

AHPPL/MoEF&CC/2018-19/001

Date: 23/05/2018

To

Additional Principal Chief Conservator of Forests (C), Ministry of Environment, Forest and Climate Change, Regional Office (WZ), E-5, Kendriya Paryavaran Bhawan, Arera Colony, Link Road-3, Ravishankar Nagar, Bhopal - 462016 (Madhya Pradesh)
Tel. No.: 0755- 2465054, 2465496, 2466525
Email: rowz.bpl-mef@nic.in

Dear Sir,

Sub.: Six Monthly Compliance Report of conditions stipulated in Environment and CRZ Clearance for the development of Multi Cargo Port with Supporting Utilities and Infrastructure Facilities at Hazira, Surat, Gujarat for the period: Oct., 2017 to Mar., 2018.

Ref.: 1). Environmental and CRZ Clearance issued by MoEF & CC, New Delhi vide letter No.: 11-150/2010-IA.III dated 03rd May, 2013.

 CRZ Recommendations issued by Forests & Environment Department, Govt. of Gujarat to MoEF & CC, New Delhi vide letter No.: ENV-10-2012-30-E dated 11th May, 2012.

Please find enclosed herewith point wise Compliance Reports (Hard copy as well as in a CD) of conditions stipulated in the above referred letters.

Thank you,

For, M/s. Adani Hazira Port Private Limited,

(Capt. Unmesh Abhyankar) Authorised Signatory

Encl.: As above

Cc to:

- The Director (Monitoring IA Division), Ministry of Environment, Forests & Climate Change, Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi-110 003.
- The Director, Forests & Environment Department, Block 14, 8th Floor, Sachivalaya, Gandhinagar, Gujarat - 382 010.
- The Zonal Officer, Central Pollution Control Board, Zonal Office Vadodara, Parivesh Bhawan, Opp. VMC Ward Office No.:10, Subhanpura, Vadodra-390 023.
- The Chairman, Gujarat Pollution Control Board, Parvayaran Bhawan, Sector 10A, Gandhinagar-382 010 (Gujarat).
- The Regional Officer, Gujarat Pollution Control Board, Belgium Square, Ring Road, Surat-395003, (Gujarat).

Adani Hazira Port Pvt Ltd At & PO Hazira Choryashi Surat 394 270 Gujarat, India Tel +91 79 2656 5555 Fax +91 79 2555 5500 info@adani.com www.adani.com

From : Oct., 2017 To : Mar., 2018

LIST OF APPENDIXES

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NO.	
1.	Compliance To The Conditions Stipulated In CRZ Recommendations Issued By Forests & Environment Department, Government Of Gujarat To MOEF & CC, New Delhi Vide Letter No.: ENV-10-2012-30-E, Dated 11 th May, 2012.

From : Oct., 2017 To : Mar., 2018

LIST OF ANNEXURES

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From : Oct., 2017 To : Mar., 2018

SIX MONTHLY COMPLIANCE REPORT

OF

ENVIRONMENT AND CRZ CLEARANCE ISSUED BY MOEF & CC, NEW DELHI VIDE LETTER NO.: 11-150/2010-IA.III, DATED 03RD MAY, 2013

FOR

THE DEVELOPMENT OF MULTI CARGO PORT WITH SUPPORTING UTILITIES AND INFRASTRUCTURE FACILITIES AT HAZIRA, SURAT, GUJARAT

BY

M/S. ADANI HAZIRA PORT PVT. LTD.



From : Oct., 2017 To : Mar., 2018

A. Six Monthly Compliance Report for Environmental and CRZ Clearance issued by MoEF & CC, New Delhi vide letter No.: 11-150/2010-IA.III dated 03rd May, 2013 for the development of Multi Cargo Port with supporting utilities and infrastructure facilities at Hazira, Surat, Gujarat by M/s. Adani Hazira Port Pvt. Ltd.: -

S. No.	Stipulated Conditions		Compli	ance Status
6.	Specific Conditions		Compile	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
i.	"Consent for Establishment" shall be obtained from State Pollution Control Board under Air & Water Act and a copy shall be submitted to the	AHPPL h (NOC) fro 05.10.201 16.05.201 and CRZ amendme were also start of	as obtained m Gujarat Prize and sar 2 prior to ol clearances. Ints in the Consulted	d Consent to Establish ollution Control Board on me was submitted on otaining the Environment Subsequently there were onsent to Establish which to the MoEF&CC before construction as per the
		Consent No.	Issued On	Submitted To MoEF & CC On
		CTE_ 49766	05.10.2012	Along with Six Monthly Compliance Report dated 19.11.2014 & 19.05.2017.
		CTE- 64900	26.09.2014	Along with Six Monthly Compliance Report dated 12.05.2015 & 19.05.2017.
		CTE- 74330	13.01.2016	Along with Six Monthly Compliance Report dated 23.05.2016 & 19.05.2017.
		CTE- 77767	16.04.2016	Along with Six Monthly Compliance Report dated 21.11.2016 & 19.05.2017.
ii.	The action plan on the issues raised during public hearing shall be submitted to the Pollution Control Board. The action plan shall be implemented without fail. Report on compliance shall be submitted to the Regional Office, MOEF along with the six monthly reports.	Public he All the iss and to th The key p 1) Prefere for en contra M/s. A locals Vikas providi M/s. A skilled per su 2018 t are fro 2) Village displac M/s. A 873.27 there is The deta raised du	aring was consues have been esatisfaction oints raised ence to be comployment octs. AHPPL is gifor contract Samiti has gransport AHPPL also local candicitable required total 182 out of Gujarat. In G	onducted on 14.08.2012. en addressed adequately ion of the stakeholders. during PH were: - given to the local people and transport & other ving preference to the ts, such as M/s. Hazira's been engaged for a facilities for employees. giving preference for dates for employment as rements. As on 31st Mar., of 212 on roll employees anxious about their to port development. Veloping port on approx. Which is uninhabited and tion of private property. Satus of all other issues lic hearing is enclosed as
iii.	All the recommendations of SCZMA shall be complied with.	Complying All the r	g with.	tions of the GCZMA is



S. No.	Stipulated Conditions	Compliance Status
		being complied. Compliance status of the conditions stipulated in GCZMA recommendations vide letter dated 11/05/2012 bearing No.: ENV-10-2012-30-E is enclosed as Appendix-1 .
iv.	Periodical study on shore line changes shall be conducted and mitigation carried out if necessary. The details shall be submitted along with six monthly monitoring reports.	Shoreline change study was conducted by NIO, Vizag during the period from November, 2014
V.	Oil spills if any shall be properly collected and disposed as per Rules. Proper Oil Contingency Management Plan shall be put in the place.	Till date there is no oil spill occurred.
vi.	The detailed plan with budgetary provisions for the CSR shall be submitted to the ministry.	Complied.
vii.	All the recommendation of the EMP and DMP shall be complied within letter and spirit.	Complied.



S. No.	Stipulated Conditions	Compliance Status
		communication flow is submitted along with the six monthly compliance report dated 19.05.2017.
viii.	Periodical monitoring of the sea water quality at the outlet shall be carried out to check the discharge is meeting the standard and not causing any impact to marine life.	 Complied. AHPPL is not discharging any effluent into the sea. There are no standards prescribed for the sea water quality. Only trends can be observed to ensure that quality of sea water is not changing significantly. Marine water quality is being monitored through M/s. Pollucon Laboratories, Surat (a MoEF&CC recognized and NABL accredited laboratory). Monitoring of sea water quality at three locations is being done on monthly basis. Copy of the Sea Water Quality Monitoring /Analysis Reports for the period Oct, 2017 to Mar, 2018 is enclosed as Annexure-4D. From the monitoring report it is evident that there is no significant change in the sea water quality which could have impact on the marine life.
ix.	Transport of cargo shall in closed system and dust control viz. water sprinkler, along conveyor and transfer points shall be provided.	Complied. Following control measures are in place and effectively working at port to control fugitive dust: - 1. Spill boards are being provided to prevent cargo spillage into the sea. 2. Transportation of coal from jetty to coal storage yard through 1.7 Km. long conveyor belt with hood. 3. Water sprinklers in to the coal yard, 4. Dust Suppression System / Spray Nozzles in Conveyor System and Discharge Chute, 5. Water spray through Water Browsers, 6. Water Mist Canon / Fog System, 7. Wind Brake Shield of 14 meters high and 1200 meters long, 8. Transportation of cargo from port to hinterland is being done through dumpers / trucks covered with tarpaulin, 9. Regular cleaning the roads through Road Sweeping Machines, and 10. Company has set up dedicated greenbelt area for plantation at periphery / avenue plantation / landscaping etc. Total greenbelt area developed so far is approx. 65.15 ha within the port premises.
X.	Construction activity shall be carried out strictly as per 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.	Complied. • Construction activities are as per the provisions of CRZ Notification, 2011.



S. No.	Stipulated Conditions	Compliance Status
		 Development of the port and other ancillary facility is being done as per the approval received under CRZ Notification, 2011 and EIA Notification, 2006.
xi.	The project shall be executed in such a manner that there shall not be any disturbance to the fishing activity.	 Complied. Project execution is being done without any disturbance to fishing activities. Majority of fishing activities are in the river TAPI estuary region which is approx. 3-4 KM away from the project site. There are few "PAGADIA" fishermen doing fishing near the project area. They are continuing with their activities without any disturbance.
xii.	It shall be ensured that there is no displacement of people, houses or fishing activity as a result of the project.	 Complied. There is no displacement of people, houses or fishermen as the port is being developed on reclamation land and land allotted by Government as there is no acquisition of private land. Majority of fishing activities are in the river TAPI estuary region which is approx. 3-4 KM away from the project site. There are few "PAGADIA" fishermen doing fishing near the project area. They are continuing with their activities without any disturbance AHPPL is regularly working with fishermen to understand their needs and provide required support.
xiii.	The project proponent shall set up separate Environment Management Cell for effective implementation of the stipulated environmental safe guards under the supervision of a Senior Executive.	Complied.
xiv.	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 has been allocated to the HSE Department. Allocated budget for the FY: 2017-18 is INR 276.62/- Lakhs. Total expenditure during FY 2017-18 is INR 238.40/- Lakhs. • Detail of the environment budget and expenditure for the FY: 2017-18 is enclosed as Annexure-6. • Environment budget is not being diverted to



S. No.	Stipulated Conditions	Compliance Status
		any other purpose.
7.	General Conditions	
i	Appropriate measures must be taken while undertaking digging activities to avoid any degradation of water quality.	 Digging activities are involved in the piling, construction of building and other ancillary facilities. Proper care is being given to ensure that no excavated material mixed with the water. Entire excavated material is being used in leveling and grading of project area. Marine, Surface and Ground Water quality is being monitored through M/s. Pollucon Laboratories Pvt. Ltd., Surat (a MoEF & CC and NABL accredited laboratory). Reports show that there are no impacts on the water quality. Copy of the water monitoring reports for the period Oct., 2017 to Mar., 2018 is enclosed as Annexure-4B, 4C, 4D for ground, surface and marine water quality, respectively.
ii.	Full support shall be extended to the officers of this Ministry /Regional Office at Bhopal by the project proponent during inspection of the project for monitoring purposes, by furnishing full details and action plans including the action taken reports in respect of mitigation measures and other environmental protection activities.	Complying with. AHPPL is regularly submitting six monthly compliance reports which comprise compliance to the conditions stipulated in Environment and CRZ clearance, action taken report of Environment Management Plan, environment monitoring reports etc. Last two reports were submitted vide letter dated 19.05.2017 and 20.11.2017. Whenever any authorities such as MoEF&CC, GPCB and GMB etc. visit the AHPPL full support is extended and AHPPL provides all additional information seek by them during the inspection. Last visit by Addl. PCCF, MoEF & CC - RO, Bhopal was on 01 & 02.05.2017. Last visit by RO - GPCB, Surat was on 03.03.2018.
III.	A six-monthly monitoring report shall need to be submitted by the project proponents to the Regional Office of this Ministry at Bhopal regarding the implementation of the stipulated conditions.	Complying with. Six monthly monitoring reports are regularly submitted to the RO - MoEF & CC, Bhopal and other authorities along with Six Monthly Compliance Report of Environment & CRZ Clearance. Please refer the Annexure-4 for the monitoring report from Oct., 2017 to Mar., 2018.
iv.	Ministry of Environment & Forests or any other competent authority may stipulate any additional conditions or modify the existing ones, if necessary subsequently, if deemed necessary for	Noted and agreed to comply with additional conditions stipulated or modify the existing ones by MoEF & CC, if any.
	environmental protection, which shall be complied with.	



S. No.	Stipulated Conditions	Compliance Status
	revoke this clearance, if any of the conditions stipulated are not complied with to the satisfaction of this Ministry.	directions of the MoEF & CC, if any.
Vi.	In the event of a change in project profile or change in the implementation agency, a fresh reference shall be made to Ministry of Environment and Forests.	, , ,
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.	Financial Closure date is 29 th September, 2011. Approval from GMB to commence work was obtained on 09 th April, 2010 vide letter No.: GMB/N/PVT/923(10)/42/458. Copy of the same has been submitted to the MoEF & CC and other concerned authorities along with the six monthly compliance report dated 19.05.2017.
viii.	A copy of the clearance letter shall be marked to concerned Panchayat/Local NGO, if any from whom any suggestions/ representations has been received while processing the proposal.	Closed. Copy of the clearance letter was sent to the concerned Panchayat and local NGO. Copy of the RPAD receipt were submitted to MoEF&CC alongwith six monthly compliance report dated 27.11.2013 and again alongwith the six monthly compliance report dated 19.05.2017.
ix.	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.	This condition does not belong to M/s. AHPPL.
8.	among others under the provisions of Water (Prevention and Control of Pollution) Act 1974, the Air (Prevention and Control of Pollution)	(Protection) Act 1986, the Public Liability (Insurance) Act 1991 and EIA notification 1994, including the amendments.



S. No.	Stipulated Conditions	Compliance Status
		 (Prevention and Control of Pollution) Act 1981 vide Consent Order No.: AWH-87176 valid till 14.04.2022. Public Liability Insurance vide Policy No.: 3133201064763103000 valid up to 31st March, 2019.
9.	All other statutory clearance such as the approvals for storage of diesel from Chief Controller of Explosive, Fire Department, Civil Aviation Department, Forest Conservation Act, 1980 and Wildlife (Protection) Act, 1972 etc. shall be obtained, as applicable by project proponent from the respective competent authorities.	All applicable clearances from respective
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 Environment and CRZ clearance and copies of clearance letters are available with the State Pollution Control Board and may also be seen at Website of the Ministry of Environment & Forests at http://www.envfor.nic.in . The advertisement should be made within 10 days from the date of issue of the clearance letter and a copy of the same should be forwarded to the Regional Office of this Ministry at Bhopal.	
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.	Noted.
12.	Status of Compliance to the various stipulated environmental conditions and environmental safeguards will be	Compliance report of conditions stipulated in



S. No.	Stipulated Conditions	Compliance Status
	uploaded by the project proponent in	the company website i.e.:
	its website.	http://www.adaniports.com/ports-downloads
13.	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.
14.	A copy of the clearance letter shall be sent to concerned Panchayat, Zila Parishad/ 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.	 whom the suggestions/ representations received. Copy of the RPAD receipt is submitted to MoEF & CC along with Six Monthly Compliance Report dated 27.11.2013 and again along with the six monthly compliance report dated 19.05.2017. Clearance letters is available on website at http://www.adaniports.com/ports-downloads
15.	The Proponent shall upload the status of compliance of the stipulated EC 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 respective Zonal Office of CPCB and the SPCB.	Complied. The six monthly compliance report comprising of the status of compliance of the stipulated EC conditions, including results of monitored data is being uploaded on the company website at http://www.adaniports.com/ports-downloads and submitted to: 1. RO - MoEF & CC, Bhopal, 2. MoEF & CC, New Delhi, 3. DoEF, Gandhinagar, 4. Zonal Office - CPCB, Vadodara, 5. HO - GPCB, Gandhinagar, and 6. RO - GPCB, Surat. Last two reports were submitted vide letter dated 19.05.2017 and 20.11.2017.
16.		Complied. The Environment Statement in Form-V for the Financial Year: 2016-17 is submitted to GPCB vide letter No.: AHPPL/GPCB/2017-18/ 008 dated 31.05.2017 & also uploaded on company website at http://www.adaniports.com/ports-downloads . Form-V for FY: 2016-17 has also been sent to Regional Office of MoEF & CC by email to rowz.bpl-mef@nic.in on 18 th July, 2017.

From : Oct., 2017 To : Mar., 2018

APPENDIX-1:

COMPLIANCE TO THE CONDITIONS STIPULATED IN CRZ RECOMMENDATIONS
ISSUED BY FORESTS & ENVIRONMENT DEPARTMENT,
GOVERNMENT OF GUJARAT TO MOEF & CC, NEW DELHI
VIDE LETTER NO.: ENV-10-2012-30-E, DATED 11TH MAY, 2012
FOR MODIFICATION / EXPANSION OF MULTI - CARGO PORT FACILITY AT HAZIRA, DIST. SURAT BY M/S. ADANI HAZIRA PORT PVT. LIMITED



From : Oct., 2017 To : Mar., 2018

<u>Appendix -1</u>: Compliance to the conditions stipulated in CRZ recommendation issued by Forests & Environment Department, Government of Gujarat to MoEF & CC, New Delhi vide letter No.: ENV-10-2012-30-E dated 11th May, 2012 for modification / expansion of Multi-Cargo Port Facility at Hazira, Dist. - Surat by M/s. Adani Hazira Port Pvt. Limited: -

S. No.	Conditions	Compliance Status
A.	Specific Condition	Compliance Status
1.	The provision of CRZ Notification 2011 shall be strictly adhered by M/s. AHPPL. No activity in contradiction to the provision of CRZ Notification shall be carried out by M/s. AHPPL.	 Construction activities are as per the provisions of CRZ Notification, 2011.
2.1	M/s. AHPPL shall not construct any storage facilities for material / chemicals in the CRZ area except for those permissible as per Annexure - II of CRZ Notification 2011.	Only permissible activities being carried out in CRZ area.
2.2	consult SDMA for Disaster Management Plan.	Complied. Disaster Management Plan has been prepared prior to the commissioning of multi cargo port. DMP has been submitted to GSDMA vide letter dated 20.10.2012. Comments were received from authority vide letter no. GSDMA /SM / Ind.safety/770560 dated 03.12.2012. Suggestions were incorporated and revised plan was submitted to GSDMA on 23.05.2014. Regular mock drill to ensure the compliance and preparedness is being done. Last Mock Drill (On Site) was on: 23.03.2018 Last Update of ERP & DMP: 10.03.2017 Last submission to Directorate Industrial Safety & Health (DISH) on 27.06.2017
3.	different Government Departments / agencies shall be obtained by M/s.	Complied. All the statutory permissions from the concerned statutory authorities are obtained i.e.: - 1. Environment and CRZ Clearance from MoEF & CC, GOI vide order No.: F.No.:11-150/2010-IA-III dated 03.05.2013. 2. PESO License from Chief Controller of Explosive, Nagpur vides order No.: P/HQ/GJ/15/5294 (P270337), Renewed on 31.12.2015 valid till 31.12.2018. 3. License to work a Factory Adani Hazira Port Pvt. Ltd. (Liquid Terminal) from Director of



S. No.	Conditions	Compliance Status
		Industrial Safety and Health, Govt. of Gujarat their vide Registration No.: 3502 / 51410 / 2013 and License No.: 18757, Renewed on 21-01-2017, valid till 31 st December, 2018.
4.	mangrove patches near the site and also ensure the free flow of water to avoid damage to the mangrove.	There are no adverse impacts on mangrove as well as flow of water with respect to development activities.
5.	carried out in CRZ area categorized as CRZ-I (A) and it shall have to be	All activities are being carried out as per Environment and CRZ clearance accorded. No mangrove habitats and other ecologically important and significant areas are present within port limit.
6.	The dredging material shall be disposed of at the location already approved by the Ministry of	MoEF&CC dated 12 th November, 2003 bearing letter No.: J-16011/ 11/2003-IA-III revised conditions states "dumping of dredged spoils should be dumped at the sites A & C as per the following coordinates: - (A) 21°03' to 21°05' N & 72°28' to 72°30' E (C) 21°03' to 21°05' N & 72°30' to 72°32' E No disposal has been done till date. All the dredging material is being utilized for level rising, reclamation and apart from the above
		activity, if any excess material generated will be disposed of at the location already approved by the MoEF&CC.
7.	suggestions given by M/s. NIO and Cholamandalam MS Risk Services Ltd,	Complied. All the recommendations and suggestions for conservation/protection and betterment of environment are being implemented strictly.
8.	way that there is no negative impact on mangroves, if any and other	There are no mangroves and other important coastal / marine / habitats presents within the port area. The Port development work is supervised by Gujarat Maritime Board (GMB).
9.	M/s. AHPPL shall strictly ensure that	Complied. All the activities are carried out as per EC & CRZ clearance and no creeks are blocked due to development activities. Shipyard is not



S. No.	Conditions	Compliance Status
		envisaged in our proposal.
10.	·	Complied with,
11.	construction labour shall be provided with the necessary amenities, including sanitation, water supply and fuel and it shall be ensured that the environmental conditions are not deteriorated by construction labours.	No labour camps are located in Coastal Regulation Zone area. Labours are managed through contractors and they are from surrounding villages and have been provided residential facilities in the surrounding villages.
12.	M/s. AHPPL shall prepare and regularly	Oil Spill Contingency Plan has been prepared and the same was approved/vetted by Indian Coast Guard (Letter No.: 7563, dated 09.01.2014).
		Last Update of ERP & DMP : 10.03.2017 Last submission to Directorate Industrial Safety & Health (DISH) on 27.06.2017
13.	external agency that may be appointed by this department for supervision / monitoring of proposed activities and the environment impact of the proposed activities.	Noted and agreeing to bear the cost of external agency, if any that may be appointed by this department.
14.	adequate flow of water without significant obstruction.	Jetty approach is supported by piles allowing adequate flow of water.
15.	The ground water shall not be tapped within the CRZ areas by the AHPPL to meet with the water requirements in any case.	Ground water is not being used for any



S. No.	Conditions	Compliance Status
		waste water from M/s. KRIBHCO in to the Port operation. Pipeline work from M/s. KRIBHCO to M/s. AHPPL is in progress.
16.	M/s. AHPPL shall take up massive greenbelt development activities in consultation with Forest Dept. / GEER Foundation / Gujarat Ecology Commission. A comprehensive plan for this purpose has to be submitted to the Forests and Environment Department.	Complied with. Company has set up dedicated green belt area for plantation at periphery / avenue plantation / landscaping etc. Total greenbelt area developed so far is approx. 65.15 ha within the port premises.
17.	Dept. by M/s. AHPPL with in a period of two years from the issuance of CRZ clearance by MoEF, GoI and an action plan in this regard shall be submitted to this Department along with satellite images and GPS readings with Latitudes and Longitudes.	Company has carried out mangrove afforestation in an area of 200 hectares i.e.: 20 hectares in Kantiyajal and 180 hectares in Village Nada-Devla of District - Bharuch and same is completed. Consolidated report on mangrove plantation on an area of 200 hectares at Village: Kantiyajal, Taluka: Hansot and Village: Nada-Devla, Taluka: Jambusar, District: Bharuch (Gujarat) developed by M/s. SAVE Limited, Ahmedabad. Supporting documents of the same submitted to MoEF & CC and other authorities along with the six monthly compliance report dated 20.11.2017.
18.	The AHPPL shall have to take up bioshielding development programme as part of CSR in consultation with Forest Department / PCCF and action plan in this regard shall have to be submitted to the MoEF - Gol and this Department.	 Complied with. Communication has been initiated with PCCF, Forest Dept., GoG vide our letter 29th May, 2012 and District Forest Officer, Surat Forest Range vide our letter dated 05th May, 2014. AHPPL has initiated the development of Bio-Shield Pilot Project at Village - Tankari Bandar, Taluka - Jambusar, District - Bharuch (Gujarat) on an area of 18 hectares with the help of local NGO.
19.	economic upliftment activities in this region in consultation with Forest and Environment Dept. and the District	
20.	A separate budget shall be earmarked for environment management and socio-economic activities including green belt development / mangrove plantation and details thereof shall be furnished to this Department as well	Complied with. • Environmental Management Plan is in place and the funds earmarked are being utilized for effective implementation of environmental safeguards and environment



S. No.	Conditions	Compliance Status
3. NO.	as the MoEF, Gol. The details with respect to the expenditure from this budget head shall also be furnished along with the compliance report.	Environment monitoring, Mangrove plantation, environmental studies etc.
21.	A separate Environment Management Cell with qualified personnel shall be created for environmental monitoring and management during construction and operational phases of the project.	Complied.
22.	Environment Audit Report including the changes, if any, with respect to baseline environmental quality in the coastal and marine environment shall be submitted every year by M/s. AHPPL to this Department as well as MoEF, Gol.	Complied. Regular Environmental Monitoring/ Analysis are being done through M/s. Pollucon Laboratories, Surat (a MoEF&CC and NABL accredited laboratory) and others concerned authorities along with Six Monthly Compliance Report. No significant changes observed with respect to baseline.
23.	A six monthly report on compliance of the conditions mentioned in this letter shall have to be furnished by M/s. AHPPL on a regular basis to this Department as well as MoEF, Gol.	Noted and complied with. • six monthly compliance reports are being submitted to all the concerned authorities on regular basis. • Last two reports were submitted vide letter dated 19.05.2017 & 20.11.2017.
24.	Any other condition that may be stipulated by this Department / MoEF, GoI from time to time for environment protection / management purpose shall have to be complied with by M/s. AHPPL.	Noted and comply with the additional conditions stipulated by the MoEF & CC, if any.

From : Oct., 2017 To : Mar., 2018

ANNEXURE-1:

ACTION PLAN AND COMPLIANCE STATUS ON THE ISSUES RAISED DURING THE PUBLIC HEARING



From : Oct., 2017 To : Mar., 2018

<u>Annexure-1</u>: Action plan and compliance status on the issues raised during the public hearing:

S. No.	Name	Details of Representation	Response during PH	Status as on 31.03.2018
1	Rohitbhai Jayantibhai Patel, Sarpanch, Hazira	On behalf of Hazira village, I welcome the expansion project of M/s. Adani Hazira Port Pvt. Ltd. at Hazira. Priority will be given to thousands of people of Hazira and surrounding villages for transport, business and employment opportunities. Company has provided training to the people of Hazira and surrounding villages for crane operation at Mundra and given employment as crane operator at Hazira Port. I believe that company will install latest technology for pollution control. Proposed project will surely care for human life. Due to proposed port Hazira people will surely get water, health and education facilities. I request that company would take required	 Rohitbhai, we are happy to note that on behalf of Hazira gram panchayat you have given warm welcome for this project. We whole heartedly thank you for this gesture. We assure you that our Conduct and Approach in managing activities would be in reciprocation to your welcome. National Highway –6 is being widened. On completion the constriction and congestion that we see today will be behind us. As mentioned in the EIA in the first 5 years of the multi cargo port maximum number of 1200 trucks is expected to ply in the national highway connecting the port. After the railway line is developed and the trains start plying 60% of the transportation load will be conveyed through rail transport only 40% will come on the national 	Closed. Point is about welcoming the project and does not warrant any further action.
		precautions for accident prevention and safety. Adani Foundation has provided required support as and when needed by Hazira village. I request that fishermen's concerns be taken care. I welcome this port as we are getting transport related business opportunities and we hope that same would be continued in future. Please clarify how much priority will be given to people from Hazira and surrounding areas for employment. Forest land is also requested for development of port at Hazira. So kindly clarify for compensation/afforestation.		Widening of the National Highway – 6 is completed. Currently there is no traffic congestion on National Highway – 6. Railway line for transport of cargo is yet to be developed.
		Please clarify what arrangements have been made by company if calamities like Tsunami, Earthquake or Flood arise after implementation of the proposed project.		
2.	Dharmedra bhai Bhikhubhai Patel,	We welcome this public hearing. It is good that you are giving preference to local affected people and hearing them during public hearing. We don't have any		



objection against the development of Adani Group along with other industrial development in Hazira leading to development of Gujarat and the Nation. Adani company is complying with the environmental laws promulgated by the State and Union Government. In fact, it is duty of Adani Port to do so. Under their CSR activities Adani Group should provide support for development of Hazira village and employment to unemployed people. All transport businesses should be given to small & big local transporters of Hazira only. Youth from families of affected fishermen should be provided required training and employment. New transport route should be proposed as the present route to take containers is very narrow. We thank Adani Group for giving support for the construction of classrooms for standard 11 & 12 in Navchetan school.	highway. That is a moderate load. • This port will have focus on container cargo. Container cargo comes in boxes and is clean by nature. So the question of fugitive dust emission on the road is not expected to be severe for this port.	• Closed. Major cargo handled at the port is container and liquid which do not increase the fugitive dust. AHPPL is monitoring ambient air quality at five locations in and around project through a NABL accredited and MoEF recognized laboratory M/s Pollucon laboratories, Surat. Report confirms that ambient air quality is well within the NAAQS. Copy of the reports are enclosed as Annexure – 4A
I thank you for making me successful in providing compensation to the affected fishermen.		
people and transport contract to local transporters only. We support the development of Adani Port in our area. We don't have any objection to the project in this public hearing.	The coal handling will be done taking care that all the trucks are properly covered so that there is no dust emitted on	Complying with. All the trucks carrying coal and other dusty cargo are being covered
As this is biggest port in the South Gujarat and as there is no government land left, we wish that there will not be resettlement of the Junagam village due to this proposed expansion project of Adani Port. There is a fear in the people of the village that they will have to vacate	the road. As you know practically all our transporters are from this area. It is their responsibility to take care of overloading. If transporters do not overload, there would not	through tarpaulin. AHPPL also ensures that no truck goes out of the port with overload.
	of Adani Group along with other industrial development in Hazira leading to development of Gujarat and the Nation. Adani company is complying with the environmental laws promulgated by the State and Union Government. In fact, it is duty of Adani Port to do so. Under their CSR activities Adani Group should provide support for development of Hazira village and employment to unemployed people. All transport businesses should be given to small & big local transporters of Hazira only. Youth from families of affected fishermen should be provided required training and employment. New transport route should be proposed as the present route to take containers is very narrow. We thank Adani Group for giving support for the construction of classrooms for standard 11 & 12 in Navchetan school. I thank you for making me successful in providing compensation to the affected fishermen. I request for employment to locals people and transport contract to local transporters only. We support the development of Adani Port in our area. We don't have any objection to the project in this public hearing. As this is biggest port in the South Gujarat and as there is no government land left, we wish that there will not be resettlement of the Junagam village due to this proposed expansion project of Adani Port. There is a fear in the people of the	of Adani Group along with other industrial development of Gujarat and the Nation. Adani company is complying with the environmental laws promulgated by the State and Union Government. In fact, it is duty of Adani Port to do so. Under their CSR activities Adani Group should provide support for development of Hazira village and employment to unemployed people. All transport businesses should be given to small 8 big local transporters of Hazira only. Youth from families of affected fishermen should be provided required training and employment. New transport route should be proposed as the present route to take containers is very narrow. We thank Adani Group for giving support for the construction of classrooms for standard 11 8 12 in Navchetan school. I thank you for making me successful in providing compensation to the affected fishermen. I request for employment to locals people and transport contract to local transporters only. We support the development of Adani Port in our area. We don't have any objection to the project in this public hearing. As this is biggest port in the South Gujarat and as there is no government land left, we wish that there will not be resettlement of the Junagam village due to this proposed expansion project of Adani Port. There is a fear in the people of the village that they will have to vacate moderate load. This port will have container cargo. Proper cargo comes in boxes and is clean by nature. So the questi



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collector to give us guarantee in writing that we will be able to live with peace where we are today.

Berths will be developed through dredging up to -15 meters. We are getting ground water from the depth of 20 to 65 ft in some of the areas, which we are using for drinking purpose. What will be the impact on the ground water due to dredging upto -15 meters?

After construction of liquid berth No.3 which will handle & store 1.95 Million Tones by 2017-18, what emergency steps would be required to save the human life incase just like Bhopal if there will be gas leakage due to Tsunami, Earthquake or terrorist activities.

We welcome Adani Port & they require land for the container and However. coal storage. industries located in the Hazira area have acquired government land and another 2000 acre land is allotted to tourism department. Sir therefore, I request you to declare remaining land of Junagam, Suvali. Damka & Bhatlai as residential area or agricultural zone. This is to ensure that in future we will not be displaced. As the port is to be constructed at the coast line, there are chances of spillage of liquid into sea and impact of solid hazardous waste. In this condition explain plan to mitigate impact on fisher man community.

Secondly there is a question of unemployment of the youth of the Hazira area. As told by the company 700 people will be employed, youth from local families presently engaged in farming, animal husbandry and fisheries should be trained. Due to development of the port people from different states of India will come and therefore, there are chances of crime such as gang rape, hooliganism and terrorist attack. Is there any plan to control these potential evils? Training to unemployed women and employment is being planned. In future we and Adani Port would like

be any spillage on the roads. It is not only responsibility of GPCB or the company but we all have to collectively work together for spillage free coal transportation.

 Junagam sarpanchshri expressed apprehension that we will take away government land and lands belonging to farmers in Junagam village. We want to assure you that we do not intend to take any private land of farmers or any house site land. If you carefully see the development plan we have just presented. the map will alleviate your uncalled fears. There would not be anv question of rehabilitation of any village. Moreover, we will take care that your property. Your assets and convenience are not jeopardized by our action.

 You talked about vultures; I would like to point out that there is no sanctuary or national park near by the port. In the EIA, we have Closed.

There is nο displacement of people, houses or fishermen as the port is beina developed on reclamation land and land allotted by Government as there is nο acquisition of private land.

• Closed.

There is no sanctuary or national park near by the port. In the EIA, we have studied the entire



		to work together with full	studied the entire	area and we will
		cooperation. On behalf of Jungam village and villagers, I welcome the expansion of the terminal.	area and we will take due care to preserve the environment.	take due care to preserve the environment.
4	Alpeshkum ar Thakor – Fisherman, Hazira.	Plantation of the mangroves has been carried out between well numbers 4 to 7. This plantation has been destroyed by dredging and area is filled up. In this area fisherman used to catch prawns, crabs and sustain their livelihood. Through dredging company has destroyed Mangroves. There are approximately 2500 fishermen, belonging to Halpathi and Koli	We re-emphasize that we will comply with all the laws and in doing so we would be guided by GPCB and other concerned authorities. Some of you have expressed concern about terrorist activity creating great risk to our chemical terminals with attendant adverse consequences in our neighborhood. We are going to be ISPS compliant; as a result of this discipline, only authorized persons and material can enter into the port. More over district administration and police also take precautionary measures to intercept terrorist activities. Coast guards contribute to this effort. In a sense the entire nation is collectively fighting against terrorism.	compliance with all
		Patel communities living in the village. These people will be unemployed as fishing activity will be stopped due to dredging up to 20 meter by the company. Is it development or destruction? If fishermen get sand from the river by the boat in the Magdalla area, they have to pay royalty for the same. But why companies are given permission for dredging without royalty? What about approximately 2500 fishermen?		system is in compliance with ISPS. ISPS Statement Number is: MMD/KDL/SOC/O1 4 and validity 10/02/2021.
5	Babubhai Aahir (Sarpanch, Suvali)	As our friends have already given suggestion for safety and employment, it is not required to repeat the same. Foundation should provide employment opportunity to the land looser, fisherman, individual engaged in animal husbandry who are above 50 years and uneducated. Unemployed youth of this area should be provided training and given opportunity for the employment. Company should control the pollution arising due to transportation of chemical or coal. Earlier "Shell" company used to avoid overloading. So Adani Port should also not do the overloading to prevent the accidents. There is no medical facility available for treatment in case of emergency. As there is drought this year, company		unauthorized entry
		should consider providing drinking water in surrounding area.	natural calamities,	Regional DMP for



6	Divyeshbhai	(During the representation of the	we have	the Hazira
	, Hazira	Shri. Divyeshbhai	done modeling studies to	Peninsula, covering
		there was a aggressive	studies to understand the	all major industries and the port has
		representation of Shri. Jayesh	risk of oil spillage.	been prepared in
		Patel resident of village Dihen, that	We have also	consultation with
		he wants to present his questions.	prepared Disaster	District Authorities
		Honourable Collector replied that	Management	and same is being
		resident or stakeholders from	Plan. This plan is	implemented.
		affected villages should represent	being presented	
		first. During this time Shri. Jayesh	to the District Collector. After his	Oil Spill
		Patel and other people created	approval it will go	Contingency Plan has been prepared
		disturbance which was controlled	to State Disaster	and the same was
		by Panel and then representation	Management	approved/ vetted
		from Mr. Divyeshbhai continued.)	Authority at	by Indian Coast
		Why this public hearing is kept at	Gandhinagar for	Guard (Letter No.:
		Junagam even it is of Hazira	necessary	7563, dated
		Village? Now we will talk about the	approval and	09.01.2014).
		pollution. Lots of dust is observed in	guidance. During natural calamities	In addition, AHPPL
		the houses of the hazira village during the night hours. As per	all local industrial	has developed and
		information particles of dust have	units and	implemented ER &
		been found in the lungs of the	government	DMP. Regular mock
		woman. If this information proves to	organizations	drill to ensure the
		be true we will file a pitition in the	work together to	compliance and
		High Court. During the widening of	mitigate impacts	preparedness is
		the National Highway No. 6 land in the surroundings villages will be	of natural calamities. In that	being done.
		taken. As National Highway is not	situation we	Last Mock Drill (On
		passing through Hazira, the villagers	would work under	Site) was on :
		need to travel 8 Kilometres extra.	the guidance of	23.03.2018
		Why it is not extended straight?	District Collector	
		Fishermen are being told that there	and police	Last Update of ERP
		is no fish in the sea but slags are	authorities to do	& DMP : 10.03.2017
		cast in the corners of the sea due to which some fish die. Dolphin is also	the needful. Disaster	DMP submission to
		found at present in the Hazira area.	Management Plan	Directorate
		We welcome the project if the port	is structured in	Industrial Safety &
		company is ready to give written	such a way.	Health (DISH) on
		assurance regarding employment.		27.06.2017
7	Jayeshbhai	I raise my objections against		
	Patel,	proposed expansion project of		
	Resident of	AHPPL for which public hearing is	• In regard to	
	Dihen	organized and I request that my objections should be included.	impact on	• Closed.
	village and	objections should be included.	fisherman, I want	CSR activities
	President,		to point out the	carried out by Adani
	Gujarat	M/s. Shell India has got	real situation that	Foundation in four
	State Farmers	environmental clearance in	we are not in the	verticals i.e.: - (1)
	Samaj	2003 in which clearance was given	river mouth, but just outside of it.	Education, (2). Community Health,
	301110)	for development of three berths.	The port	(3). Sustainable
		These berths are constructed at	development is	Livelihood and (4).
		places other than shown earlier. So I	only in a stretch	Rural Infrastructure
		request collector to remove these		
	·		·	



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three berths.

Out of proposed 7 berths for container and 4 for bulk terminal, 3 have been already constructed and port is functional. In this situation, I request to include in this public hearing what actions have been taken by collector against Adani for functioning of port & disposal of coal in Hazira and what actions have been taken by GPCB against company for disposal of coal in open.

This project is being developed on the mouth of river Tapi therefore it is my feeling and request that it should not be given Environmental Clearance.

EIA study does not include the objections of the report of Sugnyaben Bhatt Commission which was set up by Gujarat Government in 2006 in the aftermath of Surat flood. So it is my request that this public hearing and Environmental Clearance should be cancelled.

Hazira is located on the mouth of Mindhola & Tapi river. As per ICMAM report of Tapi river, erosion effect had spread up to Dumas because of filling of Tapi river due to Industrialization in this area. Erosion of shore is up to 2500 meter towards Dumas.

ICMAM report is not studied. There is no clarity on what steps are required to control the erosion of shore near Dumas, so it is my request that it should not be given Environment Clearance.

This area is declared reserved for vultures. As per survey there are about 150 vultures in the forest area. This report does not include what would happen to vultures, where they would go and what would be impact on Environment. So it is my request that it should not be given Environmental Clearance.

There are approximately 2500-3000 fishermen families. There will of 4 km of coast line. We have not displaced any fisherman. The surrounding areas are open for fishing, nevertheless WE have compensated fisherman who were identified by the Grampanchayat to be active in the areas where we are now operating. Susmaben mentioned we will support fisherman by giving them tools, nets etc. and be helpful to

(At this stage Shri Sheikh and Shri Jayeshbhai started shouting & disturbing the clarification of the project proponent. The chairperson told them repeatedly not to disturb the proceedings)

them.

 We would help sons and daughters of fisherman to educate them and trained. We would do everything practicable to achieve this end. Development.

Appropriate financial contribution is being made. Schemes promoted by District Authorities and Forest ۶, Environment Department, GoG are also included. Please refer the Annexure-2 for the status of the CSR activities planned during the Financial Year: 2017-18.

• Complied.

CSR activities carried out by Adani Foundation in four verticals i.e.: - (1) Education, (2). Community Health, (3). Sustainable Livelihood and (4). Rural Infrastructure Development. Please refer the Annexure-2 for the status of the CSR



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be crisis for their livelihood.

There is no clarity for rehabilitation and resettlement from Adani. So it is my feeling and request that it should not be given Environmental Clearance.

Routes to sea are almost closed specifically for "Pagadia fishermen", who do fishing on foot. There is a big problem of their livelihood. Due to loss of fishing activities now they will not get thousands of crores of rupees which they were supposed to get due to fishing activities. Rs. 15 lacs is not sufficient compensation for that.

This area comes under CRZ-IA. Specific fish called "Levta" grows in the mudflat and fishermen catch that fish in this mud and earn their livelihood. Due to excavation and reclamation there will be damage to biological mud and destruction of marine ecology. EIA report does not have clarity on what actions are required. So it is my feeling and request that it should be clarified in EIA report or not be given Environmental Clearance.

Before Adani came there was mangrove forest in the area of 40 ha. As per survey today mangroves survive in the area of 15 ha only. Due to destruction of mangrove there will be damage to environment and coastal erosion. This study is not covered in EIA so it is my feeling and request that it should not be given Environmental Clearance.

Five ports from 15 different companies and two big ports within 5 Km are coming in this area. The cumulative impact on road & rail transport due to operation of both ports Adani & Essar is not studied while preparing the impacts on land environment. Six-lane-road is also not going to be sufficient for this. So I request that Environment clearance should be given only after doing cumulative study.

As reported, level of Suspended

• We are developing the port reclamation. This cannot any way cause salinity ingress in the ground water. We are going to investigate the quality of ground water every year

activities planned during the Financial Year: 2017-18.

 Complied Proper care is being during taken construction activity to avoid salinity ingress and any degradation of water quality. M/s. **AHPPL** is monitorina the Ground Water Quality at one location on monthly basis. Results show no significant in change the quality. Ground water quality is being monitored through M/s. Pollucon Laboratories, Surat MoEF&CC recognized and NABL accredited laboratory).

Please refer the Annexure-4B for the Environmental Monitoring / Analysis Reports for the period Oct, 17 to Mar, 18.

 Our FIA has been done by M/s. Cholamandlam MS Risk Service Limited and M/s. National Institute of Oceanography. These are well respected and neutral expert organizations head quartered outside Gujarat. Their studies have been accepted by

• Closed

Point does not warrant any further action.



information on what measures Adani will take for health and safety? Please provide information if this project has got any clearance from Central Government like what they have got from State Government. Adani has declared only 4-5 villages as affected. Will there not be any impact on Mora, Kawas or Interior of Ichhapur while trucks pass through them? There are 10-12 big companies in this area and they have developed residential township with all facilities for their employees. Is it not possible that each company will take one village from 10-12 villages and also provide them same facilities? For this, MOU is necessary and matters related to self employment & development of village should be and non-tecnnical employment. Moreover indirect employment in transport and other services will also be there. All these opportunities may be taken by local residents. To facilitate them to take this opportunity we will provide necessary training to enhance their competence, so that they may not only get employment madani port but else were also. (At this stage)	 1	Colide O Dobolove Hudoroschoo	Cuinest Caratal	1
B Dhansukhb hai Patel, President Hazira Coastal Area For this liquid cargo transport, it will be storage of chemicals or processing of chemicals? If it is chemical processing then hazard will increase, so I request to provide information on what measures Adani will take for health and safety? Please provide information if this project has got any clearance from Central Government. Ike what they have got from State Government. Adani has declared only 4-5 villages as affected. Will there not be any impact on Mora, Kawas or Interior of Ichhapur while trucks pass through them? There are 10-12 big companies in this area and they have developed residential township with all facilities for their employees. Is it not possible that each company will take one village from 10-12 villages and also provide them same facilities? For this, MOU is necessary and matters related to self employment & development of village should be completed. Employment is given to 30-35 jet of the representative peacefully.) The port has opportunities for both technical and non-technical employment. Moreover indirect employme		high as compared to desired levels in water. Level of pollution in the areas of water, air and land is already high as compared to other locations in the country. EIA report does not have clarity on what steps will be taken to bring down the pollution. So it is my feeling and request that it should not be given Environmental Clearance. (It is to be noted that Mr. Jayeshbhai Patel belongs to "Dihen village" which is approximately 18 Km away from	Zone Management Authority. Thus we want to work with you and be helpful to you. (At this stage some of the individuals asked clarification for employment in the company. Collector Shri directed the company representative to	
Area For this liquid cargo transport, it will be storage of chemicals or processing of chemicals? If it is chemical processing then hazard will increase, so I request to provide information on what measures Adani will take for health and safety? Please provide information if this project has got any clearance from Central Government like what they have got from State Government. Adani has declared only 4-5 villages as affected. Will there not be any impact on Mora, Kawas or Interior of Ichhapur while trucks pass through them? There are 10-12 big companies in this area and they have developed residential township with all facilities for their employees. Is it not possible that each company will take one village from 10-12 villages and also provide them same facilities? For this, MOU is necessary and matters related to self employment & development of village should be *The port has opportunities for both technical and non-technical employment. Moreover indirect employment in transport and other services will also be there. All these opportunities may be taken by local residents. To facilitate them to take this opportunity we will provide necessary training to enhance their competence, so that they may not only get employment m Adani port but else were also. (At this stage)	hai Patel, President Hazira	people in the form of contract but we insist that it should be	advised audience to listen to the representative	
mentioned. We will be benefited in future; only if there will be MOU. (It is to be noted that Mr. Dhansukhbhai Patel belongs to	Coastal	For this liquid cargo transport, it will be storage of chemicals or processing of chemicals? If it is chemical processing then hazard will increase, so I request to provide information on what measures Adani will take for health and safety? Please provide information if this project has got any clearance from Central Government like what they have got from State Government. Adani has declared only 4-5 villages as affected. Will there not be any impact on Mora, Kawas or Interior of Ichhapur while trucks pass through them? There are 10-12 big companies in this area and they have developed residential township with all facilities for their employees. Is it not possible that each company will take one village from 10-12 villages and also provide them same facilities? For this, MOU is necessary and matters related to self employment & development of village should be mentioned. We will be benefited in future; only if there will be MOU. (It is to be noted that Mr.	• The port has opportunities for both technical and non-technical employment. Moreover indirect employment in transport and other services will also be there. All these opportunities may be taken by local residents. To facilitate them to take this opportunity we will provide necessary training to enhance their competence, so that they may not only get employment m Adani port but else were also. (At this stage Jayeshbhai and other peoples repeatedly	AHPPL has always given employment priority to local qualified persons and in future the same will be continued. As on 31st Mar., 2018 total 182 out of 212 on roll employees are



		Kawas village which does not fall within 10 Km radius of the study area)	hearing and stopped the company representative to	
9	Kamlaben Rohitbhai Patel, Choryasi Taluka Panchayat, Leader of opposition party	I welcome the expansion project of Adani company. Due to proposed port priority would be given to Hazira and surrounding area for employment and business. I request that fishermen's concerned would be taken care by this project. Adani Foundation of Adani Company has given commitment for the various activities for the development of village. So I welcome the project and declare my support for the Port of Adani Company at Hazira.	elaborate further. Collector repeatedly asked all concerned to maintain calm mul listen to the company representative. All major points being over collector concluded the public hearing.)	
10	Mohanbhai Ambubhai Patel,	(Collector informed Mohanbhai to raise those issues only, which were not raised earlier)		
	Village: Vaswa	Adani Company has told that 700 people will be employed. Please clarify whether it will be permanent or contractual basis? Thousands of people are working on contractual basis in the surrounding companies but nobody gets permanent employment.		
		(Then Regional Officer, GPCB again informed the concerned persons to raise other issues if any. The employment issue will be addressed by the company.)		
		As per survey carried out by NIO out of 1600 km of Gujarat coast nearly 25% is already filled due to construction of ports at other places. As a consequence of this, there will be huge damage to agriculture in the surrounding area and there would also be ingress of sea water in the area.		
		Adani Company has decided to pay compensation of Rs. 15 lacs to 40 fishermen but what arrangement company will make for the 4000 fishermen in the surrounding villages?		
		Adani Company is developing their project on 31428 ha of land. Is this land private or government? If it is on private land then whole Junagam village would be vacated.		



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		Survey numbers are also not shown for this land.
		(It is to be noted that Mr. Mohanbhai Patel belongs to Vanswa village which does not fall within 10 Km radius of the study area)
11	Jayantibhai Khalasi President, Fish	You all will go away after this public hearing but whom should we contact regarding pollution in our area?
	Progress Union, Hazira	(Then Collector informed him that regarding pollution he may contact GPCB,
		Regional Officer, GPCB also informed him that regarding pollution he can submit in writing.)

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ANNEXURE-2:

DETAILS OF THE CSR ACTIVITIES CARRIED OUT DURING THE FINANCIAL YEAR: 2017-18



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DETAILS OF THE CSR ACTIVITIES CARRIED OUT DURING THE FINANCIAL YEAR: 2017-18

Annexure-2: Details of CSR Activities Carried Out By Adani Foundation, Hazira (CSR Wing) for M/s. Adani Hazira Port Pvt. Ltd. During Financial Year: 2017-18

Adani Foundation is the CSR arm of the Adani Group. Since its inception in 1996, the Foundation has been working in four core areas of Education, Community Health, Sustainable Livelihood Development and Rural Infrastructure Development to extend its support to communities. Working closely with the communities, we have been able to assume the role of a facilitator by creating an enabling environment for numerous families. Adani Foundation is currently operational in 13 states reaching out to 5 lac plus families from 1470 villages and towns of India with a human-centric approach to make the processes sustainable, transparent and replicable.

Adani Hazira Port Pvt. Ltd. through Adani Foundation has undertaken below CSR activities in 2017-18.

Education:

Adani Foundation believes that Education is the stepping stone to improve the quality of life, especially for the needy and the most vulnerable. The main objective behind the educational initiatives is to provide 'quality' education with a unique learning experience to young minds. With an objective to provide the quality education to the children and youth of the region, the company has contributed substantial amount of resources in its education programs.

VaGaLe Utsav: with the objective of increasing enrollment and retention of the students, bridging the need gaps in the existing education system and promoting girl child education Adani Foundation designed and launched "VaGaLe Utsav" program. The aim of the program is to enable children strengthen their basic skill of learning – Reading, basic Mathematics and writing by following the Praygna approach of teaching. The program was launched in the lower primary schools in the Hazira region of Gujarat and 1022 students of 10 schools from 8 villages were benefitted. The foundation achieved this by encouraging community participation, increasing teachers' effectiveness and improving the school environment.

Support to Govt. schools: "Praveshotsav" program is conducted with the sole objective to encourage parents to enroll their children in schools and to promote girl child education. Under the program the foundation provided 330 school bags equipped with all the basic stationary material. These education kits were distributed to all the newly enrolled students in 21 schools from 15 villages of Choryasi taluka of Hazira.

491 underprivileged students of Govt. schools attended 10 batches of English language & computer training provided by the foundation in the region. The aim of this training program was to bring about a positive change in the basic understanding and knowledge of student in subjects like English & Computer Skills, which will be beneficial to them in future. Career guidance seminars were jointly conducted with Adani Skill Development Centre (ASDC) which was attended by more than 800 students (above class 9) and their parents.

Navchetan Vidyalaya: The aim of the Navchetan Vidyalaya (situated at Junagam in Hazira – Gujarat) is to provide subsidized high-quality education to the children from nearby rural areas. To promote education amongst the regional populace, the school provides free food and academic material support such as uniforms, notebooks, workbooks, textbooks and stationery to the students. The school is well-equipped with smart classrooms and laboratories and houses all facilities required for holistic development of its students. The



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school offers activity based education from class 3^{rd} to 8^{th} and has a total strength of 321 students in 2017-18, out of which 50% are girls.

Project UDAAN: Project Udaan, an inspirational exposure tour has benefitted 3541 students and teachers from 62 schools and colleges from the nearby area this year. The company supported project Udaan at Hazira location. These visits help students to understand the functioning of these businesses and specifically the role of ports in trade and economic growth of the country. The visits are aimed to facilitate young minds to get inspired so that they could become entrepreneurs, innovators and achievers of tomorrow. From inception till date, more than 2.5 lakh students have visited our business locations across India.

Project Utthan: Adani Foundation has initiated setting up of interactive libraries in 50 government primary schools in four blocks of Gandhinagar district of Gujarat. This project has been implemented in selected fifty schools in partnership with "Room to Read". The major objective of the program is to develop a habit of reading amongst the children. Sixday long induction training was organized for the library coaches, focussing on the various aspects of the library set up and upkeep. Other operational methodologies like register maintenance and book mark-up was also demonstrated and explained to the attendees of these interactive trainings.

Coaching classes for the Needy Students: Under Apna School initiative 223 students up to 5^{th} standard from 5 villages of Godda district in Jharkhand received extra coaching classes. The students selected for this initiative were mainly from the areas where literacy rate is below 50%. Under Adani Gyan Jyoti Yojna, special coaching classes were conducted for 60 students of 9^{th} & 10^{th} standard from underprivileged backgrounds. These classes were conducted in Motia village. It was heartening to note that these students showed tremendous improvement in their board exam results.

Community Health:

The Company firmly believe that improving the health of its citizens can directly result in economic growth of the nation. Healthy people can utilise growth opportunities made available to them in a better way. Adani Foundation have committed itself to raising the standards of and strengthening healthcare systems in and around our operational locations in India to ensure healthy lives and promote well-being at all ages in alignment with Sustainable Development Goals of the UN.

De-addiction Programme: Taking the need into consideration, Adani Hazira Port Pvt. Ltd. supported a de-addiction campaign, which was organized for the people of the surrounding villages of Hazira - Gujarat. This programme started with general awareness campaigns about the life hazards of any kind of addictions. Posters with very strong appeal and messages were displayed in schools, colleges and community places. As a result of this campaign, a lot of people suffering from addictions came forward for their treatment and rehabilitation. Such cases were referred to the partner healthcare centre.

Health Camps: Adani Foundation regularly conducts various general and specialised medical camps for the benefit of local communities in and around its operational locations. Health camps were organized in villages of Hazira where services of gynaecologists, orthopaedic surgeons, heart specialists, skin specialists, paediatricians, ophthalmologist, ENT surgeons were provided to the community members at no cost. Around 1510 villagers from the nearby villages attended and received treatment in these camps. Free of cost follow-up services were also made available and referrals were provided in cases requiring surgery.

558 truck drivers availed the health check-up facility in specially conducted three camps. They were provided with **spectacles and medical first aid kit along with the information on AIDS and road safety.**



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Project SuPoshan: SuPoshan is being implemented in the region for curbing malnutrition and anaemia, a common issue amongst children, adolescent girls and women of our country. SuPoshan Sanganis, village level health workers, take lead for implementing community based life cycle approach with a focus on behavioural change communication. Apart from spreading awareness regarding malnutrition amongst children, adolescent girls and women in Hazira – Gujarat, our SuPoshan Sanginis conducted 1856 Anthropometric Measurements, 2288 HB screenings and distributed IFA tablets to 1097 adolescent girls during the year. Special training sessions for these Sanginis, street plays for adolescent girls and SuPoshan mela were conducted under the SuPoshan initiative. During the last year 45 SAM and MAM category children were moved to healthy category, 7 adolescent girls moved from severe anaemic category to moderate and 26 adolescent girls moved from moderate anaemic category to normal category.

Healthcare: Adani Hazira Port Pvt. Ltd. supported a Mobile Health Care Unit in Godda - Jharkhand for providing primary health care services and medicine for general ailment for the local population. Three volunteers are providing services of guiding patients in Civil Hospital at Ahmedabad and also providing the support of medicines to the poor patients. **Sustainable Livelihood Development:** Empowering people through sustainable livelihoods helps them to transform their lives and contribute to the growth of the nation. Adani Foundation aims at holistic growth and development of the marginalized sections of the society by providing necessary skill development training and alternative livelihood opportunities, hence reducing poverty and inequality.

Kamdhenu (Animal Husbandry): Cattles are an important source of income for the community members in rural villages. Most of the families in the villages in and around Hazria keep cows and buffaloes for milk as well as for manure. Majority of the animals in the area had low productivity due to non-descript maintenance and upkeep. Project Kamdhenu started with an objective of improving the breed of these animals through Artificial Insemination. A special cattle development center was introduced for a cluster of about 17 villages falling within a radius of 10 kms. This center provides services of Artificial Insemination (breeding) at the door steps of cattle owners. 4 special camps have been organized in the villages, where 150 animals have been treated for various breeding disorders. Early diagnosis and treatment of diseases has been a boon for the better health and production of cattle. Around 250 animals were covered under the artificial insemination programme. 7 farmers were selected and trained on calf rearing practices and fodder demonstration.

Women Self Help Groups: The foundation has been striving to revive and nurture women self-help groups (SHGs) in villages in and around Hazira - Gujarat. These groups are voluntarily formed basis their areas of common interests. These SHGs function on the basis of co-operative principles and provide a forum for members to extend their support to each other for a common cause of self-empowerment. A two day training programme was conducted for 131 SHG members. One day exposure visit was also organised for 6 SHG members to help them understand the Upahar cooking model.

Six widows from Junagam under the aegis of Jan Sahyog Sakhi Mandal took initiative to run "Upahar"- a meal service for truck drivers at AHPPL. This SHG later expanded to run a canteen at Adani House catering to our employees. These women were provided training and hand holding by the foundation, for planning, budgeting and risk management just like any other profitable enterprise. The SHG is now catering to more than 100 truckers on a daily basis. This experiment has created a win-win situation for all, as truckers get home cooked nutritious food and each associated women earn around Rs. 6500 per month.

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Rural Infrastructure Development:

Quality rural infrastructure bears a direct influence on living standard and the development of the rural population. Lack of it may push the rural populace towards poverty and deprivation. At Adani Foundation, we have committed ourselves to building sustainable rural infrastructure to overcome developmental challenges at the rural area keeping national goals in view. We are committed to making a long-term investment in rural infrastructure development as it will connect its dream with the progress of the nation. With the support of Adani Hazira Port Pvt. Ltd, Adani Foundation has worked towards improving the need-based Infrastructure in the Rural Areas for betterment of the under-privileged people of Hazira, Gujarat.

In the year 2017-18, Adani Foundation constructed community halls at Junagam, Suvali and Rajgiri villages benefitting a total of 12790 people of these villages and nearby areas. 800 street lights were installed at Damka village to ensure the safety of the villagers, specifically the women of the region. Construction of underground water tank of 8 lakh litres capacity has been undertaken by the foundation which will benefit the village population of Hazira.

Adani Foundation also developed rural roads in Kawai - Rajasthan and undertook water conservation activities through pond development and pond deepening projects. CC roads were constructed in 04 villages of Dadha Gram Panchayat. Earlier, the condition of these internal roads was bad and villagers suffered heavily in rainy season. Due to the newly constructed roads villagers now have better conveyance and connectivity in all seasons. This initiative has benefited around 1559 population of these villages. Water conservation activities such as, rejuvenation of old check dams and repairing & desilting of percolation tanks were undertaken to provide sustainable water conservation structures and source of potable water for around 1500 community members. Development of a pond in Haniheda village and construction of check dam in Bhanpur (under Mukhya Mantri Jal Swawlamban Abhiyan of GoR) will benefit around 2482 villagers of Kharkhada and Ramlothan panchayat villages of Kawai – Rajasthan.

Adani Hazira Port Pvt. Ltd. contributed Rs. 7,01,95,000 (Rs. 7.02 crores) towards the Community betterment and development works in Hazira - Gujarat, Godda - Jharkhand and Baran - Rajasthan.

Details of the Budget and Expenditure for the FY 2017-18 are given in the table below: -

S. No.	Activity	Budget Amount (INR In Lakh)	Expenditure Amount (INR In Lakh)
1.	Education	341.00	336.44
2.	Community Health	26.20	25.80
3. Sustainable Livelihood Development		30.20	30.41
4.	Rural Infrastructure Development	309.10	309.31
	Total Amount (INR In Lakh)	706.50	701.95

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ANNEXURE-3:

COMPLIANCE STATUS OF ENVIRONMENTAL MANAGEMENT PLAN AS PER INTEGRATED EIA REPORT, SEPTEMBER, 2012



From : Oct., 2017 To : Mar., 2018

<u>Annexure-3</u>: Compliance Status of EMP as mentioned in the Integrated EIA Report, Sep., 2012:

S.	EMP Conditions	Compliance Status
No.	AS PER TERRESTRIAL ENVIRONMENTAL	
''	IMPACT ASSESSMENT REPORT: -	
Α	CONSTRUCTION PHASE:-	
1.	Dredged Soils Management Plan:	
	AHPPL has been permitted to dredge about 37 million cubic meter of soil, which shall be reused for backfilling in the project site. The dredged soil samples will be collected and analysed periodically for designated pollutants as per the recommendations of statutory authorities.	till date. All the dredging material is being utilized for level raising, reclamation. Complied with. If any excess material
2.	Air Quality Management:	
	Fugitive dust will be generated during construction phase of the project due to handling of wet dredged and excavated soils. Dust control program will be implemented to reduce the dust generation during construction at project site. Water sprinkling will be adopted on haulage roads and construction site.	being done on haulage roads and
3.	Noise Control Programs:	
	undertaken at a designated location, which should be located away from the office buildings and any other working areas. 2. In case noise emissions from the fabrication activities exceed a level of 85 dB (A) at the fence-line of the fabrication yard, temporary noise barrier can be installed. 3. Portable diesel engine generators and diesel engine driven compressors, if any, should be covered with noise enclosures.	location away from the office buildings and working areas. Complied with. Noise level was below 85 dB(A) during the fabrication. Currently no fabrication activities are going on.
4.	Sewage Management Program: Sewage generated from the construction site will be treated in modular STP and shall be used for green belt development / landscaping after achieving prescribed standards by GPCB.	from the construction site is being
5.	Solid and Hazardous Waste Management Program:	
	The solid waste generated should be segregated and categorized under various rules such as HWM 2008, SWM 2000, the Batteries Rules 2001 including processing of used oil by authorized recyclers should be carried out by the rules and procedures prescribed by CPCB and also meet the requirements of GPCB.	being segregate at source and handled as per applicable rules/guidelines and disposed off through
6.	Construction Phase Storm Water Runoff:	
	It has been recommended to adopt soil stabilization plans and storm water sedimentation basins to control the silt before	channels have been developed to



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	discharging the storm water into sea.	
7.	Sanitation:	
,.	The facilities presently available with the nearby villages will continued to be used during construction activities and no major sanitation problem is expected during construction period. The workers at the project site will be provided with proper sanitation arrangement.	arrangements are available for
B.	OPERATION PHASE: -	
1.	Air Quality Management:	
i.	Cargo-Handling Equipment: 1. Retrofitting the old equipment to meet the vehicular emission standards. 2. All the vehicles and equipment will be certified with PUC norms shall be deployed.	vehicles and equipment are PUC
ii.	Standby Diesel Generators: DG Sets will be operated on clean diesel fuel with sulphur content less than 0.5%. Minimum stack height of 30m will be provided to disperse the gases into the atmosphere as per the guidelines suggested by Central Pollution Control Board.	
iii.	Fugitive Coal Dust Control Program: The management of AHPPL has proposed to adopt the following fugitive coal dust control measures: - a. Dry Fog System - A new, proven and cost effective technique to control dust is "Dry Fog" system to suppress the dust from the air. The name fog is just what it implies small droplets of water injected into the air. Fogging works by releasing very small droplets of water into the air. Airborne dust particles adhere to the water droplet and agglomerate. If the fog is generated in the right way, by using pressurized water, the energy required can be very low between 2 to 3 kW for a system requiring hundreds of nozzles, e.g.: A large stockpile tripper conveyor - giving considerable operating cost savings when compared to other techniques, The sprinkler droplet sizes should be maintained less than 100 microns. b. Sprinklers: Once stockpiled, water can be sprayed on the stockpiles to keep them damped down. Swivelling sprinklers should be used along the lengths of the stockpile with caution, however, as the volume of water required can be significant, causing drainage and run-off treatment problems.	Complied. Following control measures are in place and effectively working at port to control fugitive dust: - 1. Spill boards are being provided to prevent cargo spillage into the sea. 2. Transportation of coal from jetty to coal storage yard through 1.7 Km. long conveyor belt with hood. 3. Water sprinklers in to the coal yard, 4. Dust Suppression System / Spray Nozzles in Conveyor System and Discharge Chute, 5. Water spray through Water Browsers, 6. Water Mist Canon / Fog System, 7. Wind Brake Shield of 14 meters high and 1200 meters long, 8. Transportation of cargo from port to hinterland is being done through dumpers / trucks covered with tarpaulin, 9. Regular cleaning the roads through Road Sweeping Machines, and 10. Company has set up dedicated greenbelt area for plantation at periphery / avenue plantation / landscaping etc. Total greenbelt
		area developed so far is approx. 65.15 ha within the port premises.
2.	Noise Control Program:	23/13 110 Wilding the port premides.
	-	L



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The following source noise control plans have been suggested: -

- > Covering of sound intensive components with insulation.
- > Using noise absorbing building materials if required for housing compressors and diesel generators etc. as per the guidelines suggested by Central Pollution Control . Board.
- Adopting low noise driving (Eco-driving)
- Using silent exhaustion pipes for major diesel engine vehicles and heavy trucks operated inside the port.
- Planting trees which act as barrier to arrest dispersion of noise levels.
- > Using electricity powered equipment inside the port instead of diesel powered ones will be explored to the extent possible.

Complied.

- ΑII the sound intensive components (DG Set and Compressor) are with acoustic enclosures.
- Green belt development is in progress.
- All RTGs and Quay Cranes are electricity operated.

Waste Water Management:

Port handling operations would generate Complied with. wastewater from the following sources: -

- 1. Ship ballast water,
- 2. Ship deck wastewater including sewage,
- 3. Rejects from desalination plant,
- 4. Workshop and vehicle maintenance shop wastewater,
- 1. Leachate from coal stock yard,
- 6. Floor cleaning and tank cleaning wastewater from the liquid tank farm,
- 7. Sewage from port facilities. The proposed wastewater treatment and reuse program has been presented hereunder: -

A variety of vessels use the waters within the port, including bulk coal ships, tugs and line boats. Discharges from bulk ships are not expected to occur within the port because these large ships normally have onboard storage and sewage treatment plants, allowing discharge of treated effluent at sea as per the provision of MARPOL.

- stock yard is not envisaged. However is being provided to collect the runoff small quantities, if any, will be treated in (if any) from coal yard and it is further the effluent treatment plant. Wastewater reused for dust suppression purpose from vehicle work-shops will also be into coal yard. treated in the proposed onsite effluent treatment plant.
- > As far as possible all chemical spills at Complied with. Till date there is no liquid handling facilities will be treated spill occurred. If, spills occurred, with dry spill absorbing material and spilled material/chemical will water will not be used. Spillage if any treated into ETP and treated waste occurs will be treated in a dedicated water will be reused in greenbelt onsite wastewater treatment plant, development / plantation purpose.

- AHPPL is not accepting Ballast/ Sewage water from Ships.
- Desalination plant not yet installed.
- There is no effluent generation from workshop. Vehicle maintenance has not done in port premises.
- There is no leachate from dump pond.
- Tank cleaning wastewater is being treated into ETP.
- Domestic waste water is being treated in the STP and then used for horticulture purpose within the port premises.

> Except monsoon, leachate from coal Complied. Dedicated coal dump pond



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which consists of an oil removal unit, primary chemical treatment unit and biological treatment units followed by Biologically activated carbon unit. treated wastewater will be further treated in the central sewage treatment plant. Treated wastewater will be used for dust suppression and horticulture applications at the facility. No treated wastewater will be discharged outside the port facilities.

Storm Water Management Plan:

- > Storm water from the coal stockpile area will Complied. Garland drain for all bulk be passed through a series of sediment storage facilities are provided to avoid traps to remove the majority of the coal silting into the marine eco-system. sediment before discharging into the natural Storm water from the coal stockpile drains. It has been proposed to construct a area is collected into dump ponds to garland drain for all bulk storage facilities to remove the coal sediment. avoid silting into the marine eco-system.
- > All liquid storage tanks will be provided with Complied. All liquid storage tanks are dykes to avoid any cross contamination of provided with dykes to avoid any cross storm water from chemical spills. Storm contamination of storm water from water drains shall be designed in order to chemical spills. Storm water drains are avoid any flooding of the coal stock yard and separate drains and effluents drains liquid chemical tank farm areas.

Solid and Hazardous Waste Management:

> Solid wastes generated from the port Complied. handling facilities consist of packaging waste such as wood, paper/carton, steel scrap etc.

> All the hazardous wastes and solid wastes Complied. such as Oil containing cargo residue, All the wastes are segregated at Chemical containing cargo residue and source and stored at a dedicated sludge, contaminated cotton waste, spent Hazardous Waste storage shed/yard. exchange resin and ETP Sludge, etc. shall be segregated at source and stored at the earmarked area.

- > Recyclable wastes will be collected and Complied. Recyclable wastes is being disposed to waste recycling vendors through certified recyclers wherever applicable.
- > Hazardous wastes include contaminated Complied. Till date there is no spill chemical spills, spent dry adsorbing spill occurred. absorbing material used for large marine and onshore chemical spills, used lubricating oils and greases. The chemicals spill inventories

are separate.

- Solid wastes generated during port development i.e.: construction & demolition wastes are reused for level rising of low lying area within the port premises. Kitchen/ Food, Horticulture/Garden wastes being sent to Organic Waste Converter (OWC) to convert it into compost and reused as manure in greenbelt/plantation.
- Packaging materials generated from the cargo handling i.e.: Wood, Paper/Carton, Steel Scrap, Plastic/Tarpaulin etc. are collected and sold out to recyclers.

collected and disposed of through CPCB/GPCB registered recyclers.



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and spent dry absorbing material will be stored in a dedicated onsite tank and will be disposed to authorized hazardous waste incinerators.

- > Spent lube oils and greases will be disposed Complied. Recyclable wastes is being to authorized used oil recycling vendors.
- > A dedicated and completely enclosed shed Complied. All the wastes are stored at will be identified to store the hazardous a dedicated hazardous waste storage wastes in order to avoid any cross shed/yard. contamination from storm water.
- > All the waste should be segregated, Complied with. All the wastes are collected, categorized as per the HWM Rules being segregate at source and 2008, SWM Rules 2000 and Batteries Rules handled as per applicable rules/ prescribed by CPCB Environmental Protection Act, 1986.

collected and disposed of through CPCB/GPCB registered recyclers.

under guidelines.

Greenbelt and Plantation:

> AHPPL will develop thick green belt Complying with. plantation in and around the proposed Company has set up dedicated project facility covering 81.27 Ha. Efforts greenbelt area for plantation at will be taken to increase the green cover in periphery / avenue plantation / and around the project boundary using local landscaping etc. Total greenbelt area species with a view to ameliorating project developed so far is approx. 65.15 ha related disturbances and enhancing the till Mar., 2018. ecological value of the area. Greenbelt would be developed as per the CPCB

> A capital cost of Rs. 1.62 Crore and an Horticulture budget for FY 2017-18 is annual recurring budget of Rs. 0.65 Crore Rs. 1.60 Crore. will be earmarked for this purpose.

Community Development Plan:

AHPPL has identified focused areas for community development and implement program. The identified developmental activities under CSR program are as follows: -

- 1. Infrastructure development for educational facilities like building of schools, computer • Detail of the CSR activities along rooms, multipurpose activity halls
- 2. Supporting education through distribution of stationary, scholarships, science kits, bicycles to children, conducting education camps, competitions.
- 3. Strengthening the community health by arranging health camps, AID awareness camps, providing financial support to senior citizens and poor people, building dispensaries and mobile dispensaries.
- 4. Improvement of rural sanitation conducting mass awareness campaign, helping villagers for constructing and maintaining household toilets, school toilets.
- 5. Improvement in animal husbandry and agriculture by arranging camps for farmers and cattle owners, conducting programs to use new irrigation technologies, organic farming, and free fodder supply.
- 6. Organizing need based skill development

Complied.

- CSR activities carried out by Adani Foundation in four verticals i.e.: - (1) Education, (2). Community Health, (3). Sustainable Livelihood and (4). Rural Infrastructure Development.
- with budgetary provisions and progress are regularly submitted to MoEF & CC as part of six monthly compliance reports.
- Total budget allocated for CSR activities is Rs. 706.50/- Lakh for FY: 2017-18 and total expenditure is Rs. 701.95/- Lakh during FY: 2017-18.
- Please refer the **Annexure-2** for the status of the CSR activities planned during the Financial Year: 2017-18.



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program	to	women	and	youth	for	their
empower	mer	nt.				

7. Rural infrastructure development construction of rainwater harvesting ponds, check dams, roads, bus stops, drainage systems, fish landing shed, solar street lamps.

AHPPL has committed to spend about Rs. 8.21 Crore in the first five years of the operation towards various rural upliftment and community development programs and tentative budget has been presented in the below table - Budgeted Expenditure for CSR and Community Development Activities:-

S. No.	Descriptions	Budgeted Amount For 1 st 5 year Period (Amount rupees in Crore)
1	Education	2.29
2	Community Health	1.18
3	Sustainable Livelihood Activities	1.43
4	Rural Infrastructure Development	2.04
5	Entry Point Activities	1.27
	Total	8.21

MARINE ENVIRONMENT MANAGEMENT PLAN:

CONSTRUCTION PHASE: -

- > The dredge spoil generated during capital Complied. No disposal has been done dredging will be used for land reclamation till date. All the dredging material is for the port development and associated being utilized for level raising, utilities.
- Unused dredged material will be disposed Complied with. If any excess material off at approved dump sites to the north of generated will be disposed of at the port area including dredged soil generated location already approved by the through maintenance dredging.
- > Appropriate dredging methodology shall be Noted & complying with. Monitoring adopted to control the generation of high of turbidity level in the sea water is levels of suspended solids. If the suspended being done and there is no abnormal solids concentration increases, the dredging increase observed. operation should be stopped till the normal conditions are achieved.
- General clean up along the corridor used for Noted & complied with. Cleanup of the construction related activities, adjacent area is regularly being done. intertidal areas, creeks etc. should be undertaken and all the discarded materials must be removed from the site and aesthetic quality of the surroundings to be restored, once the construction activities are completed.

OPERATION PHASE: -

The following mitigation measures recommended during port operation: -

> Sewage generated from the port operations Complied. Sewage generated from the will be treated in sewage treatment plant and treated water shall be used for horticulture and green belt development.

reclamation.

MoEF&CC.

port operations is being treated in STP and treated water is being used for horticulture and green belt development.



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- All the solid waste generated from the port Complied. will be properly segregated, stored and generated from the port is properly disposed as per the applicable statutory segregated, stored and disposed as requirement.
- > All the structures shall be designed in such a Complied with. Free flow to the way that it should not restrict the prevailing tidal ingress in the creek and mangrove habitats in the vicinity to ensure good health condition.
- > Coastline between Suwali Point and Tapti Complied. Shoreline change study was Estuary mouth and around the port area will be periodically surveyed to assess erosion period from November, 2014 to and accretion. Should the need arises the December, 2015. Study confirms that corrective action in terms of shore stabilization shall be undertaken.
- > All the minor and major spillages of chemicals will be effectively controlled with appropriate tools and equipments.
- > An oil/chemical spill management plan shall be evolved and be in place for tier-1 (100t) and tier-2 (700t) spills in consultation with Gujarat Maritime Board/Coast Guard.
- All the marine outfall shall meet the Gujarat Noted and complied with. No effluent Pollution Control Board Effluent Discharge Criteria for Seawater Disposal Standards.
- > Monitoring of water area of the port and Complied. Please refer the Annexureeffluent disposal sited shall be studied for pH and Corg, Suspended Solids, DO, BOD in order to identify for deviations if any from the baseline environmental quality.
- > The mitigation measures suggested for Noted, AHPPL is not discharging any effluent release and maintaining of effluent effluent outside the port premises. disposal sites should also be adopted for effluent release by NIKO should be implemented.

ΑII the solid waste per the applicable rules.

mangrove is not restricted by any of our activity.

conducted by NIO, Vizag during the there is no significant change in the nearby shoreline except for the approved layout of the AHPPL. The report did not warrant any mitigation measures.

Noted and complied with. There is no oil spill till date.

Complied. Oil Spill Contingency Plan has been prepared and the same was approved/vetted by Indian Coast Guard (Letter No.: 7563, 09.01.2014).

is being discharged.

4D for the Sea Water Quality Monitoring / Analysis Reports for the period Oct., 2017 to Mar., 2018.

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ANNEXURE-4:

ENVIRONMENTAL MONITORING / ANALYSIS RESULTS FOR THE PERIOD: Oct., 2017 TO Mar., 2018

From : Oct., 2017 To : Mar., 2018

ANNEXURE-4A:

AMBIENT AIR QUALITY MONITORING RESULTS

PERIOD: Oct., 2017 TO Mar., 2018



4A. AMBIENT AIR QUALITY MONITORING: -

Table-1.1: Ambient Air Quality Monitoring Results At Near Port Gate No.: 2

			Loc	cation-1	L: Near	Port Ga	ate No.:	2 (N 2	1° 05.4	26'E 72	° 37.73	9')	•
Sr. No.	Date of Sampling	PM ₁₀	PM _{2.5}	Pb	BaP	As	Ni	со	C ₆ H ₆	NH ₃	SO ₂	NOx	O ₃
110.	Jamping	µg/m³	µg/m³	µg/m³	ng/m³	ng/m³	ng/m³	mg/m ³	µg/m³	µg/m³	μg/m³	µg/m³	µg/m³
1	02/10/2017	46.79	20.48	BDL*	BDL*	BDL*	BDL*	0.39	BDL*	24.71	17.66	32.41	29.56
2	05/10/2017	53.58	25.50	BDL*	BDL*	BDL*	BDL*	0.25	BDL*	11.45	11.62	27.34	17.60
3	09/10/2017	69.28	29.68	0.54	BDL*	BDL*	BDL*	0.37	BDL*	53.63	18.48	22.75	24.51
4	12/10/2017	85.49	45.57	BDL*	BDL*	BDL*	BDL*	0.69	BDL*	32.84	13.39	33.49	21.52
5	16/10/2017	73.49	40.72	0.64	BDL*	BDL*	BDL*	0.94	BDL*	28.32	21.75	37.31	28.62
6	19/10/2017	63.38	37.62	BDL*	BDL*	BDL*	BDL*	0.78	BDL*	36.46	25.40	43.33	23.78
7	23/10/2017	57.58	31.35	BDL*	BDL*	BDL*	BDL*	0.50	BDL*	57.25	14.57	29.78	25.66
8	26/10/2017	78.62	35.53	0.60	BDL*	2.63	10.37	0.81	BDL*	49.41	23.47	38.40	19.43
9	30/10/2017	83.59	50.58	BDL*	BDL*	BDL*	BDL*	0.57	BDL*	52.43	10.49	34.53	30.61
10	02/11/2017	70.62	40.55	0.54	BDL*	2.24	10.58	0.60	BDL*	45.61	20.72	36.33	18.47
11	06/11/2017	61.51	29.68	BDL*	BDL*	BDL*	BDL*	0.19	BDL*	52.43	15.57	21.52	28.21
12	09/11/2017	58.60	23.41	BDL*	BDL*	BDL*	BDL*	0.27	BDL*	21.62	17.64	30.17	27.41
. 13	13/11/2017	65.38	27.59	BDL*	BDL*	BDL*	BDL*	0.79	BDL*	33.47	21.83	39.34	17.62
14	16/11/2017	77.38	39.46	0.62	BDL*	2.08	10.43	0.50	BDL*	48.28	14.27	32.40	25.65
15	20/11/2017	68.43	32.61	BDL*	BDL*	BDL*	BDL*	0.18	BDL*	10.37	19.74	42.35	20.26
16	23/11/2017	74.49	42.64	BDL*	BDL*	BDL*	BDL*	0.46	BDL*	30.51	11.45	34.20	24.77
17	27/11/2017	62.40	28.43	BDL*	BDL*	BDL*	BDL*	0.66	BDL*	25.47	18.61	37.25	22.79
18	30/11/2017	80.59	45.57	0.72	BDL*	2.54	10.76	0.36	BDL*	51.54	13.43	27.48	29.29
19	04/12/2017	48.38	18.56	BDL*	BDL*	BDL*	BDL*	0.26	BDL*	19.58	15.37	28.30	24.20
20	07/12/2017	54.59	24.33	BDL*	BDL*	BDL*	BDL*	0.38	BDL*	38.57	12.59	35.44	21.56
21	11/12/2017	74.49	42.47	0.64	BDL*	2.24	10.54	0.60	BDL*	40.07	20.71	40.24	15.79
22	14/12/2017	66.78	28.80	BDL*	BDL*	BDL*	BDL*	0.15	BDL*	47.30	14.60	23.26	23.66
23	18/12/2017	85.41	45.38	0.78	BDL*	2.74	10.27	0.31	BDL*	45.80	11.46	29.29	29.46
24	21/12/2017	77.60	31.31	0.59	BDL*	2.14	10.37	0.53	BDL*	9.34	16.65	26.35	17.40
25	25/12/2017	68.92	40.30	BDL*	BDL*	BDL*	BDL*	0.71	BDL*	29.83	19.52	30.40	19.69
26	28/12/2017	82.38	49.41	BDL*	BDL*	BDL*	BDL*	0.40	BDL*	27.12	9.62	42.44	30.47
27	01/01/2018	79.71	34.15	BDL*	BDL*	BDL*	BDL*	0.85	BDL*	22.51	23.49	44.19	23.51
28	04/01/2018	90.29	46.53	0.81	BDL*	2.34	10.37	0.44	BDL*	51.24	14.49	31.53	29.36

Authorized Signatory

FANT Approved Signatory Recognised by MoEF, New Delhi Under Sec. 12 of Environmental (Protection) Act-1986

 GPCB apprved schedule II auditor ● ISO 14001

OHSAS 18001

• ISO 9001



29	08/01/2018	64.33	28.26	BDL*	BDL*	BDL*	BDL*	0.38	BDL*	45.32	18.69	29.38	22.34
30	11/01/2018	83.92	35.41	0.63	BDL*	2.54	10.61	0.74	BDL*	10.37	22.43	32.44	30.36
31	15/01/2018	76.78	25.36	BDL*	BDL*	BDL*	BDL*	0.55	BDL*	42.65	19.32	38.43	19.06
32	18/01/2018	67.28	29.85	BDL*	BDL*	BDL*	BDL*	0.81	BDL*	25.18	21.39	43.17	25.86
33	22/01/2018	78.58	39.21	0.56	BDL*	2.22	BDL*	0.57	BDL*	31.69	10.41	26.25	26.60
34	25/01/2018	88.28	51.84	BDL*	BDL*	BDL*	BDL*	0.21	BDL*	52.43	16.69	30.29	21.28
35	29/01/2018	81.61	36.24	0.51	BDL*	2.45	10.48	0.44	BDL*	35.25	22.56	33.23	17.09
36	01/02/2018	75.49	39.09	BDL*	BDL*	BDL*	BDL*	0.31	BDL*	38.51	19.56	31.33	19.60
37	05/02/2018	57.32	22.37	BDL*	BDL*	BDL*	BDL*	0.74	BDL*	40.88	15.63	33.44	25.61
38	08/02/2018	83.62	38.79	0.71	BDL*	2.16	10.37	0.66	BDL*	52.43	23.60	28.21	23.20
39	12/02/2018	76.52	44.40	BDL*	BDL*	BDL*	BDL*	0.89	BDL*	25.47	20.55	38.22	26.10
40	15/02/2018	60.29	33.42	BDL*	BDL*	BDL*	BDL*	0.61	BDL*	39.10	18.38	34.22	24.29
41	19/02/2018	72.72	37.42	0.60	BDL*	BDL*	BDL*	0.72	BDL*	29.32	9.70	23.20	29.29
42	22/02/2018	81.20	46.78	BDL*	BDL*	BDL*	BDL*	0.15	BDL*	46.21	14.39	30.25	21.39
43	26/02/2018	69.39	42.31	0.52	BDL*	2.35	10.49	0.54	BDL*	23.40	21.58	26.29	18.68
44	01/03/2018	54.30	33.44	BDL*	BDL*	BDL*	BDL*	0.47	BDL*	36.16	13.45	36.46	27.59
45	05/03/2018	68.31	30.89	BDL*	BDL*	BDL*	BDL*	0.83	BDL*	22.60	22.60	40.19	30.49
46	08/03/2018	74.32	42.85	BDL*	BDL*	2.34	BDL*	0.58	BDL*	37.36	16.51	35.44	28.68
47	12/03/2018	60.29	27.59	BDL*	BDL*	BDL*	BDL*	0.42	BDL*	20.79	23.73	27.64	20.50
48	15/03/2018	79.28	34.84	0.68	BDL*	BDL*	BDL*	0.78	BDL*	46.40	11.52	30.92	25.45
49	19/03/2018	88.41	49.33	0.56	BDL*	BDL*	BDL*	0.70	BDL*	34.65	20.63	33.69	22.48
50	22/03/2018	71.50	32.52	BDL*	BDL*	BDL*	BDL*	0.40	BDL*	42.48	15.66	28.37	24.71
51	26/03/2018	92.39	53.55	0.82	BDL*	2.54	BDL*	0.69	BDL*	38.27	18.76	37.63	26.83
52	29/03/2018	65.38	28.47	BDL*	BDL*	BDL*	BDL*	0.57	BDL*	27.42	10.59	24.48	29.46

Observation: Above given Result are within the norms Specified Limit as per CPCB Notification NoB-29016/20/90/PCI-I dt: 18/11/2009National Ambient Air Quality Standards, New Delhi , for 24 hourly or 8 hourly or 1 hourly monitored values

BDL*: - Below Detection Limit: Ozone as O_3 ($\mu g/m^3$): 10 BDL*: - Below Detection Limit - Lead as Pb ($\mu g/m^3$): 0.5

BDL*: - Below Detection Limit - Carbon Monoxide as CO (mg/m³): 0.01

BDL*: - Below Detection Limit - Ammonia NH₃ (μ g/m³): 10 BDL*: - Below Detection Limit - Benzene as C₆H₆ (μ g/m³): 2

BDL*: - Below Detection Limit - Benzo (a) Pyrene (BaP) - Particulate Phase only (ng/m³): 0.5

BDL*: - Below Detection Limit - Arsenic as As (ng/m³): 2 BDL*: - Below Detection Limit - Nickel as Ni (ng/m³): 10

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· Table-1.2: Ambient Air Quality Monitoring Results At HSE Building Terrace

			Loc	ation-2	: HSE B	uilding	Terrac	e (N 21	° 05.04	3' E 72	38.49	1')	
Sr.	Date of	PM ₁₀	PM _{2.5}	Pb	BaP	As	Ni	со	C ₆ H ₆	NH ₃	SO ₂	NOx	O ₃
No.	Sampling	µg/m³	μg/m³	µg/m³	ng/m³	ng/m³	ng/m³	mg/m³	µg/m³	μg/m³	μg/m³	µg/m³	μg/m³
1	02/10/2017	50.49	21.71	BDL*	BDL*	BDL*	BDL*	0.24	BDL*	21.36	15.38	24.55	21.39
2	05/10/2017	41.51	17.53	BDL*	BDL*	BDL*	BDL*	0.16	BDL*	18.35	6.68	18.32	15.59
3	09/10/2017	82.39	46.75	0.62	BDL*	2.49	10.57	0.44	BDL*	27.38	13.67	32.63	18.42
4	12/10/2017	70.61	35.48	BDL*	BDL*	BDL*	BDL*	0.55	BDL*	40.31	18.67	26.38	23.46
5	16/10/2017	62.40	26.71	BDL*	BDL*	BDL*	BDL*	0.65	BDL*	32.49	16.68	30.31	19.51
6	19/10/2017	55.29	30.47	BDL*	BDL*	BDL*	BDL*	0.93	BDL*	45.73	22.57	41.52	25.76
7	23/10/2017	73.29	45.50	BDL*	BDL*	BDL*	BDL*	0.31	BDL*	22.56	10.52	33.71	22.54
8	26/10/2017	65.69	25.46	BDL*	BDL*	BDL*	BDL*	0.41	BDL*	28.28	20.69	29.27	27.61
9	30/10/2017	78.49	41.74	BDL*	BDL*	BDL*	BDL*	0.84	BDL*	38.51	12.35	23.45	20.79
10	02/11/2017	63.39	34.65	BDL*	BDL*	BDL*	BDL*	0.45	BDL*	25.73	18.54	26.34	29,64
11	06/11/2017	54.19	23.38	BDL*	BDL*	BDL*	BDL*	0.31	BDL*	21.59	13.68	29.39	17.31
12	09/11/2017	46.27	26.71	BDL*	BDL*	BDL*	BDL*	0.21	BDL*	18.34	15.59	22.76	19.39
13	13/11/2017	51.19	21.71	BDL*	BDL*	BDL*	BDL*	0.73	BDL*	38.15	19.36	36.51	22.68
14	16/11/2017	72.43	31.72	BDL*	BDL*	BDL*	BDL*	0.63	BDL*	23.66	10.64	20.85	21.21
15	20/11/2017	59.42	25.46	BDL*	BDL*	BDL*	BDL*	0.23	BDL*	15.68	7.59	16.29	28.30
16	23/11/2017	68.20	46.75	BDL*	BDL*	BDL*	BDL*	0.41	BDL*	34.60	17.77	24.64	30.08
17	27/11/2017	56.32	19.62	BDL*	BDL*	BDL*	BDL*	0.76	BDL*	27.51	14.68	27.61	18.32
18	30/11/2017	73.60	32.56	BDL*	BDL*	BDL*	BDL*	0.32	BDL*	20.70	9.28	33.39	27.55
19	04/12/2017	42.47	15.24	BDL*	BDL*	BDL*	BDL*	0.18	BDL*	16.55	13.72	23.84	17.61
20	07/12/2017	51.71	21.54	BDL*	BDL*	BDL*	BDL*	0.21	BDL*	20.16	8.74	21.50	19.51
21	11/12/2017	66.72	30.39	BDL*	BDL*	BDL*	BDL*	0.39	BDL*	22.26	18.35	29.24	25.67
22	14/12/2017	57.48	25.42	BDL*	BDL*	BDL*	BDL*	0.27	BDL*	19.25	11.62	33.42	15,46
23	18/12/2017	78.63	38.19	BDL*	BDL*	BDL*	BDL*	0.48	BDL*	18.05	9.62	36.20	23.38
24	21/12/2017	63.11	32.39	BDL*	BDL*	BDL*	BDL*	0.30	BDL*	13.54	6.64	18.55	27.48
25	25/12/2017	53.29	35.40	BDL*	BDL*	BDL*	BDL*	0.62	BDL*	32.49	16.66	40.18	21:.35
26	28/12/2017	71.02	42.49	BDL*	BDL*	BDL*	BDL*	0.33	BDL*	29.48	5.42	26.66	26.85
27	01/01/2018	69.88	28.76	BDL*	BDL*	BDL*	BDL*	0.55	BDL*	18.04	20.32	32.27	21.58
28	04/01/2018	84.83	50.59	BDL*	BDL*	BDL*	BDL*	0.68	BDL*	28.39	10.53	40.26	25.63
29		76.50	36.40	BDL*	BDL*	BDL*	BDL*	0.26	BDL*	23.36	16.70	26.29	15.44

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30	11/01/2018	66.78	32.48	BDL*	BDL*	BDL*	BDL*	0.42	BDL*	15.38	9.65	20.43	23.50
31	15/01/2018	50.21	29.43	BDL*	BDL*	BDL*	BDL*	0.29	BDL*	22.18	6.64	24.54	16.73
32	18/01/2018	61.32	24.46	BDL*	BDL*	BDL*	BDL*	0.45	BDL*	27.51	11.65	36.21	20.05
33	22/01/2018	70.42	31.31	BDL*	BDL*	BDL*	BDL*	0.48	BDL*	35.49	17.58	29.90	22.52
34	25/01/2018	64.59	35.40	BDL*	BDL*	BDL*	BDL*	0.38	BDL*	21.29	13.63	38.26	13.54
35	29/01/2018	56.39	26.38	BDL*	BDL*	BDL*	BDL*	0.53	BDL*	36.38	18.45	23.35	18.80
36	01/02/2018	52.38	30.47	BDL*	BDL*	BDL*	BDL*	0.64	BDL*	30.17	15.74	29.30	23.63
37	05/02/2018	70.21	28.43	BDL*	BDL*	BDL*	BDL*	0.16	BDL*	22.48	13.65	26.35	17.77
38	08/02/2018	86.28	41.66	0.54	BDL*	BDL*	BDL*	0.49	BDL*	42.29	20.48	35.36	28.58
39	12/02/2018	64.29	39.53	BDL*	BDL*	BDL*	BDL*	0.13	BDL*	21.29	18.73	27.37	21.82
40	15/02/2018	82.40	47.63	BDL*	BDL*	BDL*	BDL*	0.37	BDL*	32.53	10.74	22.83	18.61
41	19/02/2018	68.42	31.68	BDL*	BDL*	BDL*	BDL*	0.34	BDL*	26.32	16.51	32.71	25.59
42	22/02/2018	75.62	37.61	BDL*	BDL*	BDL*	BDL*	0.29	BDL*	18.93	12.76	33.45	15.59
43	26/02/2018	62,48	29.26	BDL*	BDL*	BDL*	BDL*	0.11	BDL*	12.42	8.45	18.58	27.61
44	01/03/2018	74.62	41.66	BDL*	BDL*	BDL*	BDL*	0.23	BDL*	29.78	11.52	23.83	18.44
45	05/03/2018	59.21	22.83	BDL*	BDL*	BDL*	BDL*	0.39	BDL*	19.25	19.41	30.40	23.47
46	08/03/2018	64.51	30.43	BDL*	BDL*	BDL*	BDL*	0.56	BDL*	35.50	13.69	25.34	19.31
47	12/03/2018	54.61	24.34	BDL*	BDL*	BDL*	BDL*	0.32	BDL*	11.13	20.66	19.35	30.26
48	15/03/2018	83.80	42.33	0.78	BDL*	BDL*	BDL*	0.48	BDL*	38.51	21.45	37.55	28.31
49	19/03/2018	76.40	39.45	BDL*	BDL*	BDL*	BDL*	0.52	BDL*	21.36	7.57.	28.58	26.76
50	22/03/2018	68.32	34.81	BDL*	BDL*	BDL*	BDL*	0.18	BDL*	17.45	10.63	38.67	16.81
51	26/03/2018	82.58	50.34	BDL*	BDL*	2.16	BDL*	0.63	BDL*	18.65	5.46	21.54	20.34
52	29/03/2018	62.53	25.42	BDL*	BDL*	BDL*	BDL*	0.29	BDL*	24.07	17.39	33.75	27.73

Observation: Above given Result are within the norms Specified Limit as per CPCB Notification NoB-29016/20/90/PCI-I dt: 18/11/2009National Ambient Air Quality Standards, New Delhi , for 24 hourly or 8 hourly or 1 hourly monitored values

BDL*: - Below Detection Limit: Ozone as O_3 ($\mu g/m^3$): 10 BDL*: - Below Detection Limit - Lead as Pb ($\mu g/m^3$): 0.5

BDL*: - Below Detection Limit - Carbon Monoxide as CO (mg/m³): 0.01

BDL*: - Below Detection Limit - Ammonia NH₃ (μ g/m³): 10 BDL*: - Below Detection Limit - Benzene as C₆H₆ (μ g/m³): 2

BDL*: - Below Detection Limit - Benzo (a) Pyrene (BaP) - Particulate Phase only (ng/m³): 0.5

BDL*: - Below Detection Limit - Arsenic as As (ng/m^3) : 2 BDL*: - Below Detection Limit - Nickel as Ni (ng/m^3) : 10

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Table-1.3: Ambient Air Quality Monitoring Results At Central Water Pump House

		Location-3: Central Water Pump House (N 21° 04.697′E 72° 38.420′)											
Sr. No.	Date of Sampling	PM ₁₀	PM _{2.5}	Pb	BaP	As	Ni	СО	C ₆ H ₆	NH ₃	SO ₂	NOx	O ₃
	Jumpung	µg/m³	μg/m³	µg/m³	ng/m³	ng/m³	ng/m³	mg/m³	µg/m³	μg/m³	µg/m³	µg/m³	µg/m³
1	02/10/2017	69.61	31.64	BDL*	BDL*	BDL*	BDL*	0.18	BDL*	15.10	9.32	27.83	19.50
2	05/10/2017	48.49	20.35	BDL*	BDL*	BDL*	BDL*	0.14	BDL*	21.74	13,67	31.63	20.32
. 3	09/10/2017	75.62	38.53	BDL*	BDL*	BDL*	BDL*	0.30	BDL*	38.96	21.54	29.42	22.61
4	12/10/2017	51.28	22.53	BDL*	BDL*	BDL*	BDL*	0.34	BDL*	27.48	24.56	38.49	28.42
5	16/10/2017	68.60	30.46	BDL*	BDL*	BDL*	BDL*	0.74	BDL*	23.56	18.53	34.45	17.48
6	19/10/2017	87.51	52.59	BDL*	BDL*	BDL*	BDL*	0.63	BDL*	17.52	16.39	36.47	29.41
7	23/10/2017	61.48	26.41	BDL*	BDL*	BDL*	BDL*	0.76	BDL*	36.84	12.58	25.74	30.34
8	26/10/2017	55.63	21.65	BDL*	BDL*	BDL*	BDL*	0.87	BDL*	41.37	15.50	32.61	25.38
9	30/10/2017	64.32	45.75	BDL*	BDL*	BDL*	BDL*	0.72	BDL*	19.63	19.64	37.63	26.46
10	02/11/2017	51.55	28.65	BDL*	BDL*	BDL*	BDL*	0.62	BDL*	36.22	13.52	29.26	23.49
11	06/11/2017	71.59	31.61	BDL*	BDL*	BDL*	BDL*	0.26	BDL*	28.50	5.49	18.32	27.56
.12	09/11/2017	64.20	36.37	BDL*	BDL*	BDL*	BDL*	0.16	BDL*	13.36	8.47	23.54	25.47
13	13/11/2017	80.23	25.46	BDL*	BDL*	BDL*	BDL*	0.47	BDL*	18.70	14.35	33.17	24.35
14	16/11/2017	59.18	27.54	BDL*	BDL*	BDL*	BDL*	0.33	BDL*	26.42	19.42	36.42	26.34
15	20/11/2017	44.60	19.67	BDL*	BDL*	BDL*	BDL*	0.38	BDL*	19.30	12.69	32.44	19.44
16	23/11/2017	52.31	34.64	BDL*	BDL*	BDL*	BDL*	0.25	BDL*	23.45	21.25	37.23	22.66
17	27/11/2017	68.27	30.31	BDL*	BDL*	BDL*	BDL*	0.55	BDL*	30.88	7.62	31.20	29.55
18	30/11/2017	56.70	23.52	BDL*	BDL*	BDL*	BDL*	0.58	BDL*	38.30	11.65	23.66	18.30
19	04/12/2017	38.31	22.32	BDL*	BDL*	BDL*	BDL*	0.21	BDL*	11.17	7.52	21.59	22.65
20	07/12/2017	45.80	15.50	BDL*	BDL*	BDL*	BDL*	0.34	BDL*	25.37	16.37	38.56	25.36
21	11/12/2017	52.60	34.20	BDL*	BDL*	BDL*	BDL*	0.55	BDL*	30.80	11.66	32.44	20.46
22	14/12/2017	76.71	31.09	BDL*	BDL*	BDL*	BDL*	0.24	BDL*	24.76	5.75	19.75	26.24
23	18/12/2017	57.79	25.79	BDL*	BDL*	BDL*	BDL*	0.54	BDL*	33.22	14.72	25.41	16.39
24	21/12/2017	45.10	17.62	BDL*	BDL*	BDL*	BDL*	0.58	BDL*	16.31	10.56	34.24	30.61
25	25/12/2017	82.68	47.19	BDL*	BDL*	BDL*	BDL*	0.42	BDL*	15.70	12.77	27.58	23.56
26	28/12/2017	54.96	39.31	BDL*	BDL*	BDL*	·BDL*	0.23	BDL*	19.93	18.50	30.15	19.32
27	01/01/2018	54.64	25.74	BDL*	BDL*	BDL*	BDL*	0.78	BDL*	12.47	12.30	36.36	18.20
28	04/01/2018	61.19	32.21	BDL*	BDL*	BDL*	BDL*	0.21	BDL*	37.41	18.52	27.64	15.68
. 29	08/01/2018	70.19	39.35	BDL*	BDL*	BDL*	BDL*	0.30	BDL*	33.55	9.60	21.52	19.65

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30	11/01/2018	52.41	22.41	BDL*	BDL*	BDL*	BDL*	0.83	BDL*	21.67	19.75	37.49	27.78
31	15/01/2018	83.41	41.35	BDL*	BDL*	BDL*	BDL*	0.50	BDL*	29.09	11.35	42.48	23.09
32	18/01/2018	72.60	33.52	BDL*	BDL*	BDL*	BDL*	0.63	BDL*	34.44	7.48	39.82	26.16
33	22/01/2018	58.78	28.23	BDL*	BDL*	BDL*	BDL*	0.33	BDL*	22.27	21.47	33.64	17.22
34	25/01/2018	78.32	47.54	BDL*	BDL*	BDL*	BDL*	0.24	BDL*	27.91	6.67	22.36	24.33
35	29/01/2018	89.42	42.46	BDL*	BDL*	BDL*	BDL*	0.61	BDL*	17.22	14.71	30.25	21.66
36	01/02/2018	82.30	42.76	BDL*	BDL*	BDL*	BDL*	0.45	BDL*	15.44	11.64	27.56	24.49
37	05/02/2018	63.91	30.31	BDL*	BDL*	BDL*	BDL*	0.11	BDL*	21.08	8.56	19.15	22.28
38	08/02/2018	56.28	38.53	BDL*	BDL*	BDL*	BDL*	0.17	BDL*	16.63	16.51	25.27	17.40
39	12/02/2018	48.22	26.37	BDL*	BDL*	BDL*	BDL*	0.57	BDL*	11.28	13.61	32.26	20.32
40	15/02/2018	65.40	36.47	BDL*	BDL*	BDL*	BDL*	0.31	BDL*	18.70	6.70	17.45	27.24
41	19/02/2018	55.21	23.56	BDL*	BDL*	BDL*	BDL*	0.24	BDL*	33.55	19.61	29.41	18.70
42	22/02/2018	70.32	34.51	BDL*	BDL*	BDL*	BDL*	0.18	BDL*	25.53	9.37	20.34	26.30
43	26/02/2018	50.18	31.52	BDL*	BDL*	BDL*	BDL*	0.62	BDL*	29.39	17.63	34.54	30.44
44	01/03/2018	60.48	32.58	BDL*	BDL*	BDL*	BDL*	0.25	BDL*	17.52	7.56	18.27	16.40
45	05/03/2018	44.61	18.36	BDL*	BDL*	BDL*	BDL*	0.53	BDL*	15.70	14.35	33.44	21.50
46	08/03/2018	58.41	35.54	BDL*	BDL*	BDL*	BDL*	0.41	BDL*	19.63	18.15	19.77	23.72
47	12/03/2018	65.20	21.45	BDL*	BDL*	BDL*	BDL*	0.71	BDL*	27.48	16.51	36.50	25.63
48	15/03/2018	53.19	25.71	BDL*	BDL*	BDL*	BDL*	0.14	BDL*	30.20	17.73	25.79	18.69
49	19/03/2018	62.61	34.25	BDL*	BDL*	BDL*	BDL*	0.37	BDL*	10.27	12.66	23.24	29.57
	22/03/2018	77,48	37.67	BDL*	BDL*	BDL*	BDL*	0.47	BDL*	24.16	8.41	31.45	27.29
50		68.39	29.35	BDL*	BDL*	BDL*	BDL*	0.31	BDL*	12.38	11.45	39.32	28.78
51	26/03/2018	-	20.57	BDL*	BDL*	BDL*	BDL*	0.21	BDL*	29.60	20.36	29.29	20.29
52	29/03/2018	52.05	20.37	DUL	DDL	1000	000						

Observation: Above given Result are within the norms Specified Limit as per CPCB Notification NoB-29016/20/90/PCI-I dt: 18/11/2009National Ambient Air Quality Standards, New Delhi , for 24 hourly or 8 hourly or 1 hourly monitored values

BDL*: - Below Detection Limit: Ozone as O_3 ($\mu g/m^3$): 10 BDL*: - Below Detection Limit - Lead as Pb ($\mu g/m^3$): 0.5

BDL*: - Below Detection Limit - Carbon Monoxide as CO (mg/m³): 0.01

BDL*: - Below Detection Limit - Ammonia NH₃ (μ g/m³): 10 BDL*: - Below Detection Limit - Benzene as C₆H₆ (μ g/m³): 2

BDL*: - Below Detection Limit - Benzo (a) Pyrene (BaP) - Particulate Phase only (ng/m³): 0.5

BDL*: - Below Detection Limit - Arsenic as As (ng/m^3) : 2 BDL*: - Below Detection Limit - Nickel as Ni (ng/m^3) : 10

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Table-1.4: Ambient Air Quality Monitoring Results At Container Terminal

			L	ocation	-4: Con	tainer ⁻	Termina	al (N 21	° 05.18	7′E 72°	37.774	1)	
Sr. No.	Date of Sampling	PM ₁₀	PM _{2.5}	Pb	BaP	As	Ni	со	C ₆ H ₆	NH ₃	SO ₂	NOx	03
1101	Sampling	μg/m³	µg/m³	µg/m³	ng/m³	ng/m³	ng/m³	mg/m³	µg/m³	µg/m³	μg/m³	µg/m³	μg/m³
1	02/10/2017	57.51	26.47	BDL*	BDL*	BDL*	BDL*	0.11	BDL*	18.68	7.53	18.22	30.28
2	05/10/2017	65.57	29.49	BDL*	BDL*	BDL*	BDL*	0.19	BDL*	15.36	16.73	26.41	24.59
3	09/10/2017	87.32	54.60	BDL*	BDL*	BDL*	BDL*	0.62	BDL*	41.57	11.71	36.38	19.39
4	12/10/2017	61.60	27.71	BDL*	BDL*	BDL*	BDL*	0.77	BDL*	16.57	21.69	30.45	29.48
5	16/10/2017	55.43	20.68	BDL*	BDL*	BDL*	BDL*	0.52	BDL*	20.48	24.53	44.51	23.46
6	19/10/2017	80.60	45.50	BDL*	BDL*	BDL*	BDL*	0.54	BDL*	28.32	14.48	25.68	20.21
7	23/10/2017	72.42	39.46	BDL*	BDL*	BDL*	BDL*	0.60	BDL*	47.60	22.48	31.39	25.65
8	26/10/2017	48.90	18.61	BDL*	BDL*	BDL*	BDL*	0.96	BDL*	33.44	17.66	22.38	21.28
9	30/10/2017	69.21	35.57	BDL*	BDL*	BDL*	BDL*	0.40	BDL*	44.28	13.60	28.49	28.68
10	02/11/2017	76.50	31.44	BDL*	BDL*	BDL*	BDL*	0.71	BDL*	29.32	16.33	20.48	20.42
11	06/11/2017	66.70	26.59	BDL*	BDL*	BDL*	BDL*	0.40	BDL*	37.31	18.60	32.74	30.70
12	09/11/2017	52.37	19.44	BDL*	BDL*	BDL*	BDL*	0.13	BDL*	16.88	6.69	16.54	29.26
13	13/11/2017	73.20	37.64	BDL*	BDL*	BDL*	BDL*	0.22	BDL*	25.17	17.64	23.45	19.30
14	16/11/2017	64.31	34.33	BDL*	BDL*	BDL*	BDL*	0.17	BDL*	39.09	12.28	25.34	17.29
15	20/11/2017	78.42	39.71	BDL*	BDL*	BDL*	BDL*	0.15	BDL*	12.44	5.51	24.53	22.60
16	23/11/2017	58.31	30.74	BDL*	BDL*	BDL*	BDL*	0.48	BDL*	14.21	19.87	27.19	18.47
17	27/11/2017	49.30	24.41	BDL*	BDL*	BDL*	BDL*	0.39	BDL*	36.43	22.67	40.14	26.28
18	30/11/2017	68.34	28.54	BDL*	BDL*	BDL*	BDL*	0.29	BDL*	41.46	20.58	29.55	24.29
19	04/12/2017	54.29	25.77	BDL*	BDL*	BDL*	BDL*	0.13	BDL*	13.25	5.72	17.47	26.83
20	07/12/2017	60.72	28.70	BDL*	BDL*	BDL*	BDL*	0.16	BDL*	34.64	10.40	27.28	15.50
21	11/12/2017	79.63	48.40	0.56	BDL*	2.35	10.09	0.23	BDL*	25.91	14.70	21.80	18.50
22	14/12/2017	80.59	35.24	BDL*	BDL*	BDL*	BDL*	0.36	BDL*	33.44	16.64	36.37	28.42
23	18/12/2017	71.21	32.47	BDL*	BDL*	2.46	10.39	0.25	BDL*	36.15	19.75	31.47	21.59
24	21/12/2017	87.61	42.40	0.68	BDL*	2.58	10.45	0.45	BDL*	10.54	8.35	23.50	19.34
25	25/12/2017	76.32	43.62	BDL*	BDL*	BDL*	BDL*	0.19	BDL*	22.29	17.72	32.05	17.29
26	28/12/2017	61.38	44.51	BDL*	BDL*	BDL*	BDL*	0.44	BDL*	12.35	11.34	29.53	22.30
27	01/01/2018	84.31	36.32	BDL*	BDL*	BDL*	BDL*	0.32	BDL*	15.70	17.75	24.21	16.49
28	04/01/2018	74.52	43.70	BDL*	BDL*	BDL*	BDL*	0.36	BDL*	40.57	22.41	34.69	21.46
29	08/01/2018	58.49	23.45	BDL*	BDL*	BDL*	BDL*	0.18	BDL*	29.32	7.47	19.55	23.50

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30	11/01/2018	88.60	39.54	0.74	BDL*	2.36	10.44	0.63	BDL*	12.44	12.74	25.64	24.26
31	15/01/2018	62.41	19.52	BDL*	BDL*	BDL*	BDL*	0.22	BDL*	38.50	9.72	30.85	27.44
32	18/01/2018	55.86	21.39	BDL*	BDL*	BDL*	BDL*	0.74	BDL*	21.32	16.68	28.47	17.94
33	22/01/2018	63.64	25.55	BDL*	BDL*	BDL*	BDL*	0.62	BDL*	13.62	13.44	21.36	19.53
34	25/01/2018	83.18	38.47	BDL*	BDL*	BDL*	BDL*	0.50	BDL*	41.16	18.74	33.52	25.66
35	29/01/2018	71.51	30.40	BDL*	BDL*	BDL*	BDL*	0.18	BDL*	25.47	11.46	36.27	15.45
36	01/02/2018	67.52	35.37	BDL*	BDL*	BDL*	BDL*	0.40	BDL*	23.69	9.35	19.45	17.71
3,7	05/02/2018	51.51	20.48	BDL*	BDL*	BDL*	BDL*	0.26	BDL*	28.73	5.49	15.48	29.32 ,
38	08/02/2018	62.39	26.72	BDL*	BDL*	BDL*	BDL*	0.33	BDL*	36.72	13.54	32.41	20.45
39	12/02/2018	81.59	49.47	BDL*	BDL*	BDL*	BDL*	0.19	BDL*	18.36	6.39	22.45	18.21
40	15/02/2018	52.33	28.38	BDL*	BDL*	BDL*	BDL*	0.55	BDL*	42.35	15.68	24.33	22.39
41	19/02/2018	60.41	27.67	BDL*	BDL*	BDL*	BDL*	0.14	BDL*	12.73	11.67	18.48	16.77
42	22/02/2018	86.17	50.47	0.56	BDL*	BDL*	10.45	0.38	BDL*	37.61	7.59	29.17	28.11
43	26/02/2018	79.29	47.11	BDL*	BDL*	BDL*	BDL*	0.15	BDL*	45.31	10.56	20.35	26.51
44	01/03/2018	49.83	25,56	BDL*	BDL*	BDL*	BDL*	0.30	BDL*	37.66	16.50	25.61	23.27
45	05/03/2018	77.62	37.34	BDL*.	BDL*	BDL*	BDL*	0.44	BDL*	16.27	6.73	23.42	18.49
46	08/03/2018	83.42	45.75	BDL*	BDL*	BDL*	10.28	0.54	BDL*	25.30	9.68	16.07	30.20
47	12/03/2018	73.20	32.68	BDL*	BDL*	BDL*	BDL*	0.37	BDL*	40.97	11.44	21.57	28.28
48	15/03/2018	58.79	29.41	BDL*	BDL*	BDL*	BDL*	0.27	BDL*	33.44	14.72	33.36	21.62
49	19/03/2018	70.62	44.38	BDL*	BDL*	BDL*	10.33	0.46	BDL*	19.58	10.56	20.94	20.43
50	22/03/2018	82.48	40.46	BDL*	BDL*	BDL*	BDL*	0.26	BDL*	34.64	5.34	24.34	29.32
51	26/03/2018	75.30	35.41	BDL*	BDL*	BDL*	BDL*	0.11	BDL*	29.52	8.45	28.49	22.56
52	29/03/2018	56.68	23.41	BDL*	BDL*	BDL*	BDL*	0.40	BDL*	11.45	12.44	19.72	17.79

Observation: Above given Result are within the norms Specified Limit as per CPCB Notification NoB-29016/20/90/PCI-I dt: 18/11/2009National Ambient Air Quality Standards, New Delhi , for 24 hourly or 8 hourly or 1 hourly monitored values

BDL*: - Below Detection Limit: Ozone as O_3 ($\mu g/m^3$): 10 BDL*: - Below Detection Limit - Lead as Pb ($\mu g/m^3$): 0.5

BDL*: - Below Detection Limit - Carbon Monoxide as CO (mg/m³): 0.01

BDL*: - Below Detection Limit - Ammonia NH₃ (μ g/m³): 10 BDL*: - Below Detection Limit - Benzene as C₆H₆ (μ g/m³): 2

BDL*: - Below Detection Limit - Benzo (a) Pyrene (BaP) - Particulate Phase only (ng/m³): 0.5

BDL*: - Below Detection Limit - Arsenic as As (ng/m^3) : 2 BDL*: - Below Detection Limit - Nickel as Ni (ng/m^3) : 10

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Table-1.5: Ambient Air Quality Monitoring Results At Hazira Village

•	V==C1 50 VE			Loca	tion-5:	Hazira	Village	(N 21°	05.44′ E	72° 38	3.44')		
Sr. No.	Date of Sampling	PM ₁₀	PM _{2.5}	Pb	BaP	As	Ni	со	C ₆ H ₆	NH ₃	SO ₂	NOx	O ₃ ,
P		µg/m³	µg/m³	μg/m³	ng/m³	ng/m³	ng/m³	mg/m³	µg/m³	µg/m³	µg/m³	μg/m³	µg/m³
1	02/10/2017	64.50	29.74	BDL*	BDL*	BDL*	BDL*	0.46	BDL*	29.38	12.39	29.71	15.40
2	05/10/2017	59.32	33.51	BDL*	BDL*	BDL*	BDL*	0.32	BDL*	23.93	9.34	20.50	22.16
4 3	09/10/2017	93.48	50.69	0.72	BDL*	2.65	10.70	0.85	BDL*	52.71	26.46	39.49	28.50
4	12/10/2017	77.60	32.68	BDL*	BDL*	BDL*	BDL*	0.61	BDL*	35.75	16.46	42.52	18.61
- 5	16/10/2017	82.58	35.61	0.80	BDL*	BDL*	BDL*	1.03	BDL*	45.44	14.62	24.84	25.51
6	19/10/2017	72.48	40.64	BDL*	BDL*	BDL*	BDL*	0.88	BDL*	31.51	28.41	46.25	27.16
7	23/10/2017	65.32	22.62	BDL*	BDL*	BDL*	BDL*	0.97	BDL*	64.22	15.52	37.16	29.17
8	26/10/2017	84.60	45.66	0.65	BDL*	2.75	10.85	0.73	BDL*	24.23	21.77	41.24	23.32
9	30/10/2017	90.31	55.72	0.84	BDL*	2.95	10.41	0.64	BDL*	47.56	8.39	23.53	17.55
10	02/11/2017	92.49	54.46	0.64	BDL*	2.54	10.30	0.53	BDL*	31.27	9.73	44.21	21.59
11	06/11/2017	78.61	35.61	BDL*	BDL*	BDL*	BDL*	0.61	BDL*	47.65	23.29	37.45	25.27
.12	09/11/2017	69.32	27.65	BDL*	BDL*	BDL*	BDL*	0.34	BDL*	26.80	11.47	27.34	23.14
13	13/11/2017	58.41	33.51	BDL*	BDL*	BDL*	BDL*	0.68	BDL*	13.40	27.53	45.60	29.79
14	16/11/2017	86.18	36.45	0.76	BDL*	2.34	10.22	0.74	BDL*	42.29	7.67	18.61	18.38
15	20/11/2017	70.20	29.33	BDL*	BDL*	BDL*	BDL*	0.24	BDL*	21.14	17.49	36.18	24.58
16	23/11/2017	63.62	25.55	BDL*	BDL*	BDL*	BDL*	0.44	BDL*	52.12	14.49	39.67	19.35
17	27/11/2017	77.18	39.38	BDL*	BDL*	BDL*	·BDL*	0.82	BDL*	40.20	12.48	23.58	28.51
18	30/11/2017	84.60	52.37	0.56	BDL*	2.21	10.52	0.72	BDL*	58.37	18.84	41.18	30.85
19	04/12/2017	59.58	27.57	BDL*	BDL*	BDL*	BDL*	0.32	BDL*	23.33	10.69	32.23	20.49
20	07/12/2017	67.70	31.21	BDL*	BDL*	BDL*	BDL*	0.22	BDL*	35.75	18.67	23.38	23.30
21	11/12/2017	90.41	55.38	0.82	BDL*	2.54	10.36	0.73	BDL*	19.39	8.44	35.26	19.77
22	14/12/2017	85.57	40.51	BDL*	BDL*	BDL*	10.10	0.46	BDL*	42.11	21.52	43.37	28.59
23	18/12/2017	64.29	29.41	0.58	BDL*	2.84	10.67	0.66	BDL*	52.71	17.63	39.38	27.49
24	21/12/2017	71.58	28.40	BDL*	BDL*	BDL*	BDL*	0.47	BDL*	18.18	14.67	31.18	22.48
25	25/12/2017	61.49	30.20	BDL*	BDL*	BDL*	BDL*	0.63	BDL*	11.81	23.58	45.28	30.43
26	28/12/2017	88.38	54.29	BDL*	BDL*	BDL*	BDL*	0.41	BDL*	46.35	13.77	40.46	24.50
27	01/01/2018	89.32	40.38	BDL*	BDL*	BDL*	BDL*	0.89	BDL*	26.80	26.66	38.50	26.42
28	04/01/2018	68.18	37.33	0.62	BDL*	2.12	10.47	0.72	BDL*	57.48	20.77	43.42	28.39
29	08/01/2018	82.42	42.44	BDL*	BDL*	BDL*	BDL*	0.44	BDL*	22.04	12.38	33.41	17.37

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30	11/01/2018	75.28	29.33	BDL*	BDL*	BDL*	BDL*	0.71	BDL*	18.46	17.70	35.38	19.60
31	15/01/2018	69.33	35.48	BDL*	BDL*	BDL*	BDL*	0.30	BDL*	46.46	16.49	26.39	20.59
32	18/01/2018	80.68	45.58	BDL*	BDL*	BDL*	BDL*	0.87	BDL*	38.12	23.45	30.35	27.68
33	22/01/2018	91.20	52.53	0.68	BDL*	2.48	10.30	0.58	BDL*	52.41	15.58	37.38	21.51
34	25/01/2018	72.58	43.48	BDL*	BDL*	BDL*	BDL*	0.63	BDL*	47.05	21.42	41.50	29.42
35	29/01/2018	94.19	48.55	0.76	BDL*	2.64	10.78	0.87	BDL*	13.40	16.49	29.20	24.61
36	01/02/2018	87.88	45.58	BDL*	BDL*	BDL*	BDL*	0.71	BDL*	27.70	14.44	25.59	28.73
37	05/02/2018	77.73	35.61	BDL*	BDL*	BDL*	BDL*	0.32	BDL*	19.36	10.76	29.57	19.11
38	08/02/2018	92.63	43.65	0.76	BDL*	2.42	10.70	0.58	BDL*	46.46	18.47	38.63	25.29
39	12/02/2018	89.40	51.53	BDL*	BDL*	BDL*	BDL*	0.69	BDL*	29.18	23.73	42.65	26.39
40	15/02/2018	75.31	41.60	BDL*	BDL*	BDL*	BDL*	0.87	BDL*	49.14	20.56	27.52	30.22
41	19/02/2018	86.91	47.46	0.68	BDL*	2.30	10.34	0.30	BDL*	36.33	13.48	35.56	23.64
42	22/02/2018	67.40	29.58	BDL*	BDL*	BDL*	BDL*	0.47	BDL*	41.10	19.67	39.35	18.76
43	26/02/2018	90.38	50.90	0.84	BDL*	2.76	10.46	0.53	BDL*	55.39	15.37	32.48	21.58
44	01/03/2018	66.70	36.70	BDL*	BDL*	BDL*	BDL*	0.62	BDL*	45.44	21.56	29.39	25.32
45	05/03/2018	80.28	33.43	BDL*	BDL*	BDL*	BDL*	0.55	BDL*	27.87	24.71	37.83	26.30
46	08/03/2018	91.23	50.31	0.76	BDL*	2.56	10.58	0.76	BDL*	17.57	11.43	31.55	22.36
47	12/03/2018	78.58	35.23	BDL*	BDL*	BDL*	BDL*	0.36	BDL*	50.89	25.66	45.55	23.40
48	15/03/2018	87.51	45.62	0.54	BDL*	BDL*	BDL*	0.44	BDL*	41.20	19.67	42.24	27.56
49	19/03/2018	94.22	52.74	0.64	BDL*	BDL*	10.85	0.92	BDL*	25.14	14.37	38.45	18.46
50	22/03/2018	60.72	27.86	BDL*	BDL*	BDL*	BDL*	0.38	BDL*	37.87	17.42	34.53	28.25
51	26/03/2018	86.31	54.29	0.73	BDL*	2.84	10.47	0.82	BDL*	26.36	22.68	32.81	24.60
52	29/03/2018	78.39	30.62	BDL*	BDL*	BDL*	BDL*	0.65	BDL*	33.32	15.61	39.44	30.73

Observation: Above given Result are within the norms Specified Limit as per CPCB Notification NoB-29016/20/90/PCI-I dt: 18/11/2009National Ambient Air Quality Standards, New Delhi , for 24 hourly or 8 hourly or 1 hourly monitored values,

BDL*: - Below Detection Limit: Ozone as O₃ (µg/m³): 10

BDL*: - Below Detection Limit - Lead as Pb (μ g/m³): 0.5 BDL*: - Below Detection Limit - Carbon Monoxide as CO (μ g/m³): 0.01

BDL*: - Below Detection Limit - Ammonia NH₃ (μ g/m³): 10 BDL*: - Below Detection Limit - Benzene as C₆H₆ (μ g/m³): 2

BDL*: - Below Detection Limit - Benzo (a) Pyrene (BaP) - Particulate Phase only (ng/m³): 0.5

BDL*: - Below Detection Limit - Arsenic as As (ng/m³): 2 BDL*: - Below Detection Limit - Nickel as Ni (ng/m³): 10

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ANNEXURE-4B:

GROUND WATER QUALITY MONITORING RESULTS

PERIOD: Oct., 2017 TO Mar., 2018



4B. GROUND WATER QUALITY MONITORING: -

Table-1.6: Ground Water Quality Results for the period: Oct., 2017 to Mar., 2018

Sr.				GR	OUND WAT	ER OPEN W	ELL	
NO.	TEST PARAMETERS	UNIT	OCT-17	NOV-17	DEC-17	JAN-18	FEB-18	MARCH-18
			30/10/2017	28/11/2017	29/12/2017	25/01/2018	21/02/2018	19/03/2018
1	Colour	Hazen	<1.0	<1.0	< 1.0	2	3	2
2	Odour		Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
3	Taste		Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
4	Turbidity	NTU	0.92	0.44	0.73	2.9	0.54	0.39
5	pH Value		7.82	7.28	8.01	7.46	7.76	7.5
6	Total Hardness as CaCO ₃	mg/L	412	420	450	472	411	398
7	Iron as Fe	mg/L	0.025	0.027	0.029	0.094	0.026	0.018
8	Chloride as Cl	mg/L	83.84	111	107	119	81.79	70.9
9	Residual Free Chlorine	mg/L	<0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
10	Fluoride as F	mg/L	0.507	0.17	0.16	0.4	0.56	0.45
11	Total Dissolved Solids	mg/L	710	760	666	696	698	612
12	Calcium as Ca	mg/L	111	100	95.2	100	95	118
13	Magnesium as Mg	mg/L	41.08	40.8	50.8	53.28	40.04	76.08
14	Copper as Cu	mg/L	0.019	0.019	0.018	0.016	0.022	0.011
15	Manganese as Mn	mg/L	BDL*	BDL*	BDL*	BDL*	0.016	BDL*
16	Sulphate as SO ₄	mg/L	39.86	28.2	37.89	44.6	40.79	60.2
17	Nitrate Nitrogen as NO ₃	mg/L	BDL*	BDL*	BDL*	BDL*	0.54	0.28
18	Phenolic compounds as C ₆ H ₅ OH	mg/L	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
19	Mercury as Hg	mg/L	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
20	Cadmium as Cd	mg/L	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
21	Selenium as Se	mg/L	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
· 22	Arsenic as As	mg/L	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
23	Cyanide as CN	mg/L	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
24	Lead as Pb	mg/L	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
. 25	Zinc as Zn	mg/L	0.018	0.037	0.037	0.064	BDL*	BDL*
26	Anionic Detergents as MBAS	mg/L	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
27	Chromiumas Cr+6	mg/L	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
28	Mineral Oil	mg/L	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
29	Alkalinity	mg/L	344	470	496	456	346	210
30	Aluminum as Al	mg/L	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
31	Boron as B	mg/L	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
32	Pesticides				·			
32.1	Alachor	µg/I	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
32.2	Atrazine	µg/l	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
32.3	Aldrin/Dieldrine	µg/l	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
32.4		µg/l	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
32.5		µg/l	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
32.6		µg/l	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*

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Sr.				GR	OUND WAT	ER OPEN W	ELL	
NO.	TEST PARAMETERS	UNIT	OCT-17	NOV-17	DEC-17	JAN-18	FEB-18	MARCH-18
			30/10/2017	28/11/2017	29/12/2017	25/01/2018	21/02/2018	19/03/2018
32.7	Chlorpyriphos	µg/I	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
32.8	Delta HCH	µg/l	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
32.9	2,4- Dichlorophrnoxy acetic acid	µg/l	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
32.10	DDT (o,p & p,p-Isomers of DDT, DDE & DDD	µg/l	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
32.11	Endosulfan (alpha, beta, and sulphate)	µg/l	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
32.12	Ethion	µg/l	BDL*	BDL*.	BDL*	BDL*	BDL*	BDL*
32.13	Gamma – HCH (Lindane)	μg/l	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
32.14	Isoproturon	µg/I	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
32.15	Malathion	µg/l	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
32.16	Methyl Parathion	µg/l	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
32.17	Monocrotophos	µg/l	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
32.18	Phorate	µg/l	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
33	Coliform	/100 ml	Absent	Absent	Absent	Absent	Absent	Absent
34	E-Coli	/100 ml	Absent	Absent	Absent	Absent	Absent	Absent

^{*}Below detection limit.

Observation: From the above results it is concluded that there is No Significant Changes in the Quality of Ground Water.

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ANNEXURE-4C:

SURFACE WATER QUALITY MONITORING RESULTS

PERIOD: Oct., 2017 TO Mar., 2018



.4C. SURFACE WATER QUALITY MONITORING: -

Table-1.7: Surface Water (Pond) Quality Results for the period: Oct., 2017 to Mar., 2018

				At Mora	Village (Su	face Water	– Pond)	
Sr. No.	Parameters	Unit	OCT-17	NOV-17	DEC-17	JAN-18	FEB-18	MARCH-18
			30/10/17	28/11/17	29/12/17	25/01/18	21/02/18	19/03/18
1	Odour		Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
2	Colour	Hazen	2	1	5	4	2	4
3	Taste		Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
4	pH Value		8.02	8.08	7.99	8.15	8.43	8.48
5	Turbidity	NTU	0.84	4.39	9.34	16.2	0.96	2.1
6	Total Dissolved Solids	mg/L	494	536	484	496	472	741 '
7	Total Hardness as CaCO ₃	mg/L	171	156	142	158	206	350
8	Chloride as Cl	mg/L	124	135	122	129	48.98	72
9	Fluoride as F	mg/L	0.46	0.94	0.49	0.65	0.78	0.84
10	Iron as Fe	mg/L	0.53	0.52	0.41	0.36	0.22	0.29
11	Coliform	/100 ml	Present	Absent	Absent	Absent	Present	Present
12	E-Coli	/100 ml	Absent	Absent	Absent	Absent	Absent	Absent

Observation: From the above results it is concluded that there is No Significant Changes in the Quality of Surface Water.

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ANNEXURE-4D:

SEA WATER QUALITY MONITORING RESULTS

PERIOD: Oct., 2017 to Mar., 2018



4D. SEA WATER QUALITY MONITORING: -

Table-1.8: Sea Water Quality Analysis Results of CB2 South End towards Landside from the Sea Basin for the period: Oct., 2017 to Mar., 2018

s.	TEST			CB2 S	OUTH END		SULTS OF S				'SIS ' 5'1.92", I	E 72°37'50	5.58")	
NO.	PARAMETERS	UNIT	ОСТОВ		NOVEM		DECEM		JANUA		FEBRU			CH-18
			Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom
1	pH		7.77	8.01	8.02	8.18	7.75	7.89	7.93	8.17	7.85	8.31	8.03	8.25
2	Temperature	°C	29	28	30	29	31	30	29	28	30	31	31	30
3	Total Suspended Solids	mg/L	320	350	340	410	310	322	394	338	412	352	290	252
4	BOD (3 Days @ 27 °C)	mg/L	5	4	6	5	5.6	4.2	6	5.4	8	6.4	4.4	3
5	Dissolved Oxygen	mg/L	6.2	5.8	6.1	5.6	• 6	5.4	5.7	5.2	4.8	5.8	6.5	6.2
6	Salinity	ppt	28.2	29.4	29.4	30.44	27.84	28.6	25.9	26.7	24.8	26	30.4	29.2
7	Oil & Grease	mg/L	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
8	Nitrate as NO ₂	μmol /L	19	21	20.4	22.1	20.6	21.8	21.6	21.9	20.4	18.1	14.2	13.4
9	Nitrite as NO₂	μmol /L	2.8	2.7	3.1	3	2.9	2.4	3.2	3	2.6	2.2	2.5	1.8
10	Ammonical Nitrogenas NH ₃	μmol /L	1.88	2.76	2.61	3.86	2.75	2.99	2.22	3.53	1.8	2.8	3.2	2.9
11	Phosphates as PO ₄	μmal /L	1.67	1.77	3.46	3.74	1.64	1.72	1.71	1.83	1.52	1.94	1.85	1.63
12	Total Nitrogen	μmol /L	23.68	26.46	26.11	28.96	5.77	5.63	5.63	6.73	24.8	23.1	19.9	18.1
13	Petroleum Hydrocarbon	hR/r	13	BDL*	14	BDL*	11	8	12	6	8	14	14	10
14	Total Dissolved Solids	mg/L	31480	32080	33240	33880	32040	32540	29440	30220	27820	28670 -	34840	34210
15	COD	mg/L	18	14	19	28	20	13	22	16	18	12	14	10
Α	Flora and Fauna													
16.1	Primary Productivity	mgC/L /day	1.26	0.68	1.46	0.45	1.75	0.22	1.98	0.68	2.01	0.72	1.8	0.55
В	Phytoplankton													
17.1	Chlorophyll	mg/	2.58	1.6	2.93	0.94	2.85	0.37	2.97	0.4	2,67	0.32	2.55	0.28
17.2	Phaeophytin	mg/ m³	0.98	0.72	BDL*	0.841	1.1	0.84	0.99	0.68	0.8	0.95	0.72	1.03
17.3	Cell Count	No.x 10³/ L	116	68	122	72	134	94	108	85	115	63	103	90
			Bacillari ophycea	Bacillario phyceae	Bacillario phyceae Biddulph	Bacillari ophycea	Bacillari ophycea		Bacillari ophycea		Bacillario			

Name of Group Number and name of group species of each group	Bacil ophy e Biddu ia s Cosc discc sp Rhiza enia Navia - Sp Cym a s Tabe a s Fragi a s Skele ema Cyan yce Anat a s	cea phyceae Rhizosol enia sp. Fragillari sp. Surirella sp. Cyanoph yceae ph. Oscillator ia sp. Cyanoph yceae op. Oscillator sp. Spirulina sp.	Bacillario phyceae Biddulph ia sp. Coscino discus sp. Rhizosol enia sp. Navlcula sp. Cymbell a sp. Tabellari a sp. Fragillari a sp. Skeleton ema sp. Cyanoph yceae Anabaen a sp. Microcys	Bacillari ophycea e Rhizosol enia sp. Fragillari a sp. Coscino discus sp. Navicula sp. Thallasio sira sp. Surirella sp. Cyanoph yceae Oscillato rla sp. Spirulina sp. Green Algae	Bacillari ophycea e Nitzschia sp. Synedra sp. Coscino discus sp. Asterion ella sp. Thallasio nema sp. Rhizosol enia sp. Skeleton ema sp. Pinnulari a sp. Green Algae Scenede	Bacillario phyceae Navicula sp. Fragillari a sp. Pinnulari a sp. Nitzschia sp.	Bacillari ophycea e Achnant hes sp. Navicula sp. Nitzschia sp. Synedra sp. Coscino discus sp. Rhizosol enia sp. Thallasio nema sp. Gompho nema sp. Cyanoph yceae	Bacillario phyceae Fragillari a sp. Nitzschia sp. Gyrosig ma sp. Thallasio nerna sp. Navicula sp.	Bacillario phyceae Achnant hes sp. Gompho nema sp. Nitzschia sp. Cyanoph yceae Anabaen a sp. Green Algae Ankistro desmus sp. Chlorella sp.	Bacillari ophycea e Gyrosig ma sp. Nizzschia sp. Navicula sp. Thallasio nema sp.	Bacillari ophycea e Navicula sp. Nitzschia sp. Synedra sp. Rhizosol enia sp. Skeleton ema sp. Asterion ella sp. Cymbell a sp. Desmids	Bacillarii phyceae Navicule sp. Nitzschik sp. Fragillar a sp. Cymbell a sp.
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			Microcys tis sp. Oscillato ria sp. Nostoc sp. Green Algae Chlorella sp. Ankistro desmus sp.	a sp. Pediastr um sp.	tis sp. Oscillato ria sp. Nostoc sp. Green Algae Chlorella sp. Ankistro desmus sp.	Spirogyr a sp. Pediastr um sp.	smus sp. Pediastr um sp. Oedogo nium sp. Desmids Cosmari um sp		Anabaen a sp. Oscillato ria sp. Green Algae Ankistro desmus sp. Chlorella sp.			
С	Zooplanktons											
18.1	Abundance (Population)	Nox10 3/100 m3	1	8	7	20	. 26		1	9	22	20
18.2	Name of Group Number and name of group species of each group	-	Deca	pods pods pods	Echino Biva	epods oderms alves abs	Copepox Nematod Gastropo Echinoder	es ds	Polychae My	epods te worms sids oderms	Copepods Mysids Polychaete worms Echinoderms	Polychaete worms Crustaceans Echlnoderms Snail
18.3	Total Biomass	ml/10 0 m ³	5	.8	6	.2	6.8			7	6.8	6.6
D	Microbiological	Paramo	eters									
19.1	Total Bacterial Count	CFU/ ml	20	010	19	980	1620			'30	1660	1440
19.2	Total Coliform	/ml	Abs	sent	Ab	sent	Absent		Ab	sent	Absent	Absent
19.3	E.coli	/ml	Abs	sent	Ab	sent	Absent		Ab	sent	Absent	Absent
19.4	Enterococcus species	/ml	Ab	sent	Ab	sent	Absen		Ab	sent	Absent	Absent
19.5	Salmonella species	/ml	Ab	sent	Ab	sent	Absen			sent	Absent	Absent
19.6	Shigella species	/ml	Ab	sent	Ab	sent	Absen		Ab	sent	Absent	Absent
19.7	Vibrio species	/ml	Ab	sent	Ab	sent	Absen		Ab	sent	Absent	Absent

BDL* - Below Detection Limit

Observation: From the above results it is concluded that there is No Significant Changes in the Quality of Sea Water.

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Table-1.9: Sea Water Quality Analysis Results of MP1 West End towards Channel from the Sea Basin for the period: Oct., 2017 to Mar., 2018

S.	TEST			MP1	WEST EN	RE: D TOWAR	SULTS OF DS CHAN	SEA WAT	ER QUALI	TY ANALY	SIS 5'9.78",E	72°37'24	.48")	
NO.	PARAMETERS	UNIT	осто	BER-17		BER-17		BER-17		ARY-18		JARY-18	_	CH-18
			Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom
1	рН		7.88	8.13	8.17	8.37	7.96	8.12	7.97	8.03	7.72	8.21	7.98	8.12
2	Temperature	oC	29	28	31	30	30	29	30	29	29	28	32	31
3	Total Suspended Solids	mg/ L	680	700	660	694	598	694	710	740	680	762	308	270
4	BOD (3 Days @ 27 °C)	mg/ L	5	5.2	6	5 .	5.8	5.3	6.2	5.1	5.1	7.2	6.2	4.8
5	Dissolved Oxygen	mg/ L	5.8	5	5.6	4.8	5.4	5	5	4.6	3.9	5.8	6.1	5.9
6	Salinity	ppt	37.72	38.06	35.3	36.21	35.54	36.32	34.9	35.5	28.6	32.4	29.2	28.4
7	Oil & Grease	mg/ L	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
8	Nitrate as NO ₃	µmo I/L	27.5	27.9	26.8	27.3	25.9	26.6	28.1	28.8	24.3	25.9	16.4	16.1
9	Nitrite as NO ₂	µmo I/L	3.2	3.4	3.6	2.8	3.3	3	3.4	3.1	2.8	1.8	2.9	2.2
10	Ammonical Nitrogenas NH ₃	µmo I/L	2.8	2.6	2.6	2.4	2.9	2.1	3	2.3	2.1	3.2	2.85	2.5
11	Phosphates as PO ₄	µmo I/L	2.2	1.4	2	1.2	2.7	1.9	2.9	1.7	3.6	2.8	1.92	1.75
12	Total Nitrogen	µmo I/L	33.5	33.9	33	32.6	6.37	5.64	6.84	5.55	29.2	30.9	22,1	20.8
13	Petroleum Hydrocarbon	µg/L	11.7	10.3	13.6	11.4	14.5	13.6	12.8	11.3	15.6	13.2	16	, B
14	Total Dissolved Solids	mg/ L	31330	31840	29920	30440	30110	30870	31750	32220	30450	31870	33940	33610
15	COD	mg/ L	20	21	24	28	18	20	16	18	22	34	18	16
Α	Flora and Fauna								Alle (ACCO)					
16.1	Primary Productivity	mgC/L /day	2.13	1.45	1.575	1.34	1.3	1.1	1.75	1.3	1.82	0.93	1.9	0.62
В	Phytoplankton											-		
17.1	Chlorophyll	mg/ m³	2.21	1.42	2.59	1.5	2.32	1.6	2.67	1.47	3.05	1.56	2.9	0.4
17.2	Phaeophytin	mg/ m³	1.2	0.9	1.1	0.8	1,3	0.84	1.4	0.97	0.88	0.82	0.82	0.85
17.3	Cell Count	No.x 10³/ L	116	84	124	76	132	86	118	64	115	65	90	80
17.4	Name of Group Number and name of group species of each group		Bacillari ophycea e e Asterion ella sp. Biddulph ia sp. Fragillari a sp. Coscino discus sp. Thallasio sira sp. Melosira sp. Cyclotell a sp. Cyclotell a sp. Cyclotell a sp. Cyclotell a sp. Cyclotell sp. Nostoc sp. Green Algae	Bacillario phyceae Fragillari a sp. Biddulph la sp. Pleurosi gma sp. Pinnulari a sp. Navicula sp. Cyanoph yceae Oscillato ria sp. Green Algae Chlorella sp	Bacillario phyceae Synedra sp. Cocconel s sp. Gompho nema sp. Rhizosol enia sp. Biddulphi a sp. Cyanoph yceae Oscillator ia sp. Anabaen a sp. Microcys tis sp. Green Algae Volvox sp. Chlorella	Bacillari ophycea e Pinnular la sp. Cymbell a sp. Fragillar ia sp. Nitzschl a sp	Bacillario phyceae Melosira sp. Coscinodi scus sp. Nizschia sp. Navicula sp. Gompho nema sp. Cymbella sp. Pinnulari a sp. Pinnulari a sp. Cyanoph yceae Oscillator ia sp. Spirulina sp.	Bacillari ophyce ae Navicul a sp. Nitzschi a sp. Tabellar la sp. Biddulp hia sp. Cyanop hyceae Oscillat oria sp. Lyngby a sp.	Bacillari ophycea e Navicula sp. Synedra sp. Biddulph ia sp. Cheatoc erous sp. Rhizosol enia sp. Cyclotell a sp. Melosira sp. Cyarroph yceae Spirulina sp. Microcys tis sp. Green	Bacillario phyceae Biddulph la sp. Navicula sp. Nitzschia sp. Fragillari a sp. Gyrosig ma sp.	Bacillari ophycea e Navicula sp. Melosira sp. Cyanoph yceae Spirulina sp. Microcys tis sp. Green Algae Chlorella sp.	Bacillario phyceae Biddulph ia sp. Navicula sp. Nitzschia sp. Fragillari a sp. Gyrosig ma sp.	Bacillari ophycea e Pinnulari a sp. Synedra sp. Asterion ella sp. Gompho nema sp. Rhizosol enia sp. Biddulph ia sp. Spirulina sp.	Bacillario phyceae Nitzschia sp. Thallasio nema sp. Navicula sp. Cocconei s sp. Fragillari a sp. Cymbell a sp.

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			Hydrodic tyon sp. Chlorella sp.		Pediastru m sp.	Chlorella sp.		
С	Zooplanktons							
18.1	Abundance (Population)	Nox10 3/100 m3	15	17	19	22	21	24
18.2	Name of Group Number and name of group species of each group		Ostracods Gastropods Foraminiferans Molluscans Snails	Polychaete worms Decapods Molluscans Gastropods	Molluscans Gastropods Crustaceans Polychaetes Worms	Copepods Gastropods Fish egg Nematodes	Copepods Fish egg Nematodes	Gastropods Ostracods Crustaceans
19.3	Total Biomass	ml/10 0 m ³	9.1	8.8	7.3	9.5	8.6	7
D	Microbiological	Parame	eters					
19.1	Total Bacterial Count	CFU/ ml	1860	1840	1710	1660	1730	1610
19.2	Total Coliform	/ml	Absent	Absent	Absent	Absent	Absent	Absent
19.3	E.coll	/ml	Absent	Absent	Absent	Absent	Absent	Absent
19,4	Enterococcus species	/ml	Absent	Absent	Absent	Absent	Absent	Absent
19.5	Salmonella species	/ml	Absent	Absent	Absent	Absent	Absent	Absent
19.6	Shigella species	/ml	Absent	Absent	Absent	Absent	Absent	Absent
19.7	Vibrio species	/ml	Absent	Absent	Absent	Absent	Absent	Absent

BDL* - Below Detection Limit

Observation: From the above results it is concluded that there is No Significant Changes in the Quality of Sea Water.

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Table-1.10: Sea Water Quality Analysis Results of CB1 End towards Channel from the Sea Basin for the period: Oct., 2017 to Mar., 2018

s.	TEST			СВ	1 END TO	RE WARDS C	SULTS OF	SEA WAT	ER QUAL	TY ANALY N 21° 5'14	'SIS 1.67" . E 7	2°37'40.1	(4")	
NO.	PARAMETERS	UNIT	осто	BER-17	NOVEM	BER-17	DECEM	BER-17		ARY-18		JARY-18		CH-18
			Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Botton
1	pH	**	7.91	8.07	7.73	7.92	7.76	7.83	7.55	7.66	7.32	7.81	8.07	8.15
2	Temperature	oC	29	30	30	29	29.4	28.9	28.6	28.1	29	29	31	30
3	Total Suspended Solids	mg/ L	568	634	510	630	570	690	550	620	482	740	310	272
4	BOD (3 Days @ 27 °C)	mg/ L	3.6	3.4	4	3.5	4.4	3.8	4.8	4	6	3.4	5	3
5	Dissolved Oxygen	mg/ L	5.4	4.6	5.4	4.8	5.4	4.8	5.4	4.8	7.2	5.4	6.2	5.5
6	Salinity	ppt	26.88	27.42	26.66	27.84	25.35	26.06	25.2	25.9	28.4	26.5	29.8	29.5
7	Oil & Grease	mg/ L	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
8	Nitrate as NO ₃	l/L	26.1	27.3	28.4	29.2	25.4	26.8	26.7	29.6	24.3	27.4	15.8	12.2
9	Nitrite as NO₂	l/L hwo	2.3	1.8	2.2	1.7	2.3	1.9	2.4	1.6	2.8	1	2	1.6
10	Ammonical Nitrogenas NH ₃	µmo I/L	2.54	1.92	1.91	2.12	2.36	1.83	2.27	1.53	1.34	1.21	3.1	2.9
11	Phosphates as PO ₄	µmo I/L	1.5	1.7	2.05	3.66	1.87	1.93	1.77	1.85	1.21	1.48	2.4	1.9
12	Total Nitrogen	µmo I/L	30.94	31.02	30.33	33.02	4.72	3.85	4.76	3.41	28.44	29.61	20.9	16.7
13	Petroleum Hydrocarbon	µg/L	13.6	11.2	12.8	10.6	14.2	12.4	15.1	13.7	13.8	11.8	10	6
14	Total Dissolved Solids	mg/ L	30780	31130	45090	46410	27550	28230	26820	27210	24650	26480	33240	33090
15	COD	mg/ L	12	10	24	28	18	12	16	8	24	16	12	8
Α	Flora and Fauna													
16.1	Primary Productivity	mgC/L /day	1.65	1.1	1.665	0.563	1.1	0.51	1.55	0.81	1.56	0.72	1.75	0.52
В	Phytoplankton													0 =
17.1	Chlorophyll	mg/	2.48	1.53	2.109	0.587	2.45	0.56	2.93	0.64	2.75	0.59	2.45	0.28
17.2	Phaeophytin	mg/ m³	1.1	0.96	BDL*	1.469	0.011	1.32	BDL*	1.24	0.2	1.36	0.8	0.7
17.3	Cell Count	No.x 10³/ L	106	68	96	58	108	92	115	86	115	86	85	72
17.4	Name of Group Number and name of group species of each group		Bacillari ophycea e Navicula sp. Rhizosol enia sp. Coscino discus sp. Cymbell a sp. Fragillari a sp. Skeleton ema sp. Pinnulari a sp. Coccone is sp. Cyanoph yceae Anabaen a sp. Oscillato ria sp.	Bacillario phyceae Navicula sp. Pinnulari a sp. Gompho nema sp. Rhizosol enia sp. Coscino discus sp. Cyanoph yceae Oscillato ria sp. Microcys tis sp. Green Algae Pandorin a sp. Ankistro	Bacillario phyceae Navicula sp. Nitzschia sp. Cyclotell a sp. Coscino discus sp. Skeleton ema sp. Pleurosi gma sp. Pinnulari a sp. Fragillari a sp. Cyanoph yceae Oscillato ria sp. Green Algae	Bacillari ophycea e Nitzschia sp. Fragillari a sp. Coscino discus sp. Rhizosol enia sp	Bacillario phyceae Asterion ella sp. Coscino discus sp. Skeleton ema sp. Pinnulari a sp. Gyrosig ma sp. Thallasio sira sp. Biddulph ia sp. Synedra sp. Cyanoph yceae Anabaen a sp. Oscillato ria sp. Oscillato ria sp.	Bacillari ophycea e Navicula sp. Nitzschia sp. Biddulph ia sp. Coccone is sp. Synedra sp.	Bacillari ophycea e Amphor a sp. Navicula sp. Synedra sp. Coscino discus sp. Rhizosol enia sp. Skeleton ema sp. Surirella sp. Tabellari a sp. Cyanoph yceae Spirulina sp. Oscillato	Bacillario phyceae Navicula sp. Nitzschla sp. Fragillari a sp. Pleurosi gma sp. Pinnulari a sp.	Bacillari ophycea e Coscino discus sp. Synedra sp. Cyanoph yceae Spirulina sp. Oscillato ria sp. Green Algae Ulothrix sp.	Bacillario phyceae Navicula sp. Nitzschia sp. Fragillari a sp. Pieurosi gma sp. Pinnulari a sp.	Bacillari ophycea e Gyrosig ma sp. Coccone is sp. Skeleton ema Green Algae Pediastr um sp. Ankistro desmus sp. Scenede smus sp.	Bacillario phyceae Pinnulari a sp. Cymbell a sp. Synedra sp. Melosira sp. Biddulph ia sp.

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			Green Algae Chlorella sp. Pediastr um sp.	sp.	sp. Ankistro desmus sp		Algae Hydrodic tyon sp. Volvox sp.		Green Algae Ulothrix sp.					,
С	Zooplanktons						,						1	
18.1	Abundance (Population)	Nox10 3/100 m3	15	9	21		2	2	2	24		28	2	21
18.2	Name of Group Number and name of group species of each group		Cope Polychaet Kri Mollus Crusta	e worms ill scans	Polychaete Decapo Gastrop	xds	Cope Deca Mys Mollus Echino	pods ids scans	Deca	epods apods sids	Dec	epods apods rill	Polychae	ropods ete worms uscans
18.3	Total Biomass	ml/10 0 m ³	. 7.	3	8.1		7.	7	9	.2	1	0.1	6	.5
D	Microbiological	Parame	ters											
19.1	Total Bacterial Count	CFU/ ml	21:	10	2050)	19	BO	20	20		340		570
19.2	Total Coliform	/ml	Abs	ent	Abser	nt	Abs	ent	Abs	sent	Ab	sent	Ab	sent
19.3	E.coli	/ml	Abs	ent	Abser	nt	Abs	ent	Abs	sent	Ab	sent	Ab	sent
19.4	Enterococcus species	/ml	Abs	ent	Abser	nt	Abs	ent	Abs	sent	Ab	sent	Ab	sent
19.5	Salmonella species	/ml	Abs	ent	Abser	nt	Abs	ent	Abs	sent	Ab	sent		sent
19.6	Shigella species	/ml	Abs	ent	Abser	nt	Abs	ent	Abs	sent	Ab	sent	Ab	sent
19.7	Vibrio species	/ml	Abs	ent	Abser	nt	Abs	ent	Abs	sent	Ab	sent	Ab	sent

BDL* - Below Detection Limit,

Minimum Detection Limit, BOD: 3.0 mg/L, Oil & Grease: 1.0mg/L, Petroleum Hydrocarbon: 10µg/L, Nitrite as NO₂: 0.002 mg/L, Pheophytin: 0.1 mg/m³

Observation: From the above results it is concluded that there is No Significant Changes in the Quality of Sea Water.

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ANNEXURE-4E:

DUMP POND DISCHARGE WATER QUALITY MONITORING RESULTS

PERIOD: Oct., 2017 to Mar., 2018



4E, DUMP POND DISCHARGE WATER QUALITY MONITORING: -

Table-1.11: Dump Pond Water Quality Analysis Results for the Period: Oct., 2017 to Mar., 2018

			29/12/17	29/12/17	29/12/17	21/02/18	21/02/18	21/02/18
Sr. No.	Parameters	Unit	OLD COAL YARD	PET COCK	CORNER	OLD COAL YARD	NEW COAL YARD	PET COCK
1	pН		8.11	8.45	8.83	8.12	7.88	7.98
2	Total Dissolved Solids	mg/L	6992	1164	4412	1180	150	158
3	Total Suspended Solids	mg/L	82	56	38	48	188	176
,4	Turbidity	NTU	37.2	25.4	1.93	118	12.88	9.8
5	BOD (3 Days @ 27 °C)	mg/L	28	36	18	38	5.2	6.4
6	Dissolved Oxygen	mg/L	5	4.6	5.4	6.5	6.4	4.2
7	COD	mg/L	116	164	82	146	36	36
8	Salinity	ppt	6.22	0.74	3.11	0.8	0.042	0.041
9	Oil & Grease	mg/L	BDL*	BDL*	BDL*	1.6	BDL*	BDL*
10	Total Hardness as CaCO ₃	mg/L	1300	228	280	88	62	38
11	Fluoride as F	mg/L	1.12	0.7	0.3	0.8	0.2	0.2
12	Chloride as Cl	mg/L	3449	412	1725	812	28.22	42.88
13	Zinc as Zn	mg/L	0.23	0.021	0.016	0.042	0.007	0.006
14	Cadmium as Cd	mg/L	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
15	Lead as Pb	mg/L	0.057	0.063	0.014	BDL*	BDL*	BDL*
·16	Mercury as Hg	mg/L	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*

BDL*: Below Detection Limit, Minimum Detection Limit, Mercury as Hg: 0.00025 mg/L, Oil & Grease: 1.0 mg/L,

Cadmium as Cd: 0.001 mg/L, Lead as Pb: 0.005 mg/L, Fluoride: 0.01 mg/L.

Observation: From the above results it is concluded that there is No Significant Changes in the Quality of Dump Pond Discharge Water.

ANNEXURE-4F:

AMBIENT NOISE LEVEL MONITORING RESULTS

PERIOD: Oct., 2017 to Mar., 2018



4F. AMBIENT NOISE LEVEL MONITORING: -

Table-1.12: Ambient Noise Level Monitoring Results during the Day Time in Leq. dB(A) for the period: Oct., 2017 to Mar., 2018 At Near Port Gate No.: 2

Sampling Location	1 - Near Port Gate No.: 2 N 21° 05.426'E 72°37.739'							
Longitude Latitude Date of Monitoring								
	02/10/2017	02/11/2017	04/12/2017	01/01/2018	01/02/2018	01/03/2018		
6:00-7:00	57.8	62.3	65.7	69.2	73.2	73.5		
7:00-8:00	65.9	60.2	55.3	56.3	62.3	67.2		
8:00-9:00	62.3	66.5	59.3	70	69.3	65.3		
9:00-10:00	64.5	68.5	71.2	73.2	67.3	64.3		
10:00-11:00	71.8	73.3	74.5	64.2	70.3	66.8		
11:00-12:00	65.8	70.2	64.3	66.2	71.9	70.8		
12:00-13:00	68.9	67.5	70.2	58.3	61.2	60.3		
13:00-14:00	70.2	68.3	72.3	74.7	66.3	55.3		
14:00-15:00	50.7	54.6	57.3	61.2	63.2	68.2		
15:00-16:00	70.1	72.2	73.2	57.4	59.6	57.3		
16:00-17:00	67.4	71.6	69.3	72.6	57.3	61.2		
17:00-18:00	61.3	64.8	60.3	63.5	65.7	69.2		
18:00-19:00	71.5	66.3	68.2	60.2	55.3	62.3		
19:00-20:00	68.8	72.5	63.2	67.3	64.6	53.9		
20:00-21:00	66.2	69.9	67.2	68.3	72.3	54.3		
21:00-22:00	60.9	63.7	61.2	65.1	68.5	71.2		
dB(A) Leq. denotes the uman hearing.								

Table-1.13: Noise Level Monitoring Results during the Night Time in Leq. dB(A) for the period: Oct., 2017 to Mar., 2018 At Near Port Gate No.; 2

Sampling Location	1 - Near Port Gate No.: 2								
Longitude Latitude Date of Monitoring	N 21° 05.426'E 72°37.739'								
	02/10/2017 & 03/10/2017	02/11/2017 & 03/11/2017	04/12/2017 & 05/12/2017	01/01/2018 & 02/01/2018	01/02/2018 & 02/02/2018	01/03/2018 & 02/03/2018			
22:00-23:00	63.5	67.8	69.3	62.3	64.3	65.2			
23:00-00:00	57.5	61.1	64.5	66.7	63.2	67.1			
00:00-01:00	67.2	68.3	57.3	63.4	65.4	66.3			
01:00-02:00	60.5	65.1	68.2	55.3	59.6	54.2			
02:00-03:00	55.6	59.6	62.4	64.4	56.6	66.5			
03:00-04:00	52.2	56.0	58.6	60.6	62.6	64.7			
04:00-05:00	57.8	60.4	63.1	65.5	60.2	58.3			
05:00-06:00	45.8	49.0	49.5	54.4	57.1	59.9			

"dB(A) Leq. denotes the time weighted average of the level of sound in decibels on scale A which is relatable to human hearing.

Day Time shall mean from 6:00 am to 10:00 pm and Night Time shall mean from 10:00 pm to 06:00 am.

Observation: Above given Results are within the specified norms asper The Noise Pollution (Regulation and Control) Rules 2000.

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Table-1.14: Ambient Noise Level Monitoring Results during the Day Time in Leq. dB(A) for the period: Oct., 2017 to Mar., 2018 At HSE Building Terrace

Sampling Location	2 - HSE Building Terrace							
Longitude Latitude	N 21° 05.043′ E 72° 38.491′							
Date of Monitoring	05/10/2017	06/11/2017	07/12/2017	04/01/2018	05/02/2018	05/03/2018		
6:00-7:00	65.2	70.2	67.8	71.3	60.3	69.3		
7:00-8:00	48.8	52.3	57.3	60.2	62.9	65.0		
8:00-9:00	61.2	66.4	69.3	65.3	71.2	72.3		
9:00-10:00	64.7	63.2	65.3	68.3	59.3	61.3		
10:00-11:00	66.4	67.9	64.2	52.3	69.3	62.5		
11:00-12:00	59.8	65.3	66.2	58.3	70.1	54.3		
12:00-13:00	73.6	69.1	62.9	54.3	67.3	64.3		
13:00-14:00	65.5	62.3	60.3	57.2	52.3	66.1		
14:00-15:00	59.9	65.5	61.3	59.3	68.7	55.3		
15:00-16:00	67.5	68.1	72.3	56.3	66.5	58.2		
16:00-17:00	64.1	60.3	58.3	66.3	72.3	63.2		
17:00-18:00	69.5	71.6	55.3	51.2	56.3	60.3		
18:00-19:00	69.9	70.5	59.6	55.6	58.3	56.3		
19:00-20:00	60.1	63.2	68	69.3	51.9	53.2		
20:00-21:00	69.1	72.9	73.2	50.3	65.3	67.2		
21:00-22:00	52.4	58.9	56.3	63.2	64.3	68.0		

[#]dB(A) Leq. denotes the time weighted average of the level of sound in decibels on scale A which is relatable to human hearing.

Day Time shall mean from 6:00 am to 10:00 pm and Night Time shall mean from 10:00 pm to 06:00 am.

Table-1.15: Noise Level Monitoring Results during the Night Time in Leq. dB(A) for the period: Oct., 2017 to Mar., 2018 At HSE Building Terrace

Sampling Location	2 - HSE Building Terrace								
Longitude Latitude Date of Monitoring	N 21° 05.043′ E 72° 38.491′								
	05/10/2017 & 06/10/2017	06/11/2017 & 07/11/2017	07/12/2017& 08/12/2017	04/01/2018 & 05/01/2018	05/02/2018 & 06/02/2018	05/03/2018 & 06/03/2018			
22:00-23:00	66.4	65.3	55.5	69.3	61.8	63.2			
23:00-00:00	64.5	67.2	61.2	62.3	68.3	56.3			
00:00-01:00	64.8	61.3	63.6	65.8	58.7	57.9			
01:00-02:00	53.2	55.7	58.3	60.9	63.5	65.9			
02:00-03:00	59.7	62.6	62.7	67.3	60.3	53.6			
03:00-04:00	60.4	63.3	60.9	68.2	59.3	58.4			
04:00-05:00	57.2	59.7	64.2	64.8	67.6	51.3			
05:00-06:00	52.3	54.8	57.4	59.4	62	64.1			

[#]dB(A) Leq. denotes the time weighted average of the level of sound in decibels on scale A which is relatable to human hearing.

Observation: Above given Results are within the specified norms as per The Noise Pollution (Regulation and Control) Rules 2000.

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Day Time shall mean from 6:00 am to 10:00 pm and Night Time shall mean from 10:00 pm to 06:00 am.



Table-1.16: Ambient Noise Level Monitoring Results during the Day Time in Leq. dB(A) for the period: Oct., 2017 to Mar., 2018 At Central Water Pump House

Sampling Location	3 - Central Water Pump House N 21° 04.697′ E 72° 38.420′							
Longitude Latitude	10/02/2010							
Date of Monitoring	09/10/2017	09/11/2017	11/12/2017					
6:00-7:00	55.4	57.6	61.3	64.5	69.1	70.1		
7:00-8:00	70.8	74.9	56.2	66.3	65.3	69.3		
8:00-9:00	64.2	72.3	60.2	71.9	68.3	65.3		
9:00-10:00	62.2	64.9	68.4	69.3	62.2	63.2		
10:00-11:00	72.2	61.3	65.6	55.6	66.8	58.6		
11:00-12:00	55.9	59.3	63.8	73.1	70.3	68.3		
12:00-13:00	70.3	73.9	72.3	57.9	64.3	52.3		
13:00-14:00	70.4	69.2	71.9	54.2	59.3	55.9		
14:00-15:00	59.6	63.4	55.6	56.8	67.2	64.3		
15:00-16:00	68.1	60.3	58.2	62.3	71.1	53.2		
16:00-17:00	67.2	71.4	57.2	65.3	60.9	51.6		
17:00-18:00	70.9	70.6	73.8	68.3	63.7	66.3		
18:00-19:00	59.5	64	67.1	59.2	58.2	54.3		
19:00-20:00	59.7	65.3	69.2	58.3	52.3	57.3		
20:00-21:00	63.1	67.6	70.7	61.3	57.9	60.3		
21:00-22:00 dB(A) Leg denotes the	68.2	62.3	66.4	67.3	56.3	62.7		

*dB(A) Leq. denotes the time weighted average of the level of sound in decibels on scale A which is relatable to human hearing.

Day Time shall mean from 6:00 am to 10:00 pm and Night Time shall mean from 10:00 pm to 06:00 am.

Table-1.17: Noise Level Monitoring Results during the Night Time in Leq. dB(A) for the period: Oct., 2017 to Mar., 2018 At Central Water Pump House

Sampling Location	3 - Central Water Pump House								
Longitude Latitude Date of Monitoring	N 21° 04.697′ E 72° 38.420′								
	09/10/2017 & 10/10/2017	09/11/2017 & 10/11/2017	11/12/2017 & 12/12/2017	08/01/2018 & 09/01/2018	08/02/2018 & 09/02/2018	19/03/2018 8 20/03/2018			
22:00-23:00	65.3	53.2	52.3	58.2	60.5	63.2			
23:00-00:00	68.4	55.3	57.8	54.3	63.3	66.2			
00:00-01:00	66.6	62.3	61.3	51.3	64.1	55.3			
01:00-02:00	50.1	52.8	60.8	57.7	59.8	62.5			
02:00-03:00	57.9	60.4	64.6	65.1	62.3	58.3			
03:00-04:00	56.3	59.1	62.3	63.6	55.5	67.9			
04:00-05:00	58.8	61.4	59.4	66	57.3	56.3			
05:00-06:00	62.4	65	66.3	69.2	61.2	59.2			

#dB(A) Leq. denotes the time weighted average of the level of sound in decibels on scale A which is relatable to human hearing.

Day Time shall mean from 6:00 am to 10:00 pm and Night Time shall mean from 10:00 pm to 06:00 am.

Observation: Above given Results are within the specified norms as per The Noise Pollution (Regulation and Control) Rules 2000.

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Table-1.18: Ambient Noise Level Monitoring Results during the Day Time in Leq. dB(A) for the period: Oct., 2017 to Mar., 2018 At Container Terminal

Sampling Location			4 - Contain	er Terminal		
Longitude Latitude		200	N 21° 05.187	E 72° 37.774	•	
Date of Monitoring	12/10/2017	13/11/2017	14/12/2017	11/01/2018	12/02/2018	12/03/2018
6:00-7:00	62.8	56.3	59.3	66.2	65.3	69.7
7:00-8:00	69.8	58.6	62.3	61.3	61.6	71.5
8:00-9:00	54.8	57.3	55.2	63.1	66.6	70.9
9:00-10:00	63.3	66.6	72.3	72.8	62.3	68.3
10:00-11:00	61.9	65.2	67.2	52.3	60.3	66.2
11:00-12:00	66.8	69.3	73.2	74.8	63.2	54.3
12:00-13:00	62.5	64.6	60.3	71.6	67.6	59.3 '
13:00-14:00	66.6	62.2	56.3	69.5	70.8	67.2
14:00-15:00	63.2	63.3	68.2	67.3	69.3	55.3
15:00-16:00	73.1	61.2	64.2	68.7	58.3	62.3
16:00-17:00	69.3	71.7	74.2	55.6	56.3	64.3
17:00-18:00	74.2	68.9	63.2	60.3	59.6	58.2
18:00-19:00	64.4	67.7	.71.6	58.3	68.3	61.3
19:00-20:00	70.5	70.5	58.3	54.3	64.3	56.3
20:00-21:00	69.7	58.3	66.3	59.3	55.5	71.9
21:00-22:00	60.8	63.2	69.3	62.3	57.5	57.8

*dB(A) Leq. denotes the time weighted average of the level of sound in decibels on scale A which is relatable to human hearing.

Day Time shall mean from 6:00 am to 10:00 pm and Night Time shall mean from 10:00 pm to 06:00 am.

Table-1.19: Noise Level Monitoring Results during the Night Time in Leq. dB(A) for the period: Oct., 2017 to Mar., 2018 At Container Terminal

Sampling Location	4 - Container Terminal N 21° 05.187' E 72° 37.774'								
Longitude Latitude									
Date of Monitoring	12/10/2017 & 13/10/2017	13/11/2017 & 14/11/2017	14/12/2017 & 15/12/2017	11/01/2018 & 12/01/2018	12/02/2018 & 13/02/2018	12/03/2018 & 13/03/2018			
22:00-23:00	68.2	60.3	62.5	57.4	67.4	52.3			
23:00-00:00	54.5	54.6	56.9	59.9	62.7	65.7			
00:00-01:00	59.5	61.7	64.3	67.2	65.5	62			
01:00-02:00	66.8	62.3	65.3	56.3	58.2	54.3			
02:00-03:00	54.3	56.8	59.6	61.5	64.4	66.4			
03:00-04:00	50.4	53.2	53.8	58	60.6	63.5			
04:00-05:00	61.2	63.7	60.7	68.3	55.2	59.3			
05:00-06:00	56.8	58.9	61.9	64.2	57.2	64.9			

*dB(A) Leq. denotes the time weighted average of the level of sound in decibels on scale A which is relatable to human hearing.

Day Time shall mean from 6:00 am to 10:00 pm and Night Time shall mean from 10:00 pm to 06:00 am.

Observation: Above given Results are within the specified norms as per The Noise Pollution (Regulation and Control) Rules 2000.

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Table-1.20: Ambient Noise Level Monitoring Results during the Day Time in Leq. dB(A) for the period: Oct., 2017 to Mar., 2018 At Hazira Village

Sampling Location			5 - Hazir	a Village		
Longitude Latitude			N 21° 05.44'	E 72° 38.44'		
Date of Monitoring	16/10/2017	16/11/2017	18/12/2017	15/01/2018	15/02/2018	15/03/2018
6:00-7:00	56.4	59.3	62.2	65.2	60.8	67.8
7:00-8:00	61.5	67.8	72.3	62.3	65.5	56.2
8:00-9:00	63.6	65.9	68.2	73.3	51.5	62.3
9:00-10:00	56.3	64.2	66.3	57.2	61.2	55.8
10:00-11:00	69.2	69.2	73.9	66.3	63.2	64.8
11:00-12:00	60.2	63.2	67.8	59.6	60.3	63.7
12:00-13:00	60.3	61.4	65.3	56.8	54.2	66.3
13:00-14:00	66.3	67.6	70.2	61.3	58.3	59.6
14:00-15:00	67.8	70.9	74.7	52.3	64.5	68.2
15:00-16:00	64.8	68	69.3	58.2	53.2	52.1
16:00-17:00	58.2	66.9	71.9	63.2	56.3	60.7
17:00-18:00	66.7	67.9	60.3	54.2	55.9	65.3
18:00-19:00	62.6	60.3	64.9	67.9	66.9	64.3
19:00-20:00	53.9	58.6	52.3	64.4	67.3	69.2
20:00-21:00	63.9	65.9	57.2	69.7	62,6	53.6
21:00-22:00	60.4	64.3	59.2	70.3	68.6	57.4

#dB(A) Leq. denotes the time weighted average of the level of sound in decibels on scale A which is relatable to human hearing.

Day Time shall mean from 6:00 am to 10:00 pm and Night Time shall mean from 10:00 pm to 06:00 am.

Table-1.21: Noise Level Monitoring Results during the Night Time in Leq. dB(A) for the period: Oct., 2017 to Mar.,

2	OTO AL HAZILA ALI	lage									
Sampling Location	5 - Hazira Village										
Longitude Latitude	N 21° 05.44′ E 72° 38.44′										
Date of Monitoring	16/10/2017 & 17/10/2017	16/11/2017 & 17/11/2017	18/12/2017& 19/12/2017	15/01/2018 & 16/01/2018	15/02/2018 & 16/02/2018	15/03/2018 & 16/03/2018					
22:00-23:00	66.7	61.2	63.3	65.4	57.6	60.1					
23:00-00:00	48.9	51.1	53.5	55.8	56.3	61.2					
00:00-01:00	56.4	58.5	62.1	61.2	63.2	57.4					
01:00-02:00	51.4	53.7	55.9	59.6	61.3	62.5					
02:00-03:00	47.2	49.6	51.6	54.1	59.3	58.6					
03:00-04:00	55.4	57.9	59.9	62.7	65.6	56.7					
04:00-05:00	56.9	59.4	61.4	64.1	66.8	59.9					
05:00-06:00	51.9	54	56.5	58.7	60.7	63.4					

*dB(A) Leq. denotes the time weighted average of the level of sound in decibels on scale A which is relatable to human hearing.

Day Time shall mean from 6:00 am to 10:00 pm and Night Time shall mean from 10:00 pm to 06:00 am.

Observation: Above given Results are within the specified norms as per The Noise Pollution (Regulation and Control) Rules 2000

Note: The Noise Level of Hazira Village is compare with the Industrial area Norms as Hazira Village is Surround By Numbers of industries.

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ANNEXURE-4G:

DG SETS & HWG STACK EMISSION AND NOISE LEVEL MONITORING RESULTS

PERIOD: Oct., 2017 to Mar., 2018



4G. DG SETS & HWG STACK EMISSION AND NOISE LEVEL MONITORING: -

Table-1.22: DG Sets Stack Monitoring Results for the period: Oct., 2017 to Mar., 2018

Sr.			DG SET TOY	O DENKI -1	DG SET TOYO DENKI -2		DG SET TOYO DENKI -	
No.	Darameters	Unit	NOV-17	FEB-18	NOV-17	FEB-18	NOV-17	FEB-18
1	Particulate Matter	mg/Nm³	17.33	13.36	24.79	17.83	15.55	19.83
2	Sulphur Dioxide	ppm	7.57	4.49	4.7	7.5	5.52	3.59
3	Oxide of Nitrogen	ppm	40.17	32.73	35.12	38.82	31.92	35.85
4	Carbon Monoxide (CO)	mg/m³	7.05	4.91	3.27	7.23	5.15	3.35
5	Non Methyl Hydro Carbon (NMHC)	mg/m³	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*

Table-1.23: DG Sets Noise Level Monitoring Results for the period: Oct., 2017 to Mar., 2018

	DG Set Average Noise Level In Leq. dB(A)						
Sr. No.	Sampling Location	At 1 M Distance From The Enclosure					
	Sampling Date	NOV-17	FEB-18				
1.	DG SET TOYO DENKI -1	71.6	69.9				
2.	DG SET TOYO DENKI -2	72.8	70.1				
3.	DG SET TOYO DENKI -3	70.8	68.5				

Table-1.24: Hot Water Generator (HWG) Stack Monitoring Results for the period: Oct., 2017 to Mar., 2018

s.			Hot Water Generator Stack Monitoring						
No.	Parameters	Unit	OCT-17	NOV-17	DEC-17	JAN-18	FEB-18	MAR-18	
1	Particulate Matter	mg/Nm³	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	
2	Sulphur Dioxide	ppm	3.54	2.82	3.41	2.95	3.85	2.82	
3	Oxide of Nitrogen	ppm	16.6	20.39	15.6	19.39	22.54	26.57	

Note: BDL* - Below Detection Limit, Minimum Detection Limit of Particulate Matter - 10 mg/m³

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ANNEXURE-4H:

SEA SEDIMENT QUALITY MONITORING RESULTS

PERIOD: Oct., 2017 to Mar., 2018



4H. SEA SEDIMENT QUALITY MONITORING: -

Table-1.25: Sea Sediment Quality Results of CB2 South End towards Landside for the period: Oct., 2017 to Mar., 2018

s.	PARAMETERS	UNIT	CB2 SC			LANDSIDE		BASIN
NO.	TARATIETERS		OCT-17	NOV-17	DEC-17	JAN-18	FEB-18	MAR-18
1	Organic Matter	%	0.64	0.64	0.552	0.56	0.32	0.28
2	Phosphorus as P	µg/g	460	140	710	705	620	710
3	Texture		Sandy	Sandy Silt	Sandy	Sandy Silt	Sandy Silt	Sandy Silt
4	Petroleum Hydrocarbon	µg/g	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
5	Heavy Metals							
5.1	Aluminum as Al	%	5.82	5.56	6.01	6.57	4.28	3.8
5.2	Total Chromium as Cr ⁺³	µg/g	140	72	220	210	192	160
5.3	Manganese as Mn	µg/g	986	513	1520	1590	1380	1720
5.4	Iron as Fe	%	5.2	2,63	4.8	4.26	3.82	3.9
5.5	Nickel as Ni	µg/g	40	48.4	54	54	38	56
5.6	Copper as Cu	µg/g	58.67	31.55	44	59.16	38.28	24.2
5.7	Zinc as Zn	µg/g	117	108	96	102	88	164
5.8	Lead as Pb	µg/g	16	1.16	18	13	26	21
5.9	Mercury as Hg	µg/g	0.53	BDL*	0.5	0.4	0.82	BDL*
6	Benthic Organisms							
6.1	Macrobenthos (No and name of groups present, No and name of species of each group present)		Polychaete worms Echinoderm s Crabs	Polychaete worms Crabs Isopods Mysids	Polychaete worms Echinoderm s Crabs	Turbellaria Amphipods Mysids Corals	Turbellaria Amphipods Mysids	Polychaete worms Decapods Crabs
6.2	MeioBenthos (No and name of groups	44	Nematodes Copepods	Ostracods Ciliates	Nematodes Copepods	Gastrotriche s	Copeponds	Foraminifer ans
6.3	Population	No./m ²	387	440	402	461	458	371

BDL* - Below Detection Limit

Observation: From the above results it is concluded that there is No Significant Changes in the Quality of Sea Sediment.

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Table-1.26: Sea Sediment Quality Results of MP1 West End towards Channel of Sea Basin for the 2017 to Mar., 2018

period: Oct.,

S. NO.	PARAMETERS	UNIT	М			S CHANNEL E 72°37'24.4	OF SEA BAS 48")	IN
NO.			OCT-17	NOV-17	DEC-17	JAN-18	FEB-18	MAR-18
1	Organic Matter	%	0.444	0.75	0.503	0.57	0.88	0.44
2	Phosphorus as P	µg/g	810	136	780	794	528	690
3	Texture		Sandy	Sandy Silt	Sandy	Sandy Silt	Sandy Silt	Sandy Silt
4	Petroleum Hydrocarbon	µg/g	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
5	Heavy Metals							
5.1	Aluminum as Al	%	6.14	5.72	5.49	6.33	7.88	4.6
5.2	Total Chromium as Cr ⁺³	µg/g	250	81.33	240	229	188	210
5.3	Manganese as Mn	µg/g	1890	444	1750	1606	1488	1410 .
5.4	Iron as Fe	%	5.5	2.72	5.1	4.44	6.11	3.7
5.5	Nickel as Ni	µg/g	44	46.67	48	42	56	44
5.6	Copper as Cu	µg/g	68	32.86	42	45.6	38.6	19.8
5.7	Zinc as Zn	µg/g	118	106	101	124	108	130
5.8	Lead as Pb	µg/g	22	1.22	24	15	28	18
5.9	Mercury as Hg	µg/g	0.7	BDL*	0.8	0.3	0.62	BDL*
6	Benthic Organisms							
6.1	Macrobenthos (No and name of groups present, No and name of species of each group present)	-	Polychaete worms Bryozoans Isopods	Crustacean s Snails Polychaete worms	Polychaete worms Bryozoans Isoponds	Echinoderm s Decapods Polychaetes Worms Echinoderm s	Echinoderm s Decapods Polychaetes Worms	Chaetognat hs Decapods Isopods
6.2	MeioBenthos (No and name of groups present, No and name of species of each group present)		Nematodes	Nematodes Foraminifer ans	Nematodes	Copepods Hydrozoa	Copepods Hydrozoa	Bryozoans Gastropods
6.3	Population	No./m²	424	503	416	395	392	475

Observation: From the above results it is concluded that there is No Significant Changes in the Quality of Sea Sediment.

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Table-1.27: Sea Sediment Quality Results of CB1 End towards Channel for the period: Oct., 2017 to Mar., 2018

s.	PARAMETERS	UNIT	C			CHANNEL 0 E 72°37'40.	F SEA BASII 14")	N
NO.			OCT-17	NOV-17	DEC-17	JAN-18	FEB-18	MAR-18
1	Organic Matter	%	0.404	0.86	0.497	0.55	0.38	0.52
2	Phosphorus as P	µg/g	710	148	730	735	788	820
3	Texture	-	Sandy	Sandy Silt	Sandy	Sandy Silt	Sandy Silt	Sandy Silt
4	Petroleum Hydrocarbon	µg/g	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
5	Heavy Metals							
5.1	Aluminum as Al	%	6.24	5.83	6.37	6.45	5.88	5.2
5.2	Total Chromium as Cr ⁺³	µg/g	198	90.67	202	241	265	340
5.3	Manganese as Mn	µg/g	1696	408	1540	1512	1618	1520
5.4	Iron as Fe	%	5.18	3.4	5.33	4.39	3.64	4.1
,5.5	Nickel as Ni	µg/g	56	46.6	46	51	42	72
5.6	Copper as Cu	µg/g	78	38.67	58	53.8	49.8	23.6
5.7	Zinc as Zn	µg/g	102	111	112	108	118	140
5.8	Lead as Pb	на/а	12	1.14	17	22	16	24
5.9	Mercury as Hg	µg/g	0.6	BDL*	0.3	0.2	BDL*	BDL*
6	Benthic Organisms							
6.1	Macrobenthos (No and name of groups present, No and name of species of each group present)		Polychaete worms Echinoderm s Mysids	Polychaete worms Echinoderm s Mysids	Mysids Echinoderm s Polychaete worms	Polychaete worms Bivalves Isopods	Polychaete worms Bivalves Isopods	Echinoderm s Amphipods Decapods
6.2	MeioBenthos (No and name of groups present, No and name of species of each group present)		Ostracods Copepods Nematodes	Ostracods Copepods Nematodes	Ostracods Nematodes Copepods	Ostrapodes	Ostrapodes	Copepods
6.3	Population	No./m²	420	433	438	429	435	420

BDL* - Below Detection Limit

Observation: From the above results it is concluded that there is No Significant Changes in the Quality of Sea Sediment.

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ANNEXURE-41:

SOIL QUALITY MONITORING RESULTS

PERIOD: Oct., 2017 to Mar., 2018



4I. SOIL QUALITY MONITROING: -

Table-1.28: Soil Quality Testing Results for the period: Oct., 2017 to Mar., 2018

SR. NO.	PARAMETERS	UNIT	NEAR LT CANTEEN PARKING	NEAR PORT GATE NO. 2	
			25/12/2017	25/12/2017	
1	Туре		Clay	Clay	
Grain Size	Analysis				
2	Gravel	%	4.4	3.2	
3	Coarse Sand	%	5.6	4,4	
4	Medium Sand	%	11.2	12.8	
5	Fine Sand	%	58.8	59.6	
6	Total Sand	%	19	22	
7	Silt + Clay	%	81	78	
8	pH (1:5)		9.55	9.13	
9	Electricity Conductivity	µmho/cm	1965	1788	
• 10	Alkali matter	mg/kg	760	696	
11	Cation Exchange Capacity	meq/100 gm	50	48	
12	Sodium Absorption Ratio		13.35	12.54	
13	Organic Matter	mg/kg	0.6	0.7	
14	Available Nitrogen	meq/100 gm	0.34	0.38	
15	Available Potassium	mg/kg	2.7	3.1	
16	Available Phosphorus	mg/kg	0.43	0.27	
17	Available Sodium	mg/kg	0.85	1.06	
18	Permeability	cm/sec	4.0 x 50 ⁻⁵	4.1 X 10 ⁻⁵	

Observation: From the above results it is concluded that there is No Significant Changes in the Quality of Soil Quality.

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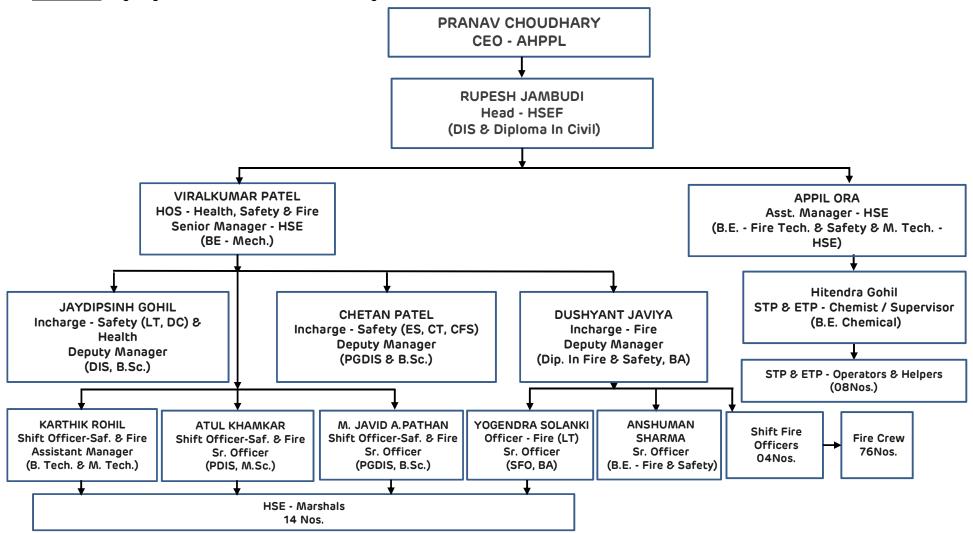
Adani Hazira Port Private Limited

From : Oct., 2017 To : Mar., 2018

ANNEXURE-5:

ORGANOGRAM OF AHPPL - ENVIRONMENT MANAGEMENT CELL

Annexure-5: Organogram Of AHPPL - Environment Management Cell: -



ANNEXURE-6:

DETAILS OF ENVIRONMENT MANAGEMENT BUDGET

FOR THE FINANCIAL YEAR: 2017-18

From : Oct., 2017 To : Mar., 2018

<u>Annexure-6</u>: Details of Environment Management Budget For The Financial Year: 2017-18

	Details Of Budget For Th	ne FY: 2017-18	3						
S. No.	Activities	Budget Amount (In Lacs)	Expenditure (In Lacs)						
1	Salary of Environmental Professionals	15.20	13.01						
2	Environmental Study / Audit and Consultancy Services	15.00	1.91						
3	Legal & Statutory Expenses	7.00	3.07						
4	Environmental Monitoring Services	17.82	15.14						
5	Mangrove Afforestation/Plantation & Bio-Shielding Pilot Project	12.50	2.02						
6	Hazardous Waste Management & Disposal	5.00	7.85						
7	Horticulture Development - Greenery and Plantation	160.00	139.64						
8	O&M of Sewage Treatment Plants and Effluent Treatment Plant	38.29	20.93						
9	Environment Day Celebration	2.50	1.44						
10	Treatment and Disposal of Bio-Medical Waste	0.82	0.58						
11	Environmental Initiatives & Others Miscellaneous	2.50	32.80						
	Total Amount (INR In Lacs) 276.62 238.40								