

# **EC COMPLIANCE REPORT**

**for the period: October 2017 – March 2018**

**INTERNATIONAL SHIP REPAIR FACILITY (ISRF) PROJECT  
AT COCHIN PORT PREMISES  
BY M/s COCHIN SHIPYARD LIMITED**



**A Govt. of India Enterprise  
(A Mini Ratna Company Under The Ministry of Shipping)  
Perumanoor PO, Kochi , Kerala, India-682015**

**कोचीन शिपयार्ड लिमिटेड**  
(भारत सरकार का श्रेणी 1 मिनिरात कंपनी, पोत परिवहन मंत्रालय)



**COCHIN SHIPYARD LIMITED**  
(A Government of India Category-1 Miniratna Company, Ministry of Shipping)

INFRA/ISRF/64/2017

17 May 2018

The Additional Principal Chief Conservator of Forests (C)  
Ministry of Environment, Forests & Climate Change  
Regional Office (Southern Zone)  
Kendriya Sadan, 4<sup>th</sup> Floor, E&F Wing  
17<sup>th</sup> Main Road, II Block, Koramangala  
Bangalore-560 034  
Tel # 080 25635901

**Sub: Submission of half yearly compliance report in connection with Environmental Clearance for the project "Augmentation of existing ship repair facility at Cochin Port premises by Cochin Shipyard Limited."**

**Ref: Environmental Clearance (EC) letter no. F.No.11-65/2013-IA-III dated 22 June 2017.**

Sir,

This has further reference to the Environmental Clearance issued for our project, viz., "Augmentation of existing ship repair facility at Cochin Port premises by Cochin Shipyard Limited" vide MoEFCC letter referred above.

2. As per the conditions stipulated in EC letter, Half yearly compliance report for the period; October 2017 to March 2018 & Updated Monitoring report-Proforma-1 are enclosed herewith. Soft copy of the same in CD is also enclosed.

Encl 1: Monitoring Proforma Part-1

" 2: Half yearly compliance report

Yours faithfully,

A N Neelakandhan

General Manager (Materials)

Occupier – Environment (Protection) Act 1986

Copy: 1) Shri. M A Baiju, Chief Environmental Engineer, Ernakulam Regional office  
Kerala State Pollution Control Board,  
Gandhi Nagar, Ernakulam – 682 020

ए.एन. नीलकण्ठन  
A N NEELAKANDHAN  
दखलकार - पर्यावरण (संरक्षण) अधिनियम 1986  
Occupier - Environment (Protection) Act 1986  
कोचीन शिपयार्ड लिमिटेड  
Cochin Shipyard Ltd.  
कोच्ची / Kochi - 682 015

2) Shri S Suresh, Scientist 'E' & In charge, Regional Directorate  
Central Pollution Control Board, 1<sup>st</sup> & 2<sup>nd</sup> Floors, Nisarga Bhavan  
A – Block, Thimmaiah Main Road, 7<sup>th</sup> D Cross, Shivangar,  
Bengaluru – 560079



पंजीकृत कार्यालय: प्रशासनिक भवन, पी.ओ. बैग सं. 1653, पेरुमानूर पी.ओ., कोच्ची - 682 015  
Registered Office: Administrative Building, P.O. BagNo. 1653, Perumanoor P.O., Kochi - 682 015  
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वेबसाइट / Website: www.cochinshipyard.com CIN: U63032KL1972GOI002414

ENCL:1

**GOVERNMENT OF INDIA**  
Ministry of Environment and Forests & Climate Change  
(Regional Office, Southern Zone). Bangalore  
**MONITORING REPORT – PROFORMA – PART I**

File No:

Ref Letter No:

Date:

1	Name of the project	Augmentation of Existing Ship Repair Facility at Cochin Port of District Ernakulam, Kerala by M/s Cochin Shipyard Ltd.
2	Clearance letter No. & date	Environmental Clearance (EC) letter no. F.No.11-65/2013-IA-III dated 22 June 2017.
3	Location : District & State / UT	Ernakulam, Kerala
4	Address for correspondence:	Shri. A N Neelakandhan Occupier-Environment (Protection) Act 1986 Cochin Shipyard Limited, Perumanoor P O ,Kochi-682015 Ph: +91 484 2501360 Fax: +91 484 2370897 Email: <a href="mailto:gmmat@cochinshipyard.com">gmmat@cochinshipyard.com</a>
5	Contact No. of Office with name of responsible official	Shri. Eldho John General Manager (Infra Projects) Infra Projects Department, Cochin Shipyard Limited, Perumanoor P O ,Kochi-682015 Ph: +91 484 2501913 Fax: +91 484 2370897 Email: <a href="mailto:eldho.john@cochinshipyard.com">eldho.john@cochinshipyard.com</a>
6	Mobile No. of concerned officials associated with monitoring	1. Shri. Siyad M A Senior Manager (Infra Projects) Infra Projects Department Cochin Shipyard Limited, Mob: +91 9995804298 Email: <a href="mailto:siyad.ma@cochinshipyard.com">siyad.ma@cochinshipyard.com</a>  2. Shri. Vulli Haranath Assistant General Manager (Infra Projects) Infra Projects Department Cochin Shipyard Limited, Mob: +91 8138001150 Email: <a href="mailto:vulli.haranath@cochinshipyard.com">vulli.haranath@cochinshipyard.com</a>
7	a) Project cost as originally planned and subsequent revised estimates and the years of price reference	Cost Estimate as per DPR - Rs. 970 Crs, year 2015
	b) Allocations made for environmental management plans, with item wise and	• Compensatory mangrove afforestation: Rs. 12 lakhs (approx.).





	year wise breakup	• ETP & STP: Rs. 137 lakhs
8	a) Actual expenditure incurred on the project so far	Rs. 107.87 crores as on 31 March 2018
	b) Actual expenditure incurred on the environmental management plans so far	Actions are being taken to incur the expenditure earmarked for EMP, which will happen along with the construction works progressing at the site.
9	Date of commencement (actual and/or planned)	Actual: 03 March 2018
10	Date of completion (actual and/or planned)	Planned: Nov 2019
11	Validity of CFO	Consent to Establish from Kerala State Pollution Control Board (Consent No. : PCB/HO/AE2/EKM/ICE/12/2016 dated 06 April 2016) valid up to 31 May 2018.
12	Reasons for the delay if the project is yet to start	N/A
13	Present status of the project:	Environmental Clearance for the ISRF project was issued on 22 June 2017 subject to obtaining prior clearance from National Board for Wildlife (NBWL). Standing Committee of NBWL in its meeting held on 08 Dec 2017 had deliberated and recommended for the NBWL clearance of ISRF project. Subsequent to the release of minutes of meeting dated 09 Jan 2018, construction activities commenced at the project site on 03 March 2018. M/s Simplex Infrastructures Limited., Kolkata (SIL) is entrusted as the contractor for carrying out the construction works. Work is presently progressing at the site and the ISRF project is scheduled for commissioning by Nov 2019.
14	E-mail ID of the contact person to whom communications to be sent	<a href="mailto:gmmat@cochinshipyard.com">gmmat@cochinshipyard.com</a> with copy to: 1) <a href="mailto:eldho.john@cochinshipyard.com">eldho.john@cochinshipyard.com</a> 2) <a href="mailto:siyad.ma@cochinshipyard.com">siyad.ma@cochinshipyard.com</a>
15	FAX Number	+91 484 2370897

Signature of authorized signatory with company seal



एल्डो जॉन  
**ELDHO JOHN**  
महा प्रबंधक  
**General Manager**  
कोचीन शिपयार्ड लिमिटेड  
**Cochin Shipyard Ltd.**  
कोच्ची / Kochi - 682 015

EC COMPLIANCE STATUS		
SI No.	CONDITION	COMPLIANCE STATUS
<b>A. <u>SPECIFIC CONDITIONS:</u></b>		
i	Construction activity shall be carried out strictly according to the provisions of CRZ Notification, 2011. No construction work other than those permitted in Coastal Regulation Zone Notification shall be carried out in Coastal Regulation Zone area.	Cochin Shipyard Limited (CSL) ensures that no construction work other than those mentioned in approved layout will be carried out.
ii	All the conditions stipulated by MoEF&CC, Regional Office (Southern Zone) vide letter No. 4-KLB1112/2017-BAN/197 dated 7 <sup>th</sup> June, 2017 shall be complied with.	Being complied with. Compliance Report submitted online in MoEFCC portal on 31 Oct 2017.
iii	The environmental clearance is subject to obtaining prior clearance for Wildlife from the Standing Committee of the National Board for Wildlife.	<b>Complied.</b> Standing Committee of the National Board of Wildlife in its 46 <sup>th</sup> meeting held on 08 Dec 2017 had recommended for the NBWL clearance of ISRF project. Minutes of the meeting is published in MoEFCC website on 09 Jan 2018.
iv	All the recommendations and conditions specified by Kerala Coastal Zone Management Authority shall be complied with.	Clause wise compliance of the recommendations and conditions specified by Kerala Coastal Zone Management Authority (KCZMA) is mentioned separately at page no. 9.
v	As proposed, PP shall carry out mangroves plantation in 2 ha. land and maintain.	CSL in association with Kerala Forest Dept had identified 'Chettuva' region in Thrissur Dist, Kerala to carry out compensatory mangrove afforestation. Further, CSL had also received the project report prepared by Kerala Forest Dept.
vi	The Project proponent shall ensure that no creeks or rivers are blocked due to any activities at the project site and free flow of water is maintained.	<b>Complied.</b> M/s DHI, Denmark was entrusted to carry out the hydrodynamic modeling study in connection with the ISRF project. The results of the study reveal that the proposed ISRF project does not indicate considerable influence on water levels and water availability outside of the shipyard area. No creeks or rivers are blocked due to this project.



vii	Shoreline should not be disturbed due to dumping. Periodical study on shore line changes shall be conducted and mitigation carried out, if necessary. The details shall be submitted along with the six monthly monitoring report.	International Ship Repair Facility (ISRF) project does not have any reclamation. In addition, shore is already protected with retaining walls. During the course of construction, retaining walls will not be disturbed. Hence shoreline change is not envisaged. Dredged material will be disposed off at the two offshore dumping sites maintained by Cochin Port Trust, which are North (10° 00"N, 76° 05"E) and South (9° 55"N, 76° 06"E) Dumping Grounds. The dumping sites are located at a distance of about 21 km away from the project site. Dredging activities in connection with the ISRF project is scheduled to commence in the month of July 2018.
viii	The ground water shall not be tapped within the CRZ areas by the PP to meet with the water requirement in any case.	<b>Complied.</b> Water requirement for the construction activities is being arranged from outside agencies in tankers. Hence ground water extraction is not carried out.
ix	All excavation related dewatering shall be as duly authorized by the CGWA. A NOC from the CGWA shall be obtained for all dewatering and ground water abstraction.	<b>Complied.</b> Secretary, Water Resource Department, Kerala has issued No Objection Certificate for the ISRF project vide letter No.GW1/296/2017-WRD dated 18 July 2017.
x	A detailed marine diversity conservation management plan based on possible environmental impacts shall be drawn up and implemented as suggested by the National Institute of Oceanography (NIO) or any other institute on marine ecology. The plan should include the management of marine and intertidal biotopes, corals and coral communities, sea grasses and sea weeds, subtidal habitats, fishes, other marine flora and fauna (Micro, macro and mega) including turtles, birds and marine mammals as also productivity.	<b>Complied.</b> CSIR-NIO was entrusted for the preparation of "Detailed marine diversity conservation management plan" in connection with the ISRF project on 16 Feb 2017. Marine Biodiversity management plan prepared by CSIR-NIO for the ISRF project is placed as <b>Annexure-1</b> to <b>Encl: 2.</b> and their recommendations are strictly being followed during the construction phase.
xi	Shrouding shall be carried out in the work site enclosing the dock/proposed facility area. This will act as dust curtain as well achieving zero dust	Temporary shrouding by the way of moving sheds will be provided during the operation stage to contain the dust, if any generated from the work stations.



	discharge from the site. These curtain or shroud will be immensely effective in restricting disturbance from wind in affecting the dry dock operations, preventing waste dispersion, improving working conditions through provision of shade for the workers.	
xii	Dust collectors shall be deployed in all areas where blasting (surface cleaning) and painting operations are to be carried out, supplemented by stacks for effective dispersion.	Will be complied during operation phase of the ISRF project.
xiii	The work space shall be maintained as per international standards for occupational health and safety with provision of fresh air respirators, blowers, and fans to prevent any accumulation and inhalation of undesirable levels of pollutants including VOCs.	Will be complied during operation phase of the ISRF project.
xiv	The diesel generators shall be used as back-up power supply and shall be run only during power cuts. Low sulphur content fuel will be used for the generators and will be subjected to periodical maintenance and servicing. This will cut down on emission volume to a considerable extent. Also, the DG sets will be provided with mufflers for pollutant emission control.	<b>Complied.</b> ISRF project facility is equipped with 2 nos. of 500 KVA DG sets, which are used as a backup source of power supply. Low sulphur content fuel is being used in these DG sets. Regular maintenance and servicing are also carried out at regular intervals. DG sets are provided with mufflers and also comply with latest emission norms.
xv	Necessary arrangements for the treatment of the effluents and solid wastes must be made and it must be ensured that they conform to the standards laid down by the competent authorities including the Central or State Pollution Control Board and under the Environment (Protection) Act, 1986.	The oily wastewater generated from workstations due to ship washing will be collected through covered drains and treated in ETP before discharge. The treated water will be used for gardening / horticulture. In rainy season, the treated water will be let out to channel along with storm water. The wastewater from toilets, bathrooms and areas in the operational building will be treated in STP.
xvi	All measures shall be taken during the excavation activity as deemed necessary from the geotechnical investigation of the soil and ground	<b>Complied.</b> Geotechnical investigation was carried out at the land side and marine side before the commencement of construction activities.



	water profile.	Excavation activity at the project site is mainly the boring operation carried out in connection with the casting of piles. Results of the Geotechnical investigation are duly taken care while carrying out the boring operation.
xvii	Construction activity related wastes (C & D waste) shall be disposed off as per Solid Waste Management Rule, 2016.	C& D waste generated from the project site is being disposed as per the Solid Waste Management Rule, 2016.
xviii	All such solid and hazardous wastes including onboard wastes (while ships dock at the site) will be handled as per the Hazardous and other Waste (Management & Trans-boundary Movement) Rule, 2016.	Will be complied during operation phase.
xix	Silt curtains shall be used to contain the spreading of suspended sediment during dredging within the dredging area.	Will be complied during the dredging phase. Dredging activities not yet started and are scheduled to commence in the month of July 2018.
xx	The dredging schedule shall be so planned that the turbidity developed is dispersed soon enough to prevent any stress on the fish population.	Dredging activities not yet started. Will be complied during the dredging phase in line with the "Detailed marine diversity conservation management plan" prepared for the project by CSIR-NIO.
xxi	Earth protection work shall be carried out to avoid erosion of soil from the shoreline/boundary line from the land area into the marine water body.	Shore is already protected with retaining walls. During the course of construction, retaining walls will not be disturbed. New construction will be resting on piles.
xxii	No ships docking at the proposed project site will discharge its on-board waste water untreated in to the estuary/channel. All such wastewater load will be diverted to the proposed Effluent Treatment Plant of the project site.	On-board waste water, if any from the docked ships will not be discharged directly on land or to water body without appropriate treatment. The same will be treated in ETP before discharge.
xxiii	All effluent generated in the existing and proposed ship repairing centre shall be drained in to the ETP having capacity 300 KLD and equipped to treat the effluent into dischargeable standards. The oil-water operator of the ETP shall remove any unwanted oil & grease content from the effluent. The ETP shall be equipped to treat such effluent including the bilge water	Will be ensured by the installation of the proposed ETP.





	and other ship discharges to meet the general standards for discharge of effluent in marine coastal areas before disposal in to the channel. Ballast water from ships shall be stored at the facility and will be used in refilling of same before release of ships back into water.	
xxiv	Workers shall be strictly enforced to wear personal protective equipments like dust mask, ear muffs or ear plugs, whenever necessary/required. Special visco-elastic gloves will be used by labour exposed to hazards from vibration.	PPE's like safety helmets, safety harness, safety shoes, goggles, dust mask, ear muffs or ear plugs, as applicable are strictly enforced for the workers during construction. Special visco-elastic gloves are also being used by labourers exposed to hazards from vibration.
xxv	In case of repair of any old vessels, excessive care shall be taken while handling Asbestos & Freon gas. Besides, fully enclosed covering should be provided for the temporary storage of asbestos material at site before disposal to CTSDf.	Will be complied during operation phase. In addition, CSL has an MOU in force with M/s Kerala Enviro Infrastructure Ltd. (KEIL), the only designated hazardous waste disposal center in Kerala for the disposal of C&D and asbestos sheet waste, which will be generated at the project site during demolition of existing buildings.
xxvi	Safety training shall be given to all workers specific to their work area and every worker and employee will be engaged in fire hazard awareness training and mock drills which will be conducted regularly. All standard safety and occupational hazard measures shall be implemented and monitored by the concerned officials to prevent the occurrence of untoward incidents/accidents.	Safety induction training covering fire hazard awareness is imparted to all workforce of the contractor. In addition, job specific safety training is also given. All standard safety and occupational hazard measures are implemented at the project site. In addition, audits / site inspections are regularly carried out to ensure compliance of the safety standards to prevent the occurrence of untoward incidents/accidents.
xxvii	The commitments made during the Public Hearing and recorded in the Minutes shall be complied with letter and spirit. A hard copy of the action taken shall be submitted to the Ministry.	Public Hearing meeting was held on 24 March 2015. All participants, who had spoken during the meeting, had appreciated the project. No issues were raised from any of the members present during the public hearing and hence no specific commitments were given from the side of CSL.



<b>B. GENERAL CONDITIONS:</b>		
i	Appropriate measures must be taken while undertaking digging activities to avoid any likely degradation of water quality.	Noted and being complied with.
(i)	Full support shall be extended to the officers of this Ministry / Regional Office at Bhubaneswar Bangalore 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.	Noted. CSL confirms full support to the offices of MoEFCC in connection with the ISRF project.
(ii)	A six-Monthly monitoring report shall need to be submitted by the project proponents to the Regional Office of this Ministry at Bhubaneswar Bangalore regarding the implementation of the stipulated conditions.	Noted and being complied with.
(iii)	Ministry of Environment, Forest and Climate Change 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.	Noted.
(iv)	The Ministry reserves the right to revoke this clearance if any of the conditions stipulated are not complied with the satisfaction of the Ministry.	Noted.
(v)	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, Forest and Climate Change.	Noted.
(vi)	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.	➤ Subsequent to the deliberation in Public Investment Board meeting held on 09 March 2016, approval for the ISRF project was accorded on 19 May 2016. ➤ Construction work commenced on 03 March 2018.
(vii)	A copy of the clearance letter shall be marked to concerned Panchayat / local	<b>Complied.</b> Copy of the EC letter handed over to Secretary,





	NGO, if any, from whom any suggestion / representation has been made received while processing the proposal.	Kochi Corporation on 27 June 2017.
(viii)	A copy of this clearance letter shall also be displayed on the website of the concerned State Pollution control Board. The Clearance letter shall also be displayed at the Regional Office, District Industries centre and Collector's Office/ Tehsildar's office for 30 days.	<b>Complied.</b> <ul style="list-style-type: none"> <li>➤ Copy of EC letter send by speed post to Chairman, Kerala State Pollution Control Board (KSPCB) on 27 June 2017.</li> <li>➤ Copies of EC letter also handed over to District Industries Centre, District Collector's Office and Regional office of KSPCB on 27 June 2017.</li> </ul>
<b>C. OTHER CONDITIONS IN ENVIRONMENTAL CLEARANCE COMPLIANCE LETTER:</b>		
1.	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 Wildlife (Protection) Act, 1972 etc. shall be obtained, as applicable by project proponents from the respective competent authorities.	Noted for applicable compliances.
2.	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 State Pollution Control Board and may also be seen on the website of the Ministry of Environment, Forest and Climate Change at <a href="http://www.envfor.nic.in">http://www.envfor.nic.in</a> . The advertisement should be made within seven 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 Bangalore.	<b>Complied.</b> <ul style="list-style-type: none"> <li>➤ CSL had advertised in two leading dailies in vernacular language viz. Malayala Manorama and Mathrubhumi on 02 July 2017.</li> <li>➤ Copy of the advertisement was forwarded to MoEFCC, Regional Office, Bangalore vide our letter dated INFRA/ISRF/64/2017 dated 05 July 2017.</li> </ul>
3.	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.	Noted.



	460 of 2004 as may be applicable to this project.	
4.	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.	Noted.
5.	Status of compliance to the various stipulated environmental conditions and environmental safeguards will be uploaded by the project proponent in its website.	Noted.
6.	A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zilla Parisad/Municipal Corporation, Urban Local Body and the Local NGO, if any, from whom suggestions/representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the company by the proponent.	<b>Complied.</b> <ul style="list-style-type: none"> <li>➤ Copy of EC letter forwarded to Secretary, Kochi Corporation on 23 June 2017.</li> <li>➤ EC letter is also published in CSL website.</li> </ul>
7.	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&CC, the respective Zonal Office of CPCB and the SPCB.	<p>Noted.</p> <p>M/s SV Envirolabs &amp; Consultants, Visakhapatnam is entrusted with the job of carrying out environmental monitoring on 07 May 2018. Construction activities at the project site commenced on 03 March 2018. Though limited tender enquiry was issued to KSPCB Grade-A approved laboratories for carrying out environmental monitoring on 11 Dec 2017, CSL had to cancel this tender due to the intervention by Honourable High Court of Kerala in response to a petition filed by one of the bidders. Hence CSL had gone for retendering (open tender) on 19 March 2018 and thereafter appointed M/s SV Envirolabs &amp; Consultants, Visakhapatnam as monitoring agency. In view of the above circumstances, results of monitoring will be submitted along with the next monitoring report due for submission latest by 01 Dec 2018.</p>
8.	The project proponent shall also submit six monthly reports on the status of compliance of the stipulated clearance	Noted.





	conditions including results of monitored data (both in hard copies as well as by e-mail) to the respective Regional Office of MoEF&CC, the respective Zonal Office of CPCB and the SPCB.	
9.	The environmental statement for each financial year ending 31 <sup>st</sup> 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&CC by e-mail.	Will be complied during the operation stage of the ISRF project
10	The above 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.	Noted.

#### **D. KCZMA Recommendations**

S. No.	KCZMA Recommendation	Compliance Status
1.	The debris and waste generated from dredging and during the phase of demolition and construction should not be dumped into the CRZ area and wetlands.	<ul style="list-style-type: none"> <li>• The debris and waste generated from dredging will be disposed off at the two identified dumping ground locations of Cochin Port Trust (CoPT) in the outer sea about 21km away from the project site.</li> <li>• Dumping of construction and demolition (C&amp;D) waste into CRZ area and wetlands is strictly prohibited and is being disposed in line with the C&amp;D waste management rules 2016.</li> </ul>



2.	Species wise mangrove identification may be done and bio-diversity register shall be maintained. The compensatory species wise mangrove afforestation in patch areas used for developmental works should be given top priority and the progress report shall be submitted to KCZMA before initiating developmental works.	<ul style="list-style-type: none"> <li>• There is no mangrove forest except two small isolated mangrove patches in the project area having spread area 92.8 sq. M &amp; 93.8 sq. M. These mangroves (15 nos. plants in total) may have grown due to the sediment deposit near to the slipway area where quay wall is not present. These mangroves belonging to <i>Acanthus ilicifolius</i> and <i>Rhizophora</i> Species, are to be felled for the project.</li> <li>• As a compensatory measure insisted by MoEFCC, CSL is in the process of carrying out 2 ha mangrove afforestation at Chettuva, Thrissur in association with Kerala Forest Dept., Govt. of Kerala. CSL will submit necessary progress report on this to KCZMA and necessary biodiversity register will also be maintained.</li> </ul>
3.	Storing of hazardous materials during the construction and operation phase, if any, need to be done as per relevant rules and regulations.	<p>Being complied with.</p> <p>Hazardous materials are not allowed to be disposed to marine water, wetland or CRZ area. In addition, CSL is having tie-up with CTSDf viz. M/s Kerala Enviro Infrastructure Ltd. (KEIL), Cochin for the disposal of Hazardous waste.</p>
4.	All the provisions of CRZ notifications of 1991/2011, local town and country plan regulations for construction should be strictly followed during the implementation of the project.	Being complied with.
5.	Necessary environmental regulations and port/shipping regulations also shall be followed.	The project is being implemented as per the necessary environmental regulations and port/shipping regulations. CSL is working in compliance with International Ship and Port Facility Security (ISPS) code.
6.	Proper monitoring plan may be put in place to safeguard the environment.	Monitoring plan during the construction phase has been formulated and M/s SV Envirolabs & Consultants, Visakhapatnam is entrusted with the job of carrying out environmental monitoring on 07 May 2018. The construction activities of ISRF project commenced on 03 March 2018. The delay in appointing the agency for carrying out environmental monitoring is due to the intervention by Honourable High Court of Kerala in response to a petition filed by one of the



		bidders. Hence CSL had gone for retendering and thereafter appointed M/s SV Envirolabs & Consultants, Visakhapatnam as monitoring agency. In view of the above circumstances, results of monitoring will be submitted along with the next monitoring report due for submission latest by 01 Dec 2018.
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