<1	<5	<0.5	<0.5	905.0	1842.5	ND	ND	0.85
Station-6	<1	<5	<0.5	<0.5	840.4	1808.0	ND	ND	0.88
Station-7	<1	<5	<0.5	<0.5	994.6	1782.8	ND	ND	0.94
Station-8	<1	<5	<0.5	<0.5	924.2	1794.2	ND	ND	0.89

SEDIMENT ANALYSIS DATA									
Locations	Total Chromium m (mg/kg)	Petroleum Hydrocarb- on (mg/kg)	Aluminium m (mg/kg)	Total Nitrogen n (mg/kg)	Organic Nitrogen (mg/kg)	Phosphorus (mg/kg)	Texture (%)		
							Sand	Silt	Clay
Station-1	< 1	0.29	< 0.1	4.8	2.1	4.8	0.06	20.4	79.54
Station-2	< 1	0.26	< 0.1	4.6	2.2	4.5	0.28	31.2	68.52
Station-3	< 1	0.14	< 0.1	4.4	1.4	4.8	0.62	43.6	55.78
Station-4	< 1	0.1	< 0.1	3.8	1.3	4.2	0.18	20.4	79.42
Station-5	< 1	ND	< 0.1	3.8	1.2	3.9	0.88	30.2	68.92
Station-6	< 1	ND	< 0.1	4.2	1.4	4.4	1.56	31.6	66.84
Station-7	< 1	ND	< 0.1	3.9		4.2	0.44	18.24	81.32
Station-8	< 1	ND	< 0.1	4.2		4.7	2.1	28.6	69.3

Dr. T. S. Sahoo, Ph.D. Env. Sc.
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Issued Date-03.01.2019

SEA SEDIMENT ANALYSIS REPORT

PHYTOBENTHOS MONITORING DATA					
Locations	Fungus (CFU/1 g dry wt.)	Total Count/ 50g wet sediment	No. of Species	Diversity Index	Major Species
Station-1	2152	158	8	1.0713	<i>Podosira, Ditylum</i>
Station-2	1021	104	11	0.3171	<i>Podosira, N. longisigma, Euglena</i>
Station-3	7132	392	14	0.8471	<i>Podosira, Amphora</i>
Station-4	3216	411	7	0.4604	<i>Podosira, N. longisigma, Euglena</i>
Station-5	1624	111	13	0.7284	<i>Podosira, N. longisigma, Amphora</i>
Station-6	2746	183	7	0.1872	<i>Podosira, N. longisigma, Ditylum</i>
Station-7	2900	502	9	0.5704	<i>N. longisigma, Ditylum</i>
Station-8	1335	394	8	0.6342	<i>Podosira, Ditylum</i>

TOTAL FAUNA MONITORING DATA			
Locations	Name of Phylum, Class and Number of individuals encountered	Total number of species Encountered	Total Fauna per m ³
Station-1	1. Phylum- Arthropoda Class- Malacostraca-12 2. Phylum- Annelida Class- Polychaeta-41	42	242
Station-2	1. Phylum- Annelida Class- Polychaeta-19 2. Phylum- Arthropoda Class- Copepoda-9 3. Phylum- Cnidaria Class- Anthozoa-9	120	364
Station-3	1. Phylum- Arthropoda Class- Malacostraca-12 2. Phylum- Annelida Class- Polychaeta-14 3. Phylum- Mollusca Class- Gastropoda-9 Class- Pelecypoda-40	142	876
Station-4	1. Phylum- Annelida Class- Polychaeta-14 2. Phylum- Mollusca Class- Gastropoda-4 Class- Bivalvia-9 Class- Pelecypoda-5	94	782
Station-5	1. Phylum- Arthropoda Class- Amphipoda-22 2. Phylum- Annelida Class- Polychaeta-13 3. Phylum- Mollusca Class- Pelecypoda-20 Class- Bivalvia-9 Class- Gastropoda-28	88	1024
Station-6	1. Phylum- Annelida Class- Polychaeta-14 2. Phylum- Mollusca Class- Bivalvia-7 3. Phylum- Cnidaria Class- Hydrozoa-4	68	814
Station-7	1. Phylum- Annelida Class- Polychaeta-16 2. Phylum- Mollusca Class- Gastropoda-10 Class- Bivalvia-7 Class- Scaphopoda-28	40	448
Station-8	1. Phylum- Annelida Class- Polychaeta-41 2. Phylum- Mollusca Class- Gastropoda-11 Class- Bivalvia-9 Class- Pelecypoda-7	28	402

Dr. T. Sahu, Ph.D. Env. Sc

GAZETTE No. 1307/1983-06-2019



Environmental Studies (EIA & EMP), Monitoring, Forest Diversion Planning, DPR, Wildlife Management Plan, Hazardous & Safety Studies, RS& GIS, Baseline Survey, Hydrological & Geological Studies, Socio-economic Studies, DGPS & ETS Survey.

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Report no. - CEMC/TDPCI/040219/A1

Issued Date-04.02.2019

AMBIENT AIR QUALITY MONITORING TEST REPORT

Client Name & Address	M/s. The Dhamra Port Company Ltd., Dosinga, Bhadrak
Work Order No.	4800035134, dtd-30.07.2018
Reference No.	CEMC-04022019A1
Nature of Sampling	Ambient Air Sample
Sampling Location	Colony Area
Sampling By	Mr.Chandan Kumar & Mr. Bhaktahari Dash
Sampling Duration	01.01.2019 to 31.01.2019

ANALYSIS RESULT

Date	PM ₁₀ ($\mu\text{g}/\text{m}^3$)	PM _{2.5} ($\mu\text{g}/\text{m}^3$)	SO ₂ ($\mu\text{g}/\text{m}^3$)	NO _x ($\mu\text{g}/\text{m}^3$)	CO (mg/m^3)	NH ₃ ($\mu\text{g}/\text{m}^3$)	O ₃ ($\mu\text{g}/\text{m}^3$)	Pb ($\mu\text{g}/\text{m}^3$)	Ni (ng/m^3)	As (ng/m^3)	Benzene ($\mu\text{g}/\text{m}^3$)	BaP (ng/m^3)
01.01.2019	61.4	33.4	8.0	13.1	0.5	<20	<10	<0.06	<0.6	<0.44	<1	<1
04.01.2019	59.8	33.1	7.8	12.8	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
07.01.2019	63.2	34.8	8.1	13.2	0.5	<20	<10	<0.06	<0.6	<0.44	<1	<1
10.01.2019	60.9	32.9	7.7	13.0	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
14.01.2019	61.3	33.6	7.9	13.1	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
17.01.2019	62.7	34.2	8.0	13.3	0.5	<20	<10	<0.06	<0.6	<0.44	<1	<1
21.01.2019	60.6	33.5	7.9	12.9	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
23.01.2019	61.5	33.7	8.1	13.1	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
NAAQ* Standard	100	60	80	80	4	400	100	1.0	20	6	5	1
Methods of Analysis	IS: 5182 (Part- 23)	Gravimetric Method as per CPCB method	IS: 5182 (Part-2)	IS: 5182 (Part-6)	IS: 5182 (Part- 10)	Indophenol Blue Method followed by CPCB	IS: 5182 (Part-9)	IS: 5182 (Part- 22)	As per CPCB method followed by AAS	As per CPCB method followed by AAS	IS: 5182 (Part- 11)	IS: 5182 (Part- 12)

N.B- *NAAQ- National Ambient Air Quality Standard as per 18th Nov, 2009 Gatt. Notification.

Dr.T. S. S. D. Env. Sc.

Authorized Signatory

Notes:

DATE

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Laboratory At: Plot No. 800/1274, Johal, Pahal, Bhubaneswar-752101.

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Report no. - CEMC/TDPCL/040219/A2

Issued Date-04.02.2019

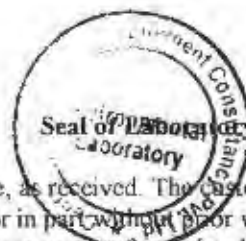
AMBIENT AIR QUALITY MONITORING TEST REPORT

Client Name & Address	M/s. The Dhamra Port Company Ltd., Dosinga, Bhadrak
Work Order No.	4800035134, dtd-30.07.2018
Reference No.	CEMC-04022019A2
Nature of Sampling	Ambient Air Sample
Sampling Location	Kanakaprasad Village
Sampling By	Mr.Chandan Kumar & Mr. Bhaktahari Dash
Sampling Duration	01.01.2019 to 31.01.2019

Date	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	SO ₂ (µg/m ³)	NO _x (µg/m ³)	CO (mg/m ³)	NH ₃ (µg/m ³)	O ₃ (µg/m ³)	Pb (µg/m ³)	Ni (ng/m ³)	As (ng/m ³)	Benzene (µg/m ³)	BaP (ng/m ³)
01.01.2019	57.2	32.5	7.9	13.1	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
04.01.2019	55.7	30.6	7.7	12.8	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
07.01.2019	58.4	32.8	7.9	12.9	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
10.01.2019	59.8	33.2	8.0	13.2	0.5	<20	<10	<0.06	<0.6	<0.44	<1	<1
14.01.2019	57.6	32.4	7.8	13.0	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
17.01.2019	56.9	31.9	7.7	12.8	0.3	<20	<10	<0.06	<0.6	<0.44	<1	<1
21.01.2019	59.5	33.1	7.9	13.1	0.5	<20	<10	<0.06	<0.6	<0.44	<1	<1
23.01.2019	58.3	32.7	7.8	12.9	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
NAAQ* Standard	100	60	80	80	4	400	100	1.0	20	6	5	1
Methods of Analysis	IS: 5182 (Part-23)	Gravimetric Method as per CPCB method	IS: 5182 (Part-2)	IS: 5182 (Part-6)	IS: 5182 (Part-10)	Indophen ols Blue Method followed by CPCB	IS: 5182 (Part-9)	IS: 5182 (Part- 22)	As per CPCB method followe d by AAS	As per CPCB method followe d by AAS	IS: 5182 (Part-11)	IS: 5182 (Part- 12)

N.B- *NAAQ- National Ambient Air Quality Standard as per 18th Nov, 2009 Gatt. Notification.

Dr. T. J. D. Env. Sc
Authorized Signatory
Notes:



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Report no. - CEMC/TDPCL/040219/A3

Issued Date-04.02.2019

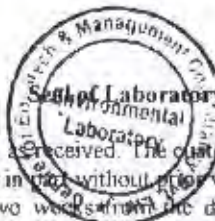
AMBIENT AIR QUALITY MONITORING TEST REPORT

Client Name & Address	M/s. The Dhamra Port Company Ltd., Dosinga, Bhadrak
Work Order No.	4800035134, dtd-30.07.2018
Reference No.	CEMC-04022019A3
Nature of Sampling	Ambient Air Sample
Sampling Location	Near BMH
Sampling By	Mr.Chandan Kumar & Mr. Bhaktahari Dash
Sampling Duration	01.01.2019 to 31.01.2019

Date	PM ₁₀ ($\mu\text{g}/\text{m}^3$)	PM _{2.5} ($\mu\text{g}/\text{m}^3$)	SO ₂ ($\mu\text{g}/\text{m}^3$)	NO _x ($\mu\text{g}/\text{m}^3$)	CO (mg/m^3)	NH ₃ ($\mu\text{g}/\text{m}^3$)	O ₃ ($\mu\text{g}/\text{m}^3$)	Pb ($\mu\text{g}/\text{m}^3$)	Ni (ng/m^3)	As (ng/m^3)	Benzene ($\mu\text{g}/\text{m}^3$)	BaP (ng/m^3)
01.01.2019	63.1	35.2	8.2	13.2	0.5	<20	<10	<0.06	<0.6	<0.44	<1	<1
04.01.2019	60.4	32.4	7.8	13.0	0.5	<20	<10	<0.06	<0.6	<0.44	<1	<1
07.01.2019	62.5	34.6	8.0	13.1	0.5	<20	<10	<0.06	<0.6	<0.44	<1	<1
10.01.2019	61.8	34.1	7.9	13.2	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
14.01.2019	60.9	33.7	7.8	12.9	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
17.01.2019	62.7	34.3	8.1	13.2	0.5	<20	<10	<0.06	<0.6	<0.44	<1	<1
21.01.2019	63.2	34.9	8.2	13.3	0.5	<20	<10	<0.06	<0.6	<0.44	<1	<1
23.01.2019	61.6	33.8	8.0	13.0	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
NAAQ* Standard	100	60	80	80	4	400	100	1.0	20	6	5	1
Methods of Analysis	IS: 5182 (Part-23)	Gravimetric Method as per CPCB method	IS: 5182 (Part-2)	IS: 5182 (Part-6)	IS: 5182 (Part-10)	Indophenol Blue Method followed by CPCB	IS: 5182 (Part-9)	IS: 5182 (Part-22)	As per CPCB method followed by AAS	As per CPCB method followed by AAS	IS: 5182 (Part-11)	IS: 5182 (Part-12)

N.B- *NAAQ- National Ambient Air Quality Standard as per 18th Nov, 2009 Gait Notification.

Dr. T. K. Das, D. Env. Sc.
Authorized Signatory
Notes:
(GATEWAY NO. 103/06/2018)



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Laboratory At: Plot No. 800/1274, Johal, Pahal, Bhubaneswar-752101,
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Issued Date-04.02.2019

AMBIENT AIR QUALITY MONITORING TEST REPORT

Date	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	SO ₂ (µg/m ³)	NOx (µg/m ³)	CO (mg/m ³)	NH ₃ (µg/m ³)	O ₃ (µg/m ³)	Pb (µg/m ³)	Ni (ng/m ³)	As (ng/m ³)	Benzene (µg/m ³)	BaP (ng/m ³)
01.01.2019	66.4	37.2	8.2	13.3	0.5	<20	<10	<0.06	<0.6	<0.44	<1	<1
04.01.2019	62.6	35.4	7.9	13.2	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
07.01.2019	65.7	36.1	8.1	13.4	0.5	<20	<10	<0.06	<0.6	<0.44	<1	<1
10.01.2019	64.3	35.9	8.0	13.2	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
14.01.2019	65.9	36.8	8.2	13.1	0.5	<20	<10	<0.06	<0.6	<0.44	<1	<1
17.01.2019	63.5	35.7	8.0	13.0	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
21.01.2019	64.8	36.3	8.1	13.3	0.5	<20	<10	<0.06	<0.6	<0.44	<1	<1
23.01.2019	65.8	37.1	8.2	13.4	0.5	<20	<10	<0.06	<0.6	<0.44	<1	<1
NAAQ* Standard	100	60	80	80	4	400	100	1.0	20	6	5	1
Methods of Analysis	IS: 5182 (Part-23)	Gravimetri c Method as per CPCB method	IS: 5182 (Part-2)	IS: 5182 (Part-6)	IS: 5182 (Part-10)	Indophe nols Blue Method followed by CPCB	IS: 5182 (Part-9)	IS: 5182 (Part-22)	As per CPCB method followe d by AAS	As per CPCB metho d followe d by AAS	IS: 5182 (Part- 11)	IS: 5182 (Part- 12)

N.B.- *NAAO- National Ambient Air Quality Standard as per 18th Nov. 2009 Gatt. Notification

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Report no. - CEMC/TDPCL/040219/A5

Issued Date-04.02.2019

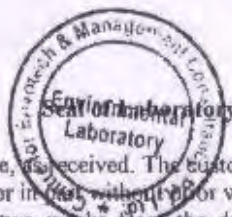
AMBIENT AIR QUALITY MONITORING TEST REPORT

Client Name & Address	M/s. The Dhamra Port Company Ltd., Dosinga, Bhadrak
Work Order No.	4800035134, dtd-30.07.2018
Reference No.	CEMC-04022019A5
Nature of Sampling	Ambient Air Sample
Sampling Location	Dosinga Village
Sampling By	Mr.Chandan Kumar & Mr. Bhaktahari Dashi
Sampling Duration	01.01.2019 to 31.01.2019

Date	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	SO ₂ (µg/m ³)	NO _x (µg/m ³)	CO (mg/m ³)	NH ₃ (µg/m ³)	O ₃ (µg/m ³)	Pb (µg/m ³)	Ni (ng/m ³)	As (ng/m ³)	Benzene (µg/m ³)	BaP (ng/m ³)
01.01.2019	61.2	34.1	8.3	13.5	0.5	<20	<10	<0.06	<0.6	<0.44	<1	<1
04.01.2019	59.4	32.7	8.0	13.2	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
07.01.2019	58.6	31.9	7.9	13.4	0.3	<20	<10	<0.06	<0.6	<0.44	<1	<1
10.01.2019	60.8	33.6	8.2	13.3	0.5	<20	<10	<0.06	<0.6	<0.44	<1	<1
14.01.2019	61.3	34.3	8.3	13.5	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
17.01.2019	59.7	32.8	8.1	13.1	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
21.01.2019	60.9	33.7	8.2	13.3	0.5	<20	<10	<0.06	<0.6	<0.44	<1	<1
23.01.2019	59.5	32.9	8.1	13.4	0.3	<20	<10	<0.06	<0.6	<0.44	<1	<1
NAAQ* Standard	100	60	80	80	4	400	100	1.0	20	6	5	1
Methods of Analysis	IS: 5182 (Part- 23)	Gravimetri c Method as per CPCB method	IS: 5182 (Part-2)	IS: 5182 (Part-6)	IS: 5182 (Part-10)	Indophe nols Blue Method followed by CPCB	IS: 5182 (Part-9)	IS: 5182 (Part-22)	As per CPCB method followe d by AAS	As per CPCB method followe d by AAS	IS: 5182 (Part- 11)	IS: 5182 (Part- 12)

N.B- *NAAQ- National Ambient Air Quality Standard as per 18th Nov, 2009 Gatt. Notification.

Dr. J. K. Das
Authorized Signatory Env. Sc
Notes: 1. ANALYST
GAZETTE NOTIFICATION



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Report no. - CEMC/TDPCL/040219/A6

Issued Date-04.02.2019

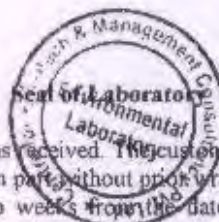
AMBIENT AIR QUALITY MONITORING TEST REPORT

Client Name & Address	M/s. The Dhamra Port Company Ltd., Dosinga, Bhadrak
Work Order No.	4800035134, dtd-30.07.2018
Reference No.	CEMC-04022019A6
Nature of Sampling	Ambient Air Sample
Sampling Location	Bhitarkanika (Eco Sensitive)
Sampling By	Mr.Chandan Kumar & Mr. Bhaktabari Dash
Sampling Duration	01.01.2019 to 31.01.2019

Date	PM ₁₀ ($\mu\text{g}/\text{m}^3$)	PM _{2.5} ($\mu\text{g}/\text{m}^3$)	SO ₂ ($\mu\text{g}/\text{m}^3$)	NO _x ($\mu\text{g}/\text{m}^3$)	CO (mg/m^3)	NH ₃ ($\mu\text{g}/\text{m}^3$)	O ₃ ($\mu\text{g}/\text{m}^3$)	Pb ($\mu\text{g}/\text{m}^3$)	Ni (ng/m^3)	As (ng/m^3)	Benzene ($\mu\text{g}/\text{m}^3$)	BaP (ng/m^3)
01.01.2019	49.6	28.3	6.9	10.8	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
04.01.2019	47.8	27.1	6.7	10.5	0.3	<20	<10	<0.06	<0.6	<0.44	<1	<1
07.01.2019	49.4	28.2	6.8	10.7	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
10.01.2019	48.9	27.8	6.6	10.6	0.3	<20	<10	<0.06	<0.6	<0.44	<1	<1
14.01.2019	50.1	28.9	6.9	10.9	0.3	<20	<10	<0.06	<0.6	<0.44	<1	<1
17.01.2019	48.5	27.6	6.7	10.5	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
21.01.2019	49.7	28.7	6.9	10.7	0.3	<20	<10	<0.06	<0.6	<0.44	<1	<1
23.01.2019	48.6	28.1	6.8	10.6	0.3	<20	<10	<0.06	<0.6	<0.44	<1	<1
NAAQ Standard	100	60	80	80	4	400	100	1.0	20	6	5	1
Methods of Analysis	IS: 5182 (Part- 23)	Gravimetri c Method as per CPCB method	IS: 5182 (Part-2)	IS: 5182 (Part-6)	IS: 5182 (Part-10)	Indophe not Blue Method followed by CPCB	IS: 5182 (Part-9)	IS: 5182 (Part-22)	As per CPCB method followe d by AAS	As per CPCB method followe d by AAS	IS: 5182 (Part- 11)	IS: 5182 (Part- 12)

N.B- *NAAQ- National Ambient Air Quality Standard as per 18th Nov, 2009 Gair. Notification.

Dr. T. S. Choudhary
Authorized Signatory
Govt. Analyst
Notes:
(GAC/ENV/100)

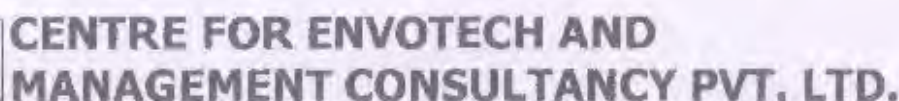


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Issued Date-04.02.2019

NOISE LEVEL MONITORING REPORT

Client Name & Address	M/s. The Dhamra Port Company Ltd., Dosinga, Bhadrak
Work Order No.	4800035134, dtd-30.07.2018
Analysis No.	CEMC/FDPCL-D00N1
Nature of Sampling	Noise Sample
Sampling By	Mr.Chandan Kumar & Mr. Bhaktahari Dash
Sampling Date	01.01.2019 to 31.01.2019

Date	Location	NL Day Time dB (A)			NL Night Time dB (A)		
		Max	Min.	Avg.	Max.	Min.	Avg.
08.01.2019	Near Jetty (I)	70.7	63.1	66.9	64.9	61.8	63.3
05.01.2019	Near BMH-1	69.6	62.4	66.0	65.3	59.1	62.2
02.01.2019	Colony Area (R)	54.4	51.2	52.8	42.5	39.1	40.8
15.01.2019	Kanakaprasad Village (R)	54.1	51.5	52.8	43.1	38.3	40.7
18.01.2019	Dosinga village (R)	53.8	50.2	52.0	43.7	37.9	40.8
11.01.2019	Ecosensitive Zone	49.5	42.7	46.1	41.3	37.5	39.4

*NL- Noise Level, I- Industrial, R- Residential

National Standard of Noise Level

Area Code	Category of Area/Zone	Permissible Limit in dB (A)	
		Day Time	Night Time
A	Industrial Area	75	70
B	Commercial Area	65	55
C	Residential Area	55	45
D	Silence Zone	50	40

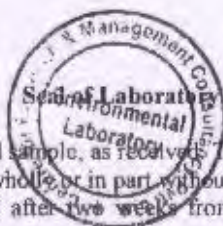
Authorized Signatory:

Notes:

GAZETTE NO. 1357, D1-03-06-2016

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Report no. - CEMC/TDPCI/040219/W1

Issued Date-04.02.2019

STP TEST REPORT

Name & Address of the Customer	: M/s. The Dhamra Port Company Ltd., Dosinga, Bhadrak
Work order No.	: 4800035134, dtd-30.07.2018
Sampling by	: Mr. Bhaktahari Dash
Date of Sampling	: 03.01.2019 & 19.01.2019
Date of Receiving	: 04.01.2019 & 20.01.2019
Sampling & Testing Procedure	: APHA 23 rd Edition
Sample Description	: Waste Water
Sample Quantity	: 1.0 Ltr each
Sample Location	: STP - 15 KLD (Inlet)
Reference Number	: CEMC-04022019W1

STP INLET ANALYSIS RESULT

Sl. No.	Parameter	Unit of Measurement	Result		Design parameter for Raw Sewage
			1 st Fortnight	2 nd Fortnight	
1	Appearance	--	Turbid	Turbid	-
2	Colour	--	Blackish	Blackish	-
3	Odour	--	Foul	Foul	-
4	pH Value @ 25°C	--	6.62	6.64	6.0-8.5
5	Total Suspended Solids	mg/l	133.7	128.2	1000
6	B.O.D for 3 days @ 27°C	mg/l	210	230	300-350
7	Oil & Grease	mg/l	<5	<5	100
8	COD	mg/l	680	690	-
9	Ammonical Nitrogen	mg/l	6.6	7.1	-
10	Total Nitrogen	mg/l	29.3	26.4	-
11	Faecal Coliform	MPN/100ml	1600	1600	-

Dr. T. J. D. Env. Sc

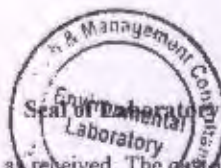
Authorized Signatory

Notes: 03-06-2016

GAZETTE NO. 107/03-06-2016

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Report no. - CEMC/TDPCL/040219/W2

Issued Date-04.02.2019

STP TEST REPORT

Name & Address of the Customer

: M/s. The Dhamra Port Company Ltd., Dosinga,
Bhadrak

Work order No.

: 4800035134, dtd-30.07.2018

Sampling by

: Mr. Bhaktahari Dash

Date of Sampling

: 03.01.2019 & 19.01.2019

Date of Receiving

: 04.01.2019 & 20.01.2019

Sampling & Testing Procedure

: APHA 23rd Edition

Sample Description

: Waste Water

Sample Quantity

: 1.0 Ltr each

Sample Location

: STP - 15 KLD (Outlet)

Reference Number

: CEMC-04022019W2

STP OUTLET ANALYSIS RESULT

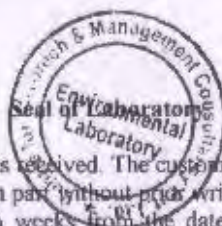
Sl. No.	Parameter	Unit of Measurement	Result		Standards for New STPs Design after notification 2015
			1 st Fortnight	2 nd Fortnight	
1	Appearance	--	Clear	Clear	-
2	Colour	--	Colorless	Colorless	-
3	Odour	--	Odourless	Odourless	-
4	pH Value @ 25°C	--	7.46	7.51	6.5-9.0
5	Total Suspended Solids	mg/l	13.5	12.1	<20
6	B.O.D for 3 days @ 27°C	mg/l	8.4	8.6	<10
7	Oil & Grease	mg/l	<5	<5	--
8	COD	mg/l	16	18	<50
9	Ammonical Nitrogen	mg/l	0.72	0.84	<5
10	Total Nitrogen	mg/l	2.8	3.5	<10
11	Faecal Coliform	MPN/100ml	17	17	<100

Dr. T. T. Panda, B.D. Env. Sc

Authorized Signatory

Notes: The result given above related to the tested sample, as received. The customer asked for the above test only.

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Report no. - CEMC/TDPCL/040219/W3

Issued Date-04.02.2019

STP TEST REPORT

Name & Address of the Customer

: M/s. The Dhamra Port Company Ltd., Dosinga,
Bhadrak

Work order No.

: 4800035134, dtd-30.07.2018

Sampling by

: Mr. Bhaktahari Dash

Date of Sampling

: 03.01.2019 & 19.01.2019

Date of Receiving

: 04.01.2019 & 20.01.2019

Sampling & Testing Procedure

: APHA 23rd Edition

Sample Description

: Waste Water

Sample Quantity

: 1.0 Ltr each

Sample Location

: STP - 140 KLD (Inlet)

Reference Number

: CEMC-04022019W3

STP INLET ANALYSIS RESULT

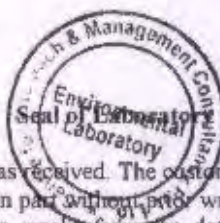
Sl. No.	Parameter	Unit of Measurement	Result		Design parameter for Raw Sewage
			1st Fortnight	2nd Fortnight	
1	Appearance	—	Turbid	Turbid	—
2	Colour	—	Blackish	Blackish	—
3	Odour	—	Foul	Foul	—
4	pH Value @ 25°C	—	6.68	6.59	6.0-8.5
5	Total Suspended Solids	mg/l	122.5	116.3	1000
6	B.O.D for 3 days @ 27°C	mg/l	250	270	300-350
7	Oil & Grease	mg/l	6.8	7.4	100
8	COD	mg/l	700	720	—
9	Ammonical Nitrogen	mg/l	8.7	9.1	—
10	Total Nitrogen	mg/l	31.2	32.4	—
11	Faecal Coliform	MPN/100ml	>1600	>1600	—

Dr. T. Sanjay Kumar, PhD, Env. Sc

Authorized Signatory

Notes: (GATE No. 4307, Dt-03-06-2016)

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Report no. - CEMC/TDPCL/040219/W4

Issued Date-04.02.2019

STP TEST REPORT

Name & Address of the Customer	: M/s. The Dhamra Port Company Ltd., Dosinga, Bhadrak
Work order No.	: 4800035134, dtd-30.07.2018
Sampling by	: Mr. Bhaktahari Dash
Date of Sampling	: 03.01.2019 & 19.01.2019
Date of Receiving	: 04.01.2019 & 20.01.2019
Sampling & Testing Procedure	: APHA 23rd Edition
Sample Description	: Waste Water
Sample Quantity	: 1.0 Ltr each
Sample Location	: STP - 140 KLD (Outlet)
Reference Number	: CEMC-04022019W4

STP OUTLET ANALYSIS RESULT

SL No.	Parameter	Unit of Measurement	Result		Standards for New STPs Design after notification 2015
			1 st Fortnight	2 nd Fortnight	
1	Appearance	--	Clear	Clear	-
2	Colour	--	Colorless	Colorless	-
3	Odour	--	Odourless	Odourless	-
4	pH Value @ 25°C	--	7.61	7.63	6.5-9.0
5	Total Suspended Solids	mg/l	11.9	12.7	<20
6	B.O.D for 3 days @ 27°C	mg/l	8.8	9.2	<10
7	Oil & Grease	mg/l	<5	<5	--
8	COD	mg/l	24	28	<50
9	Ammonical Nitrogen	mg/l	0.51	0.55	<5
10	Total Nitrogen	mg/l	5.3	5.7	<10
11	Faecal Coliform	MPN/100ml	17	17	<100

Dr. P. K. Sahoo, Ph.D. Env. Sc

Authorized Signatory

Notes: (GAZETTE NOTIFIED 01-03-06-2016)

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Report no. - CEMC/TDPCL/040319/A6

Issued Date-04.03.2019

AMBIENT AIR QUALITY MONITORING TEST REPORT

Client Name & Address	M/s. The Dhamra Port Company Ltd., Dosinga, Bhadrak
Work Order No.	4800035134, dtd-30.07.2018
Reference No.	CEMC-04032019A5
Nature of Sampling	Ambient Air Sample
Sampling Location	Bhitarkanika (Eco Sensitive)
Sampling By	Mr.Chandan Kumar & Mr. Bhaktabari Dash
Sampling Duration	01.02.2019 to 28.02.2019

Date	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	SO ₂ (µg/m ³)	NO _x (µg/m ³)	CO (mg/m ³)	NH ₃ (µg/m ³)	O ₃ (µg/m ³)	Pb (µg/m ³)	Ni (ng/m ³)	As (ng/m ³)	Benzene (µg/m ³)	BaP (ng/m ³)
04.02.2019	50.3	27.8	6.8	10.9	0.3	<20	<10	<0.06	<0.6	<0.44	<1	<1
07.02.2019	49.2	27.4	6.9	11.0	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
11.02.2019	48.8	27.3	6.7	10.6	0.3	<20	<10	<0.06	<0.6	<0.44	<1	<1
14.02.2019	51.0	28.1	7.1	10.9	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
18.02.2019	49.6	27.7	6.9	10.7	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
21.02.2019	48.3	27.2	6.6	10.3	0.3	<20	<10	<0.06	<0.6	<0.44	<1	<1
25.02.2019	50.9	28.0	6.9	11.2	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
27.02.2019	49.4	27.6	6.8	10.8	0.3	<20	<10	<0.06	<0.6	<0.44	<1	<1
NAAQ Standard	100	60	80	80	4	400	100	1.0	20	6	5	1
Methods of Analysis	IS: 5182 (Part- 23)	Gravimetri c Method as per CPCB method	IS: 5182 (Part-2)	IS: 5182 (Part-6)	IS: 5182 (Part-10)	Indophe not Blue Method followed by CPCB	IS: 5182 (Part-9)	IS: 5182 (Part-22)	As per CPCB method followe d by AAS	As per CPCB method followe d by AAS	IS: 5182 (Part- 11)	IS: 5182 (Part- 12)

N.B- *NAAQ- National Ambient Air Quality Standard as per 18th Nov, 2009 Gatt. Notification.

Ms. M. Rout, Msc. Env. Sc

ANALYST
Signature
Notes:

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Report no. - CEMC/TDPCL/040319/A5

Issued Date-04.03.2019

AMBIENT AIR QUALITY MONITORING TEST REPORT

Client Name & Address	M/s. The Dhamra Port Company Ltd., Dosinga, Bhadrak
Work Order No.	4800035134, dtd-30.07.2018
Reference No.	CEMC-04032019A5
Nature of Sampling	Ambient Air Sample
Sampling Location	Dosinga Village
Sampling By	Mr.Chandan Kumar & Mr. Bhaktahari Dash
Sampling Duration	01.02.2019 to 28.02.2019

Date	PM ₁₀ ($\mu\text{g}/\text{m}^3$)	PM _{2.5} ($\mu\text{g}/\text{m}^3$)	SO ₂ ($\mu\text{g}/\text{m}^3$)	NO _x ($\mu\text{g}/\text{m}^3$)	CO (mg/m^3)	NH ₃ ($\mu\text{g}/\text{m}^3$)	O ₃ ($\mu\text{g}/\text{m}^3$)	Pb ($\mu\text{g}/\text{m}^3$)	Ni (ng/m^3)	As (ng/m^3)	Benzene ($\mu\text{g}/\text{m}^3$)	BaP (ng/m^3)
04.02.2019	62.5	34.8	8.7	13.9	0.5	<20	<10	<0.06	<0.6	<0.44	<1	<1
07.02.2019	59.8	33.5	8.4	13.6	0.5	<20	<10	<0.06	<0.6	<0.44	<1	<1
11.02.2019	61.4	34.3	8.6	13.8	0.5	<20	<10	<0.06	<0.6	<0.44	<1	<1
14.02.2019	60.9	33.9	8.5	13.4	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
18.02.2019	62.1	34.6	8.7	13.8	0.5	<20	<10	<0.06	<0.6	<0.44	<1	<1
21.02.2019	59.6	33.2	8.4	13.3	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
25.02.2019	61.7	34.1	8.6	13.7	0.5	<20	<10	<0.06	<0.6	<0.44	<1	<1
27.02.2019	58.9	33.4	8.2	13.6	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
NAAQ* Standard	100	60	80	80	4	400	100	1.0	20	6	5	1
Methods of Analysis	IS: 5182 (Part- 23)	Gravimetri c Method as per CPCB method	IS: 5182 (Part-2)	IS: 5182 (Part-6)	IS: 5182 (Part-10)	Indophe nols Blue Method followed by CPCB	IS: 5182 (Part-9)	IS: 5182 (Part-22)	As per CPCB method followe d by AAS	As per CPCB method followe d by AAS	IS: 5182 (Part- 11)	IS: 5182 (Part- 12)

N.B- *NAAQ- National Ambient Air Quality Standard as per 18th Nov, 2009 Gatt. Notification.

Ms. M. Rout, Msc. Env. Sc
Authorizing ANALYST

Seal of Laboratory

(SAFETTE No. 1257, Dtd-03.06.2019)

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Report no. - CEMC/TDPCL/040319/A4

Issued Date-04.03.2019

AMBIENT AIR QUALITY MONITORING TEST REPORT

Client Name & Address	M/s. The Dhamra Port Company Ltd., Dosinga, Bhadrak
Work Order No.	4800035134, dtd-30.07.2018
Reference No.	CEMC04032019A4
Nature of Sampling	Ambient Air Sample
Sampling Location	Near Jetty
Sampling By	Mr.Chandan Kumar & Mr. Bhaktahari Dash
Sampling Duration	01.02.2019 to 28.02.2019

Date	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	SO ₂ (µg/m ³)	NO _x (µg/m ³)	CO (mg/m ³)	NH ₃ (µg/m ³)	O ₃ (µg/m ³)	Pb (µg/m ³)	Ni (ng/m ³)	As (ng/m ³)	Benzene (µg/m ³)	BaP (ng/m ³)
04.02.2019	71.2	39.4	8.7	13.8	0.5	<20	<10	<0.06	<0.6	<0.44	<1	<1
07.02.2019	66.1	37.6	8.4	13.6	0.5	<20	<10	<0.06	<0.6	<0.44	<1	<1
11.02.2019	68.5	38.3	8.6	13.7	0.5	<20	<10	<0.06	<0.6	<0.44	<1	<1
14.02.2019	66.8	37.9	8.5	13.5	0.5	<20	<10	<0.06	<0.6	<0.44	<1	<1
18.02.2019	69.4	38.8	8.7	13.8	0.5	<20	<10	<0.06	<0.6	<0.44	<1	<1
21.02.2019	70.3	38.7	8.6	13.4	0.5	<20	<10	<0.06	<0.6	<0.44	<1	<1
25.02.2019	67.9	38.6	8.5	13.7	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
27.02.2019	66.7	37.5	8.3	13.5	0.5	<20	<10	<0.06	<0.6	<0.44	<1	<1
NAAQ* Standard	100	60	80	80	4	400	100	1.0	20	6	5	1
Methods of Analysis	IS: 5182 (Part-23)	Gravimetric Method as per CPCB method	IS: 5182 (Part-2)	IS: 5182 (Part-6)	IS: 5182 (Part-10)	Indophe nol Blue Method followed by CPCB	IS: 5182 (Part-9)	IS: 5182 (Part-22)	As per CPCB method followed by AAS	As per CPCB method followed by AAS	IS: 5182 (Part-11)	IS: 5182 (Part-12)

N.B- *NAAQ- National Ambient Air Quality Standard as per 18th Nov, 2009 Gatt. Notification

Ms. M. Rout, Msc. Env. Sc

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(GATE No-1357, Dt-03-06-2019)

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Report no. - CEMC/TDPCL/040319/A3

Issued Date-04.03.2019

AMBIENT AIR QUALITY MONITORING TEST REPORT

Client Name & Address	M/s. The Dhamra Port Company Ltd., Dosinga, Bhadrak
Work Order No.	4800035134, dtd-30.07.2018
Reference No.	CEMC-04032019A3
Nature of Sampling	Ambient Air Sample
Sampling Location	Near BMH
Sampling By	Mr.Chandan Kumar & Mr. Bhaktahari Dash
Sampling Duration	01.02.2019 to 28.02.2019

Date	PM ₁₀ ($\mu\text{g}/\text{m}^3$)	PM _{2.5} ($\mu\text{g}/\text{m}^3$)	SO ₂ ($\mu\text{g}/\text{m}^3$)	NO _x ($\mu\text{g}/\text{m}^3$)	CO (mg/m^3)	NH ₃ ($\mu\text{g}/\text{m}^3$)	O ₃ ($\mu\text{g}/\text{m}^3$)	Pb ($\mu\text{g}/\text{m}^3$)	Ni (ng/m^3)	As (ng/m^3)	Benzene ($\mu\text{g}/\text{m}^3$)	BaP (ng/m^3)
04.02.2019	64.5	36.3	8.5	13.7	0.5	<20	<10	<0.06	<0.6	<0.44	<1	<1
07.02.2019	62.4	34.8	8.3	13.4	0.5	<20	<10	<0.06	<0.6	<0.44	<1	<1
11.02.2019	61.5	33.9	8.0	13.2	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
14.02.2019	63.6	35.6	8.4	13.6	0.5	<20	<10	<0.06	<0.6	<0.44	<1	<1
18.02.2019	62.9	34.5	8.3	13.3	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
21.02.2019	64.3	36.2	8.6	13.7	0.5	<20	<10	<0.06	<0.6	<0.44	<1	<1
25.02.2019	61.8	34.0	8.1	13.2	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
27.02.2019	63.7	35.7	8.4	13.5	0.5	<20	<10	<0.06	<0.6	<0.44	<1	<1
NAAQ* Standard	100	60	80	80	4	400	100	1.0	20	6	5	1
Methods of Analysis	IS: 5182 (Part-23)	Gravimetri c Method as per CPCB method	IS: 5182 (Part-2)	IS: 5182 (Part-6)	IS: 5182 (Part-10)	Indophe nol Blue Method followed by CPCB	IS: 5182 (Part-9)	IS: 5182 (Part-22)	As per CPCB method followe d by AAS	As per CPCB method followe d by AAS	IS: 5182 (Part-11)	IS: 5182 (Part-12)

N.B. *NAAQ- National Ambient Air Quality Standard as per 18th Nov, 2009 Gatt. Notification.

Ms. M. Rout, Msc: Env. Sc

Authorized Signatory

NOTE No: 1357, Dt: 03-06-2019

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Report no. - CEMC/TDPCL/040319/A2

Issued Date-04.03.2019

AMBIENT AIR QUALITY MONITORING TEST REPORT

Client Name & Address	M/s. The Dhamra Port Company Ltd., Dosinga, Bhadrak
Work Order No.	4800035134, dtd-30.07.2018
Reference No.	CEMC-04032019A2
Nature of Sampling	Ambient Air Sample
Sampling Location	Kanakaprasad Village
Sampling By	Mr.Chandan Kumar & Mr. Bhaktabari Dash
Sampling Duration	01.02.2019 to 28.02.2019

Date	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	SO ₂ (µg/m ³)	NO _x (µg/m ³)	CO (mg/m ³)	NH ₃ (µg/m ³)	O ₃ (µg/m ³)	Pb (µg/m ³)	Ni (ng/m ³)	As (ng/m ³)	Benzene (µg/m ³)	BaP (ng/m ³)
04.02.2019	59.6	33.2	7.9	13.2	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
07.02.2019	57.3	31.5	7.6	13.0	0.3	<20	<10	<0.06	<0.6	<0.44	<1	<1
11.02.2019	60.1	33.6	8.0	13.3	0.5	<20	<10	<0.06	<0.6	<0.44	<1	<1
14.02.2019	58.4	31.4	7.5	12.8	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
18.02.2019	57.8	32.1	7.8	12.6	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
21.02.2019	59.7	32.8	7.9	13.1	0.5	<20	<10	<0.06	<0.6	<0.44	<1	<1
25.02.2019	58.2	31.3	7.7	12.9	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
27.02.2019	59.5	31.9	7.8	12.9	0.5	<20	<10	<0.06	<0.6	<0.44	<1	<1
NAAQ* Standard	100	60	80	80	4	400	100	1.0	20	6	5	1
Methods of Analysis	IS: 5182 (Part-23)	Gravimetric Method as per CPCB method	IS: 5182 (Part-2)	IS: 5182 (Part-6)	IS: 5182 (Part-10)	Indophen ols Blue Method followed by CPCB	IS: 5182 (Part-9)	IS: 5182 (Part- 22)	As per CPCB method followe d by AAS	As per CPCB method followe d by AAS	IS: 5182 (Part-11)	IS: 5182 (Part- 12)

N.B- *NAAQ- National Ambient Air Quality Standard as per 18th Nov, 2009 Gatt. Notification.

Ms. M. Rouk, M.Sc. Env. Sc

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GAZETTE No-1357 D-03-06-19



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Report no. - CEMC/TDPCL/040319/A1

Issued Date-04.03.2019

AMBIENT AIR QUALITY MONITORING TEST REPORT

Client Name & Address	M/s. The Dhamra Port Company Ltd., Dosinga, Bhadrak
Work Order No.	4800035134, dtd-30.07.2018
Reference No.	CEMC-04032019A1
Nature of Sampling	Ambient Air Sample
Sampling Location	Colony Area
Sampling By	Mr.Chandan Kumar & Mr. Bhaktahari Dash
Sampling Duration	01.02.2019 to 28.02.2019

ANALYSIS RESULT

Date	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	SO ₂ (µg/m ³)	NO _x (µg/m ³)	CO (mg/m ³)	NH ₃ (µg/m ³)	O ₃ (µg/m ³)	Pb (µg/m ³)	Ni (ng/m ³)	As (ng/m ³)	Benzene (µg/m ³)	BaP (ng/m ³)
04.02.2019	60.8	32.7	8.1	13.0	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
07.02.2019	62.3	33.5	8.4	13.3	0.5	<20	<10	<0.06	<0.6	<0.44	<1	<1
11.02.2019	61.9	33.4	8.2	13.2	0.5	<20	<10	<0.06	<0.6	<0.44	<1	<1
14.02.2019	62.7	33.9	8.1	13.3	0.5	<20	<10	<0.06	<0.6	<0.44	<1	<1
18.02.2019	60.4	32.6	7.8	12.8	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
21.02.2019	62.7	34.2	7.9	12.6	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
25.02.2019	60.5	32.3	7.9	12.9	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
27.02.2019	61.1	33.0	8.1	13.2	0.5	<20	<10	<0.06	<0.6	<0.44	<1	<1
NAAQ* Standard	100	60	80	80	4	400	100	1.0	20	6	5	1
Methods of Analysis	IS: 5182 (Part- 23)	Gravimetric Method as per CPCB method	IS: 5182 (Part-2)	IS: 5182 (Part-6)	IS: 5182 (Part- 10)	Indophenol Blue Method followed by CPCB	IS: 5182 (Part-9)	IS: 5182 (Part- 22)	As per CPCB method followed by AAS	As per CPCB method followed by AAS	IS: 5182 (Part- 11)	IS: 5182 (Part- 12)

N.B- *NAAQ- National Ambient Air Quality Standard as per 18th Nov, 2009 Gatt. Notification.

Ms. M. Rout, Msc. Env. Sc

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Report no. - CEMC/TDPCL/040319/N

Issued Date-04.03.2019

NOISE LEVEL MONITORING REPORT

Client Name & Address	M/s. The Dhamra Port Company Ltd., Dosinga, Bhadrak
Work Order No.	4800035134, dtd-30.07.2018
Analysis No.	CEMC/TDPCL-D00N1
Nature of Sampling	Noise Sample
Sampling By	Mr.Chandan Kumar & Mr. Bhaktahari Dash
Sampling Date	01.02.2019 to 28.02.2019

Date	Location	NL Day Time dB (A)			NL Night Time dB (A)		
		Max	Min.	Avg.	Max.	Min.	Avg.
12.02.2019	Near Jetty (I)	71.4	64.2	67.8	65.3	61.5	63.4
08.02.2019	Near BMH-1	69.8	62.8	66.3	66.0	60.2	63.1
05.02.2019	Colony Area (R)	54.6	52.4	53.5	43.1	38.7	40.9
19.02.2019	Kanakaprasad Village (R)	54.2	50.8	52.5	44.0	39.4	41.7
15.02.2019	Dosinga village (R)	54.5	51.9	53.2	43.8	38.6	41.2
22.02.2019	Ecosensitive Zone	50.1	43.5	46.8	41.6	37.2	39.4

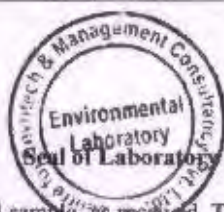
*NL- Noise Level, I- Industrial, R- Residential

National Standard of Noise Level

Area Code	Category of Area/Zone	Permissible Limit in dB (A)	
		Day Time	Night Time
A	Industrial Area	75	70
B	Commercial Area	65	55
C	Residential Area	55	45
D	Silence Zone	50	40

Ms. M. Rout, Msc. Env. Sc

ANALYST
(GAZETTE No. 357, Dt-03-06-2016)



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Report no. - CEMC/TDPCL/040319/W1

Issued Date-04.03.2019

STP TEST REPORT

Name & Address of the Customer

: M/s. The Dhamra Port Company Ltd., Dosinga,
Bhadrak

Work order No.

: 4800035134, dtd-30.07.2018

Sampling by

: Mr. Bhaktabari Dash

Date of Sampling

: 06.02.2019 & 20.02.2019

Date of Receiving

: 07.02.2019 & 21.02.2019

Sampling & Testing Procedure

: APHA 23rd Edition

Sample Description

: Waste Water

Sample Quantity

: 1.0 Ltr each

Sample Location with Job Code

: STP - 15 KLD (Inlet)

Reference Number

: CEMC-04032019W1

STP INLET ANALYSIS RESULT

Sl. No.	Parameter	Unit of Measurement	Result		Design parameter for Raw Sewage
			1 st Fortnight	2 nd Fortnight	
1	Appearance	--	Turbid	Turbid	-
2	Colour	--	Blackish	Blackish	-
3	Odour	--	Foul	Foul	-
4	pH Value @ 25°C	--	6.85	6.93	6.0-8.5
5	Total Suspended Solids	mg/l	125.4	121.7	1000
6	B.O.D for 3 days @ 27°C	mg/l	224	220	300-350
7	Oil & Grease	mg/l	<5	<5	100
8	COD	mg/l	688	670	--
9	Ammonical Nitrogen	mg/l	6.9	6.8	--
10	Total Nitrogen	mg/l	28.6	27.3	--
11	Faecal Coliform	MPN/100ml	1600	1600	--

Ms. M. Rout, (Msc. Env. Sc.)

Authorised Signatory
(GAZETTED No-136A D1-03-06-2016)



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Report no. - CEMC/TDPCL/040319/W2

Issued Date-04.03.2019

STP TEST REPORT

Name & Address of the Customer	: M/s. The Dhamra Port Company Ltd., Dosinga, Bhadrak
Work order No.	: 4800035134, dtd-30.07.2018
Sampling by	: Mr. Bhaktahari Dash
Date of Sampling	: 06.02.2019 & 20.02.2019
Date of Receiving	: 07.02.2019 & 21.02.2019
Sampling & Testing Procedure	: APHA 23rd Edition
Sample Description	: Waste Water
Sample Quantity	: 1.0 Ltr each
Sample Location with Job Code	: STP - 15 KLD (Outlet)
Reference Number	: CEMC-04032019W2

STP OUTLET ANALYSIS RESULT

Sl. No.	Parameter	Unit of Measurement	Result		Standards for New STPs Design after notification 2015
			1 st Fortnight	2 nd Fortnight	
1	Appearance	--	Clear	Clear	-
2	Colour	--	Colorless	Colorless	-
3	Odour	--	Odourless	Odourless	-
4	pH Value @ 25°C	--	7.53	7.62	6.5-9.0
5	Total Suspended Solids	mg/l	13.9	13.2	<20
6	B.O.D for 3 days @ 27°C	mg/l	8.8	8.5	<10
7	Oil & Grease	mg/l	<5	<5	--
8	COD	mg/l	18	16	<50
9	Ammonical Nitrogen	mg/l	0.79	0.76	<5
10	Total Nitrogen	mg/l	3.4	3.3	<10
11	Faecal Coliform	MPN/100ml	17	17	<100

Ms. M. Rout, Msc. Env. Sc.

Govt. ANALYST
Authorized Signatory
Date: 04.03.2019



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Report no. - CEMC/TDPCL/040319/W4

Issued Date-04.03.2019

STP TEST REPORT

Name & Address of the Customer

: M/s. The Dhamra Port Company Ltd., Dosinga,
Bhadrak

Work order No.

: 4800035134, dtd-30.07.2018

Sampling by

: Mr. Bhaktahari Dash

Date of Sampling

: 06.02.2019 & 20.02.2019

Date of Receiving

: 07.02.2019 & 21.02.2019

Sampling & Testing Procedure

: APHA 23rd Edition

Sample Description

: Waste Water

Sample Quantity

: 1.0 Ltr each

Sample Location with Job Code

: STP - 140 KLD (Outlet)

Reference Number

: CEMC-04032019W4

STP OUTLET ANALYSIS RESULT

Sl. No.	Parameter	Unit of Measurement	Result		Standards for New STPs Design after notification 2015
			1 st Fortnight	2 nd Fortnight	
1	Appearance	—	Clear	Clear	—
2	Colour	—	Colorless	Colorless	—
3	Odour	—	Odourless	Odourless	—
4	pH Value @ 25°C	—	7.78	7.82	6.5-9.0
5	Total Suspended Solids	mg/l	12.6	13.4	<20
6	B.O.D for 3 days @ 27°C	mg/l	9.0	9.4	<10
7	Oil & Grease	mg/l	<5	<5	—
8	COD	mg/l	26	30	<50
9	Ammonical Nitrogen	mg/l	0.53	0.58	<5
10	Total Nitrogen	mg/l	5.1	5.4	<10
11	Faecal Coliform	MPN/100ml	17	17	<100

Ms. M. Rout, Msc. Env. Sc

Authorized Signatory

(GATE No-9357, Dt-03-06-2016)

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Report no. - CEMC/TDPCL/040319/W3

Issued Date-04.03.2019

STP TEST REPORT

Name & Address of the Customer	: M/s. The Dhamra Port Company Ltd., Dosinga, Bhadrak
Work order No.	: 4800035134, dtd-30.07.2018
Sampling by	: Mr. Bhaktahari Dash
Date of Sampling	: 06.02.2019 & 20.02.2019
Date of Receiving	: 07.02.2019 & 21.02.2019
Sampling & Testing Procedure	: APIA 23 rd Edition
Sample Description	: Waste Water
Sample Quantity	: 1.0 Ltr each
Sample Location with Job Code	: STP - 140 KLD (Inlet)
Reference Number	: CEMC-04032019W3

STP INLET ANALYSIS RESULT

Sl. No.	Parameter	Unit of Measurement	Result		Design parameter for Raw Sewage
			1st Fortnight	2nd Fortnight	
1	Appearance	—	Turbid	Turbid	—
2	Colour	—	Blackish	Blackish	—
3	Odour	—	Foul	Foul	—
4	pH Value @ 25°C	—	6.71	6.76	6.0-8.5
5	Total Suspended Solids	mg/l	129.3	132.1	1000
6	B.O.D for 3 days @ 27°C	mg/l	270	280	300-350
7	Oil & Grease	mg/l	7.2	7.6	100
8	COD	mg/l	730	750	—
9	Ammonical Nitrogen	mg/l	9.3	9.6	—
10	Total Nitrogen	mg/l	32.4	34.3	—
11	Faecal Coliform	MPN/100ml	>1600	>1600	—

Ms. M. Rout Msc. Env. Sc.

Authorized Signatory
(Gazette No. 357, Dt-03-06-2016)



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Report no. - CEMC/TDPCL/020419/A1

Issued Date-02.04.2019

AMBIENT AIR QUALITY MONITORING TEST REPORT

Client Name & Address	M/s. The Dhamra Port Company Ltd., Dosinga, Bhadrak
Work Order No.	4800035134, dtd-30.07.2018
Reference No.	CEMC-02042019A1
Nature of Sampling	Ambient Air Sample
Sampling Location	Colony Area
Sampling By	Mr.Chandan Kumar & Mr. Bhaktahari Dash
Sampling Duration	01.03.2019 to 31.03.2019

ANALYSIS RESULT

Date	PM ₁₀ ($\mu\text{g}/\text{m}^3$)	PM _{2.5} ($\mu\text{g}/\text{m}^3$)	SO ₂ ($\mu\text{g}/\text{m}^3$)	NO _x ($\mu\text{g}/\text{m}^3$)	CO (mg/m^3)	NH ₃ ($\mu\text{g}/\text{m}^3$)	O ₃ ($\mu\text{g}/\text{m}^3$)	Pb ($\mu\text{g}/\text{m}^3$)	Ni (ng/m^3)	As (ng/m^3)	Benzene ($\mu\text{g}/\text{m}^3$)	BaP (ng/m^3)
04.03.2019	65.2	34.2	8.4	13.8	0.5	<20	<10	<0.06	<0.6	<0.44	<1	<1
07.03.2019	60.4	30.8	8.1	13.2	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
11.03.2019	63.4	32.2	8.5	14.1	0.5	<20	<10	<0.06	<0.6	<0.44	<1	<1
14.03.2019	61.7	31.7	8.2	13.6	0.5	<20	<10	<0.06	<0.6	<0.44	<1	<1
18.03.2019	66.4	34.8	8.6	14.2	0.5	<20	<10	<0.06	<0.6	<0.44	<1	<1
23.03.2019	60.8	31.2	8.5	14.4	0.5	<20	<10	<0.06	<0.6	<0.44	<1	<1
25.03.2019	62.7	31.9	8.3	13.8	0.5	<20	<10	<0.06	<0.6	<0.44	<1	<1
27.03.2019	64.2	33.4	8.4	14.2	0.5	<20	<10	<0.06	<0.6	<0.44	<1	<1
NAAQ* Standard	100	60	80	80	4	400	100	1.0	20	6	5	1
Methods of Analysis	IS: 5182 (Part- 23)	Gravimetric Method as per CPCB method	IS: 5182 (Part-2)	IS: 5182 (Part-6)	IS: 5182 (Part- 10)	Indophenol Blue Method followed by CPCB	IS: 5182 (Part-9)	IS: 5182 (Part- 22)	As per CPCB method followed by AAS	As per CPCB method followed by AAS	IS: 5182 (Part- 11)	IS: 5182 (Part- 12)

N.B- *NAAQ- National Ambient Air Quality Standard as per 18th Nov, 2009 Gatt. Notification.

Ms. M. Rout Msc. Env. Sc

ANALYST

(GAZE) TE NO. 457, D-03-06-2016

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Report no. - CEMC/TDPCL/020419/A2

Issued Date-02.04.2019

AMBIENT AIR QUALITY MONITORING TEST REPORT

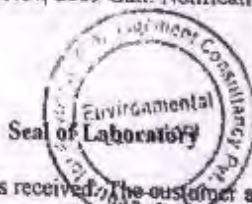
Client Name & Address	M/s. The Dhamra Port Company Ltd., Dosinga, Bhadrak
Work Order No.	4800035134, dtd-30.07.2018
Reference No.	CEMC-02042019A2
Nature of Sampling	Ambient Air Sample
Sampling Location	Kanakaprasad Village
Sampling By	Mr.Chandan Kumar & Mr. Bhaktahari Dash
Sampling Duration	01.03.2019 to 31.03.2019

Date	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	SO ₂ (µg/m ³)	NO _x (µg/m ³)	CO (mg/m ³)	NH ₃ (µg/m ³)	O ₃ (µg/m ³)	Pb (µg/m ³)	Ni (ng/m ³)	As (ng/m ³)	Benzene (µg/m ³)	BaP (ng/m ³)
04.03.2019	61.2	32.1	7.7	12.8	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
07.03.2019	58.6	30.1	7.5	12.4	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
11.03.2019	59.7	31.2	7.8	13.3	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
14.03.2019	62.4	32.8	8.1	13.7	0.5	<20	<10	<0.06	<0.6	<0.44	<1	<1
18.03.2019	57.2	29.8	7.4	12.5	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
23.03.2019	60.4	30.6	7.9	12.1	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
25.03.2019	58.1	29.2	7.7	12.8	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
27.03.2019	59.8	29.9	7.6	12.5	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
NAAQ* Standard	100	60	80	80	4	400	100	1.0	20	6	5	1
Methods of Analysis	IS: 5182 (Part-23)	Gravimetric Method as per CPCB method	IS: 5182 (Part-2)	IS: 5182 (Part-6)	IS: 5182 (Part-10)	Indophen ols Blue Method followed by CPCB	IS: 5182 (Part-9)	IS: 5182 (Part-22)	As per CPCB method followed by AAS	As per CPCB method followed by AAS	IS: 5182 (Part-11)	IS: 5182 (Part-12)

N.B- *NAAQ- National Ambient Air Quality Standard as per 18th Nov, 2009 Gatt. Notification.

Ms. M. Rout, Msc. Env. Sc

GAZETTE NO. 1937, Dt: 03-06-2016



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Report no. - CEMC/TDPCL/020419/A3

Issued Date-02.04.2019

AMBIENT AIR QUALITY MONITORING TEST REPORT

Client Name & Address	M/s. The Dhamra Port Company Ltd., Dasinga, Bhadrak
Work Order No.	4800035134, dtd-30.07.2018
Reference No.	CEMC-02042019A3
Nature of Sampling	Ambient Air Sample
Sampling Location	Near BMH
Sampling By	Mr.Chandan Kumar & Mr. Bhaktahari Dash
Sampling Duration	01.03.2019 to 31.03.2019

Date	PM ₁₀ ($\mu\text{g}/\text{m}^3$)	PM _{2.5} ($\mu\text{g}/\text{m}^3$)	SO ₂ ($\mu\text{g}/\text{m}^3$)	NO _x ($\mu\text{g}/\text{m}^3$)	CO (mg/m^3)	NH ₃ ($\mu\text{g}/\text{m}^3$)	O ₃ ($\mu\text{g}/\text{m}^3$)	Pb ($\mu\text{g}/\text{m}^3$)	Ni (ng/m^3)	As (ng/m^3)	Benzene ($\mu\text{g}/\text{m}^3$)	BaP ($\mu\text{g}/\text{m}^3$)
04.03.2019	66.8	35.5	8.5	14.4	0.5	<20	<10	<0.06	<0.6	<0.44	<1	<1
07.03.2019	67.2	36.1	8.8	14.9	0.6	<20	<10	<0.06	<0.6	<0.44	<1	<1
11.03.2019	64.1	34.2	8.5	14.2	0.5	<20	<10	<0.06	<0.6	<0.44	<1	<1
14.03.2019	60.8	32.6	8.1	13.8	0.5	<20	<10	<0.06	<0.6	<0.44	<1	<1
18.03.2019	65.4	33.1	8.6	14.5	0.5	<20	<10	<0.06	<0.6	<0.44	<1	<1
23.03.2019	63.8	32.4	8.7	14.8	0.5	<20	<10	<0.06	<0.6	<0.44	<1	<1
25.03.2019	66.2	34.8	8.8	15.1	0.6	<20	<10	<0.06	<0.6	<0.44	<1	<1
27.03.2019	64.7	33.5	8.5	14.4	0.5	<20	<10	<0.06	<0.6	<0.44	<1	<1
NAAQ* Standard	100	60	80	80	4	400	100	1.0	20	6	5	1
Methods of Analysis	IS: 5182 (Part-23)	Gravimetric Method as per CPCB method	IS: 5182 (Part-2)	IS: 5182 (Part-6)	IS: 5182 (Part-10)	Indophe- nol Blue Method followed by CPCB	IS: 5182 (Part-9)	IS: 5182 (Part-22)	As per CPCB method followed by AAS	As per CPCB method followed by AAS	IS: 5182 (Part-11)	IS: 5182 (Part-12)

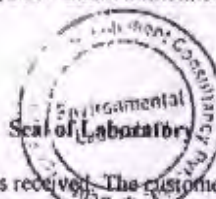
N.B- *NAAQ- National Ambient Air Quality Standard as per 18th Nov, 2009 Gatt. Notification.

Ms. M. Rout, Msc. Env. Sc.

GAZETTE NO: 159, D-03-06-2016

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Laboratory A1: Plot No. 800/1274, Johal, Pahal, Bhubaneswar-752101,
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Report no. - CEMC/TDPCL/020419/A4

Issued Date-02.04.2019

AMBIENT AIR QUALITY MONITORING TEST REPORT

Client Name & Address	M/s. The Dhamra Port Company Ltd., Dosinga, Bhadrak
Work Order No.	4800035134, dtd-30.07.2018
Reference No.	CEMC-02042019A4
Nature of Sampling	Ambient Air Sample
Sampling Location	Near Jetty
Sampling By	Mr.Chandan Kumar & Mr. Bhaktahari Dash
Sampling Duration	01.03.2019 to 31.03.2019

Date	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	SO ₂ (µg/m ³)	NO _x (µg/m ³)	CO (mg/m ³)	NH ₃ (µg/m ³)	O ₃ (µg/m ³)	Pb (µg/m ³)	Ni (ng/m ³)	As (ng/m ³)	Benzene (µg/m ³)	BaP (ng/m ³)
04.03.2019	69.1	35.8	8.8	14.8	0.5	<20	<10	<0.06	<0.6	<0.44	<1	<1
07.03.2019	72.4	37.9	9.1	15.4	0.6	<20	<10	<0.06	<0.6	<0.44	<1	<1
11.03.2019	70.5	37.2	8.7	14.6	0.5	<20	<10	<0.06	<0.6	<0.44	<1	<1
14.03.2019	67.2	35.2	8.5	14.2	0.5	<20	<10	<0.06	<0.6	<0.44	<1	<1
18.03.2019	69.4	36.4	8.8	14.8	0.5	<20	<10	<0.06	<0.6	<0.44	<1	<1
23.03.2019	73.4	38.1	9.2	15.4	0.6	<20	<10	<0.06	<0.6	<0.44	<1	<1
25.03.2019	67.2	36.1	8.9	15.2	0.6	<20	<10	<0.06	<0.6	<0.44	<1	<1
27.03.2019	70.8	37.2	8.7	14.6	0.5	<20	<10	<0.06	<0.6	<0.44	<1	<1
NAAQ* Standard	100	60	80	80	4	400	100	1.0	20	6	5	1
Methods of Analysis	IS: 5182 (Part-23)	Gravimetric Method as per CPCB method	IS: 5182 (Part-2)	IS: 5182 (Part-6)	IS: 5182 (Part-10)	Indophe nols Blue Method followed by CPCB	IS: 5182 (Part-9)	IS: 5182 (Part-22)	As per CPCB method followed by AAS	As per CPCB method followed by AAS	IS: 5182 (Part-11)	IS: 5182 (Part-12)

N.B- *NAAQ- National Ambient Air Quality Standard as per 18th Nov, 2009 Gatt. Notification

Ms. M. Rout, Msc. Env. Sc
Govt. ANALYST
(GATEWAY SIGNATORY)
Notes:
03-06-2016



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Report no. - CEMC/TDPCL/020419/A5

Issued Date-02.04.2019

AMBIENT AIR QUALITY MONITORING TEST REPORT

Client Name & Address	M/s. The Dhamra Port Company Ltd., Dosinga, Bhadrak
Work Order No.	4800035134, dtd-30.07.2018
Reference No.	CEMC-02042019A5
Nature of Sampling	Ambient Air Sample
Sampling Location	Dosinga Village
Sampling By	Mr.Chandan Kumar & Mr. Bhaktahari Dash
Sampling Duration	01.03.2019 to 31.03.2019

Date	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	SO ₂ (µg/m ³)	NO _x (µg/m ³)	CO (mg/m ³)	NH ₃ (µg/m ³)	O ₃ (µg/m ³)	Pb (µg/m ³)	Ni (ng/m ³)	As (ng/m ³)	Benzene (µg/m ³)	BaP (ng/m ³)
04.03.2019	59.2	30.6	8.1	14.1	0.5	<20	<10	<0.06	<0.6	<0.44	<1	<1
07.03.2019	56.8	28.2	7.8	13.9	0.5	<20	<10	<0.06	<0.6	<0.44	<1	<1
11.03.2019	57.4	28.4	7.9	13.7	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
14.03.2019	59.6	29.6	8.4	14.1	0.5	<20	<10	<0.06	<0.6	<0.44	<1	<1
18.03.2019	58.8	28.2	8.1	13.8	0.5	<20	<10	<0.06	<0.6	<0.44	<1	<1
23.03.2019	55.4	27.6	7.4	13.4	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
25.03.2019	58.8	29.1	7.6	13.8	0.5	<20	<10	<0.06	<0.6	<0.44	<1	<1
27.03.2019	57.3	28.4	7.5	13.6	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
NAAQ* Standard	100	60	80	80	4	400	100	1.0	20	6	5	1
Methods of Analysis	IS: 5182 (Part- 23)	Gravimetri c Method as per CPCB method	IS: 5182 (Part-2)	IS: 5182 (Part-6)	IS: 5182 (Part-10)	Indophe nols Blue Method followed by CPCB	IS: 5182 (Part-9)	IS: 5182 (Part-22)	As per CPCB method followe d by AAS	As per CPCB method followe d by AAS	IS: 5182 (Part- 11)	IS: 5182 (Part- 12)

N.B- *NAAQ- National Ambient Air Quality Standard as per 18th Nov, 2009 Gatt. Notification.

Ms. M. Rout, Msc. Env. Sc

ANALYST
(GAZETED) 03.06.2016

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Report no. - CEMC/TDPCL/020419/A6

Issued Date-02.04.2019

AMBIENT AIR QUALITY MONITORING TEST REPORT

Client Name & Address	M/s. The Dhamra Port Company Ltd., Dosinga, Bhadrak
Work Order No.	4800035134, dtd-30.07.2018
Reference No.	CEMC-02042019A6
Nature of Sampling	Ambient Air Sample
Sampling Location	Bhitarkanika (Eco Sensitive)
Sampling By	Mr.Chandan Kumar & Mr. Bhaktahari Dash
Sampling Duration	01.03.2019 to 31.03.2019

Date	PM ₁₀ ($\mu\text{g}/\text{m}^3$)	PM _{2.5} ($\mu\text{g}/\text{m}^3$)	SO ₂ ($\mu\text{g}/\text{m}^3$)	NO _x ($\mu\text{g}/\text{m}^3$)	CO (mg/m^3)	NH ₃ ($\mu\text{g}/\text{m}^3$)	O ₃ ($\mu\text{g}/\text{m}^3$)	Pb ($\mu\text{g}/\text{m}^3$)	Ni (ng/m^3)	As (ng/m^3)	Benzene ($\mu\text{g}/\text{m}^3$)	BaP (ng/m^3)
04.03.2019	52.4	28.1	6.5	10.6	0.3	<20	<10	<0.06	<0.6	<0.44	<1	<1
07.03.2019	49.6	27.6	6.2	10.4	0.3	<20	<10	<0.06	<0.6	<0.44	<1	<1
11.03.2019	47.8	15.4	6.3	10.2	0.3	<20	<10	<0.06	<0.6	<0.44	<1	<1
14.03.2019	50.2	27.7	6.7	10.8	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
18.03.2019	48.6	26.2	6.4	10.6	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
23.03.2019	47.2	26.9	6.5	10.5	0.3	<20	<10	<0.06	<0.6	<0.44	<1	<1
25.03.2019	49.5	27.4	6.8	10.9	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
27.03.2019	48.6	26.8	6.6	10.7	0.4	<20	<10	<0.06	<0.6	<0.44	<1	<1
NAAQ Standard	100	60	80	80	4	400	100	1.0	20	6	5	1
Methods of Analysis	IS: 5182 (Part- 23)	Gravimetri c Method as per CPCB method	IS: 5182 (Part-2)	IS: 5182 (Part-6)	IS: 5182 (Part-10)	Indophe nol Blue Method followed by CPCB	IS: 5182 (Part-9)	IS: 5182 (Part-22)	As per CPCB method followe d by AAS	As per CPCB method followe d by AAS	IS: 5182 (Part- 11)	IS: 5182 (Part- 12)

N.B- *NAAQ- National Ambient Air Quality Standard as per 18th Nov, 2009 Gatt. Notification.

Ms. M. Rout, Msc. Env. Sc

Govt. ANALYST
(GAZETTE NO. 557, Dt. 03-06-2016)

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Report no. - CEMC/TDPCL/280319/N

Issued Date-28.03.2019

NOISE LEVEL MONITORING REPORT

Client Name & Address	M/s. The Dhamra Port Company Ltd., Dosinga, Bhadrak
Work Order No.	4800035134, dtd-30.07.2018
Analysis No.	CEMC/TDPCL-D00N1
Nature of Sampling	Noise Sample
Sampling By	Mr.Chandan Kumar & Mr. Bhaktahari Dash
Sampling Date	01.03.2019 to 31.03.2019

Date	Location	NL Day Time dB (A)			NL Night Time dB (A)		
		Max	Min.	Avg.	Max.	Min.	Avg.
12.03.2019	Near Jetty (I)	72.4	65.1	68.2	65.6	61.9	64.2
08.03.2019	Near BMH-1	70.3	63.3	66.9	66.8	61.2	63.9
05.03.2019	Colony Area (R)	56.8	53.1	54.6	45.2	40.1	42.4
19.03.2019	Kanakaprasad Village (R)	55.6	51.2	53.1	46.6	40.2	42.6
15.03.2019	Dosinga village (R)	56.8	52.5	53.9	45.6	40.2	42.2
26.03.2019	Ecosensitive Zone	52.4	44.1	47.1	42.2	37.6	39.8

*NL- Noise Level, I- Industrial, R- Residential

National Standard of Noise Level

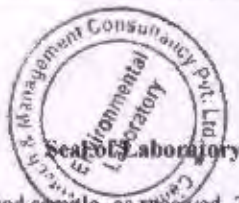
Area Code	Category of Area/Zone	Permissible Limit in dB (A)	
		Day Time	Night Time
A	Industrial Area	75	70
B	Commercial Area	65	55
C	Residential Area	55	45
D	Silence Zone	50	40

Ms. M. Rout, Msc. Env. Sc

GAZETTED SIGNATORY
01-03-06-2016

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Report no. - CEMC/TDPCL/280319/W1

Issued Date-28.03.2019

STP TEST REPORT

Name & Address of the Customer

: M/s. The Dhamra Port Company Ltd., Dosinga,
Bhadrak

Work order No.

: 4800035134, dtd-30.07.2018

Sampling by

: Mr. Bhaktahari Dash

Date of Sampling

: 06.03.2019 & 23.03.2019

Date of Receiving

: 07.03.2019 & 24.03.2019

Sampling & Testing Procedure

: APHA 23rd Edition

Sample Description

: Waste Water

Sample Quantity

: 1.0 Ltr each

Sample Location with Job Code

: STP - 15 KLD (Inlet)

Reference Number

: CEMC-28032019W1

STP INLET ANALYSIS RESULT

Sl. No.	Parameter	Unit of Measurement	Result		Design parameter for Raw Sewage
			1 st Fortnight	2 nd Fortnight	
1	Appearance	--	Turbid	Turbid	--
2	Colour	--	Blackish	Blackish	--
3	Odour	--	Foul	Foul	--
4	pH Value @ 25°C	--	6.42	6.34	6.0-8.5
5	Total Suspended Solids	mg/l	224.0	128.0	1000
6	B.O.D for 3 days @ 27°C	mg/l	170	160	300-350
7	Oil & Grease	mg/l	7.2	7.4	100
8	COD	mg/l	580	480	--
9	Ammonical Nitrogen	mg/l	7.8	7.6	--
10	Total Nitrogen	mg/l	44.9	42.4	--
11	Faecal Coliform	MPN/100ml	>1600	>1600	--

Ms. M. Rout, Msc. Env. Sc

GOVERNMENT ANALYST

(GAZE) LE NO. 1537, Dtd-03-06-2016

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Report no. - CEMC/TDPCL/280319/W2

Issued Date-28.03.2019

STP TEST REPORT

Name & Address of the Customer

: M/s. The Dhamra Port Company Ltd., Dosinga,
Bhadrak

Work order No.

: 4800035134, dtd-30.07.2018

Sampling by

: Mr. Bhaktahari Dash

Date of Sampling

: 06.03.2019 & 23.03.2019

Date of Receiving

: 07.03.2019 & 24.03.2019

Sampling & Testing Procedure

: APHA 23rd Edition

Sample Description

: Waste Water

Sample Quantity

: 1.0 Ltr each

Sample Location with Job Code

: STP - 15 KLD (Outlet)

Reference Number

: CEMC-28032019W2

STP OUTLET ANALYSIS RESULT

Sl. No.	Parameter	Unit of Measurement	Result		Standards for New STPs Design after notification 2015
			1 st Fortnight	2 nd Fortnight	
1	Appearance	--	Clear	Clear	-
2	Colour	--	Colorless	Colorless	-
3	Odour	--	Odourless	Odourless	-
4	pH Value @ 25°C	--	7.3	7.38	6.5-9.0
5	Total Suspended Solids	mg/l	18.0	14.0	<20
6	B.O.D for 3 days @ 27°C	mg/l	14	12	<10
7	Oil & Grease	mg/l	<5	<5	--
8	COD	mg/l	38	24	<50
9	Ammonical Nitrogen	mg/l	1.2	1.4	<5
10	Total Nitrogen	mg/l	6.2	6.8	<10
11	Faecal Coliform	MPN/100ml	35	24	<100

Ms. M. Rout, Msc. Env. Sc

GAZETTED OFFICIAL
15.03.2019

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Report no. - CEMC/TDPCL/280319/W3

Issued Date-28.03.2019

STP TEST REPORT

Name & Address of the Customer

M/s. The Dhanra Port Company Ltd., Dosinga,
Bhadrak

Work order No.

: 4800035134, dtd-30.07.2018

Sampling by

: Mr. Bhaktahari Dash

Date of Sampling

: 06.03.2019 & 23.03.2019

Date of Receiving

: 07.03.2019 & 24.03.2019

Sampling & Testing Procedure

: APHA 23rd Edition

Sample Description

: Waste Water

Sample Quantity

: 1.0 Ltr each

Sample Location with Job Code

: STP - 140 KLD (Inlet)

Reference Number

: CEMC-28032019W3

STP INLET ANALYSIS RESULT

Sl. No.	Parameter	Unit of Measurement	Result		Design parameter for Raw Sewage
			1st Fortnight	2nd Fortnight	
1	Appearance	--	Turbid	Turbid	-
2	Colour	--	Blackish	Blackish	-
3	Odour	--	Foul	Foul	-
4	pH Value @ 25°C	--	6.56	6.72	6.0-8.5
5	Total Suspended Solids	mg/l	176.0	155.2	1000
6	B.O.D for 3 days @ 27°C	mg/l	240	190	300-350
7	Oil & Grease	mg/l	6.8	6.2	100
8	COD	mg/l	680	590	--
9	Ammonical Nitrogen	mg/l	8.4	6.2	--
10	Total Nitrogen	mg/l	46.8	32.8	--
11	Faecal Coliform	MPN/100ml	>1600	>1600	--

Ms. M. Rout Msc. Env. Sc

LABORATORY

(GAZETTED SIGNATORY) 03-06-2016

Notes:

- > The result given above related to the tested sample, as received. The customer asked for the above test only.
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Report no. - CEMC/TDPCL/280319/W4

Issued Date-28.03.2019

STP TEST REPORT

Name & Address of the Customer

: M/s. The Dhamra Port Company Ltd., Dosinga,
Bhadrak

Work order No.

: 4800035134, dtd-30.07.2018

Sampling by

: Mr. Bhaktahari Dash

Date of Sampling

: 06.03.2019 & 23.03.2019

Date of Receiving

: 07.03.2019 & 24.03.2019

Sampling & Testing Procedure

: APHA 23rd Edition

Sample Description

: Waste Water

Sample Quantity

: 1.0 Ltr each

Sample Location with Job Code

: STP - 140 KLD (Outlet)

Reference Number

: CEMC-28032019W4

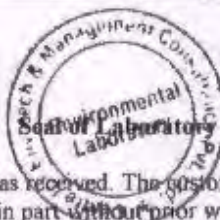
STP OUTLET ANALYSIS RESULT

Sl. No.	Parameter	Unit of Measurement	Result		Standards for New STPs Design after notification 2015
			1 st Fortnight	2 nd Fortnight	
1	Appearance	—	Clear	Clear	—
2	Colour	—	Colorless	Colorless	—
3	Odour	—	Odourless	Odourless	—
4	pH Value @ 25°C	—	7.18	7.48	6.5-9.0
5	Total Suspended Solids	mg/l	15.6	14.4	<20
6	B.O.D for 3 days @ 27°C	mg/l	12	16	<10
7	Oil & Grease	mg/l	<5	<5	—
8	COD	mg/l	32	48	<50
9	Ammonical Nitrogen	mg/l	1.8	1.1	<5
10	Total Nitrogen	mg/l	7.6	6.4	<10
11	Faecal Coliform	MPN/100ml	40	32	<100

Ms. M. Rout, Msc. Env. Sc

ANALYST

(GAZETTED SIGNATORY)
Notes: 1597, Dt-03-06-2016



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Report no. - CEMC/TDPCL/020419/W

Issued Date-02.04.2019

SEA WATER ANALYSIS REPORT

Name & Address of the Customer : M/s. The Dhamra Port Company Ltd., Dosinga,
Bhadrak
Work order No. : 4800035134, dtd-30.07.2018
Date of Sampling : 19.03.2019
Sampling by : Bikash Samantaray & Santosh Mohanty
Sample Description : Sea Water

STATION DESCRIPTION

SL. NO.	STATION	Sample Location	GPS COORDINATES
01	STATION-1	Dhamra river mouth	20°47'05.22" N 86°57'45.41" E
02	STATION-2	Dry bulk cargo birth face	20°49'01.23" N 86°58'12.42" E
03	STATION-3	Liquid/Gas cargo birth face	20°50'36.29" N 86°58'22.53" E
04	STATION-4	Along channel at 4 km	20°50'23.12" N 86°59'23.09" E
05	STATION-5	Along channel at 8 km	20°52'41.43" N 87°01'12.32" E
06	STATION-6	Along channel at 12 km	20°55'23.15" N 87°02'23.41" E
07	STATION-7	Dragging dumping site inside sea	20°50'23.42" N 86°58'03.22" E
08	STATION-8	Near Kanika Island	20°49'08.12" N 86°59'23.23" E

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Issued Date-02.04.2019

SEA WATER ANALYSIS REPORT

WATER ANALYSIS DATA									
Locations		Temp. (°C)	Turbidity (NTU)	Conductivity (µS/cm)	pH	Salinity (ppt)	DO (mg/l)	BOD (mg/l)	COD (mg/l)
Station-1	SW	24	42	10742.5	7.7	26.84	7.3	3.8	30
	BW	22	28	11421.8	7.4	28.18	6.7	3.5	24
Station-2	SW	26	44	15089.4	8.1	28.24	6.9	4.8	48
	BW	23	60	15421.6	7.6	29.12	6.4	4.4	32
Station-3	SW	25	60	15324.4	8.1	25.64	6.8	4.4	44
	BW	23	50	15424.6	7.5	27.82	6.2	3.8	36
Station-4	SW	25	20	14456.2	7.8	27.56	7.4	3.6	40
	BW	22	28	14556.2	7.3	28.92	6.6	3.4	39
Station-5	SW	26	28	15082.6	7.8	28.14	7.2	4.1	38
	BW	23	40	15242.6	7.6	29.56	6.7	3.6	32
Station-6	SW	25	16	1048.6	7.8	27.14	7.4	3.2	22
	BW	22	22	10466.3	7.5	29.42	6.7	2.8	18
Station-7	SW	26	50	12684.2	7.9	27.92	7.1	3.8	50
	BW	21	70	13564.1	7.6	29.82	6.6	4.4	28
Station-8	SW	26	50	14689.2	8.1	26.92	6.7	4.8	48
	BW	24	60	15088.6	7.6	28.84	6.1	4.1	36

*SW= Surface Water, BW= Bottom Water

WATER ANALYSIS DATA									
Locations		Copper (mg/l)	Cadmium (mg/l)	Mercury (mg/l)	Phosphate (mg/l)	Sulphate (mg/l)	Nitrite (mg/l)	Nitrate (mg/l)	TSS (mg/l)
Station-1	SW	<0.03	<0.01	<0.001	<0.05	1560	0.28	7.8	198
	BW	<0.03	<0.01	<0.001	<0.05	1720	0.36	13.8	420
Station-2	SW	<0.03	<0.01	<0.001	<0.05	1750	0.22	6.8	480
	BW	<0.03	<0.01	<0.001	<0.05	1864	0.34	14.9	436
Station-3	SW	<0.03	<0.01	<0.001	<0.05	1768	0.24	8.4	280
	BW	<0.03	<0.01	<0.001	<0.05	1842	0.36	14.2	426
Station-4	SW	<0.03	<0.01	<0.001	<0.05	1772	0.25	10.2	140
	BW	<0.03	<0.01	<0.001	<0.05	1860	0.3	14.6	542
Station-5	SW	<0.03	<0.01	<0.001	<0.05	1890	0.29	9.9	240
	BW	<0.03	<0.01	<0.001	<0.05	1920	0.33	14.6	580
Station-6	SW	<0.03	<0.01	<0.001	<0.05	1824	0.32	8.1	210
	BW	<0.03	<0.01	<0.001	<0.05	1942	0.38	14.6	526
Station-7	SW	<0.03	<0.01	<0.001	<0.05	1770	0.3	8.8	178
	BW	<0.03	<0.01	<0.001	<0.05	1860	0.4	15.6	446
Station-8	SW	<0.03	<0.01	<0.001	<0.05	1750	0.28	9.1	348
	BW	<0.03	<0.01	<0.001	<0.05	1890	0.32	14.2	460

*SW= Surface Water, BW= Bottom Water

Ms. M. Rout Msc. Env. Sc
Authorized Signatory
(GAZETTE No-1357, Dt-03-06-2016)



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Report no. - CEMC/TDPCL/020419/W

Issued Date-02.04.2019

SEA WATER ANALYSIS REPORT

WATER ANALYSIS DATA

Locations		Calcium Hardness (mg/l)	Magnesium Hardness (mg/l)	Total Hardness (mg/l)	Total Dissolved Solids (mg/l)	Ammonical Nitrogen (mg/l)	Total Nitrogen (mg/l)
Station-1	SW	1800.0	1060.0	2860.0	6480.0	ND	12.8
	BW	1920.0	1120.0	3040.0	6648.0	ND	15.6
Station-2	SW	3780.0	1900.0	5690.0	9042.0	ND	14.1
	BW	3980.0	1860.0	5840.0	9278.0	ND	16.2
Station-3	SW	4040.0	1900.0	5940.0	9270.0	ND	13.6
	BW	4200.0	1840.0	6040.0	9348.0	ND	15.8
Station-4	SW	3880.0	1700.0	5580.0	8750.0	ND	14.1
	BW	3900.0	1760.0	5660.0	8820.0	ND	14.8
Station-5	SW	4040.0	1840.0	5880.0	9060.0	ND	14.2
	BW	4120.0	1800.0	5910.0	9178.0	ND	16.2
Station-6	SW	1780.0	1000.0	2780.0	6060.0	ND	10.8
	BW	1880.0	1110.0	2990.0	6248.0	ND	12.6
Station-7	SW	2700.0	1300.0	4050.0	7684.0	ND	12.6
	BW	2900.0	1380.0	4280.0	8156.0	ND	16.2
Station-8	SW	3560.0	1480.0	5040.0	8878.0	ND	14.2
	BW	3780.0	1460.0	5240.0	9060.0	ND	16.6

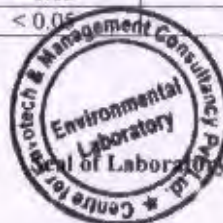
*SW= Surface Water, BW= Bottom Water

WATER ANALYSIS DATA

Locations		Total Chromium (mg/l)	Phenolic Compounds (mg/l)	Hexavalent Chromium (mg/l)	Petroleum Hydrocarbon (mg/l)	Chlorinity (‰)	Oil and Grease (mg/l)
Station-1	SW	< 0.05	< 0.001	< 0.05	0.4	12.72	4.8
	BW	< 0.05	< 0.001	< 0.05	ND	14.84	ND
Station-2	SW	< 0.05	< 0.001	< 0.05	0.8	13.56	7.8
	BW	< 0.05	< 0.001	< 0.05	ND	15.08	ND
Station-3	SW	< 0.05	< 0.001	< 0.05	0.7	13.4	5.2
	BW	< 0.05	< 0.001	< 0.05	ND	14.8	ND
Station-4	SW	< 0.05	< 0.001	< 0.05	0.8	13.34	6.2
	BW	< 0.05	< 0.001	< 0.05	ND	15.16	ND
Station-5	SW	< 0.05	< 0.001	< 0.05	0.8	13.18	5.1
	BW	< 0.05	< 0.001	< 0.05	ND	14.68	ND
Station-6	SW	< 0.05	< 0.001	< 0.05	0.7	13.12	3.6
	BW	< 0.05	< 0.001	< 0.05	ND	14.72	ND
Station-7	SW	< 0.05	< 0.001	< 0.05	0.18	13.42	7.2
	BW	< 0.05	< 0.001	< 0.05	ND	14.84	ND
Station-8	SW	< 0.05	< 0.001	< 0.05	0.9	14.56	7.8
	BW	< 0.05	< 0.001	< 0.05	ND	15.64	ND

*SW= Surface Water, BW= Bottom Water

Ms. M. Rout, Msc. Env. Sc
ANALYST
Authorized Signatory
(GAZETTE No-1357, Dt-03-06-2016)



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Report no. - CEMC/TDPCL/020419/W

Issued Date-02.04.2019

SEA WATER ANALYSIS REPORT

PHYTOPLANKTON MONITORING DATA					
Locations		Total Count/L	No. of Species	Chlorophyll-a (µg/L)	Major Species
Station-1	SW	1872	18	1.789	<i>Pleurosigma, C.pentagonum, N.striata, Bacillaria, Skeletonema costatum, N.longisigma</i>
	BW	1480	10	1.4562	<i>Podosira, C.pentagonum, N.striata, Pleurosigma</i>
Station-2	SW	1642	18	1.7892	<i>C.pentagonum, Skeletonema, N.longisigma, Bacillaria, Chaetoceros</i>
	BW	3874	7	1.4453	<i>Podosira, C.pentagonum, N.striata, Pleurosigma, C.pentagonum, Pleurosigma, N.longisigma, Bacillaria, Chaetoceros</i>
Station-3	SW	6048	20	2.4456	<i>C.pentagonum, N.striata, C.furca, N.striata, N.longisigma, Chaetoceros</i>
	BW	6671	10	1.9842	<i>C.pentagonum, Chaetoceros, Bacillaria, C.furca</i>
Station-4	SW	2865	14	1.8452	<i>Podosira, Bacillaria, Pleurosigma</i>
	BW	2648	8	1.5464	<i>C.furca, Pleurosigma, C.pentagonum, Bacillaria, Podosira, Biddulphia</i>
Station-5	SW	1324	15	0.8824	<i>Bacillaria, Chaetoceros, Podosira, C.furca</i>
	BW	1142	6	0.6782	<i>N.longisigma, Podosira, Ceratium, C.furca, C.pentagonum, Coscinodiscus sp.</i>
Station-6	SW	1588	15	1.4456	<i>Bacillaria, Chaetoceros, Podosira, C.furca</i>
	BW	1402	8	1.1864	<i>C.pentagonum, Chaetoceros, Bacillaria, N.striata, Ceratium fusus</i>
Station-7	SW	1842	20	1.4856	<i>Bacillaria, Chaetoceros, Ceratium, N.striata</i>
	BW	1724	13	1.1456	<i>C.pentagonum, Bacillaria, Podosira, Skeletonema</i>
Station-8	SW	1456	17	0.7842	<i>C.pentagonum, N.striata, C.furca, N.striata, N.longisigma, Chaetoceros</i>
	BW	995	6	0.6427	<i>C.pentagonum, Pleurosigma, N.longisigma, Bacillaria</i>

*SW= Surface Water, BW= Bottom Water.

ZOOPLANKTON MONITORING DATA				
Locations		Total Count/L	No. of Species	Major Species
Station-1	SW	1644	18	<i>Ostracoda, Protozoa, Copepod, Rotifera, Nematoda</i>
	BW	1456	10	<i>Protozoa, Rotifera, Copepod, Ctenophora</i>
Station-2	SW	1564	16	<i>Cladocera, Anostraca, Protozoa, Nematoda, Rotifers</i>
	BW	1088	7	<i>Rotifera, Anostraca, Cladocera, Nematoda, Larvae</i>
Station-3	SW	2784	22	<i>Larvae, Cladocera, Cladocera, Rotifera, Ctenophora</i>
	BW	2456	14	<i>Cladocera, Rotifera, Nematoda, Crustacean Larvae</i>
Station-4	SW	2086	18	<i>Cladocera, Copepod, Rotifera, Nematoda</i>
	BW	1954	14	<i>Copepod, Rotifera, Ostracoda, Protozoa, Ostracoda</i>
Station-5	SW	1754	17	<i>Cladocera, Nematoda, Cladocera</i>
	BW	1324	10	<i>Protozoa, Copepod, Rotifera, Larvae</i>
Station-6	SW	1344	18	<i>Protozoa, Nematoda, Cladocera, Copepod</i>
	BW	1184	12	<i>Protozoa, Rotifera, Anostraca, Nematoda, Larvae</i>
Station-7	SW	1248	10	<i>Crustacean Larvae, Protozoa, Ostracoda</i>
	BW	1141	7	<i>Rotifera, Nematoda, Cladocera, Ostracoda</i>

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Station-8	SW	1145	15	<i>Ostracoda, Rotifera, Protozoa, Nematoda, Larvae</i>
	BW	1082	9	<i>Cladocera, Nematoda, Rotifera, Ctenophora</i>

*SW= Surface Water, BW= Bottom Water

Ms. M. Rout, M.Sc. Env. & Forest
Authorized Signatory
(GAZETTE No-1357, Dt-03-06-2016)



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Report no. - CEMC/TDPCL/020419/W

Issued Date-02.04.2019

SEA WATER ANALYSIS REPORT

MICROBIOLOGICAL MONITORING DATA					
Locations		Total Bacterial Count (CFU/ml)	Total Coliform (CFU/ml)	Faecal Coliform (CFU/ml)	<i>E.coli</i> (CFU/ml)
Station-1	SW	540	64	9	ND
	BW	470	52	8	ND
Station-2	SW	340	40	4.8	ND
	BW	310	24	<1.8	ND
Station-3	SW	410	68	10	ND
	BW	270	52	7.6	ND
Station-4	SW	200	34	12	ND
	BW	290	24	<1.8	ND
Station-5	SW	160	18	6	ND
	BW	220	20	<1.8	ND
Station-6	SW	410	84	8	ND
	BW	370	30	<1.8	ND
Station-7	SW	220	52	4	ND
	BW	410	72	7	ND
Station-8	SW	410	48	7.8	ND
	BW	370	36	4.6	ND

*SW= Surface Water, BW= Bottom Water

MICROBIOLOGICAL MONITORING DATA					
Locations		Enterococcus (CFU/ml)	Salmonella (CFU/ml)	Shigella (CFU/ml)	Vibrio (CFU/ml)
Station-1	SW	ND	ND	ND	ND
	BW	ND	ND	ND	ND
Station-2	SW	ND	ND	ND	ND
	BW	ND	ND	ND	ND
Station-3	SW	ND	ND	ND	ND
	BW	ND	ND	ND	ND
Station-4	SW	ND	ND	ND	ND
	BW	ND	ND	ND	ND
Station-5	SW	ND	ND	ND	ND
	BW	ND	ND	ND	ND
Station-6	SW	ND	ND	ND	ND
	BW	ND	ND	ND	ND
Station-7	SW	ND	ND	ND	ND
	BW	ND	ND	ND	ND
Station-8	SW	ND	ND	ND	ND
	BW	ND	ND	ND	ND

*SW= Surface Water, BW= Bottom Water

Ms. M. Rout, Mac. Env. Sc.
Authorised Signatory
(GAZETTE No-1357, Dt-03-06-2016)



Environmental Studies (EIA & EMP), Monitoring, Forest Diversion Planning, DPR, Wildlife Management Plan, Hazardous & Safety Studies, RSA
GIS, Baseline Survey, Hydrological & Geological Studies, Socio-economic Studies, DGPS & ETS Survey.

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Report no. - CEMC/TDPCL/020419/W

Issued Date-02.04.2019

SEA WATER ANALYSIS REPORT

PRIMARY PRODUCTIVITY MONITORING DATA			
Locations		Gross Primary Productivity (mgC/ L/ day)	Net Primary Productivity (mgC/ L/ day)
Station-1	SW	2.7	1.7
	BW	2.4	1.4
Station-2	SW	2.6	1.7
	BW	2.2	1.4
Station-3	SW	2.6	2.4
	BW	1.4	1.5
Station-4	SW	2.6	2.2
	BW	2.1	1.5
Station-5	SW	2.3	1.8
	BW	2.1	1.5
Station-6	SW	2.6	1.6
	BW	1.9	1.4
Station-7	SW	2.3	1.8
	BW	1.8	1.3
Station-8	SW	2.4	1.7
	BW	1.5	1.3

*SW= Surface Water, BW= Bottom Water

PHYTOBENTHOS MONITORING DATA						
Locations		Fungus (CFU/1ml dry wt.)	Total Count/ 50g wet sediment	No. of Species	Diversity Index	Major Species
Station-1	SW	2685	278	12	0.8654	<i>N. longisigma, podosira</i>
	BW	2454	304	14	0.7782	<i>Podosira, Navicula</i>
Station-2	SW	3844	312	16	0.6482	<i>Podosira, N. longisigma</i>
	BW	3642	242	8	0.5642	<i>Podosira, N. longisigma, Ditylum</i>
Station-3	SW	2978	248	14	0.6456	<i>Ditylum</i>
	BW	1842	220	8	0.5428	<i>Podosira, N. longisigma</i>
Station-4	SW	3452	268	10	0.546	<i>N. longisigma, Ctenophora</i>
	BW	4464	248	7	0.5548	<i>Ditylum</i>
Station-5	SW	2248	288	11	0.8678	<i>N. longisigma, Ctenophora</i>
	BW	1224	394	7	0.8894	<i>Podosira, N. longisigma, Ditylum</i>
Station-6	SW	1912	464	8	0.9464	<i>Ditylum, Copidos, C. Furca</i>
	BW	1782	290	9	0.9242	<i>Podosira</i>
Station-7	SW	2544	324	6	0.5642	<i>Podosira, N. longisigma, Eshinodermata</i>
	BW	2460	260	8	0.7041	<i>Podosira, Biddulphia, Ditylum</i>
Station-8	SW	2842	488	18	0.7042	<i>N. longisigma</i>
	BW	2042	564	11	0.6456	<i>Ditylum, Rotifers</i>

*SW= Surface Water, BW= Bottom Water

Ms. M. Rout Msc. Env. Sc

Analyst

(GAZETTE No. 1357, Dt. 03-06-2016)



Environmental Studies (EIA & EMP), Monitoring, Forest Diversion Planning, DPR, Wildlife Management, Hydrology & Safety Studies, RS& GIS, Baseline Survey, Hydrological & Geological Studies, Socio-economic Studies, DGPS & ETS Survey.

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Report no. - CEMC/TDPCL/020419/W

Issued Date-02.04.2019

SEA WATER ANALYSIS REPORT

TOTAL FAUNA MONITORING DATA				
Locations		Name of Phylum, Class and Number of individuals encountered	Total number of species Encountered	Total Fauna per m ³
Station-1	SW	1. Phylum- Arthropoda, Class- Malacostraca-18 2. Phylum- Annelida, Class- Polychaeta-10	34	137
	BW	1. Phylum- Arthropoda Class- Malacostraca-09 2. Phylum- Annelida Class- Polychaeta-34	30	206
Station-2	SW	1. Phylum- Annelida, Class- Polychaeta-12 2. Phylum- Arthropoda Class- Copepoda-18	12	121
	BW	1. Phylum- Annelida Class- Polychaeta-21 2. Phylum- Arthropoda Class- Copepoda-26	29	172
Station-3	SW	1. Phylum- Arthropoda Class- Malacostraca-11 2. Phylum- Annelida Class- Polychaeta-20 3. Phylum- Mollusca Class- Gastropoda-16 Class- Pelecypoda-9	84	960
	BW	1. Phylum- Arthropoda Class- Malacostraca-19 2. Phylum- Annelida Class- Polychaeta-10 3. Phylum- Mollusca Class- Gastropoda-20 Class- Pelecypoda-02	91	950
Station-4	SW	1. Phylum- Annelida Class- Polychaeta-24 2. Phylum- Mollusca Class- Gastropoda-14 Class- Pelecypoda-14 Class- Bivalvia-04	72	694
	BW	1. Phylum- Annelida Class- Polychaeta-32 2. Phylum- Mollusca Class- Gastropoda-26 Class- Pelecypoda-30 Class- Bivalvia-22	80	768
Station-5	SW	1. Phylum- Arthropoda Class- Amphipoda-44 2. Phylum- Annelida Class- Polychaeta-34 3. Phylum- Mollusca Class- Pelecypoda-25 Class- Bivalvia-11 Class- Gastropoda-9	70	800
	BW	1. Phylum- Arthropoda Class- Amphipoda-30 2. Phylum- Annelida Class- Polychaeta-14 3. Phylum- Mollusca Class- Pelecypoda-7 Class- Bivalvia-20 Class- Gastropoda-12	100	999
Station-6	SW	1. Phylum- Annelida Class- Polychaeta-56 2. Phylum- Mollusca Class- Bivalvia-28	76	501
	BW	1. Phylum- Annelida Class- Polychaeta-20 2. Phylum- Mollusca Class- Bivalvia-17	44	564
Station-7	SW	1. Phylum- Annelida Class- Polychaeta-19 2. Phylum- Mollusca Class- Gastropoda-10 Class- Bivalvia-16 Class- Scaphopoda-3	63	487
	BW	1. Phylum- Annelida Class- Polychaeta-31 2. Phylum- Mollusca Class- Gastropoda-26 Class- Bivalvia-30 Class- Scaphopoda-29	45	601
Station-8	SW	1. Phylum- Annelida Class- Polychaeta-40 2. Phylum- Mollusca Class- Bivalvia-28	55	581
	BW	1. Phylum- Annelida Class- Polychaeta-28 2. Phylum- Mollusca Class- Gastropoda-14 Class- Bivalvia-7	43	546

*SW= Surface Water, BW= Bottom Water

Ms. M. Rout, Msc. Env. Sc

ANALYST

(GAZETTED SIGNATURE) 03-06-2016



Environmental Studies (EIA & EMP), Monitoring, Forest Diversion Planning, Draft Environmental Management Plan, Hazardous & Safety Studies, RS&GIS, Baseline Survey, Hydrological & Geological Studies, Socio-economic Studies, Impact Assessment, GIS Survey.

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Report no. - CEMC/TDPCL/020419/Sed

Issued Date-02.04.2019

SEDIMENT ANALYSIS REPORT

Name & Address of the Customer : M/s. The Dhamra Port Company Ltd., Dosinga,
Bhadrak
Work order No. : 4800035134, dtd-30.07.2018
Date of Sampling : 19.03.2019
Sampling by : Bikash Samantaray & Santosh Mohanty
Sample Description : Sediment

SEA SEDIMENT ANALYSIS REPORT

SEDIMENT ANALYSIS DATA									
Locations	pH	Organic Matter	Moisture Content (%)	Conductivity (mS/cm)	Iron (%)	Sodium (%)	Copper (mg/kg)	Nickel (mg/Kg)	Zinc (mg/kg)
Station-1	6.4	4.2	6.9	5.04	3.6	22.56	<5	<1	<3
Station-2	6.7	4.5	7.1	5.42	3.6	23.78	<5	<1	<3
Station-3	6.8	4.4	7.4	5.24	3.2	21.96	<5	<1	<3
Station-4	6.7	5.8	7.7	5.34	3.9	21.61	<5	<1	<3
Station-5	6.6	5.4	7.6	5.24	3.2	18.44	<5	<1	<3
Station-6	6.5	6.4	7.5	5.22	3.8	17.14	<5	<1	<3
Station-7	6.9	5.2	7.6	4.98	2.8	17.24	<5	<1	<3
Station-8	7.0	5.3	6.9	5.12	4.1	18.56	<5	<1	<3

SEDIMENT ANALYSIS DATA									
Locations	Manganese (mg/kg)	Lead (mg/kg)	Boron (mg/kg)	Phosphate (mg/kg)	Chloride (mg/kg)	Sulphate (mg/kg)	Sulphide (mg/kg)	Pesticide (mg/kg)	Potassium (mg/kg)
Station-1	<1	<5	<0.5	<0.5	798.6	1970.2	ND	ND	1.36
Station-2	<1	<5	<0.5	<0.5	832.5	1794.3	ND	ND	1.24
Station-3	<1	<5	<0.5	<0.5	928.2	1764.2	ND	ND	0.86
Station-4	<1	<5	<0.5	<0.5	964.2	1884.8	ND	ND	0.96
Station-5	<1	<5	<0.5	<0.5	864.6	1785.3	ND	ND	0.91
Station-6	<1	<5	<0.5	<0.5	868.9	1684.2	ND	ND	0.81
Station-7	<1	<5	<0.5	<0.5	964.2	1864.2	ND	ND	1.12
Station-8	<1	<5	<0.5	<0.5	886.5	1902.4	ND	ND	0.96

SEDIMENT ANALYSIS DATA									
Locations	Total Chromium (mg/kg)	Petroleum Hydrocarbon (mg/kg)	Aluminium (mg/kg)	Total Nitrogen (mg/kg)	Organic Nitrogen (mg/kg)	Phosphorus (mg/kg)	Texture (%)		
							Sand	Silt	Clay
Station-1	<1	0.31	<0.1	4.6	1.6	5.4	0.07	19.6	80.33
Station-2	<1	0.22	<0.1	4.5	1.9	4.4	0.34	29.56	70.1
Station-3	<1	0.18	<0.1	4.2	1.6	4.7	0.58	41.7	57.72
Station-4	<1	0.14	<0.1	3.6	1.2	3.9	0.24	18.8	80.96
Station-5	<1	ND	<0.1	3.6	1.1	3.6	0.74	28.9	70.36
Station-6	<1	ND	<0.1	3.9	1.2	3.8	1.42	35.6	62.98
Station-7	<1	ND	<0.1	4.2	1.2	4.6	0.78	20.88	78.34
Station-8	<1	ND	<0.1	4.4	2.4	4.5	1.84	26.56	71.6

Ms. M. Rout, Msc. Env. Sc

GOVT. ANALYST

(GAZETTED-1997, D-03-06-2016)



Environmental Studies (EIA & EMP), Monitoring, Forest Diversion Planning, Diversion of Wildlife Management Plan, Hazardous & Safety Studies, RSA GIS, Baseline Survey, Hydrological & Geological Studies, Socio-economic Studies, Impact Assessment Survey.

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Issued Date-02.04.2019

SEA SEDIMENT ANALYSIS REPORT

PHYTOBENTHOS MONITORING DATA

Locations	Fungus (CFU/1 g dry wt.)	Total Count/ 50g wet sediment	No. of Species	Diversity Index	Major Species
Station-1	2215	161	10	1.0814	<i>Podosira, N. longisigma</i>
Station-2	1028	110	13	0.3274	<i>Podosira, Ditylum, Euglena</i>
Station-3	6231	400	16	0.8562	<i>Podosira, Ditylum</i>
Station-4	3212	362	9	0.5004	<i>Podosira, N. longisigma, Euglena</i>
Station-5	1526	118	17	0.7842	<i>Podosira, Ditylum</i>
Station-6	2674	190	5	0.8841	<i>Podosira, N. longisigma, Ditylum</i>
Station-7	3921	510	11	0.5846	<i>N. longisigma, Amphora</i>
Station-8	1354	401	8	0.7562	<i>Podosira, N. longisigma</i>

TOTAL FAUNA MONITORING DATA

Locations	Name of Phylum, Class and Number of individuals encountered	Total number of species Encountered	Total Fauna per m ³
Station-1	1. Phylum- Arthropoda Class- Malacostraca-18 2. Phylum- Annelida Class-Polychaeta-52	101	874
Station-2	1. Phylum-Annelida Class-Polychaeta-14 2. Phylum-Arthropoda Class-Copepoda-7 3. Phylum-Cnidaria Class-Anthozoa 5	75	998
Station-3	1. Phylum- Arthropoda Class- Malacostraca-10 2. Phylum- Annelida Class-Polychaeta-11 3. Phylum- Mollusca Class-Gastropoda-8 Class-Pelecypoda-35	86	1031
Station-4	1. Phylum- Annelida Class-Polychaeta-12 2. Phylum-Mollusca Class-Gastropoda-3 Class-Bivalvia-7 Class-Pelecypoda-3	52	476
Station-5	1. Phylum- Arthropoda Class- Amphipoda-18 2. Phylum- Annelida Class- Polychaeta- 9 1. Phylum- Mollusca Class- Pelecypoda-16 Class-Bivalvia-7 Class- Gastropoda-20	32	412
Station-6	1. Phylum- Annelida Class- Polychaeta-12 2. Phylum- Mollusca Class-Bivalvia-6 3. Phylum-Cnidaria Class-Hydrozoa-3	65	799
Station-7	1. Phylum-Annelida Class- Polychaeta-14 2. Phylum- Mollusca Class-Gastropoda-20 Class-Bivalvia-10 Class- Scaphopoda-30	50	410
Station-8	1. Phylum- Annelida Class- Polychaeta-35 2. Phylum- Mollusca Class-Gastropoda-10 Class-Bivalvia-7 Class-Pelecypoda-4	41	312

Ms. M. Rout Msc. Env. Sc
ANALYST
(GAZETTE NO. 103-06-2016)



Environmental Studies (EIA & EMP), Monitoring, Forest Diversion Planning, DPR, Wildlife Management Plan, Hazardous & Safety Studies, RS&S, Baseline Survey, Hydrological & Geological Studies, Socio-economic Studies, DGPS & ETS Survey.

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Laboratory At: Plot No. 800/1274, Johal, Pahal, Bhubaneswar-752101,
E-mail: ccmclab@yahoo.in, Mobile: 7752014842

ANNEXURE - II
TYPES AND QUANTITY OF FIRE
EXTINGUISHERS

The Dhamra Port Company Limited		
Fire Extinguisher Details		
Sl No	Location	Type of Extinguishers & Quantity
1	SWITCH YARD	DCP-5KG-4nos
2	MCC -1	(CO2-4.5KG)-4nos (CO2 -3KG)-2nos, (FOAM-50ltrs)-01no
3	MCC -2	(CO2-4.5KG)-2nos
4	MCC -2(A)	(CO2-4.5KG)-1nos (CO2 -3KG)-1nos
5	MCC -3	(CO2-4.5KG)-2nos (CO2 -3KG)-1no (FOAM-50ltrs)-01no
6	MCC -4	(CO2-4.5KG)-02 (DCP- 5KG)-1nos
7	TP - 1(A)	CO2-4.5KG-1no
8	TP - 1(B)	CO2-4.5KG-1nos
9	TP - 2	CO2-4.5KG-1no
10	TP - 2(A)	CO2-4.5KG-1no
11	TP - 3	CO2 -4.5KG-1no
12	TP - 3(A)	CO2 -4.5KG-1no
13	NEW TP-3	CO2 -4.5KG-1no
14	TP - 4	CO2 -4.5KG-1no
15	TP - 4 (A)	CO2 -4.5KG-1no
16	TP - 5	CO2 -4.5KG-1no
17	TP - 6	CO2 -4.5KG-1no
18	TP-7	CO2 -4.5KG-1nos
19	TP-8	CO2 -4.5KG-1no
20	TP-9	CO2 -4.5KG-1no (DCP- 5KG)-1nos
21	TP-10	CO2 -4.5KG-1no
22	TP-11	CO2 -4.5KG-1nos
23	TP - 12	CO2 -4.5KG-1no
24	TP - 13	CO2 -4.5KG-1no
25	JETTY	CO2 -4.5KG-2nos DCP-5KG-5nos
26	SL	CO2 -4.5KG-4nos DCP-5KG-1no
27	SUL-1	CO2 -4.5KG-5nos (CO2 -3KG)-1nos (DCP- 5KG)-2nos
28	SUL-2	CO2 -4.5KG-5nos (CO2 -3KG)-1nos (DCP- 5KG)-2nos
29	SUL-3	CO2 -4.5KG-6nos (DCP-2KG)-2nos (DCP- 5KG)-1nos
30	SUL-4	CO2 -4.5KG-6nos (DCP- 5KG)-3nos
31	SUL-5	CO2 -4.5KG-6nos (DCP- 5KG)-3nos
32	LIBHERR-11	CO2 -4.5KG-2no, DCP-5KG-2nos, DCP-2KG-2no
33	LIBHERR-12	CO2 -4.5KG-2no, DCP-5KG-4nos
34	SILO - 1	CO2 -4.5KG-3nos DCP-5KG-1no
35	SILO - 2	CO2 -4.5KG-3nos
36	FIRE PUMP HOUSE	CO2 -4.5KG-2nos
37	WTC -1	CO2 -4.5KG-2nos DCP-5KG-2Nos
38	WTC -2	CO2 -4.5KG-2nos DCP-5KG-2nos CO2 -3KG-1nos
39	SR -1	CO2 -4.5KG-2nos DCP-5KG-1nos
40	R - 1	CO2 -4.5KG-2nos DCP-5KG-1nos
41	SR -2	CO2 -4.5KG-2nos DCP-5KG-1nos
42	SR -3	CO2 -4.5KG-2nos DCP-5KG-1nos
43	SR -4	CO2 -4.5KG-1nos CO2 -3KG-1nos, DCP-5KG-1no
44	SR-5	CO2 -4.5KG-2nos DCP-5KG-1nos
45	SR-6	CO2 -4.5KG-2nos DCP-5KG-1nos
46	Fire & Security Barrack	CO2-4.5KG-3nos, DCP-5KG-2nos

47	JETTY CONTAINER	CO2-4.5KG-1nos, DCP-5KG-1nos
48	F.L SMIDTH OFFICE	CO2-4.5KG-2No
49	PSS	CO2 -4.5KG-3nos
50	BMH WORK SHOP	CO2 -4.5KG-1no DCP-5KG-2nos FOAM-50ltrs-01no
51	All Equipment	DCP-5KG-06nos
52	LOCO SHED	CO2 -4.5KG-1nos DCP-5KG-1nos
53	DIESEL FILLING STATION	Foam-9ltr-1no
54	IOCL	Foam-9ltr-1no
55	WTP	CO2 -4.5KG-3nos
56	DPCL OFFICE(SALANDI)	CO2-4.5KG-1nos DCP-5KG-2nos,
57	REWA OFFICE	CO2-4.5KG-2Nos DCP-5KG-1Nos
58	CUSTOMS OFFICE	CO2-4.5KG-1Nos DCP-5KG-1Nos
59	DPCL STORE	CO2 -4.5KG-1nos DCP-5KG-1Nos
60	Lubricant Store	Foam-9ltr-1no
61	SS-01	CO2 -4.5KG-1no
62	SS-02	CO2 -4.5KG-1no
63	SS-03	CO2 -4.5KG-1no
64	SS-04	CO2 -4.5KG-1no
65	SS-05	CO2 -4.5KG-1no
66	NEW CANTEEN	CO2 -3KG-01no DCP-5KG-1no
67	DHAMRA HOUSE	DCP-5KG-5nos DCP-2KG-01no
68	KANIKA GUEST HOUSE	CO2 -4.5KG-01no DCP-5KG-1nos
69	DAV SCHOOL, KUAMARA	CO2 -4.5KG-14nos DCP-5KG-14no
70	TOWNSHIP	CO2 -4.5KG-11nos
71	COMMUNITY HALL	CO2 -4.5KG-1nos DCP-5KG-2nos
72	PREFAB	CO2 -4.5KG-4nos DCP-5KG-5nos
73	PMC OFFICE(HR)	CO2 -4.5KG-1nos
74	DHAMRA GUEST HOUSE	CO2 -4.5KG-2nos CO2 -3KG-2nos
75	RAILWAY OFFICE	CO2 -4.5KG-02nos DCP-5KG-3nos
76	BHATATIRA STATION	CO2(4.5kg)-2Nos DCP-5KG-1no
77	BHATATIRA LC-5	DCP-5KG-1no
78	BHATATIRA- SP	CO2(4.5kg)-1Nos
79	GURUDASPUR STATION	CO2-4.5KG-1No DCP-5KG-1No
80	GURUDAS PUR TSS	CO2 -4.5KG-1no DCP-5KG-2nos
81	GURUDAS PUR SUB STATION	DCP-5KG-2Nos
82	INTAKE	CO2 -4.5KG-3nos DCP-5KG-1nos
83	RANITAL	CO2 -4.5KG-1nos
84	GURUDAS PUR LC-19	DCP-5KG-1no
85	IMWB	CO2-4.5KG-1nos
86	LOCO TRANSFORMER	CO2-4.5KG-2nos, DCP-5KG-2nos
87	HEALTH CENTRE	CO2-4.5KG-1nos, DCP-5KG-1nos
88	PAINT STORE(near TP-7)	DCP-5KG-1nos
89	TOWER WAGON	DCP-5KG-3nos
90	TIHIDI STATION	CO2 -4.5KG-1nos DCP-5KG-1nos
91	BANSADA STATION	CO2 -4.5KG-3nos
92	LC-26,NEAR DI ROAD	CO2 -4.5KG-1no
93	KOCHILA OFFICE	CO2-4.5KG-2Nos DCP-5KG-2nos
94	BRAMHANI OFFICE	CO2 -4.5KG-1nos DCP-5KG-1nos
95	KANIKA TRANSFORMER	CO2 -4.5KG-1no

96	SECURITY CONTAINER, NEAR MAIN GATE	CO2 -4.5KG-1nos DCP-5KG-1nos
97	FIRST AID CENTER	CO2 -4.5KG-1nos DCP-5KG-1nos
98	DPCL AMBULANCE(OLD)	DCP-5KG-1nos
99	DPCL AMBULANCE(NEW)	DCP-5KG-1nos
100	RAILWAY GSS	CO2 -4.5KG-1no DCP-5KG-1no
101	RUNNING ROOM	CO2 -4.5KG-1no DCP-5KG-1no
102	INDUCTION HALL	CO2 -4.5KG-1no
103	FCC GODOWN	CO2 -4.5KG-19nos DCP-5KG-03nos Foam-9ltr-3nos
104	FCC OFFICE	CO2 -4.5KG-1no DCP-5KG-1no
105	FCC CANTEEN	DCP-5KG-1no
106	WOISTAGE OIL STORE	Foam-9ltr-1nos
107	LABOUR REST HOUSE	CO2 -4.5KG-1no
108	SS-6	CO2 -4.5KG-15nos DCP-5KG-8nos
109	COLONY PUMP HOUSE	CO2 -4.5KG-1no
110	BHADRAK GUEST HOUSE	CO2 -4.5KG-1no DCP-5KG-1no
111	BBSR OFFICE	CO2 -4.5KG-1no DCP-5KG-1no
Total Fire Extinguisher Installed at site		Co2-4.5kg=233nos, CO2-3kg =15nos, DCP-10kg= 02nos, DCP(ABC)-6kg-11nos, DCP-5kg=144nos, DCP-2kg=08nos & Foam-9ltrs=07nos, Foam -50ltrs -03nos
STOCK BALANCE FIRE TENDER WITH FIRE STORE & DPCL STORE		CO2(4.5kg)= 34nos, DCP(ABC)-6kg-15nos, DCP(2kg)-04nos, DCP(5kg)- 21nos, Foam(9ltrs)-10nos & Foam(50ltrs)-04nos

ANNEXURE - III
DETAILS OF MOCK DRILLS

DETAILS OF MOCK DRILL

SL.NO	Description of mock drills and training	Numbers of training & mock drill conducted	Numbers of participants
1	Emergency Rescue mock drill	04	140
2	Safety Induction Training	151	2152
3	Portable fire Extinguishers training	13	440
4	Contractor safety training	49	554
5	Defensive driving training	3	75
6	Tool box training	25037	216163
7	On the Job Safety Awareness	571	8701

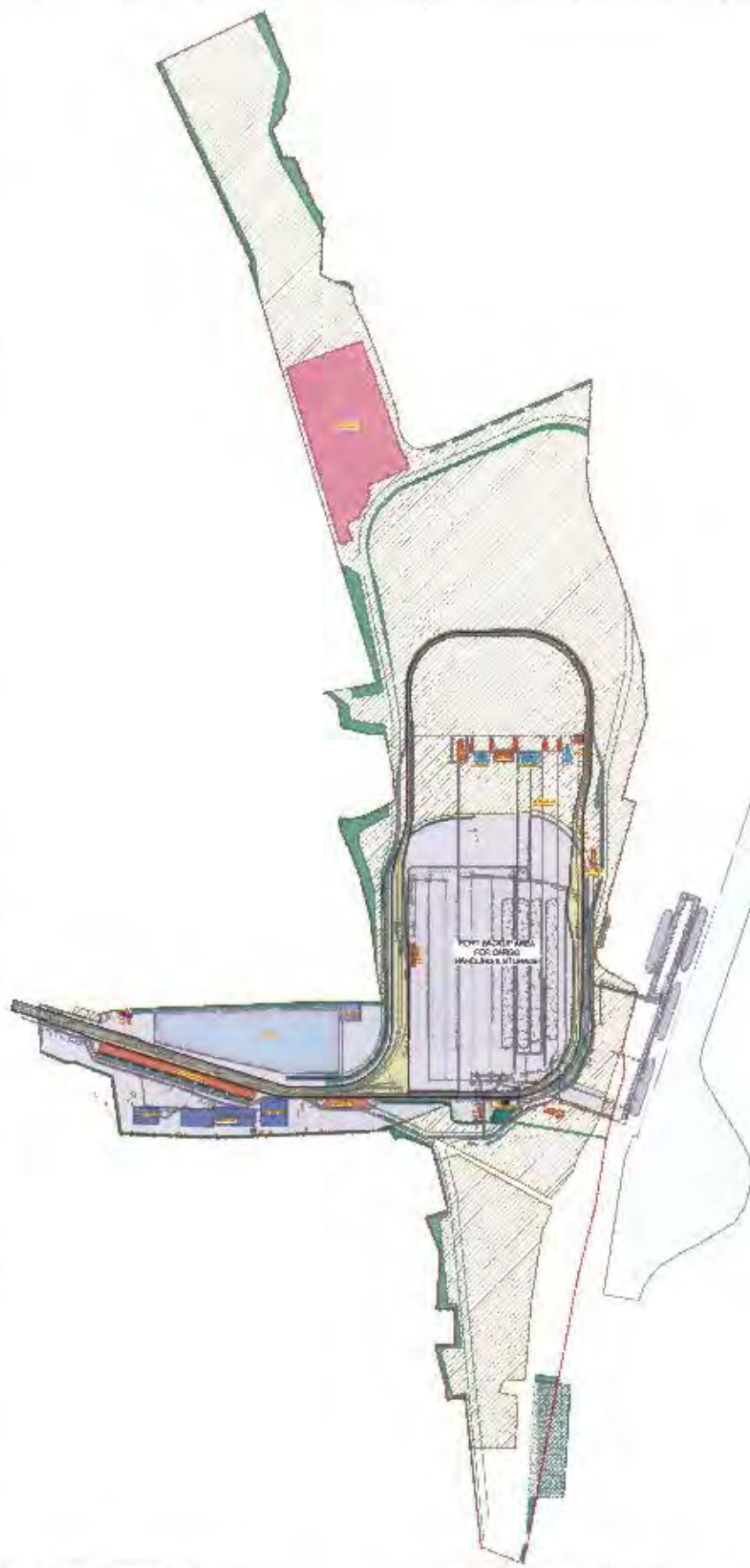
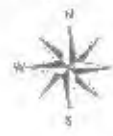
FIRE EXTINGUISHER TRAINING



EMERGENCY RESCUE MOCK DRILL AT SITE



ANNEXURE - IV
PORT LAYOUT



LEGEND:-

- Land Boundary Area
- Level raising/Reclamation for port backup area
- Railway Corridor
- Port Office, Township, STP & WTP area
- Waste Yard
- ETP
- Green Belt Existing
- Green Belt (As per Master plan)
- Protected Mangrove

ISSUED FOR INFORMATION

C:\Users\Adani\Documents\Chandra Port\141113\Chandra Port\141113\Design\141113\141113.dwg

Rev	Description	By	Check	Date
1	Final Design	AD	AD	14/11/2014
2	As per Master Plan	AD	AD	14/11/2014

S. 14.2. 54324.431 713 11 507 760 4802



adani
The Gujarat Port Company Limited

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Rev	By	Check	Date
1	AD	AD	14/11/2014

Rev	By	Check	Date
1	AD	AD	14/11/2014

ANNEXURE – V
GREEN BELT DETAILS

GREEN BELT DETAILS



1. Nursery with 1 lakh Sapling stock



2. Railway Corridor Edge Plantation



3. Green belt around the port



4. Green belt around the port



5. Green belt around the port



6. Green belt development near adjacent village

ANNEXURE – VI
ENVIRONMENT EXPENSES

ENVIRONMENT EXPENSES

ENVIRONMEN PROTECTION EXPENDITURES FY 2018-19		
S. No.	Activity/ Category	Expenditure in lacs
1	Environmental Study / Audit	3.2
2	Environmental Monitoring Services	10.76
3	Hazardous & Non- Hazardous Waste Management & Disposal	32.73
4	Mangrove conservation	2.18
5	Treatment & Disposal of Biomedical Waste	1.29
6	Horticulture/Plantation	167
7	O&M of Sewage Treatment Plant	6.19
8	Water Treatment Plant	33.60
9	Turtle conservation (Trawler for patrolling)	10.40
10	Port Housekeeping Operation	92.84
11	Port housekeeping Environment	43.13
Total Environmental Expenditures (in Lakhs)		403.32

ANNEXURE – VII
PICTURE OF INCOIS ELECTRONIC
DISPLAY BOARD

**PICTURE OF INCOIS ELECTRONIC DISPLAY BOARD INSTALLED
AT DHAMRA FISHING HARBOUR**



ANNEXURE- VIII
KANIKA CONSERVATION PLAN
APPROVED LETTER

**OFFICE OF THE
DIVISIONAL FOREST OFFICER, BHADRAK WILDLIFE DIVISION,
AT/P.O/P.S.-CHANDBALI, DISTRICT-BHADRAK, PIN-756133
Phone/Fax- 06786-220472, Mob- +91 9437041541, Email-dfobhadrakwl.od/a.gov.in**

Letter No. 1889/3F-192/2018, Dated 28/05/2018

To,

The Chief Executive Officer,
Dhamara Port Company Limited,
At-Dosinga, P.O-Dhamara, Dist-Bhadrak.

Sub:

Phase-II Expansion of Dhamara Port- Compliance to OCZMA recommendation and Expert Appraisal Committee (EAC) observation- Kanika Sand Conservation Plan-reg.

Ref

This office letter no. 1734 dated.15.05.2018.

Sir,

In inviting a reference to this office letter number cited above and No. EE-16/2018-10054/F&E dated 01.05.2018 of the Forest and Environment Department, as requested vide your letter no. DPCL/Env/DFO/2018-102 dated 28.05.2018, enclosed please find herewith a copy of the amended conservation plan for Kanika Sand Island prepared at this end after incorporation of necessary changes in the plan as suggested by the PCCF (WL) & Chief Wildlife Warden, Odisha during presentation of the plan at his office on 08.02.2018.

Further, in partial modification to this office letter no cited above, it is to intimate you that the cost of 1st year operation comes to Rs.141.70 lakhs which is mentioned in Chapter-V of the said conservation plan.

Accordingly, you are requested to be in readiness for release of funds for the first year to the undersigned for implementation of the conservation plan at this end.

Yours faithfully,


Divisional Forest Officer,
Bhadrak Wildlife Division.

Memo No.

Dt.

Copy forwarded to the Principal Chief Conservator of Forests (WL) & Chief Wildlife Warden, Odisha, Bhubaneswar in continuation to this office memo no.1867 dt.25.05.2018 for necessary instruction on modalities for implementation of the conservation plan as requested by the undersigned.

Divisional Forest Officer,
Bhadrak Wildlife Division.

Memo No.

Dt.

Copy forwarded to the Additional Principal Chief Conservator of Forests (Forest Diversion & Nodal Officer, F.C Act) O/o the Principal Chief Conservator of Forests, Odisha, Bhubaneswar for favour of kind information and necessary in continuation to this office memo no.1868 dt.25.05.2018.

Divisional Forest Officer,
Bhadrak Wildlife Division.

Memo No.

Dt.

Copy alongwith a copy of the revised conservation plan as amended during the presentation at the O/o the Principal Chief Conservator of Forests (WL) & Chief Wildlife Warden, Odisha, Bhubaneswar held on 08.02.2018 forwarded to the Regional Chief Conservator of Forests, Bhubaneswar Circle for favour of kind information and necessary action in continuation to this office memo no.1869 dt.25.05.2018.

Divisional Forest Officer,
Bhadrak Wildlife Division.

ଖଣ୍ଡିଆ ବନାୟକାରୀ, ଭଦ୍ରକ ବନାୟକାରୀ ବନଖଣ୍ଡ, ଚାନ୍ଦବାଲିକ କାର୍ଯ୍ୟାଳୟ
OFFICE OF THE DIVISIONAL FOREST OFFICER, BHADRAK WILDLIFE DIVISION,
AT/P.O/P.S.-CHANDBALI, DISTRICT-BHADRAK, PIN-756133
Phone/Fax- 06786-220472, Mob- +91 9437041541, Email-dfobhadrakwl.od@gov.in

Letter No 3148 -IF- 256/2018. Dated, Chandbali the 31st, August, 2018

To

The Chief Executive Officer,
Dhamara Port Company Limited,
At - Dosinga, Post - Dhamara, Dist - Bhadrak.

Sub:

Implementation of Conservation Plan of Kanika Island.
regarding Placement of Funds.

Ref:

1. Memo No.17845 dated.14.08.2018 of Senior Scientist, Forest & Environment Deptt., Govt. of Odisha to your address.
2. Your Office Letter No.113 dated. 09.07.2018.

Sir,

With reference to above cited memo on the captioned subject, it is to intimate you, that an exclusive Savings bank Account with following details has been opened by the undersigned as per instructions issued by Forest & Environment Deptt., Govt. of Odisha vide their letter under reference for implementation of Conservation Plan of Kanika Sand Island.


An early action is requested.

Account Details:

Account Name:	DFO BHADRAK WILDLIFE DIVISION
Bank Name:	State Bank of India
Branch Name:	Chandbali
Account No:	37903083739
IFSC:	SBIN0002039
Mobile No:	9437041541


You are requested to place funds as per annual breakup of cost in the approved project proposal.

Yours faithfully,


Divisional Forest Officer,
Bhadrak (WL) Division.

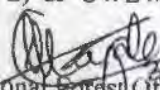
Memo No. 3149 Date- 31/08/2018

Copy forwarded to the Senior Scientist, Forest & Environment Deptt., Govt. of Odisha for favour of kind information.


Divisional Forest Officer,
Bhadrak (WL) Division.

Memo No. 3150 Date- 31/08/2018

Copy forwarded to the Principal CCF (WL) & CWLW, Odisha for favour of kind information.


Divisional Forest Officer,
Bhadrak (WL) Division.

ANNEXURE- IX
DFO LETTER

adani™

Received
to
9/10/18
of 16 D.F.O.
Bhadrak (W) Division.

DPCL/ENV/DFO/2018-140

Date: 01.10.2018

To

The Divisional Forest Officer,
Bhadrak Wildlife Division,
At./Po. Chandbali,
Bhadrak, Odisha - 756133

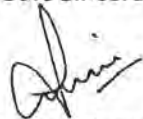
Sub: Release of fund for Conservation of Kanika Sand Island

Ref: Your office letter no. 1889 dated 28.05.2018
DPCL letter no. DPCL/ENV/DFO/2018-113 dated 09.07.2018

Dear Sir,

This is in reference to the above cited subject and reference. It is to inform you that an amount of ₹ 40 Lakhs as part of first year fund contribution for conservation of Kanika Sand Island was transferred to DFO Bhadrak Wildlife Division, SBI Bank, Chandbali (A/c. 37903083739) on 24.09.2018. You are requested to kindly acknowledge the receipt of fund.

Thanking You,
Yours Sincerely



Krishna Kumar
Head - Environment

The Dhamra Port Company Ltd
(A Wholly Owned Subsidiary of APSEZL)
At: Dosinga, PO: Dhamra
Bhadrak 756 171
Odisha, India
CIN. U45205OR1998PLC00544B

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ଖଣ୍ଡାଇ ବନାଧିକାରୀ, ଭଦ୍ରକ ବନ୍ୟପ୍ରାଣୀ ବନଖଣ୍ଡ, ଚାନ୍ଦବାଲିକ କାର୍ଯ୍ୟାଳୟ
OFFICE OF THE DIVISIONAL FOREST OFFICER, BHADRAK WILDLIFE DIVISION,
AT/P.O/P.S.-CHANDBALI, DISTRICT-BHADRAK, PIN-756133
Phone/Fax- 06786-220472, Mob- +91 9437041541, Email-dfo@bhadrakwl.od.gov.in

Letter No. 4181 -IF-256/2018, Dated, Chandbali the 20, November, 2018

To

The Chief Executive Officer,
Dhamara Port Company Limited,
At - Dosinga, Post - Dhamara, Dist - Bhadrak.

Sub:

Release of funds for Conservation Plan of Kanika Island.
-regarding acknowledgement of receipt of funds.

Ref:

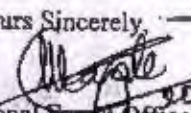
Your Office Letter No. 140 dt. 01.10.2018.

Sir,

In inviting a reference to the above captioned subject, it is to inform you that an amount of ₹. 40,00,000/- (Rupees Forty Lakh) only has been received in the State Bank of India, Chandbali Branch, A/c No. 37903083739 on 25.09.2018.


This is for favour of information & necessary action.

Yours Sincerely,


Divisional Forest Officer,
Bhadrak (WL) Division.

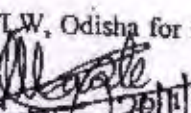
Memo No. 4182 Date- 20-11-2018

Copy forwarded to the Senior Scientist, Forest & Environment Deptt., Govt. of Odisha for favour of kind information.


Divisional Forest Officer,
Bhadrak (WL) Division.

Memo No. 4183 Date- 20-11-2018

Copy forwarded to the Principal CCF (WL) & CWLW, Odisha for favour of kind information.


Divisional Forest Officer,
Bhadrak (WL) Division.

ANNEXURE- X
APPROVED MAP FROM FOREST
DEPARTMENT GOVERNMENT OF
ODISHA

MAP INDICATING DISTANCE OF BHITARKANIKA
SANCTUARY FROM THE PROJECT SITE



0 4 8
SCALE IN km

LEGEND:

- NATIONAL PARK BOUNDARY (1694 m)
- GAHIRMATA MARINE SANCTUARY (11144 m)
- BHITARKANIKA SANCTUARY (2272 m)
- ECO SENSITIVE ZONE BOUNDARY (40 m)

ANNEXURE- XI
PERMISSION LETTER FROM DFO TO
CARRY OUT THE PLANT IN FOREST
VILLAGE

**OFFICE OF THE
DIVISIONAL FOREST OFFICER, BHADRAK WILDLIFE DIVISION,
AT/P.O/P.S.-CHANDBALI, DISTRICT-BHADRAK, PIN-756133
Phone/Fax- 06786-220472, Mob- +91 9437041541, Email-dfobhadrakwl.ed@gov.in**

Letter No. 2678/3F-161/2013, Dated 24 /07/2018

To,

The Chief Executive Officer,
Dhamara Port Company Limited,
At-Dosinga, P.O-Dhamara, Dist-Bhadrak.


Sub: Expression of interest by DPCL for plantation of trees in village forest land adjacent to the port boundary as per stipulation of Environment and CRZ clearance for expansion of Dhamara Port.

Ref: Your Office letter No. DPCL/ENV/DFO/2018-112 Dated 09.07.2018 and Letter No. 1600/Rev dated 26.06.2018 of Addl. District Magistrate, Bhadrak in your office address & this Office memo no.325 dt.18.01.2018.

Sir,

In inviting a reference to aforesaid subject and memo under reference, you may go ahead with plantation of trees in village forest land adjacent to the port boundary as per scheme submitted by you in consultation and supervision of the Range Officer, Chandbali Wildlife Range adhering to the stipulation of Environment and CRZ clearance issued by MoEF vide letter F.No.11-104/2009-IA-III dated 01.01.2014.

Yours faithfully,


24/07/18
Divisional Forest Officer,
Bhadrak Wildlife Division.


Memo No. 2679 Dated. 24.07.2018

Copy forwarded to the Addl. District Magistrate, Bhadrak for information and necessary action with reference to his office memo no.1601/Rev dt.26.06.2018


24/07/18
Divisional Forest Officer,
Bhadrak Wildlife Division.

Memo No. 2680 Dated. 24.07.2018

Copy forwarded to the Range Officer, Chandbali (WL) Range for information and necessary action. He is instructed to inspect the plantation project of DPCL and submit report on achievement of plantation work fortnightly.


24/07/18
Divisional Forest Officer,
Bhadrak Wildlife Division.

ANNEXURE - XII:
EMP AND ACTION PLAN

EMP AND ACTION PLAN

S. No.	Activity	Relevant Environmental components likely to be impacted	Likely Impacts in absence of Mitigation Measures	Mitigation Measures	Compliance
Constructional Phase					
1.	Development / Expansion of Port	Existing land use	Impact on nearby mangrove areas	<p>Scattered mangroves identified near southern boundary of the port in phase I development needs to be conserved.</p> <p>The port boundary will be at a minimum distance of 50 m from the mangrove area on the northern side. Awareness will be created amongst port workers about the importance of mangroves and their conservation</p>	<p>Scattered mangroves identified near southern boundary of Phase I development spread over an area of 9 ha. Bamboo fencing has been done at southern boundary over an area of 9 ha for conservation of mangroves.</p> <p>A buffer of 50m is being maintained between the project boundary and mangrove vegetation.</p> <p>Awareness programs for mangrove conservation for port workers are being undertaken</p>
		Impact on turtle nesting	Glare of Port Light may cause disturbance to hatchlings	<p>Install specialized illumination system in line with "International Dark Sky Association (IDA)" to avoid illuminating the sky or focusing light towards sea.</p> <p>Mercury vapour and metal halides will not be used. Sodium vapour lamps will be used</p>	<p>DPCL has already implemented the suggested mitigation measures during Phase I and these measures shall also be implemented during Phase II Expansion of port.</p>

S. No.	Activity	Relevant Environmental components likely to be impacted	Likely Impacts in absence of Mitigation Measures	Mitigation Measures	Compliance
2.	Capital dredging and reclamation	Marine water quality	Increase in turbidity Change in marine water	Checking of turbidity levels with baseline levels as reference during entire monitoring programme	DPCL regularly monitoring the turbidity levels as a part of marine Environmental monitoring by NABL & MoEF&CC accredited organization to ensure that the turbidity levels are well within the baseline level.
3	Material transport and construction activities	Air Quality	Exhaust emissions from vehicles Dust suspension during site preparation and construction	<p>Providing adequately sized construction yard for storage of construction materials, equipment tools, earthmoving equipment, etc</p> <p>Provide enclosures on all sides of construction site.</p> <p>Movement of material will be mostly during non-peak hours.</p> <p>On-site vehicle speeds will be controlled to reduce excessive dust suspension in air and dispersion by traffic.</p> <p>Construction equipment and transport vehicles will be periodically washed to remove accumulated dirt</p> <p>Water sprinkling will be carried out to suppress fugitive dust</p>	<p>We have a regular air monitoring protocol twice a week to ensure air quality parameters never exceed the prescribed limits.</p> <p>Vehicular Traffic Speed is kept limited to 20 kmph</p> <p>Regular water sprinkling on roads are being carried out by water tankers.</p> <p>Mechanized & manual sweeping is being carried out on regular basis for cleaning of the road.</p> <p>Environment Awareness/training programme is being conducted on regular basis by Environment Department to personnel involved in developmental works.</p>

S. No.	Activity	Relevant Environmental components likely to be impacted	Likely Impacts in absence of Mitigation Measures	Mitigation Measures	Compliance
				Environmental awareness training will be imparted to personnel involved in developmental works.	
		Noise	<p>Noise from following activities</p> <p>Vehicles transporting construction material</p> <p>Diesel run engines of construction machinery and dredgers</p> <p>Pile driving activities during construction of cargo berths</p>	<p>Procurement of machinery / construction equipment will be done in accordance with specifications conforming to source noise levels less than 85 dB (A)</p> <p>Well-maintained construction equipment, which meets the regulatory standards for source noise levels, will be used</p> <p>Noise attenuation will be practiced for noisy equipment by employing suitable techniques such as acoustic controls, insulation and vibration dampers</p> <p>Personnel exposed to noise levels beyond threshold limits will be provided with protective gear like earplugs, muffs, etc.</p> <p>Ambient noise levels will be monitored</p>	<p>We have a strict maintenance regimen for all plant machinery and equipment which is reviewed by the management every day.</p> <p>PPE's like Earplug, muffs are being used in noise prone areas.</p> <p>Noise level monitoring is being carried out by a MoEF & CC accredited agency on monthly basis.</p>
		Disturbance to Natural Drainage pattern	Impact to natural flow of runoff due to blockage and	Adequate storm water drainage system will be provided. If natural drainage disturbed, it will be	Storm water drainage network is planned to facilitate proper drainage of the area and

S. No.	Activity	Relevant Environmental components likely to be impacted	Likely Impacts in absence of Mitigation Measures	Mitigation Measures	Compliance
			change of drainage course	reinstated	requirement of local villager for tide water and boat movement has been duly considered in the drainage plan.
		Vegetation and Strain on existing	Loss of vegetation and strain on existing infrastructure	There will be no loss of vegetation as the area does not contain any tree growth. Temporary workers camp will be provided with sufficient infrastructure and other provisions	Worker camps have been provided with sufficient infrastructure and electricity
		Existing Traffic	Traffic addition	The existing road will be strengthened to cater the increased traffic	Government of Odisha has already started widening this road to a two lane road with paved shoulder which shall cater the increased traffic
4	Land Reclamation	Existing Water Resources like Groundwater and surface water	The land reclaimed is saline mud and is separated from the adjoining land mass through the salt dyke. This being an intertidal zone, there will be no impact on groundwater quality	Protective bunds (salt dyke) already exists which will prevent inundation of salt water to the adjoining land. Return seawater will be channeled back to sea.	Reclamation activity is being done within reclamation bunds and it is physically separated from the adjoining land mass.
5	Solid Waste Management	Soil quality	Impacts due to disposal of solid	Construction waste will be used within port site for filling of low	Under the inspiration of Prime Minister's Clean India Mission,

S. No.	Activity	Relevant Environmental components likely to be impacted	Likely Impacts in absence of Mitigation Measures	Mitigation Measures	Compliance
			waste on ground	<p>lying areas.</p> <p>Composted bio-degradable waste will be used as manure in greenbelt. Other recyclable wastes will be sold.</p> <p>General refuse generated on-site will be collected in waste skips and separated from construction waste.</p> <p>Burning of refuse at construction sites will be prohibited.</p>	<p>APSEZ has developed a vision for making itself – "A Zero Waste Company" by the year 2020. APSEZ's vision is based on adoption of 5R's principle of waste management, i.e Reduce, Reuse, Reprocess, Recycle & Recover.</p> <p>Construction waste generated was used in low lying areas as a standard practice</p> <p>Bio-degradable waste is being used as manure for horticulture activities and for development of nursery</p> <p>Waste Segregation is being done at Point of Generation and Color Coded bins are in use in the Port Residential Area</p> <p>Burning of wastes is prohibited within the premises</p>
6	Handling of hazardous wastes	Human safety and property loss	Accidents during construction	<p>Adequate safety measures as per OSHA standards will be adopted.</p> <p>Construction site will be secured by</p>	<p>Adequate safety measures has been adopted as per OSHA standards.</p> <p>Proper fencing/security arrangement are ensured for construction site.</p> <p>DPCL has received Hazardous waste authorization from OSPCB vide letter no. IND- IV-HW-894/9967 on dated</p>

S. No.	Activity	Relevant Environmental components likely to be impacted	Likely Impacts in absence of Mitigation Measures	Mitigation Measures	Compliance
				<p>fencing with controlled/limited entry points.</p> <p>Hazardous materials such as lubricants, paints, compressed gases, and varnishes etc., will be stored as per the prescribed/approved (MSIHC) safety norms.</p> <p>Medical facilities including first-aid will be available for attending to injured workers.</p>	<p>24.08.2018 for generating, storage and handling of used oil, waste oil, oil contaminated filters elements valid till 31.03.2020.</p> <p>DPCL had made an agreement with OSPCB approved vendor for collection of used oil. Vendor shall take care of treatment & disposal at their site premises as per OSPCB norms.</p> <p>We have a strict safety regimen with the motto "Safety First"</p> <p>Safety Observations are mandatory from every department of the port and immediate measures are undertaken to rectify the shortcoming.</p> <p>OHSAS Guidelines and MSIHC Guidelines are followed for Hazardous wastes</p>
7	Fishing	Fishermen and fishing villages	Impact on fishing due to Construction works	Signboards will be placed at the construction sites in order to make fishermen aware of the	Our navigational channel is well marked with marker buoys and fishermen community are regularly

S. No.	Activity	Relevant Environmental components likely to be Impacted	Likely Impacts in absence of Mitigation Measures	Mitigation Measures	Compliance
				ongoing activities	sensitized via our well-staffed CSR Team on Port Activities
Operational Phase					
1.	Cargo handling and Inland Cargo movement and storage areas	Air Quality	Emissions from loading/unloading equipment, DG sets, vehicular dust emissions, fugitive emissions from storage areas, spillage of cargo	Use of specialized ship loaders/unloaders, wagon tippler, covered conveyors and rapid loading system through silos Dust suppression measures at loading/unloading points, wagon tippler complex, transfer points, stockyards, rapid loading system and at internal roads Periodic cleaning of cargo spills and speed regulations for vehicles engaged in transportation	Noted and complied.
		Noise	Due to equipment handling and vehicular movement Ship (un)loading operations	Acoustic Barriers and Enclosures Personal Protection Equipment (PPE) Counseling and traffic regulation	Noted and complied.
		Traffic Addition	Cargo movement from/to port	A dedicated rail corridor of 62.5 km has been developed and cargo is being transported through rail. A dedicated four lane road and doubling of rail link along the rail corridor has been proposed in the Phase II	Majority of the cargo is being Transported through rail.

S. No.	Activity	Relevant Environmental components likely to be impacted	Likely Impacts in absence of Mitigation Measures	Mitigation Measures	Compliance
2.	Aqueous discharges in harbor basin	Marine water quality and ecology	Change in marine water quality/ ecology due to discharge of ship wastes, sewage, ballast water, bilge water, solid waste etc.	<p>Ships should comply with the MARPOL convention.</p> <p>As a mitigation measure for accidental spillages, Oil spill contingency plan will be implemented.</p> <p>Carrier will be required to exchange ballast water in a deep sea location prior to arrival in the harbor</p> <p>Provision of waste reception facility for bilge oily water and waste oil will be provided</p>	<p>Noted and complied.</p> <p>MARPOL and Ballast Water Convention guidelines are enforced by DPCL for visiting ships.</p>
3.	Accidental Cargo and Oil spills	Marine water quality and ecology	Change in marine water quality	<p>In case of any cargo spillage during transfer from/to ships, it will be attempted to recover the spills.</p> <p>Oil spill control equipment such as booms / barriers will be provided for containment and skimmers will be provided for recovery</p> <p>Response time for shutting down the fueling, containment and recovery will be quicker.</p>	<p>Noted and complied.</p> <p>Marine water quality and productivity is being monitored by MoEF&CC accredited laboratory, there are no adverse impact on water quality and marine productivity in the vicinity. No impact on water quality and marine productivity has been envisaged during this period.</p> <p>Oil Spill Containment equipment in readiness.</p>

S. No.	Activity	Relevant Environmental components likely to be impacted	Likely Impacts in absence of Mitigation Measures	Mitigation Measures	Compliance
					Oil Spill drills are conducted on a regular basis
4.	Maintenance dredging	Marine water quality	Increase in turbidity	It will be ensured that the dumping of the maintenance dredge spoil would be uniform. Turtle deflectors on dredge head will be provided Environmental Monitoring Programme comprising of monitoring of marine water quality, marine sediment quality and marine ecology will be initiated one week prior to commencement of dredging and will be continued during the dredging period.	Noted and complied. Marine water quality and productivity is being monitored by MoEF & CC accredited laboratory, there are no adverse impact on water quality and marine productivity in the vicinity. No impact on water quality and marine productivity has been envisaged during this period.
		Marine Ecology	Due to decrease in DO levels which effect marine ecology and disturbance to benthic communities.		
5.	Water Supply	Water resources	Impact on existing water resources	Government of Odisha has accorded permission for water intake of 5 MLD from Matai River which can cater requirement for port expansion. Water Treatment Plant (WTP) of 5 MLD and water distribution system developed for	Complied.

S. No.	Activity	Relevant Environmental components likely to be impacted	Likely Impacts in absence of Mitigation Measures	Mitigation Measures	Compliance
				Phase I. Distribution system shall be extended to cater to the requirement of expansion project.	
6.	Wastewater Discharge	Water Quality	Impact due to discharge of runoff from stock piles and disposal of untreated sewage	Collection of runoff from stock piles in settling ponds. Sewage treatment plant will be provided. Treated wastewater from STP will be used for irrigating the greenbelt	Complied.
7.	Solid Waste Management	Groundwater and Soil quality	Impact due to disposal of untreated solid waste on ground	Composted bio-degradable waste will be used as manure in greenbelt. Other recyclable wastes will be sold.	Garbage Yard Space allocated for Phase II Operational Phase. Solid Waste Management would be done by Segregation at Generation Points
8.	Cargo Movement	Existing infrastructure	Increase in Traffic Addition	A dedicated rail corridor of 62.5 km has been developed and cargo are being transported through rail A dedicated four lane road and doubling of rail link along the rail corridor has been proposed in the Phase II	Rail Road Corridor infrastructure would be augmented to cater the increased traffic

S. No.	Activity	Relevant Environmental components likely to be impacted	Likely Impacts in absence of Mitigation Measures	Mitigation Measures	Compliance
9.	Handling of hazardous materials	Accidents due to products handling	Human life and loss of property	<p>Hazardous materials will be stored as per the prescribed/approved (MSIHC) safety norms.</p> <p>Operation areas will be secured by fencing with controlled/limited entry points.</p> <p>Hazardous wastes (used oil & used battery) will be sent to OPCB approved recyclers.</p> <p>Medical facilities including first aid will be available for attending to injured workers.</p> <p>Regular check of pipelines and tank farms</p> <p>Emergency alarms, provision of fire hydrant system and fire station.</p> <p>Effective Disaster Management Plan (DMP) which covers onsite and offsite emergency plans.</p>	<p>DPCL had made an agreement with OSPCB approved vendor for collection of used oil. Vendor shall take care of treatment & disposal at their site premises as per OSPCB norms.</p> <p>Used oil is being recycled through authorized recyclers.</p> <p>Proper Care is taken when handling of this hazardous waste and a well- marked storage shed is used for storage of hazardous waste.</p> <p>Hazardous Waste Storage and Handling Facilities will be upgraded during the advance stage of Phase II operation.</p>
10.	Fishing activity	Fishermen livelihood	Impact on fishing due to vessel movement	Creation of awareness among the fisher folk about orientation of approach channel	<p>Fishermen Community is a part of the port community and we have regular and positive interactions with them.</p> <p>Oriental of Navigational Channel is well marked with marker buoys and known to the fishing community</p>

ANNEXURE-XIII
ENVIRONMENT CLEARANCE COPY TO
ZILLA PARISAD

ENVIRONMENT CLEARANCE COPY TO ZILLAPARISAD

The Dhamra Port Company Limited

Second Floor, Fortune Towers, Chandrasekharpur, Bhubaneswar - 751023,
Tel : 0674 - 2303829, Fax : 0674-2303828, E-mail : dpcl@dhamraport.com
Website : www.dhamraport.com, CIN-445205OR1998PLC005448



23.01.2014

To

The Chairman, Zilla Parishada, Bhadrak / Sarpanch, Dosinga Panchayat / NGO (Local)

Sub: Environmental Clearance for Phase- II Expansion of Dhamra Port

Dear Sir,

The Dhamra Port has been granted Environmental Clearance by the Government of India on 1st Jan 2014 for its second phase expansion. The copy of the EC is enclosed here with for your kind reference.

Yours Sincerely,

Himansu S. Sahoo
AGM - CC & CSR
Dhamra Port Company Limited
Mob - 9777453847

24.1.2014

(Jayannathi Swam)
President, Zilla Parishad,

ANNEXURE-XIV
LICENSE AND NOC FROM FIRE DEPT
LICENSE OF STORAGE OF EXPLOSIVES



भारत सरकार
Government of India
व्यापार और उद्योग मंत्रालय
Ministry of Commerce & Industry
पेट्रोलियम तथा विस्फोटक सुरक्षा संगठन (पैसो)
Petroleum & Explosives Safety Organisation (PESO)
F-35/A, बी. जे. बी. नगर,
भुवनेश्वर- 751014
F-35/A, BJB Nagar,
Bhubaneswar - 751014

E mail: dyccobhub@explosives.gov.in
Phone/Fax No: 0674-2433370, 2433390 Fax 2430656

संख्या /No: P/EC/OR/14/1587 (P237780)

दिनांक /Date: 24/12/2018

सेवा में /To:

The Dhamra Port Company Limited,
2nd. Floor, Fortune Towers,
Chandrasekharapur,
Bhubaneswar (M. Corp.),
Taluka: Bhubaneswar (M. Corp.),
District: KHURDA,
State: Odisha
PIN: 751023

21 DEC 2018

विषय /Sub Plot No, Plot No.696(P), Khata No.183, Mouza - Doshinga, Tahasil - Chandabali, District: BHADRAK, State: Odisha, PIN: 999999 में स्थित विद्यमान पेट्रोलियम वर्ग A,B Consumer Pump को अनुमति संख्या P/EC/OR/14/1587 (P237780) - नवीकरण के लिये है।
Existing Petroleum Class A,B Consumer Pump at Plot No, Plot No.696(P), Khata No.183, Mouza - Doshinga, Tahasil - Chandabali, District: BHADRAK, State: Odisha, PIN: 999999 - Licence No P/EC/OR/14/1587 (P237780) - Reg Renewal of Licence

महोदय /Sir
(s),

कृपया आपके उपर्युक्त विषय से संबंधित पत्र संख्या nil दिनांक 24/12/2018 का संदर्भ ग्रहण करें।

Please refer to your letter No. nil dated 24/12/2018 on the subject

अनुमति सं P/EC/OR/14/1587 (P237780) दिनांक 04/10/2010 दिनांक 31/12/2021 तक नवीनीकृत कर लौटाई जा रही है।

Licence No P/EC/OR/14/1587 (P237780) dated 04/10/2010 is returned herewith duly renewed upto 31/12/2021

कृपया पेट्रोलियम नियम, 2002 के उपरीन बनाए गए नियम 148 में दी गई प्रक्रिया का कड़ाई से पालन करें। अनुमति के नवीकरण हेतु सम्स्त दस्तावेजों को दिनांक 31/12/2021 या उससे पहले इस कार्यालय में प्रस्तुत करें।

Please follow the procedure strictly as laid down in rule 148 of the Petroleum Rules, 2002 and submit complete documents for the Renewal of the licence so as to reach this office on or before 31/12/2021

कृपया पदवी दें। Please acknowledge the receipt

भवदीय /Yours faithfully,

((ए.के.मीना))
(A K Meena)
विस्फोटक नियंत्रक
Controller of Explosives
कृते उप मुख्य विस्फोटक नियंत्रक
For Dy. Chief Controller of Explosives
भुवनेश्वर/Bhubaneswar

(अधिक जानकारी जैसे आवेदन की स्थिति शुल्क तथा अन्य विवरण के लिए हमारी वेबसाइट <http://peso.gov.in> देखें)

(For more information regarding status fees and other details please visit our website <http://peso.gov.in>;

प्ररूप XIV
(प्रथम अनुसूची का अनुच्छेद 5 देखिए)
FORM XIV
(see Article 5 of the First Schedule)

मोटर वाहनों में ईंधन डालने के लिए पम्प आउटफिट के संबंध में टैंक या टैंकों में पेट्रोलियम भंडारण के लिए अनुज्ञप्ति
LICENCE TO STORE PETROLEUM IN TANK/S IN CONNECTION WITH PUMP OUTFIT FOR FUELING MOTOR CONVEYANCES

अनुज्ञप्ति सं. (Licence No.) : P/EC/OR/14/1587(P237780)

फीस रूपए (Fee Rs.) 5000/- per year

पेट्रोलियम अधिनियम, 1934 के उपबंधों और उसके अधीन बनाए गए नियमों तथा इस अनुज्ञप्ति की अतिरिक्त शर्तों के अधीन रहते हुए 22.00 KL of Petroleum class B को टैंक/टैंकों में भण्डारण मात्र के लिए The Dhamra Port Company Limited, 2nd. Floor, Fortune Towers, Chandrasekharpur, Bhubaneswar (M. Corp.), Taluka: Bhubaneswar (M. Corp.), District: KHURDA, State: Odisha, PIN: 751023 को नीचे वर्णित अनुज्ञप्त परिसरों में जो कि इससे उपबंध नक्शा संख्या P/EC/OR/14/1587(P237780) तारीख 24/12/2018 में दिखाया गया है, के लिए विधिमन्य अनुज्ञप्ति अनुदत्त की जाती है।

Licence is hereby granted to The Dhamra Port Company Limited, 2nd. Floor, Fortune Towers, Chandrasekharpur, Bhubaneswar (M. Corp.), Taluka: Bhubaneswar (M. Corp.), District: KHURDA, State: Odisha, PIN: 751023 valid only for the storage of 22.00 KL of Petroleum class B in tank/s in the licensed premises described below and shown on the plan no: P/EC/OR/14/1587(P237780) dated 24/12/2018 attached hereto subject to the provisions of the Petroleum Act. 1934 and the rule made thereunder and to the further conditions of this Licence.

यह अनुज्ञप्ति 31st day of December 2021 तक विधिमन्य रहेगी।
The Licence shall remain in force till the 31st day of December 2021

October 4, 2010

For Jt. Chief Controller of Explosives
EC, Kolkata

अनुज्ञप्त परिसरों का विवरण और अवस्थान
DESCRIPTION AND LOCATION OF THE LICENSED PREMISES

अनुज्ञप्त परिसर जिसकी सीमाएं संलग्न नक्शे में दिखाई गई हैं Plot No: Plot No.606(P), Khata No.103, Mouza - Doshinga, Tahasil - Chandabali, District: BHADRAK, State: Odisha, PIN: 999999 में स्थित हैं और उसमें निम्नलिखित सम्मिलित हैं:

The licensed premises, the boundaries of which are shown in the attached plan, are situated at Plot No: Plot No.696(P), Khata No.183, Mouza - Doshinga, Tahasil - Chandabali, District: BHADRAK, State: Odisha, PIN: 999999 and consist of:

क पेट्रोलियम वर्ग क परिसर के लिए NIL किलोलिटर क्षमता के/क्रमशः 1 क्षमता के भूमिगत गैस टाईट टैंक, जो विद्युत/हस्तचालित NIL डिस्पेंसिंग पम्पों से जुड़े हुए हैं।

a 1 number(s) underground gas tight tanks of capacity NIL kilolitres respectively of petroleum Class A connected with NIL number(s) electrically/manually operated dispensing pump(s)

ख पेट्रोलियम वर्ग ख/ग परिसर के लिए 22.00 किलोलिटर क्षमता के/क्रमशः 1 क्षमता के भूमिगत गैस टाईट टैंक, जो विद्युत/हस्तचालित 1 डिस्पेंसिंग पम्पों से जुड़े हुए हैं।

b 1 number(s) underground gas tight tanks of capacity 22.00 kilolitres respectively of petroleum Class B connected with 1 number(s) electrically/manually operated dispensing pump(s).

ग एक विक्रय कक्ष/कियोस्क

c A sales room/kiosk

घ सर्विस सम्बन्धी सुविधाएं जिनमें Pump Attendant Room, सम्मिलित हैं।

d Servicing facilities consisting of Pump Attendant Room. As per attached plan

अनुज्ञप्ति संख्या-(Licence No.) P/EC/OR/14/1587 (P237780)

नवीनीकरण के पञ्चांकन के लिए स्थान
SPACE FOR ENDORSEMENT OF RENEWALS

पेट्रोलियम अधिनियम १९३४ के उपबन्धों या उनके अधीन बनाए गए नियमों या इस अनुज्ञप्ति की शर्तों का उल्लंघन न होने की दशा में यह अनुज्ञप्ति फिस में बिना किसी छूट के दस वर्ष तक नवीकृत की जा सकेगी। This licence shall be renewable without any concession in fee for ten years in the absence of contravention of any provisions of the Petroleum Act, 1934 or of the rules framed thereunder or of any of the conditions of this licence	नवीकरण की तारीख Date of Renewal	समाप्ति की तारीख Date of Expiry of license	अनुज्ञापन प्राधिकारी के हस्ताक्षर और स्टाम्प Signature and office stamp of the licencing authority
1)	18/02/2013	31/12/2014	Sd/- Dr. P. K. Rana Controller of Explosives For Dy. Chief Controller of Explosives Bhubaneswar
2)	09/04/2015	31/12/2016	Sd/- Subasis Ray Controller of Explosives For Dy. Chief Controller of Explosives Bhubaneswar
3).	27/12/2016	31/12/2018	Sd/- Subasis Ray Controller of Explosives For Dy. Chief Controller of Explosives Bhubaneswar
4)	24/12/2018	31/12/2021	A K Meena Controller of Explosives For Dy. Chief Controller of Explosives Bhubaneswar

यदि अनुज्ञप्ति परस्पर इसमें उपाबद्ध विवरण और शर्तों के अनुरूप नहीं पाए जाते हैं और जिन नियमों और शर्तों के अधीन यह अनुज्ञप्ति मंजूर की गई है उनमें से किसी का उल्लंघन होने की दशा में यह अनुज्ञप्ति रद्द की जा सकती है और अनुज्ञप्तिधारी प्रथम अपराध के लिए साधारण कारावास से जो एक मास तक हो सकता है, या जुर्माने से, जो एक हजार रुपये तक हो सकता है, या दोनों से, और प्रत्येक परवातवर्ती अपराध के लिए साधारण कारावास से जो तीन मास तक हो सकता है, या जुर्माने से, जो पांच हजार रुपये तक हो सकता है, या दोनों से, दण्डनीय होगा।
This licence is liable to be cancelled if the licensed premises are not found conforming to the description given on the approved plan attached hereto and contravention of any of the rules and conditions under which this licence is granted and the holder of this licence is also punishable for the first offence with simple imprisonment which may be extend to one month, or with fine which may extend to one thousand rupees, or with both and for every subsequent offence with simple imprisonment which may extend to three months, or with fine which may extend to five thousand rupees or with both.

**NO OBJECTION CERTIFICATE FROM OFS, ODISHA GOVT. TO DPCL ON FIRE
SAFETY**



OFFICE OF THE FIRE PREVENTION OFFICER:
ODISHA, BHUBANESWAR

No. 293 /FPW,BBSR

Dt. 05-04.2013

To

**The Manager Environment Health Safety,
The Dhamra Port Company Ltd.**

Ref:- Your letter No. DPCL/EHS/SO-287 dtd.08.12.2010.

Sub:- Grant of NOC from fire safety point of view to Dhamra Port.

Dear Sir,

With reference to the letter on the subject cited above this is to intimate that on your request the fire protection system of Dhamra Port was inspected on 09.03.2013 by a joint team comprising of Deputy Fire Officer, Fire Prevention Wing, Bhubaneswar and Deputy Fire Officer, Bhubaneswar Circle. The observations are as under.

Observations

The team inspected the following establishments/areas of Dhamra Port which are important from fire safety point of view.

1. Motor Control Center-1,2,3,4(Single storied).
2. Fire water Pump house- Single floor.
3. Water treatment Plant-G+1 floor.
4. Administrative Office-Single floor.
5. Rail loading system for coal.
6. Rail loading system for Lime stone.
7. Switch yard.
8. Coal stack pile area.
9. Jetty area.
10. Transfer points.

The following fire protection measures have been provided in the above mentioned areas as indicated against each.

Sl No.	Name of area	No. of external hydrant	No. of internal hydrant.	No. of Monitors	Smoke detectors	Manual call point with hooters
01	Motor Control Center-1	1 no.	-----	-----	32 nos	02 nos
02	Motor Control Center-2	2nos	-----	-----	18 nos	02 nos
03	Motor Control Center-3	2nos	-----	-----	09 nos	01 no.
04	Motor Control Center-4	2nos	-----	-----	06 nos	01 no.
05	Fire water Pump house	01 no.	-----	-----	---	-----
06	Water treatment Plant	-----	-----	---	---	---
07	Administrative Office	04 nos	06 nos	---	-----	---
08	Rail loading system for Coal	---	06 nos	01 no.	-----	---
09	Rail loading system for Lime stone	---	05 nos	01 no.	---	---
10	Switch yard.	01 no.	---	---	---	---
11	Coal stack pile area	59 nos	-----	13 nos	---	-----
12	Jetty area.	16 nos	-----	---	-----	-----
13	Transfer points	-----	03nos. in each	---	-----	---

The entire Port area have been provided with hydrant system. Near each external/ internal hydrant point 01 hose box containing 02 delivery hoses of 15 mtrs length each and 01 branch pipe has been provided. Besides the entire Coal stack pile area has been provided with water sprinkling system. The control room has been set up and a panel board connecting all the Smoke detectors has been installed there. One fire pump house has been setup where one electric pump and one diesel pump of 4555 ltrs/min capacity each and one Jockey pump of 450 ltrs/min capacity have been installed to supply water to the hydrant and sprinkling system. Two nos Fire water reservoir of 6,00,000 ltrs capacity each have been provided to supply

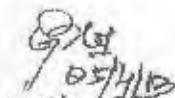
FP
02

water to the fire fighting system. Besides 24 nos CO₂ (4.5 kg), 22 nos DCP (2.5 kg), 05 nos DCP (5 kg) and 10 nos DCP (10 kg) fire extinguishers have been installed at required places.

All the above mentioned fire protection measures were test checked and found working properly.

The stacking of coal in the pile area should be done as per IS: 3595/2002


Yours sincerely,


Fire Prevention Officer
Odisha, Bhubaneswar

Memo No. _____/FPW,BBSR

Date .03.2013

Copy submitted to the I/C Chief Fire Officer, Odisha, Cuttack/D.G & I.G of Police, Fire Service, Odisha, Cuttack for favour of Information.


Fire Prevention Officer
Odisha, Bhubaneswar

ANNEXURE-XV
ADVERTISEMENT IN LOCAL NEWSPAPER
INTIMATING GRANT OF ENVIRONMENTAL
& CRZ CLEARANCE

ADVERTISEMENT IN LOCAL NEWSPAPER INTIMATING GRANT OF
ENVIRONMENTAL & CRZ CLEARANCE

SAMBAD, Bhubaneswar
17 Jan 2014, P. 5

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ପ୍ରକଳ୍ପ ପାଇଁ ପରିବେଶ ଓ ପ୍ରାକୃତିକ ସମ୍ବଳ ବିଭାଗ
ଦ୍ଵାରା ଗ୍ରୀନ ଫାଇଲ୍ F.No. 11-104/2009-
IA-IIIରେ ଡି.ଏ.ଏ. ୨୦୧୪ ଓ ୨୦୧୫
ପରିବେଶ ଓ ପ୍ରାକୃତିକ ସମ୍ବଳ ବିଭାଗ ଦ୍ଵାରା
କରିବାକୁ ଅନୁମତି ଦିଆଯାଇଛି । ଏହାପାଇଁ ସମସ୍ତଙ୍କୁ ଜଣାଇବା ପାଇଁ
www.enfor.nic.inରେ ଗୋଟାଇ ଦିଆଯାଇଛି ।



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P. 5
୧୭ ଜାନୁଆରୀ ୨୦୧୪

ବିଜ୍ଞପ୍ତି

ଭାରତୀୟ ପୋର୍ଟ ଡିଭିଜନ ପକ୍ଷରୁ ଉପରୋକ୍ତ
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www.enfor.nic.inରେ ଗୋଟାଇ ଦିଆଯାଇଛି ।

ANNEXURE-XVI
ENVIRONMENT STATEMENT FOR FY 2017-18

adani™

OPCL/ENV/OSPCB/2018-135

19th September, 2018

To
The Member Secretary
State Pollution Control Board, Odisha
A/118, Nilakantha Nagar, Unit-VIII,
Bhubaneswar - 751012

Dear Sir,


Sub: Environmental Statement for the financial year ending 31st March, 2018 for
M/s The Dhamra Port Company Limited.

Ref: Consent Order No. 12090/IND-I-CON-6348 dated 13.09.2017

With reference to the above mentioned subject, please find enclosed Environmental Statement
in Form V prescribed under Rule 14 of the Environment (Protection) Rules 1986, for M/s The
Dhamra Port Company Limited for the financial year ending 31st March 2018.

Thanking you,

Yours faithfully,
For The Dhamra Port Company Limited


Subrat Tripathy
Chief Executive Officer

Encl: As above.

Copy to: The Regional Officer,
State Pollution Control Board, Odisha,
160, Sahadev Khunta,
Balasore, Odisha

The Dhamra Port Company Ltd.
(A Wholly Owned Subsidiary of APSEZL)
A6, Daringa, PO: Dhamra
Bhubaneswar 756 017
Odisha, India
CIN: 145205081798PLC005446

Tel: +91 674 1 4800
Fax: +91 674 1 0828
info@adani.co
www.adani.co

Registered Office: HIG-30, Bhubaneswar, Odisha - 751 013, India

Recd
19/9/18
19



DPCL/ENV/OSPCB/2018-135

19th September, 2018

To
The Member Secretary
State Pollution Control Board, Odisha
A/118, Nilakantha Nagar, Unit –VIII,
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The Dhamra Port Company Ltd
(A Wholly Owned Subsidiary of APSEZL)
A-1, Disingra PO, Dhamra
Bhadrak 756 121
Odisha, India
PIN: 756101 OR 199844 COO5448

Tel: +91 674 211 1000
Fax: +91 674 211 1231
info@dhamra.com
www.adani.com

Regional Office: Plot 20, BDA Colony, Jayaprakash Nagar, Bhubaneswar - 751005, Odisha
Tel: +91 674 211 1000

Environment Statement for 2017-18

FORM V

(See Rule 14)

Environmental Statement for the Financial Year ending 31st March 2018

PART – A

- (i) Name and address of the Owner/ Occupier of the Industry Operation or Process : Subrat Tripathy
Chief Executive Officer
M/s The Dhamra Port Company Limited
Village-Dosinga, Po.-Dhamra, Dist-Bhadrak
Odisha - 756171
- (ii) Industry Category : Red-B
Primary (STC Code) NA
Secondary (STC Code) NA
- (iii) Production Capacity : 71.84 Million MT/Annum Cargo & 1 Million
TEU/Annum Containerized Cargo
- (iv) Year of Establishment : 2000
- (v) Date of last Environment Statement submitted : 18th September, 2017

PART – B

Water and Raw Material Consumption

(i) Water Consumption

Water Consumption Cu. Mtr./Day	
Process	Nil
Cooling	Nil
Domestic	271.92 m ³ /day
Dust suppression	1119.70 m ³ /day
Fire fighting	467.09 m ³ /day

Environment Statement for 2017-18

Name of Products	Process Water Consumption per unit of Product Output	
	During the current financial year (2016-17)	During the current financial year (2017-18)
Handling of Iron Ore, Coal, Limestone*	0.026 m ³ /Ton	0.027 m ³ /Ton

(ii) Raw Material Consumption

Name of Raw Material	Name of Products	Consumption of Raw Material per Unit of output	
		During the previous financial year (2016-17)	During the current financial year (2017-18)
NIL*	Not Applicable	Nil	Nil

* Unit does not have any manufacturing process

PART – C

Pollutants discharged to Environment/Unit of Output
(Parameters as specified in consent issued)

Pollutants	Quantity of pollutants discharged (Mass/day)	Concentrations of pollutants in discharges (mass/volume)	Percentage of variation from prescribed standards with reasons
(a) Water	Nil*		
(b) Air	Monitoring data attached as Annexure-1		

*Unit does not manufacture anything, as it is a service industry (Port) engaged in handling and storage of cargo. No effluents are generated from the port. Treated water from the STP is used for horticulture purposes.

Environment Statement for 2017-18

PART – D

Hazardous Wastes

(As specified under Hazardous Wastes Management and Handling Rules 1989)

Hazardous Wastes	Total Quantity	
	During the previous financial year (2016-17)	During the current financial year (2017-18)
(a) From Process (Used oil)	5.045 KL	6.068 KL
(b) From Process (Waste Containing Oil)	0.886 MT	0.683 MT
(c) From Process (Oil Contaminated Filters)	124 Nos.	547 nos.
(d) From Pollution Control facilities	Nil	Nil

PART – E

Solid Waste

Solid Waste	Total Quantity Generated (MT/Annum)	
	During the previous financial year (2016-17)	During the current financial year (2017-18)
(a) From Process (Ash)	Nil	Nil
(b) From Pollution Control facilities	1.56 MT/Annum	2.075 MT/Annum
(C-1) Quantity recycled or reutilized within the unit	1.56 MT/Annum	2.075 MT/Annum
(C-2) Sold	Nil	Nil
(C-3) Disposed	Nil	Nil

Environment Statement for 2017-18

PART - F

Please specify the characterization (in terms of Composition and quantum) of Hazardous as well as solid wastes and indicate disposal practice adopted for both these categories of wastes:

Hazardous Waste			
Sl. No	Name of waste	Generation quantity	Disposal method
1	Used oil	6.068 KL	Sold to Authorized Recyclers /Reprocessors
2	Waste containing oil	0.683 MT	Send to ACC Ltd. for co-Processing /energy recovery
3	Oil contaminated filter elements	547 nos.	ACC for co-processing /energy recovery

DPCL has got the authorization from OSPCB vide letter no. IND-IV-HW-894/1460 on dated 09.09.2015 for handling of hazardous waste used oil, waste containing oil, oil contaminated filters elements valid till 31.03.2020.

Solid Waste			
Sl. No	Name of waste	Generation quantity	Disposal method
1	Metallic waste	41.850	Sold to scrap vendor for recycling
2	Rubber waste	59.400	Sold to scrap vendor for reuse
3	Paper waste	9.183	Recycled for making note pad through third party recycler
4	Plastic waste	9.944	Sent to M/s ACC for co-processing/energy recovery
5	Glass Waste	2.170	Sold to scrap vendor for recycling.
6	Food waste	95.178	Used for making compost for horticulture use.
7	STP Sludge	2.075	Used for horticulture purpose as manure.
8	Wooden Waste	1.900	Reused in house construction work

Environment Statement for 2017-18

PART – G

Impact of the pollution abatement measures taken on conservation of natural resources and on the cost of production

- DPCL has two nos. of Sewage Treatment Plant (STP) of capacity 140 KLD & 15 KLD each, so as to handle sewage generated from port & township. The STP treated water is being used for horticulture and gardening purpose.
- Two no's of settling ponds of capacity 25216 m3 each have been constructed to treat the water from the port area. In settling ponds, the suspended materials (coal and iron fines) will be arrested and treated water is used for dust suppression purpose.
- 2 nos of Mechanized road sweeping machine has been deployed for cleaning of road
- Regular monitoring of Ambient Air Quality by a MOEFCC accredited agency to meet the prescribed standard by concerned authority.
- Green belt has been developed inside & outside of the port.
- During the financial year 2017-18, the total amount of Rs. 1.30 Crores was incurred on environmental protection measures.

PART – H

Additional measures /investment/ proposal for environmental protection including abatement of pollution, prevention of pollution.

- Green belt has been developed inside the port premises and along the Rail /Road corridor of 62 km length. Strip plantation on both the edges of railway corridor has been taken up and 2,11,000 plants have been planted along the north & south edges of the corridor till date. Plantation of suitable species has been taken up in and around the port area and admin/Residential area with effect from 2010 & is continuing. So far 14611 plants suitable for the site have been planted at Port site apart from the rail road corridor plantation mentioned above.
- 3485 no's of plantation have been done in nearby village area & 12000 nos. of avenue plantation has been done.
- We are also conserving the natural patch of mangrove situated at south side of our port premises by bamboo fencing within area of 9 ha. We have also developed a nursery with massive numbers of mangrove sapling.

PART – I

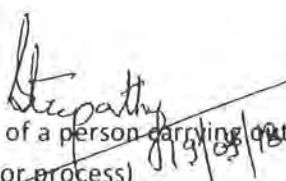
Any other particulars for improving the quality of environment:

- Specialized illumination system in line with "International Dark Sky Association (IDA)" has been installed to avoid illuminating the sky or focusing light towards sea. Sodium vapour lamps are being used instead of mercury lamp. All area lighting, roadway lighting and lighting mounted on masts or other elevated structures are of full cutoff luminaries.

Environment Statement for 2017-18

- Deflectors are installed on drag-head of dredgers to keep turtles out of path of dredger. Screens are also installed in inflow/overflow pipes of dredgers to monitor turtle entrainment. There are observers on Dredgers to ensure implementation of IUCN Dredging Protocol.
- Trawler has been provided to Forest Department, Govt. of Odisha for patrolling purpose for conservation of Olive Ridley turtle.
- DPCL has made an effective contribution towards Environment Protection, management and conservation during this year.
- Under the inspiration of Prime Minister's Clean India Mission, APSEZ has developed a vision for making itself – "A Zero Waste Company" by the year 2020. APSEZ's vision is based on adoption of 5 R's principle of waste management, i.e Reduce, Reuse, Reprocess, Recycle & Recover.
- 100 % waste water generated is being reused and recycled.
- Waste camps are being organized in township for collection of waste materials from township residents so as to collect other waste apart from garbage. The main intention is to make the area waste free and for creating awareness among resident.
- DPCL believe in sustainable development and are working in close harmony of biodiversity rich area. We are regularly monitoring our foot prints on environment.

Date : 19-09-2018


(Signature of a person carrying out an industry,
operation or process)

Name : Subrat Tripathy

Designation : CEO

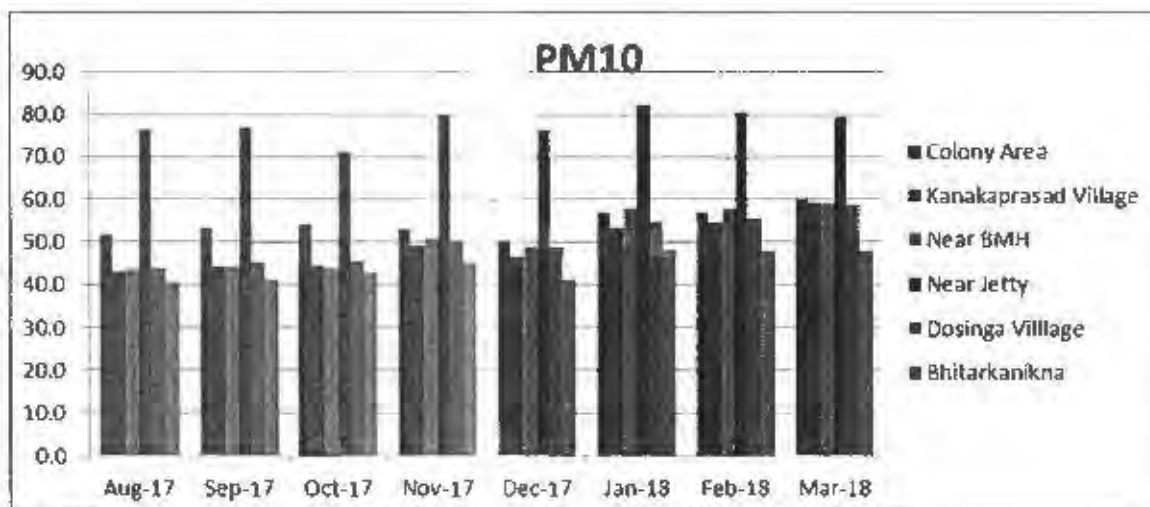
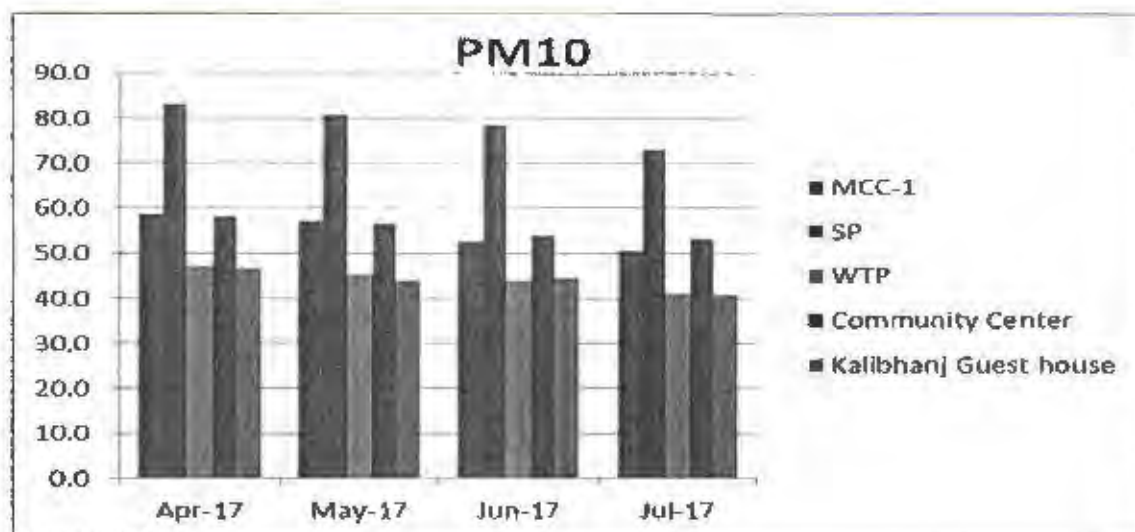
Address : M/s The Dhamra Port Company Limited

Village-Dosinga, Po. Dhamra,

Dist- Bhadrak, Odisha

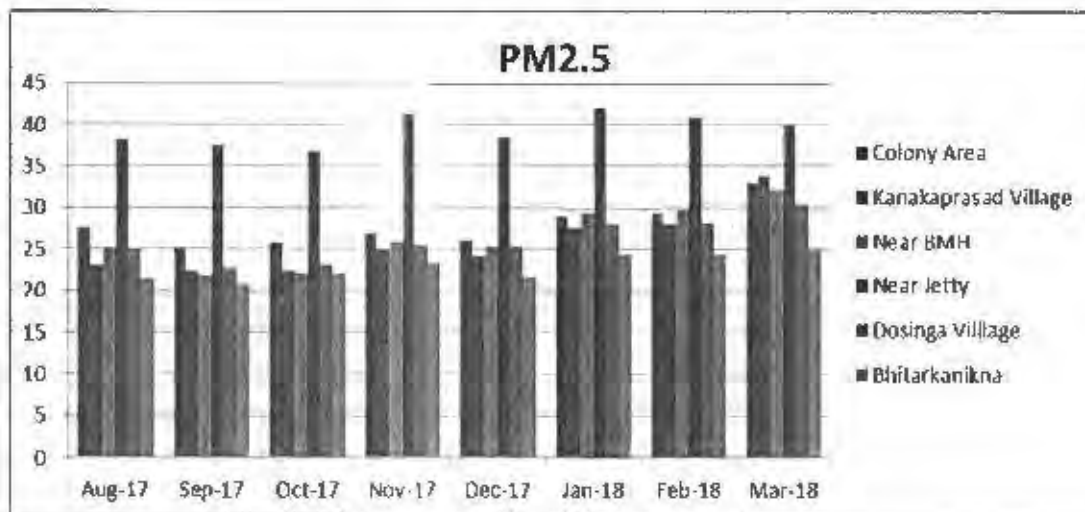
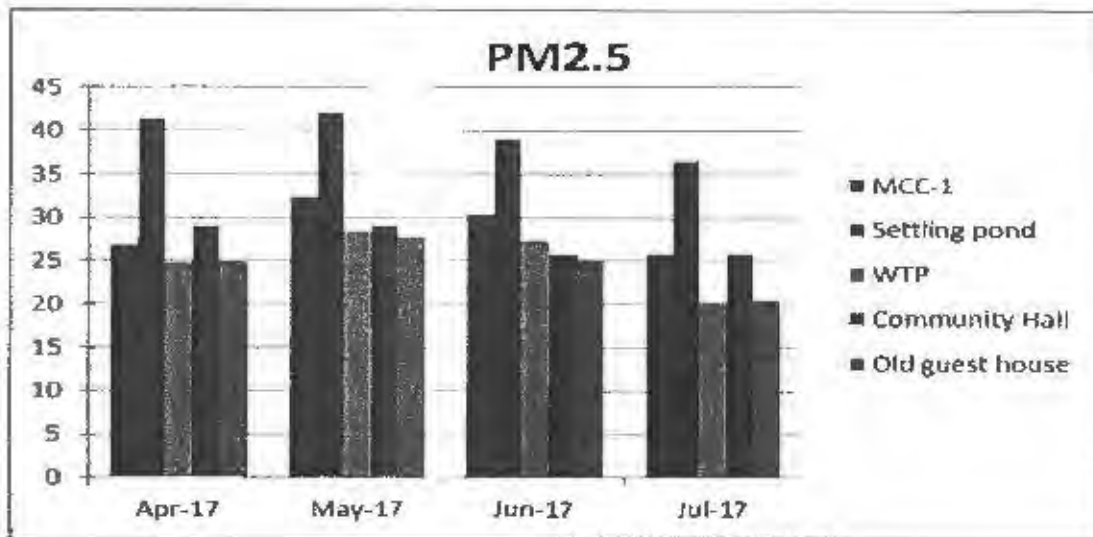
Environment Statement for 2017-18

Annexure 1



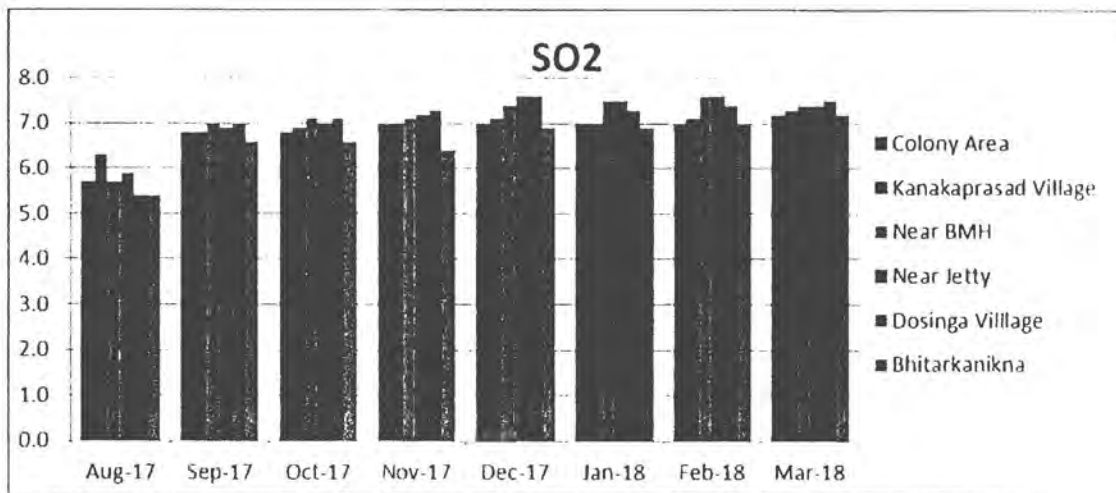
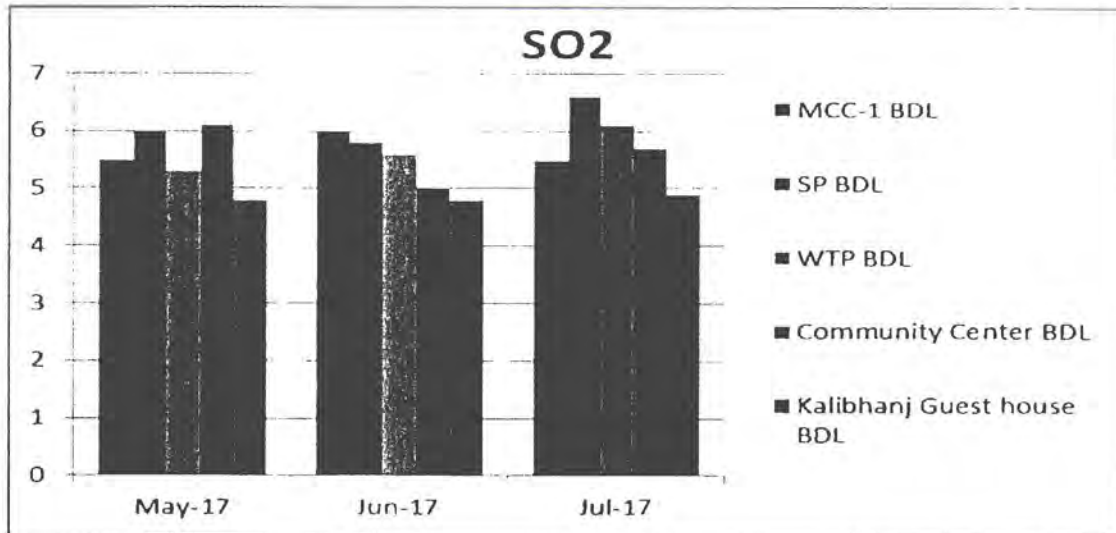
Note: The monitoring locations have been revised as per the CTO.

Environment Statement for 2017-18



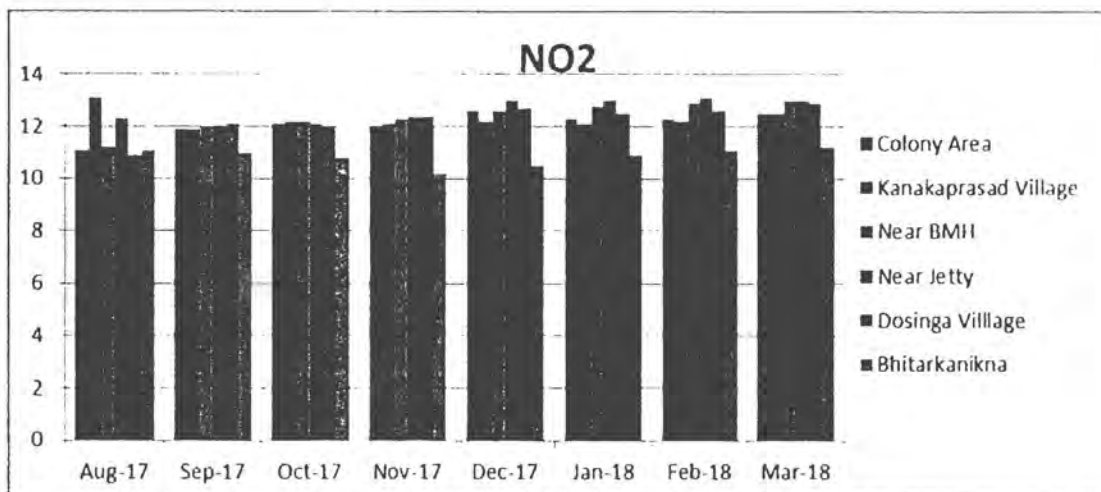
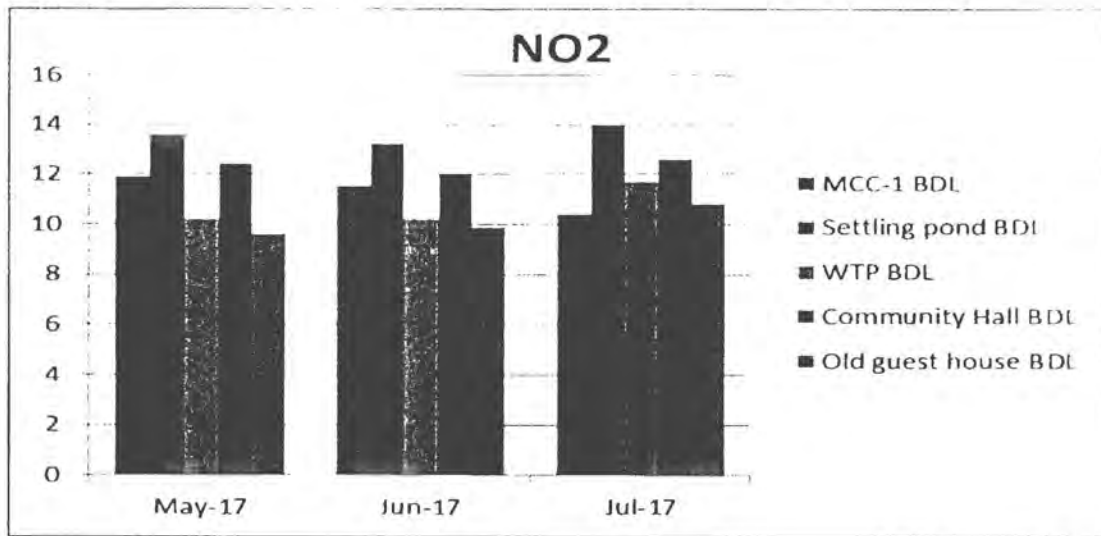
Note: The monitoring locations have been revised as per the CTO.

Environment Statement for 2017-18



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Environment Statement for 2017-18



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