

SIX MONTHLY COMPLIANCE REPORT OF CRZ CLEARANCE ISSUED BY MOEF & CC, NEW DELHI VIDE LETTER NO.: <u>160-11/11/2003-IA.III, DATED 26TH JUNE, 2003</u> FOR THE DEVELOPMENT OF MULTI CARGO PORT WITH SUPPORTING UTILITIES AND INFRASTRUCTURE FACILITIES AT HAZIRA, SURAT, GUJARAT

LIST OF APPENDIXES

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A. Six Monthly Compliance Report for CRZ Clearance issued by MoEF & CC, New Delhi vide letter No.: 160-11/11/2003-IA.III dated 26th June, 2003 for the development of Multi Cargo Port with supporting utilities and infrastructure facilities at Hazira, Surat, Gujarat: -

S. No.	Stipulated Conditions		Complia	ince Status
Α.	SPECIFIC CONDITIONS			
i.	All the conditions stipulated by the Gujarat Pollution Control Board vide their letter No.: PC NOC-SRT/1241/ 8995, dated 24 th Sept, 2003 shall be	AHPPL I Consent Pollution	has obtaine to Establis	ed amendment in the sh (NOC) from Gujarat d as per the details given
	effectively implemented.	below: -		
		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	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	Compliance Report dated 21.11.2016 & 19.05.2017.
		mentione implemen	d consents Ited. Please	ntioned in the above are being effectively refer the <u>Annexure-7</u> for the latest CTE.
ii.	All conditions stipulated by the Forest and Environment Department, Government of Gujarat vide their letter No.: ENV.10.2003-29-P1, dated 10 th April, 2003 and letter No.: ENV- 10-2003-29-P1, dated 29 th May, 2003 shall be effectively implemented.	, Both the letter mentioned in the condition were sent by Forest and Environment Department to MoEF & CC. Conditions mentioned in these letters were		
iii.	No.: GMB/ N/Pvt/190(10)/9041, dated 31.12.2002 shall be effectively implemented.	GMB granted the consent to construction through this letter. Port is being constructed as per the approvals received. Copy of the same is submitted to the MoEF & CC and other concerned authorities along with the six monthly compliance report dated 19.05.2017.		
iv.	The proposals for infrastructure corridor (37 Km of rail line, 10 Km. of road, 3 Km of underground conveyor system and 22 MW CCGT for connectivity) are deferred for lack of adequate details. The proponents are requested to submit a separate, fresh proposal embodying various components of the infrastructure	The infr initially i developm		sued and there is no



S. No.	Stipulated Conditions	Compliance Status
	corridor with requisite details. However, the desalination facilities can be taken up. Brine concentrates produced as a result of desalination works should not be disposed of in the sea. Instead, their techo- commercial viability should be explored for optimal utilization. No groundwater should be tapped.	Complied with.
		Ground water is not being used for any purpose in the Port. The entire water requirement is being met through tanker water. 2000KI of treated waste water from M/s. KRIBHCO is used for industrial purposes.
vi.	The area of 22 ha. of the mangrove patch and 8 ha. of buffer area along the mangrove patch should be protected during construction and operation phase of the project. As an additional measure, the 50 ha. of land identified at Kadia Bet located in the vicinity of the project site should be taken up for afforestation and no developmental activity should be taken up in the above mangrove areas. A detailed plan for the afforestation of mangroves at Kadia Bet should be prepared within 3 months and submitted to this Ministry.	Complied. Condition is substituted with new conditions 6(a) and 6(b), as per communication from MoEF dated 19th February, 2007 bearing No.: J-16011/11/2003-IA-III. Compliance of the amended conditions is enclosed as <u>Appendix-2</u> .
vii.	Dumping of dredged spoils should be done in the locations approved earlier.	Condition is modified as per communication from MoEF & CC dated 12th 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 dredged material is being utilized for level rising, reclamation and apart from the above activity, excess material (if any) generated will be disposed of at the location approved by the MoEF & CC.
viii.	Environmental Management Plan (EMP) with detailed break-up of item- wise budget as contained in your letter dated 18 th June, 2003 shall be strictly implemented. The amount earSeptked for EMP should be kept separate and should not be diverted for any other extraneous purpose.	 Complied. Separate Budget has been allocated to Environment Management department. Please refer the <u>Annexure-6</u> for details of budget for Environment Management for the FY: 2018-19. Environment budget is not being diverted to any other purpose. Details of budget & expenditure for



S. No.	Stipulated Conditions	Compliance Status
		Environment Management for the FY: 18-19
		is attached
ix.	Method of disposal of solid wastes and the sites of such disposal shall be intimated to Ministry of Environment & Forests.	 Complied. All solid Non-hazardous wastes are being disposed off through a local vendor. Hazardous wastes is being disposed to the GPCB authorized CHWIF/TSDF sites i.e.: (1). M/s. Unity Petroleum, Ahmedabad (Gujarat) (2) M/s. J S Enterprise, Olpad Sayan Road (Gujarat) (3). M/s. RSPL, Panoli, Bharuch (Gujarat) (4). M/s. Jawrawala Petroleum, Ahmedabad(Gujarat) Total 41.4 MT Hazardous Waste disposed during Apr., 2018 to Sept., 2018. Out of which 7.69 MT Hazardous Waste is sent for Co-processing to M/s RSPL, Panoli, Bharuch (Gujarat) Out of which 29.62 MT Used oil is being recycled through registered recyclers and 4.09 MT is contaminated barrels/drums recycled through registered barrels/drums recycled through registered barrels/drums recycled through registered necentaminators during Apr., 2018 to Sept., 2018. Membership certificates of M/s. SEPPL & M/s. BEIL (CHWIF/TSDF sites) are submitted to the MoEF & CC and other concerned authorities along with the six monthly compliance report dated 19.05.2017. Disposal certificate of M/s. RSPL, Panoli is attached Annexure-9. CCA copies of M/s. Jawrawala, M/s. Unity Petroleum and M/s. J S Enterprise attached as Annexure-9
X.	greenery or any other purpose rather than discharging these into the coastal waters.	Domestic waste water is being treated in the STP's. Treated water confirming the GPCB standards is being used in the Horticulture purpose within the port premises.
xi.	Proper navigational aids and leading lights should be provided.	Complied. Proper navigational aids and leading lights have been provided.
xii.	Air pollution due to handling of fertilizer, coal should be monitored and kept within permissible limits.	Complied. Ambient air quality monitoring is being carried out through M/s. Pollucon Laboratories (a MoEF&CC recognized and NABL accredited laboratory) within port premises and during current monitoring period all the pollutants are found under the limit. Please refer the <u>Annexure-4A</u> for the Ambient air monitoring Reports for the period Apr. , 2018 to Sept. , 2018 .
xiii.	Forest clearances, as applicable, be obtained.	Not applicable under this approval.
xiv.	Construction labour camps should be	Complied.



S. No.	Stipulated Conditions	Compliance Status
	Zone areas and should be provided with adequate cooking and sanitation facilities,	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.
xv.	The developer shall provide pollution control facilities for dust separation while handling bulk coal, iron ore and sulphur. Spill boards shall be provided in the berth to prevent cargo spillage into the sea.	 Complied. Following control measures are in place and effectively working at port to control fugitive dust: - Spill boards are provided to prevent cargo spillage into the sea. Transportation of coal from jetty to coal storage yard through 1.7 Km. long conveyor belt with hood. Water sprinklers in to the coal yard, Dust Suppression System / Spray Nozzles in Conveyor System and Discharge Chute, Water spray through Water Browsers, Water spray through Water Browsers, Water Mist Canon / Fog System, Wind Brake Shield of 14 meters high and 1200 meters long, Transportation of cargo from port to hinterland is being done through dumpers / trucks covered with tarpaulin, Regular cleaning the roads through Road Sweeping Machines, and Company has set up dedicated greenbelt area for plantation at periphery / avenue plantation / landscaping etc. Total greenbelt area developed so far is approx. 69.80 ha within the port premises.
xvi.	The project proponent should ensure that the surface run-off from the stockyard is not let out into the sea/open area causing seawater/ groundwater pollution.	 Run off from stockyard is being collected into dump ponds and collected water is
xvii.	All pollution control facilities for handling ballast water and bilge as required under SEPTPOL convention for servicing ships shall be provided.	• AHPPL are providing the facility to collect



S. No.	Stipulated Conditions	Compliance Status
		 waste from vessels and transport at their facility for further treatment and disposal purpose. Detail of sludge / wastes collected & disposed off from Vessels through GPCB approved agencies during the Apr., 2018 to Sept., 2018 is enclosed as <u>Annexure-8</u>. Solid and liquid wastes generated from our own tugs is being collected in secure manner and disposed of in environmentally sound manner.
xviii.	A specific oil spill response plan shall be prepared and submitted to the State Authority with a copy to Ministry of Environment & Forests, before commissioning the project.	Complied. Oil Spill Contingency Plan has been prepared and the same was approved / vetted by Indian Coast Guard (Letter No.: 7563, dated 09.01.2014).
xix.	The stacking height of sulphur shall not in any case exceed 5 m.	Complied. Sulphur stacking height is being maintained less than 5 m.
xx.	Adequate fire-fighting facilities as per National Fire Protection Code shall be provided in the port area and in the buildings.	Complied. All the fire-fighting facilities are at place according to the National Fire Protection Code. List of fire-fighting equipment's available as on 30.09.2018 is enclosed as <u>Annexure-1</u> .
xxi.	All dredging operations should be restricted to bare minimum extent; the dredge material should be used for reclamation instead of dumping off-shore.	Condition modified as per communication from MoEF & CC dated 12 th November, 2003 bearing letter No.: J-16011/11/2003-IA-III revised conditions states "all dredging operations should be restricted to bare minimum extent, the maximum dredged material suitable for reclamation should be used for the said purpose and the remaining material may be used for dumping at the recommended sites mentioned in Para (vii)" Complying with. No disposal has been done till date. All the dredging material is being utilized for level raising, reclamation and apart from the above activity, excess material (if any) generated will be disposed of at the location approved by the MoEF & CC.
xxii.	The dredging operations shall be carried out in a controlled manner such that there is no increase in turbidity levels outside the port area.	
	A comprehensive water supply and	



S. No.	Stipulated Conditions	Compliance Status
	management plan for the multi cargo port without tapping groundwater shall be prepared, in consultation with State Government/ Irrigation Department with a view to make water available for ships calling at the Hazira Port.	 Ground water is not being used for any purpose in the Port. The entire water requirement is being met through tanker water. An agreement with M/s. KRIBHCO is signed on 25.07.2014 to use treated waste water from M/s. KRIBHCO in to the port operation. Currently 2000KLD is being used for industrial purposes.
xxiv.	shall be provided to control silt discharge into the sea.	During project development phase bunds/ setting ponds were provided to control the dumped soil materials which ensure no discharge of silt into the Sea.
XXV.	A Regional Disaster Management Plan for the Hazira Peninsula, covering all major industries and the port shall be prepared in consultation with District Authorities and implemented.	 Complied. Regional DMP for the Hazira Peninsula, covering all major industries and the port has been prepared in consultation with District Authorities and same is being implemented In addition, AHPPL has developed and implemented ER & DMP. Regular mock drill to ensure the compliance and preparedness is being done. Last Mock Drill (On Site) was on : 11.09.2018 Last Update of ERP & DMP : 10.05.2018 Last submission to Directorate Industrial Safety & Health (DISH) on 31.07.2018
xxvi.	The tugs shall be equipped with fire- fighting facilities and booms to control oil spill in the port area.	Complied. All tugs have been well equipped with fire- fighting facilities and booms to control oil spill in the port area.
xxvii.	Impact Assessment report for the entire gamut of activities of the multi cargo port at Hazira shall be prepared and submitted within one year from date of receipt of this clearance letter. Any additional environmental safeguards brought out by this comprehensive Environmental Impact Assessment report shall be duly implemented.	Comprehensive EIA study report prepared by NEERI has been submitted to the Ministry of Environment and Forests & CC on 19 th July,
xxviii.	The project proponent shall engage National Institute of Oceanography, Goa for monitoring the biological parameters of the mangrove areas located within the project site and the additional area 50 ha. identified at Kadia Bet for mangrove afforestation. For the purpose of monitoring the water quality and to study the siltation pattern, National Environmental Engineering Research,	Complied in line with the substituted conditions 6(a) & 6(b) from MoEF & CC, dated 19th February, 2007. Please refer Appendix-2 for the status of compliances.M/s. HPPL should undertakeComplied. Total 1371 ha of mangrove plantation has been achived by in 200ha. While 250ha



S. No.	Stipulated Conditions	Complian	ce Status
	Nagpur shall be engaged.	- ·	made available in support of the same.
xxix.	The project proponent shall ensure that NIO and NEERI undertake monitoring as above once in thirty days during construction period. The monitoring schedule should be once is three months during the operational phase of the project. The monitoring reports furnished by NIO and NEERI shall be submitted to the Regional Office of Ministry of Environment & Forests, Bhopal and to Ministry of Environment & Forests, New Delhi.	conditions 6(a) & 6(b) f 19 th February, 2007. P for the status of compli	from MoEF & CC, dated lease refer <u>Appendix-2</u>
В.	GENERAL CONDITIONS		
i.	meticulously conforming to the existing Central/local rules and	Complied. Construction of the p compliance to the C which was amended in approvals received.	RZ Notification, 1991



S. No.	Stipulated Conditions	Compliance Status
	Regulation Zone Notification, 1991 and its amendments. All the construction designs/drawings relating to the proposed construction activities must have approvals of the concerned State Government Department / Agencies.	 All the construction designs/drawings relating to the proposed construction activities have been approved by the concerned State Government Department / Agencies as given below:- Environmental and CRZ Clearance issued by MoEF & CC, New Delhi vide letter No.: 11-150/2010-IA.III dated 03rd May, 2013. Amendment in CRZ/Environment Clearance issued by MoEF & CC, New Delhi vide letter No.: J-16011/11/2003-IA-III, dated 19th February, 2007. Amendment in CRZ Clearance issued by MoEF & CC, New Delhi vide letter No.: J-16011/11/2003-IA-III, dated 12th Nov., 2003. CRZ Clearance issued by MoEF & CC, New Delhi vide letter No.: J-16011/11/2003-IA-III, dated 12th Nov., 2003. CRZ Clearance issued by MoEF & CC, New Delhi vide letter No.: J-16011/11/2003-IA.III dated 26th June, 2003. Approval from GMB to commence work was obtained on 09th April, 2010 vide letter No.: GMB/N/PVT/923(10)/42 /458. 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. License to work a Factory Adani Hazira Port Pvt. Ltd. (Liquid Terminal) from Director of 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 31st December, 2018.
ii.	The proponent shall ensure that as a result of the proposed constructions, ingress of the saline water into the groundwater does not take place. Piezometers shall be installed for regular monitoring for this purpose at appropriate locations on the project site.	 Complied. Proper care is being taken during construction activity to avoid salinity ingress and any degradation of water quality. M/s. AHPPL is monitoring the Ground Water Quality at one location on monthly basis. Results show no significant change in the quality. Ground water quality is being monitored through M/s. Pollucon Laboratories, Surat (a MoEF&CC and NABL accredited laboratory). Please refer the <u>Annexure-4B</u> for the Environmental Monitoring / Analysis Reports for the period Apr., 18 to Sept., 18.



t	Handling, manufacturing, storage and		
a a () () () () () () () () () () () () ()	transportation of all hazardous chemicals should be carried out in accordance with MSIHC rules, 1989 and subsequent amendments. All approvals from State and Central nodal agencies including OISD, Chief Controller of Explosives, Chief Inspectorate of Factories must be obtained. A comprehensive contingency plan in collaboration with the concerned authorities must be formulated before commissioning of the project to meet any eventuality in case of an accident.	 approvals has been obtained concerned authorities i.e.: - 1. PESO License from Chief Explosive, Nagpur vides P/HQ/GJ/15/5294 (P270337). 31.12.2015 valid till 31.12.2018. 2. License to work a Factory Ada Pvt. Ltd. (Liquid Terminal) from Industrial Safety and Health, G their vide Registration No.: 3 2013 and License No.: 18757 21-01-2017, valid till 31st Deer Copy of the License to work a F Submitted to the MoEF & Concerned authorities along monthly compliance registriation Processing Concerned authorities along monthly compliance registriation No.: 3 2017. 	ed from the Controller of Order No.: Renewed on ani Hazira Port om Director of ovt. of Gujarat 502 / 51410 / , Renewed on cember, 2018. Factory is CC and other
9 3 3 5 1 1 5 5 7 6 7 7 9 7 9 7 9 7 9 7 9 7 9 7 9 7 9 7	A well-equipped laboratory with suitable instruments to monitor the quality of air and water shall be set up as to ensure that the quality of ambient air and water conforms to the prescribed standards. The laboratory will also be equipped with qualified manpower including a Septine biologist so that the Septine water quality is regularly monitored in order to ensure that the Septine life is not adversely affected as a result of implementation of the said project. The quality of ambient air and water shall be monitored periodically in all the seasons and the results should be properly maintained for inspection of the concerned pollution control agencies. The periodic monitoring reports at least once in 6 months must be send to this Ministry (Regional Office at Bhopal) and State Pollution Control Board.	 Complied. The environmental quality being done by M/s. Pollucor Pvt. Ltd., Surat a MoEF&C 15018/24/2014-CPW lett 19.10.2015 and NABL accredi (Accreditation No.: TC - 5945 0820 & T - 0821) valid till 27.0 Details of parameters more frequency is given below: - Ambient Air Quality as per NAAQMS Ambient Noise Level Monitoring Soil Quality Analysis Ground Water Quality Analysis Surface Water Quality Analysis Sea Water Quality Analysis Sea Water Quality Analysis HWG Stack Emission Monitoring Meteorological Data Monitoring ETP Inlet - Quality Analysis STP Inlet and Outlet - Quality Analysis DG Sets Stack Emission Monitoring Dump Pond Water Quality Analysis Please refer the Annexure-4A 	A Laboratories C (F. No. Q- cer dated ted laboratory (in lieu of T - 15.2019). Donitored and Weekly Twice Monthly Quarterly Monthly Monthly Monthly Monthly Monthly Continuous Weekly Twice Weekly Twice Weekly Twice Weekly Twice Weekly Twice Weekly Twice Weekly Twice Weekly Twice Continuous Weekly Twice Weekly Twice



S. No.	Stipulated Conditions	Compliance Status
		 compliance reports. Environmental Lab has been set up consisting the following equipment's for water analysis: COD Digester Oven Temperature, pH and Conductivity meter TDS measuring equipment Please refer photographs attached as Annexure-10
v.	Adequate provisions for infrastructure facilities such as water supply, fuel for cooking, sanitation etc. must be provided for the laborers during the construction period in order to avoid damage to the environment. Colonies for the laborers should not be located in Coastal Regulation Zone area. It should also be ensured that the construction workers do not cut trees including mangroves for fuel wood purpose.	Complied. 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.
vi.	To prevent discharge of sewage and other liquid wastes into the water bodies, adequate system for collection and treatment of the wastes must be provided. No sewage and other liquid wastes without treatment should be allowed to enter into the water bodies.	Adequate system for collection and treatment of sewage and liquid wastes are in place. Treated sewage water is being utilized for
vii.	Appropriate facility should be created for the collection of solid and liquid wastes generated by the barges/ vessels and their safe treatment and disposal should be ensured to avoid possible contamination of the water bodies.	 Complied. AHPPL are providing the facility to collect the solid and liquid waste from the vessel on call basis. Garbage collected from the vessels is disposed of in environment friendly manner by converting bio-compost and used the same in horticulture / gardening purpose. AHPPL arranges GPCB approved third party to collect the liquid waste from vessels on call basis and the agency collect the liquid waste from vessels on call basis end the agency collect the liquid waste from vessels on call basis and the agency collect the liquid waste from vessels and transport at their facility for further treatment and disposal purpose. Please refer the <u>Annexure-8</u> for details of sludge/wastes collected & disposed off from Vessels through GPCB approved agencies during Apr., 2018 to Sept., 2018. Solid and liquid wastes generated from our own tugs is being collected in secure manner and disposed of in environmentally sound manner.
viii.	Necessary navigational aids such as channel Septkers should be provided to prevent accidents. Internationally	Complied.



S. No.	Stipulated Conditions	Compliance Status
	applied in case of barge/vessel movements.	safety standards are being followed during vessel movement.
ix.	The project authorities should take appropriate community development and welfare measures for villagers in the vicinity of the project site, including drinking water facilities. A separate fund should be allocated for this purpose.	 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. Detail of the CSR activities along with budgetary provisions and progress are regularly submitted to MoEF & CC as part of six monthly compliance reports. The status of the CSR activities planned during the Financial Year: 2018-19 is enclosed as Annexure-2.
X.	The quarrying material required for the construction purpose shall be obtained only from the approved quarries/ borrow areas. Adequate safeguard measures shall be taken to ensure that the overburden and rocks at the quarry site do not find their way into water bodies.	No quarry material has been procured during
xi.	The dredging operations to be undertaken with the prior approval of this Ministry, shall be executed with appropriate safeguard measures to prevent turbidity conditions in consultation with the expert agencies such CWPRS/NIO.	Condition deleted as per communication from MoEF & CC dated 12 th November, 2003 bearing letter No.: J-16011/11/2003-IA-III.
xii.		Complying with. AHPPL has always given employment priority to local qualified persons and in future the same will be continued. As on 30 th Sept., 2018 total 183 out of 211 on roll employees are from Gujarat.
xiii.	The recommendations made in the Environmental Management Plan and Disaster Management Plan, as contained in the Environmental Impact Assessment and Risk Analysis Reports of the project shall be effectively implemented.	same is enclosed as <u>Annexure-3</u> . • AHPPL is an ISO 14001: 2015, ISO 9001:



S. No.	Stipulated Conditions	Compliance Status
		dated 19.05.2017
xiv.	A separate Environmental Management Cell with suitable qualified staff to carry out various environment related functions should be set up under the charge of a Senior Executive who will report directly to the Chief Executive of the Company.	 Environment Management Cell has been set up with qualified staff to ensure the effective implementation of environmental safe guards. In addition to the site Environment Management Cell a well-established corporate environment cell also ensures effective implementation of the environmental safeguards. Please refer the <u>Annexure-5</u> for Environment Management Cell Organogram. One more person has been recruited in Environment Management Cell, who is assisting the Head of Environment
xv.	The project-affected people, of any should be properly compensated and rehabilitated.	There is no R&R factors involve for development of Port. The entire port is being developed on reclaimed land allotted by Government.
xvi.	The funds earSeptked for environment protection measures should be maintained in a separate account and there should be no diversion of these funds for any other purpose. A year-wise expenditure on environmental safeguards should be reported to this Ministry. Full support should be extended to the officers of this Ministry's Regional Office at Bhopal and the officers of the Central and State Pollution Control Boards by the project proponent during this inspection for monitoring purposes, by furnishing full details and action plans including the action plans including the action taken reports in respect if mitigative measures and other environmental protection activities.	 Complied. Separate Budget is allocated to HSE department. Please refer the Annexure-6 for details of budget for Environment Management for the FY: 2018-19. No funds are diverted for any other purposes. Complying with. AHPPL is regularly submit six monthly compliance reports which comprises 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 20.11.2017 and 23.05.2018. 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 of officials from MoEF & CC - RO, Bhopal was on 01 & 02.05.2017. Last visit by VO - GPCB, Surat was on 28.08.2018.
xviii.		There is no change in project profile / implementation agency, if any.



S. No.	Stipulated Conditions	Compliance Status
	implementing the suggested safeguard measures.	
xix.	This Ministry reserves the right to revoke this clearance, if any of the conditions stipulated are not complied with to the satisfaction of this Ministry.	
XX.	This Ministry or any other competent authority may stipulate any additional conditions subsequently, if deemed necessary for environmental protection, which shall be complied with.	conditions stipulated by the MoEF & CC, if any.
xxi.	The project proponent should advertise at least in two local	on 10/07/2003.
xxii.	The project proponents should inform	 Financial Closure date is 29th September, 2011. Approval from GMB to commence work was obtained on 09th April, 2010 vide letter No.:





APPENDIX-1:

COMPLIANCE TO THE CONDITIONS STIPULATED IN CRZ RECOMMENDATIONS ISSUED BY FORESTS AND ENVIRONMENT DEPARTMENT, GOVERNMENT OF GUJARAT VIDE LETTER NO.: ENV-10.2003-29-P1 DATED 09TH JULY, 2003

(Comprising conditions of Letter dated 10th April, 2003 & 29th May 2003 in part A & B respectively)



<u>APPENDIX-1</u>: Compliance To The Conditions Stipulated In CRZ Recommendation Issued By Forest And Environment Department, Government Of Gujarat Vide Letter No.: ENV-10.2003-29-P1 Dated 09th July, 2003: -

		10 th April, 2003 from Forest and Environment inistry and Forests, Government of India
S. No.	Conditions	Compliance Status
Α.	Specific Condition	
1.	1991 and its amendments issued from time to time shall be strictly complied with by the HPPL.	 Construction activities are as per the provisions of CRZ Notification, 2011. No construction work other than those permitted in CRZ Notification has been done. Development of the port and other ancillary facility is being done as per the approval received under CRZ Notification, 2011 and EIA Notification, 2006 & subsequent amendments.
2.	The HPPL shall take up / develop only those activities proposed to be commissioned before the end of the year 2008 as mentioned in the Rapid EIA report and the bar chart submitted by HPPL. A separate clearance shall be obtained by HPPL for construction of the berths bearing nos. 2, 6, 7, 11, and 12 and its back up facilities as amended in the drawings submitted with the CRZ application after demonstrating the compliance of the conditions, ecological upliftment activities undertaken successfully and mitigative measures implemented while developing the other port facilities.	environment and CRZ clearance vide letter No.: 11-150/2010-IA.III dated 03 rd May, 2013.
	The ground water shall not be tapped in any case to meet with the water requirements during construction and / or operational phases.	Ground water is not being used for any purpose in the Port. The entire water requirement is being met through tanker water. An agreement with M/s. KRIBHCO was also signed on 25/07/2014 to use treated waste water from M/s. KRIBHCO in to the Port operation. 2000KI of treated waste water from M/s. KRIBHCO is used for industrial purposes.
4.		



S. No.	Conditions	Compliance Status
	be implemented by the HPPL.	
5.	The HPPL shall ensure that the free flow of water in the intertidal area is not hampered due to proposed construction activities for infrastructure corridor. The corridor shall be developed away from the residential areas to ensure that the local inhabitants are not affected due to proposed development.	 Port construction has been done in such a way that free flow of water in the intertidal area is not hampered.
6.	The HPPL shall take up massive plantation activities through the forests department in at least 200 ha. of areas suitable identified in consultation with the forests dept. as well as this dept. the HPPL shall bear the cost of the said land as well as cost of the plantation of mangroves up to its sustenance. The HPPL has also to ensure that the planted mangroves survive.	 Total 1371 ha. of mangrove plantation has been achieved by the HPPL in Hazira area with support of local communities. Above mangrove plantation area has been verified by DCF and DILR. Supporting documents of the same submitted to MoEF & CC and other authorities along with the six monthly compliance report dated 19.05.2017.
7.	development of ecological park for the purpose of Env. awareness and	Initially Ecological and Mangrove Interpretation Centre was established to create awareness about mangroves is being done by NGO Nature Club in 5 villages of
8.	In addition to the mangrove plantation the HPPL shall also taken up massive green belt development in and around	Complying 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. 69.80 ha within the port premises.
9.	Regional Env. Assessment as well as for any common facilities including the Vessel Traffic Mgmt. System in the Gulf of Chambhat, for the purpose of the Env. protection/mgmt.	AHPPL will contribute reasonable cost for any common study as and when suitable proposal comes.
10.	The HPPL shall provide financial and technical support in implementation of the Functional Green Crops Scheme (being implemented) in Gujarat by the GEER Foundation in Surat District in consultation with this Dept.	AHPPL will contribute reasonable cost as and
11.		Agreed to comply. AHPPL will bear the cost of external agency, if any that may be appointed by this department.
12.	The HPPL shall not use any other port	Complied with.



S. No.	Conditions	Compliance Status
	quarrying material without prior EIA done and without permission of this department.	EIA has been done in 2012 and environment and CRZ clearance has been obtained vide letter No.: 11-150/2010-IA.III dated 03 rd May, 2013.
13.		Condition is amended. Modified as per communication from 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.
14.	ensure that the Vessel Traffic Management System for safe navigation in the Gulf of Chambhat shall be established and commissioned before commissioning of the Hazira Port by the HPPL. The HPPL shall follow up for this with various stockholders and provide	 Complied. No waste including construction debris, oily waste from construction equipments, untreated sewage has been disposed of into the sea/river/creek or in the CRZ areas.
16.	financial and Technical inputs for the same. A mutual aid scheme for the Hazira	Complying with.
	shall be developed to meet with any unforeseen circumstance or to meet with any accident at condition. The HPPL shall take a lead for this by involving other stakeholders.	Regional DMP for the Hazira Peninsula, covering all major industries and the port has been prepared in consultation with District Authorities and same is being implemented.
17.	-	Disaster Management Plan has been prepared prior to the commissioning of multi cargo port. • DMP has been submitted to GSDMA vide



S. No.	Conditions	Compliance Status
		 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 : 11.09.2018 Last Update of ERP & DMP : 10.05.2018 Last submission to Directorate Industrial Safety & Health (DISH) on 31.07.2018
	communities in consultation with the District Contactor/ the Commissioner of Fisheries, GoG.	The project has not displaced any person or interfered with little fishing that exists in the area. The project is on reclaimed land and entails no private land acquisition.
19.	provided amenities/facilities including water supply, sanitation and fuel to ensure that the existing	managed through contractors and they are from surrounding villages and have been provided residential facilities in the
20.	due to proposed development shall be assessed in detail in the	Complied with. EIA has been done and detail covering all possible social and health impacts due to proposed development. Management plan of the same has also been presented in the EIA.
21.	The HPPL shall work out a detailed socio-economic upliftment programme in consultation with the District Collector and District Development Office and shall implement the same. Separate budgetary provisions shall be earSeptked for this purpose.	 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. Detail of the CSR activities along with budgetary provisions and progress are regularly submitted to MoEF & CC as part of six monthly compliance reports. Please refer the <u>Annexure-2</u> for the status of the CSR activities planned during the Financial Year: 2018-19.
22.	An environmental Management Cell with persons having proper background shall be constituted. A separate budgetary provision shall be kept for implementation of the Environmental Management Plan.	



S. No.	Conditions	Compliance Status
		 Please refer the <u>Annexure-5</u> for Environment Management Cell Organogram. Separate budget has been allocated to the HSE Department. Allocated budget for the FY: 2018-19 is INR 418.66/- Lakhs. Environment Budget is not being diverted to any other purpose. Details of the environment budget are enclosed. Please refer the <u>Annexure-6</u> for details of budget for Environment Management for the FY: 2018-19.
23.	Post project environmental monitoring shall be carried out through a reputed institute.	Complied. Environmental Monitoring/Analysis are being done through M/s. Pollucon Laboratories, Surat (a MoEF&CC and NABL accredited laboratory) within port premises and during current monitoring period all the pollutants are found under the limit. Please refer the <u>Annexure-4</u> for the Environmental Monitoring / Analysis Reports for the period Apr., 2018 to Sept., 2018 .
24.	carried out in any of the Forest areas without obtaining prior permission from the Forest Dept.	
25.	-	
26.	A six monthly compliance report with respect to the above mentioned conditions as well as implementation of the suggestions/ recommendations of the EIA report shall be furnished to this Department without fail at regular interval.	 submitted to the concerned authorities. Last two reports were submitted vide letter dated 20.11.2017 and 23.05.2018.
27.	The HPPL shall also comply with any conditions as may be imposed by this Department from time to time.	Noted and agreed to comply with additional conditions stipulated or modify the existing ones by MoEF & CC, if any.



Part	•	29 th May, 2003 from Forest and Environment inistry and Forests, Government of India
S. No.	Conditions	Compliance Status
1.	use / development plan furnished by the HPPL vide their letter dated 13-5- 2003, may be studied in detail as how feasible is the same to achieve its	The revised design as per IAI 13 th May, 2003 was developed in consultation with NEERI/NIO and was presented before MoEF in May, 2003, based on which environmental clearance was granted. However condition related to mangroves is complied in line with the substituted condition 6(a) & 6(b) from MoEF, dated 19 th February, 2007.
2.	take up mangrove plantation activity through the Forest Department of	Total 1371 ha. of mangrove plantation has been achieved by the HPPL in Hazira area with
3.		Complied. Compliance report of stipulated conditions in the aforesaid letter is enclosed as Appendix-1 (Part A) .



APPENDIX-2:

COMPLIANCE TO THE CONDITIONS STIPULATED IN LETTER DATED 19TH FEBRUARY, 2007 FOR AMENDMENT IN CERTAIN CONDITIONS OF CRZ / ENVIRONMENTAL CLEARANCE ISSUED ON 03RD MAY, 2003



Appendix - 2: Compliance to the conditions stipulated in letter dated 19th February, 2007 for amendment in certain conditions of CRZ / Environmental Clearance issued on 26th June, 2003: -

S. No.	Stipulated Conditions	Compliance Status
Α.	SPECIFIC CONDITIONS	
6(a)	M/s. HPPL should undertake compensatory mangrove plantation in 200 ha. While 250 ha fresh mangrove plantation should be done by M/s Niko Resources Limited. The mangrove afforestation programme of 450 ha by the HPPL and Niko resources will be monitored by the sub-Committee constituted by the NCZMA and report to the Chairman periodically.	Complied. Total 1371 ha. of mangrove plantation has been achieved by the HPPL in Hazira area with support of local communities. Above mangrove plantation area has been verified by DCF and DILR. Supporting documents of the same submitted to MoEF & CC and other authorities along with the six monthly compliance report dated 19.05.2017.
6(b)	The yearly monitoring of the afforestation programme of mangrove will be also be carried out through time series satellite imagery in 1:25,000 scale by the respective units and submit a monitoring report to the NCZMA.	Complied. As the original clearance was granted to HPPL, the said condition is being compiled jointly by the two companies i.e.: Hazira LNG Private Limited (HLPL) and Hazira Port Private Limited (HPPL). As informed by them the information related to the condition; latest report on mangrove afforestation monitoring by using remote sensing techniques from November to December, 2016 satellite data images of Feb., 2016 was submitted to Principal Secretary, Forest and Environment Department, Gandhinagar vide letter No.: HLPL/HSE/ ECR/Port/2017/1 dated 10.02.2017.



ANNEXURE-1 :

DETAIL OF FIRE-FIGHTING EQUIPMENTS



<u>Annexure-1</u> :	List of fire-fighting equipment's available as on 30.09.2018
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S. No.	Equipment	Quantity (NOS)
1	Fire Tender (HMV)	5
2	Fire Jeep (LMV)	1
3	Fire Water Pump House	4
4	Main Pumps	14
5	Jockey Pumps	8
6	Double Headed Hydrant	144
7	Single Headed Hydrant	142
8	Tower Monitor	9
9	Water Curtain	9
10	Under Jetty MVWS System	4
11	Deluge Valve	172
12	HVLR Monitor	67
13	International Fire Shore Connection	4
14	Foam Trolley	21
15	SCBA set	22
16	Emergency Life Saving Apparatus set	10
17	Fire Water tank	5
18	Fire Extinguisher	1230
19	Airline Trolley	2
20	Fire Proximity suit	10
21	Chemical Suit	10
22	PVC Suit	11
23	Aluminium Fire Suit	2
25	Hose Box	269
26	Fire Hose	500
27	Sand Bucket	220
28	Water Monitor	95
29	Foam monitor	17
30	Hose Reel	3
31	Foam Pourer System	52
32	Foam Bladder tank	4
33	Foam tank	6
34	Foam pumps	6
35	1000 litre capacity Foam trolley monitor	3
36	Water cum Foam monitor	15
38	Water sprinkler system	43
39	Hydraulic Cutter	1
40	Hydraulic Ram	1
41	NOVEC Fire Supression system	2



ANNEXURE-2:

DETAILS OF THE CSR ACTIVITIES CARRIED OUT DURING THE FINANCIAL YEAR: 2018-19



DETAILS OF THE CSR ACTIVITIES CARRIED OUT DURING THE FINANCIAL YEAR: 2018-19

<u>Annexure-2</u>: Details of CSR Activities Carried Out By Adani Foundation, Hazira (CSR Wing) for M/s. Adani Hazira Port Pvt. Ltd. During Financial Year: 2018-19(till Sept 30, 2018)

Adani Foundation is an intrinsic part of Adani Group's efforts towards Corporate Social Responsibility. 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 empower 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, at 20 locations, 1470 villages and towns touching lives of more than 5 lakhs families by empowering our communities towards nurturing the dreams of a New India.

Adani Hazira Port Pvt. Ltd. through Adani Foundation has undertaken below CSR activities in 2018-19 (Till Sept 2018)

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. Adani Foundation is doing following activities in Hazira region in the field of education.

1. VaGaLe Utsav:

With the objective of increasing enrollment and retention of the students, bridging the 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 more than 1350 students of 10 schools from 8 villages are benefitting from this. The foundation achieved this by encouraging community participation, increasing teachers' effectiveness and improving the school environment.

2. 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 400 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.

3. 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 school offers activity based education from class 3^{rd} to 8^{th} and has a total strength of 381 students in 2018-19, out of which more than 50% are girls.

4. Project UDAAN:

Project Udaan, an inspirational exposure tour has benefitted 2202 students in current FY and teachers from 44 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.

5. **Remedial coaching classes for the needy students:** We are also started remedial coaching classes for tribal areas students from this year. This activity is benefiting to more than 250 students of tribal communities.

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. In Hazira region, we are doing following activities in the areas of Community Health.

1. **De-addiction Programme:**

Taking the need into consideration, Adani Hazira Port Pvt. Ltd. supported a deaddiction 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 and the entire treatment cost is being bear by company. We have supported for 11 cases during FY18-19 and total more than 50 cases till date in the region.



2. 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. Till Sept-2018 we have arranged 6 health camps and 522 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.

3. **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 more than 1500 Anthropometric Measurements and more than 1600 HB screenings. Also conducted more than 700 focus group discussions and conducted 6 village level events. During the period 2 cases have converted from SAM and MAM and 4 cases from MAM to Healthy. Also 10 cases have come out from anaemia mild to no anaemia category.

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.

1. Animal Husbandry & other allied activities:

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. Animal Husbandry project was 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 25 kms. This center provides services of Artificial Insemination (breeding) at the door steps of cattle owners. During the current FY18-19, more than 450 families have got benefits of our various activities under Animal Husbandry project.

2. 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. Total 14 SHGs have been formed in the region and it includes 124 members. We are conducting various game events to motivate and to engage them in such kind of activities. These groups have started savings from their expenditure for running household.

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 workers. 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.

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 2018-19 till Sept 2018, Adani Foundation started construction of Girls Hostel at Mandvi in Surat District, providing paver block around community hall in village – Junagam, providing fencing around common areas of village – Junagam, providing LED lights in village Damka and initiated preliminary activities for construction of other planned projects during FY 2018-19.

Project Swachhagrah:

We have recently launched project "Swachhagrah – Swachhta ka Satyagrah" in entire Choryashi Taluka of Surat District to create a culture of cleanliness in the society. We have covered more than 120 Govt. and Private schools under this programme.



ANNEXURE-3:

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



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

S. No.	EMP Conditions	Compliance Status
Ι.	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:	
	 Onsite fabrication activities should be undertaken at a designated location, which should be located away from the office buildings and any other working areas. 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. Portable diesel engine generators and diesel engine driven compressors, if any, should be covered with noise enclosures. 	have been done at a designated 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.	handled as per applicable rules/ guidelines and disposed off through
6.	Construction Phase Storm Water Runoff:	
	It has been recommended to adopt soil	Complied with. Separate storm water channels have been developed to



	sedimentation basins to control the silt before	discharge the storm water
	discharging the storm water into sea.	discharge the storm water.
	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 workers at project site.
В.	OPERATION PHASE: -	
1.	Air Quality Management:	
	 Cargo-Handling Equipment: Retrofitting the old equipment to meet the vehicular emission standards. All the vehicles and equipment will be certified with PUC norms shall be deployed. 	vehicles and equipment are PUC
	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.	operated on clean diesel fuel with sulphur content less than 0.5% and provided the adequate stack height are being provided as per CPCB/GPCB norms to disperse the gases into the atmosphere.
	 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. 	 place and effectively working at port to control fugitive dust: - Spill boards are being provided to prevent cargo spillage into the sea. Transportation of coal from jetty to coal storage yard through 1.7 Km. long conveyor belt with hood. Water sprinklers in to the coal yard, Dust Suppression System / Spray Nozzles in Conveyor System and Discharge Chute, Water spray through Water Browsers, Water Mist Canon / Fog System, Wind Brake Shield of 14 meters high and 1200 meters long, Transportation of cargo from port to hinterland is being done through dumpers / trucks covered with tarpaulin, Regular cleaning the roads



2	Noise Control Program:	
2.	 Noise Control Program: 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. Waste Water Management: 	 All 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.
	 Port handling operations would generate 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, 4. 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: - 	 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
	 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 SEPTPOL. > Except monsoon, leachate from coal stock yard is not envisaged. However small quantities, if any, will be treated in the effluent treatment plant. Wastewater from vehicle work-shops will also be treated in the proposed onsite effluent treatment plant. > As far as possible all chemical spills at liquid handling facilities will be treated with dry spill absorbing material and water will not be used. Spillage if any occurs will be treated in a dedicated 	Complied. Dedicated coal dump pond is being provided to collect the runoff (if any) from coal yard and it is further reused for dust suppression purpose into coal yard. Complied with. Till date there is no spill occurred. If, spills occurred, spilled material/chemical will be treated into ETP and treated waste

Adani Hazira Port Private Limited

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From : Apr., 2018 To : Sept., 2018

	ancita wastowatos troatmont plant	dovelopment / elaptation ourooco
	onsite wastewater treatment plant, which consists of an oil removal unit,	development / plantation purpose.
	priSepty chemical treatment unit and	
	biological treatment units followed by	
	.	
	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.	
4.	Storm Water Management Plan:	Compliant Contract design for all built
	Storm water from the coal stockpile area will	
	be passed through a series of sediment	-
	traps to remove the majority of the coal	silting into the Septine eco-system.
	sediment before discharging into the natural	•
	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 Septine eco-system.	Compliant All liquid stars as tasks
	All liquid storage tanks will be provided with dulues to sucid approximation of	
	dykes to avoid any cross contamination of	provided with dykes to avoid any cross
	storm water from chemical spills. Storm	
	water drains shall be designed in order to	chemical spills. Storm water drains are
	avoid any flooding of the coal stock yard and	-
-	liquid chemical tank farm areas.	are separate.
5.	Solid and Hazardous Waste Management:	Complied
	Solid wastes generated from the port handling facilities consist of packaging	
	waste such as wood, paper/carton, steel	
	scrap etc.	demolition wastes are reused for
	30/00/020.	level rising of low lying area within
		the port premises. Kitchen/ Food,
		Horticulture/Garden wastes are
		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.
	> All the hazardous wastes and solid wastes	-
	such as Oil containing cargo residue,	
	Chemical containing cargo residue and	
	sludge, contaminated cotton waste, spent	
	exchange resin and ETP Sludge, etc. shall be	
	segregated at source and stored at the	
	earSeptked area.	
	 Recyclable wastes will be collected and 	Complied. Recyclable wastes is being
	disposed to waste recycling vendors through	
	certified recyclers wherever applicable.	CPCB/GPCB registered recyclers.
	 Hazardous wastes include contaminated 	
	chemical spills, spent dry adsorbing spill	
	absorbing material used for large Septine	
	and onshore chemical spills, used lubricating	
	end change chemical spins, used fublicating	



	oils and greases. The chemicals spill	
	inventories 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.	collected and disposed of through
		CPCB/GPCB registered recyclers.
	> A dedicated and completely enclosed shed	Complied. All the wastes are stored at
	will be identified to store the hazardous	
	wastes in order to avoid any cross	-
	contamination from storm water.	
		Complied with. All the wastes are
	collected, categorized as per the HWM Rules	-
	2008, SWM Rules 2000 and Batteries Rules	
	2001 prescribed by CPCB under	
	Environmental Protection Act, 1986.	goldennes.
6.	Greenbelt and Plantation:	
0.		Complying with.
	plantation in and around the proposed	
	project facility covering 81.27 Ha. Efforts	
	will be taken to increase the green cover in	
	and around the project boundary using local	
	species with a view to ameliorating project	
	related disturbances and enhancing the	
	ecological value of the area. Greenbelt	tin Sept., 2018.
	would be developed as per the CPCB	
	guidelines.	
	 A capital cost of Rs. 1.62 Crore and an 	Harticulture budget for EX 2018 10 is
	annual recurring budget of Rs. 0.65 Crore	
	will be earSeptked for this purpose.	RS. 159.05 Lakiis.
7.	Community Development Plan:	Complied.
1.	AHPPL has identified focused areas for	•
	community development and implement	,
	developmental program. The identified	
	activities under CSR program are as follows: -	
		(3). Sustainable Livelihood and (4).
	1. Infrastructure development for educational	
	facilities like building of schools, computer	
	rooms, multipurpose activity halls	with budgetary provisions and
	2. Supporting education through distribution	p g
	of stationary, scholarships, science kits,	,
	bicycles to children, conducting education	compliance reports.
	camps, competitions.	• Please refer the Annexure-2 for the
	3. Strengthening the community health by	
	arranging health camps, AID awareness	during the Financial Year: 2018-19.
	camps, providing financial support to senior	
	citizens and poor people, building	
	dispensaries and mobile dispensaries.	
	4. Improvement of rural sanitation by	
	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.	



Adani Hazira Port Private Limited

From : Apr., 2018 To : Sept., 2018

 6. Organizing need based skill development program to women and youth for their empowerment. 7. Rural infrastructure development by 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 beiow table - Budgeted Expenditure for CSR and Community Development Activities: S. Descriptions 1. Education 2.2.29 2. Community Health 1.18 3. Livelihood Activities 1.43 4. Rural Infrastructure 2.04 5. Entry Point Activities 1.27 Total 8.21 K. CONSTRUCTION PHASE:- V Endredge goil generated during capital complied. No disposal has been dor dredging will be used for land reclamation to the port development and associated utilities. V Unused dredged material will be disposed of at port developmente ending. Appropriate dredging methodology shall be normal conditions are achieved. General clean up along the corridor used for land reclamation. Wused for corrol the generation of high levels of suspende solids. If the suspende solids encentration increases, the dredging in crease observed. Appropriate dredging methodology shall be adjacent to control the generated for high levels of suspende solids. If the suspende solids encentration increases the dredging in crease observed. General clean up along the corridor used for laready approved by the mort portain should be stopped to the suspender solar for the suspende solare is a diacent intertidal areas, creeks etc. should be undertaken and all the discarded marenia area is regularly being done. Intertidal areas, creeks etc. should be undertaken and all the discarded									
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Adani Hazira Port Private Limited

From : Apr., 2018 To : Sept., 2018

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effluent release and maintaining of effluent effluent outside the port premises. disposal sites should also be adopted for	\triangleright		Noted, AHPPL is not discharging any
disposal sites should also be adopted for			
		•	
		effluent release by NIKO should be	
implemented.		,	

adani Adani Hazira Port Private Limited	From : Apr., 2018 To : Sept., 2018
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ANNEXURE-4:

ENVIRONMENTAL MONITORING / ANALYSIS RESULTS FOR THE PERIOD: Apr., 2018 TO Sept., 2018

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ANNEXURE-4A:

AMBIENT AIR QUALITY MONITORING RESULTS

PERIOD: Apr., 2018 TO Sept., 2018

AMBIENT AIR QUALITY MONITORING: -4A.

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

NUT 1	NUCE N HID II	Location-1: Near Port Gate No.: 2 (N 21° 05.426'E 72° 37.739')												
Sr. No.	Date of Sampling	PM10	PM2.5	Pb	BaP	As	NI	со	C ₆ H ₆	NH ₃	SO2	NOx	03	
NO.	Sampling	µg/m ³	µg/m ³	µg/m ³	ng/m ³	ng/m ³	ng/m ³	mg/m ³	µg/m³	µg/m ³	µg/m ³	µg/m³	µg/m³	
1	02/04/2018	76.42	30.14	BDL*	BDL*	BDL*	BDL*	0.79	BDL*	46.60	16.73	39.37	20.38	
2	05/04/2018	65.41	38.42	BDL*	BDL*	BDL*	BDL*	0.54	BDL*,	20.24	19.56	25.18	29,38	
3	09/04/2018	79.32	33.40	BDL*	BDL*	BDL*	BDL*	0.15	BDL*	42.31	14.54	29.87	19.55	
4	12/04/2018	68.67	28.43	BDL*	BDL*	BDL*	BDL*	0.73	BDL*	38.63	9.57	23.46	27.50	
5	16/04/2018	88.32	42.78	BDL*	BDL*	2.34	10.37	0.93	BDL*	52.43	20.45	33.34	22.21	
6	19/04/2018	62.61	35.74	0.70	BDL*	BDL*	BDL*	0.62	BDL*	22.07	18.44	37.77	28.40	
7	23/04/2018	93.39	45.36	BDL*	BDL*	2.48	10.13	0.77	BDL*	26.67	23.73	27.81	25.65	
8	26/04/2018	66.20	31.44	BDL*	BDL*	BDL*	BDL*	0.76	BDL*	37.71	15.44	32.39	23.85	
9	30/04/2018	87.62	48.37	0.68	BDL*	2.26	10.58	0.49	BDL*	34.34	17.62	30.32	18.57	
10	03/05/2018	73.61	45.40	BDL*	BDL*	BDL*	BDL*	0.69	BDL*	31.65	22.50	31.64	15.69	
11	07/05/2018	81.26	42.43	0.58	BDL*	BDL*	BDL*	0.22	BDL*	46.93	16.30	28.32	19.42	
12	10/05/2018	94.24	53.38	0.72	BDL*	2.52	10.76	0.41	BDL*	28.56	18.61	25.78	24.6	
13	14/05/2018	59.63	25.50	BDL*	BDL*	BDL*	BDL*	0.80	BDL*	22.37	21.62	39.71	29.4	
14	17/05/2018	70.41	44.29	BDL*	BDL*	BDL*	BDL*	0.50	BDL*	39.43	19.45	35.42	17.43	
15	21/05/2018	86.64	36.58	0.63	BDL*	2.34	10.54	0.96	BDL*	10.26	23.42	29.47	30.39	
16	24/05/2018	92.46	49.37	0.75	BDL*	2.78	10.65	0.39	BDL*	41.34	17.48	26.49	20.67	
17	28/05/2018	80.27	32.69	BDL*	BDL*	BDL*	BDL*	0.49	BDL*	51.22	14.36	30.73	18.7	
18	31/05/2018	71.26	43.64	BDL*	BDL*	BDL*	BDL*	0.85	BDL*	19.38	13.41	41.79	22.3	
19	04/06/2018	62.33	31.62	BDL*	BDL*	BDL*	BDL*	0.57	BDL*	49.65	17.24	38.65	26.3	
20	07/06/2018	83.66	46.31	0.56	BDL*	2.22	10.22	0.41	BDL*	22.69	21.61	41.23	28.5	
21	11/06/2018	60.38	34.64	BDL*	BDL*	BDL*	BDL*	0.72	BDL*	45.78	19.31	35.75	17.6	
22	14/06/2018	73.33	30.74	0.64	BDL*	2.36	10.34	0.90	BDL*	30.27	15.23	26.11	19.4	
23	18/06/2018	86.37	51.84	0.82	BDL*	2.16	10.58	0.64	BDL*	55.79	26.29	44.34	29.4	
24	21/06/2018	79.67	27.19	BDL*	BDL*	BDL*	BDL*	0.74	BDL*	42.67	8.71	22.58	21.6	
25	25/06/2018	89.69	41.33	BDL*	BDL*	BDL*	BDL*	0.87	BDL*	51.23	24.25	37.56	23.6	

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26	28/06/2018	56.35	22.76	BDL*	BDL*	BDL*	BDL*	0.39	BDL*	34.39	11.64	34.54	25.60
27	02/07/2018	53.35	23.59	BDL*	BDL*	BDL*	BDL*	0.30	BDL*	20.37	12.55	30.26	24.24
28	05/07/2018	78.68	44.84	BDL*	BDL*	BDL*	BDL*	0.39	BDL*	29.34	14.25	23.74	27.57
29	09/07/2018	86.48	48.31	0.64	BDL*	2.18	10.51	0.87	BDL*	40.31	17.15	38.47	29.46
30	12/07/2018	65.74	40.62	BDL*	BDL*	BDL*	BDL*	0.61	BDL*	36.82	7.85	20.42	20.36
31	16/07/2018	73.42	35.54	BDL*	BDL*	BDL*	BDL*	0.94	BDL*	26.37	13.41	25.61	18.53
32	19/07/2018	54.30	22.46	BDL*	BDL*	BDL*	BDL*	0.46	BDL*	52.62	15.83	35.69	25.37
33	23/07/2018	87.64	46.31	0.62	BDL*	2.42	10.73	0.52	BDL*	47.27	20.44	39.44	28.36
34	26/07/2018	92.68	49.48	0.58	BDL*	2.54	10.84	0.72	BDL*	42.72	22.43	33.55	22.62
35	30/07/2018	69.73	33.76	BDL*	BDL*	BDL*	BDL*	0.33	BDL*	21.30	16.34	37.50	26.39
36	02/08/2018	80.42	44.88	0.76	BDL*	2.18	10.34	0.48	BDL*	41.22	23.81	40.10	23.77
37	06/08/2018	61.43	28.36	BDL*	BDL*	BDL*	BDL*	0.57	BDL*	32.32	19.33	19.32	30.29
38	09/08/2018	87.50	50.32	0.64	BDL*	2.48	10.65	0.94	BDL*	37.23	12.36	30.53	18.66
39	13/08/2018	67.26	27.82	BDL*	BDL*	BDL*	BDL*	0.87	BDL*	22.44	18.59	24.34	25.65
40	16/08/2018	77.53	41.29	BDL*	BDL*	BDL*	BDL*	0.33	BDL*	33.48	15.17	34.19	22.39
41	20/08/2018	53.64	29.53	BDL*	BDL*	BDL*	BDL*	0.17	BDL*	20.64	11.21	28.28	19.60
42	23/08/2018	81.62	36.85	0.58	BDL*	2.64	10.51	0.90	BDL*	35.62	22.57	36.23	24.66
43	27/08/2018	50.71	24.51	BDL*	BDL*	BDL*	BDL*	0.62	BDL*	44.31	13.51	21.23	15.71
44	30/08/2018	66.56	40.20	BDL*	BDL*	BDL*	BDL*	0.40	BDL*	25.36	20.68	31.44	20.69
45	03/09/2018	54.80	25.64	BDL*	BDL*	BDL*	BDL*	0.17	BDL*	24.58	13.59	23.99	21.30
46	06/09/2018	90.37	47.27	0.74	BDL*	2.32	10.14	0.98	BDL*	46.35	23.66	35.61	19.51
47	10/09/2018	75.31	42.54	BDL*	BDL*	BDL*	BDL*	0.76	BDL*	16.27	16.28	28.50	28.49
48	13/09/2018	86.37	46.22	BDL*	BDL*	BDL*	BDL*	0.23	BDL*	29.55	12.60	34.31	24.34
49	17/09/2018	71.99	38.27	BDL*	BDL*	BDL*	BDL*	0.44	BDL*	20.48	18.23	37.37	20.57
50	20/09/2018	89.49	51.24	0.54	BDL*	2.56	10.46	0.61	BDL*	32.66	25.60	40.27	30.41
51	24/09/2018	62.65	29.28	BDL*	BDL*	BDL*	BDL*	0.78	BDL*	38.42	10.68	29.40	18.23
52	27/09/2018	80.28	44.63	0.66	BDL*	2.44	10.65	0.36	BDL*	50.32	20.34	44.56	26.30

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 (µg/m3): 0.5

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

BDL*: - Below Detection Limit - Ammonia NH₃ (µg/m³): 10

BDL*: - Below Detection Limit - Benzene as C₆H₆ (µg/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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5.00		Location-2: HSE Building Terrace (N 21° 05.043' E 72° 38.491')												
Sr. No.	Date of Sampling	PM10	PM _{2.5}	Pb	BaP	As	NI	со	C ₆ H ₆	NH ₃	SO ₂	NOx	03	
10.	Samping	µg/m ³	µg/m ³	µg/m ³	ng/m ³	ng/m ³	ng/m ³	mg/m ³	µg/m³	µg/m ³	µg/m³	µg/m ³	µg/m ³	
1	02/04/2018	45.82	18.91	BDL*	BDL*	BDL*	BDL*	0.37	BDL*	17.76	5.39	19.42	19.52	
2	05/04/2018	55.68	23.83	BDL*	BDL*	BDL*	BDL*	0.22	BDL*	10.71	8.36	15.31	25.53	
3	09/04/2018	68.93	28.55	BDL*	BDL*	BDL*	BDL*	0.29	BDL*	16.53	12.82	30.63	15.49	
4	12/04/2018	58.58	34.35	BDL*	BDL*	BDL*	BDL*	0.46	BDL*	22.65	16.67	40.29	24.28	
5	16/04/2018	73.40	31.56	BDL*	BDL*	BDL*	BDL*	0.13	BDL*	28.47	18.70	21.48	17.23	
6	19/04/2018	65.79	24.67	BDL*	BDL*	BDL*	BDL*	0.26	BDL*	19.29	10.37	25.37	20.45	
7	23/04/2018	76.80	35.10	BDL*	BDL*	BDL*	BDL*	0.52	BDL*	35.51	7.48	34.62	26.62	
8	26/04/2018	61.39	19.83	BDL*	BDL*	BDL*	BDL*	0.17	BDL*	23.27	9.73	24.13	16.66	
9	30/04/2018	86.28	39.57	BDL*	BDL*	BDL*	BDL*	0.68	BDL*	26.94	14.54	27.38	22.69	
10	03/05/2018	50.26	28.72	BDL*	BDL*	BDL*	BDL*	0.54	BDL*	28.40	17.35	22.73	17.30	
11	07/05/2018	69.37	33.44	BDL*	BDL*	BDL*	BDL*	0.40	BDL*	17.45	12.41	37.14	15.7	
12	10/05/2018	82.39	44.66	0.64	BDL*	BDL*	BDL*	0.48	BDL*	31.28	14.69	29.31	20.3	
13	14/05/2018	52.43	19.45	BDL*	BDL*	BDL*	BDL*	0.23	BDL*	25.41	10.17	33.45	18.37	
14	17/05/2018	46.34	29.47	BDL*	BDL*	BDL*	BDL*	0.29	BDL*	19.23	6.43	23.59	21.20	
15	21/05/2018	60.26	26.38	BDL*	BDL*	BDL*	BDL*	0.37	BDL*	13.45	9.32	20.33	28.8	
16	24/05/2018	59.31	37.65	BDL*	BDL*	BDL*	BDL*	0.25	BDL*	20.50	15.65	24.34	30.2	
17	28/05/2018	77.48	34.73	BDL*	BDL*	BDL*	BDL*	0.60	BDL*	26.36	8.65	38.44	23.3	
18	31/05/2018	64.68	31.22	BDL*	BDL*	BDL*	BDL*	0.47	BDL*	15.77	19.35	30.98	19.4	
19	04/06/2018	57.63	37.42	BDL*	BDL*	BDL*	BDL*	0.77	BDL*	19.59	19.58	30.48	20.64	
20	07/06/2018	66.46	32.41	BDL*	BDL*	BDL*	BDL*	0.30	BDL*	26.35	15.40	24.57	24.2	
21	11/06/2018	51.00	24.59	BDL*	BDL*	BDL*	BDL*	0.62	BDL*	29.47	13.28	38.47	19.8	
22	14/06/2018	68.51	27.61	BDL*	BDL*	BDL*	BDL*	0.80	BDL*	23.40	5.42	17.57	23.2	
23	18/06/2018	74.70	39.37	BDL*	BDL*	BDL*	BDL*	0.48	BDL*	14.25	8.52	22.71	15.7	
24	21/06/2018	52.28	25.66	BDL*	BDL*	BDL*	BDL*	0.42	BDL*	34.50	12.69	31.30	26.4	
25	25/06/2018	63.49	34.52	BDL*	BDL*	BDL*	BDL*	0.34	BDL*	18.46	17.32	40.25	28.6	
26	28/06/2018	47.50	17.59	BDL*	BDL*	BDL*	BDL*	0.11	BDL*	28.21	6.56	20.69	18.3	

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

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27	02/07/2018	46.42	19.70	BDL*	BDL*	BDL*	BDL*	0.13	BDL*	18.51	5.55	18.67	19.56
28	05/07/2018	62.68	34.27	BDL*	BDL*	BDL*	BDL*	0.56	BDL*	24.53	8.44	21.22	21.45
29	09/07/2018	77.43	41.60	BDL*	BDL*	BDL*	BDL*	0.53	BDL*	34.42	11.50	34.26	17.87
30	12/07/2018	60.59	36.84	BDL*	BDL*	BDL*	BDL*	0.37	BDL*	29.44	14.52	29.12	25.50
31	16/07/2018	52.64	24.30	BDL*	BDL*	BDL*	BDL*	0.64	BDL*	43.63	7.50	15.56	20.57
32	19/07/2018	42.97	16.31	BDL*	BDL*	BDL*	BDL*	0.17	BDL*	38.47	10.65	27.59	16.56
33	23/07/2018	79.42	39.57	BDL*	BDL*	BDL*	BDL*	0.55	BDL*	12.30	18.28	20.78	18.74
34	26/07/2018	63.73	26.37	BDL*	BDL*	BDL*	BDL*	0.26	BDL*	17.58	15.52	36.18	27.47
35	30/07/2018	59.58	30.26	BDL*	BDL*	BDL*	BDL*	0.23	BDL*	25.61	13.44	22.46	22.45
36	02/08/2018	72.59	38.50	BDL*	BDL*	BDL*	BDL*	0.52	BDL*	10.69	20.39	26.40	15.64
37	06/08/2018	55.64	23.39	BDL*	BDL*	BDL*	BDL*	0.34	BDL*	27.58	16.55	23.41	20.63
38	09/08/2018	62.30	29.39	BDL*	BDL*	BDL*	BDL*	0.72	BDL*	15.66	18.30	33,48	22.81
39	13/08/2018	50.33	20.32	BDL*	BDL*	BDL*	BDL*	0.41	BDL*	40.22	10.40	21.32	18.72
40	16/08/2018	68.43	37.59	BDL*	BDL*	BDL*	BDL*	0.58	BDL*	23.49	12.25	20.13	26.77
41	20/08/2018	44.62	22.39	BDL*	BDL*	BDL*	BDL*	0.21	BDL*	17.30	5.71	15.47	25.20
42	23/08/2018	73.57	33.24	BDL*	BDL*	BDL*	BDL*	0.49	BDL*	30.10	13.66	28.40	21.26
43	27/08/2018	40.25	15.27	BDL*	BDL*	BDL*	BDL*	0.19	BDL*	36.83	9.55	18.69	23.48
44	30/08/2018	52.33	32.33	BDL*	BDL*	BDL*	BDL*	0.53	BDL*	21.54	14.64	24.22	17.53
45	03/09/2018	44.60	16.31	BDL*	BDL*	BDL*	BDL*	0.24	BDL*	13.65	8.67	20.32	16.50
46	06/09/2018	58.45	29.43	BDL*	BDL*	BDL*	BDL*	0.74	BDL*	41.20	18.58	37.25	25.33
47	10/09/2018	65.70	32.33	BDL*	BDL*	BDL*	BDL*	0.34	BDL*	35.60	12.53	25.61	21.52
48	13/09/2018	78.61	33.49	BDL*	BDL*	BDL*	BDL*	0.56	BDL*	21.67	6.76	27.53	28.31
49	17/09/2018	59.30	25.33	BDL*	BDL*	BDL*	BDL*	0.30	BDL*	17.58	10.57	17.54	29.35
50	20/09/2018	82.28	42.68	BDL*	BDL*	BDL*	BDL*	0.45	BDL*	26.29	16.58	31.62	24.56
51	24/09/2018	54.68	27.65	BDL*	BDL*	BDL*	BDL*	0.19	BDL*	32.58	11.22	21.50	27.59
52	27/9/2018	72.64	35.39	BDL*	BDL*	BDL*	BDL*	0.47	BDL*	40.38	24.37	29.62	17.59

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 (µg/m³): 0.5

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

BDL*: - Below Detection Limit - Ammonia NH₃ (µg/m³): 10

BDL*: - Below Detection Limit - Benzene as C₆H₆ (µg/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-1.3: Ambient Air Quality Monitoring Results At Central Water Pump House

5.9.1	THOUT IN LAW	Location-3: Central Water Pump House (N 21° 04.697'E 72° 38.420')												
Sr. No.	Date of Sampling	PM10	PM2.5	Pb	BaP	As	NI	со	C ₆ H ₆	NH ₃	SO2	NOx	03	
NO.	Jampung	µg/m ³	µg/m ³	µg/m³	ng/m ³	ng/m ³	ng/m ³	mg/m ³	µg/m³	µg/m³	µg/m³	µg/m³	µg/m ³	
1	02/04/2018	59.21	24.37	BDL*	BDL*	BDL*	BDL*	0.31	BDL*	12.29	10.67	31.55	22.65	
2	05/04/2018	78.38	35.76	BDL*	BDL*	BDL*	BDL*	0.65	BDL*	26.12	16.68	32.69	19.39	
3	09/04/2018	63.40	20.48	BDL*	BDL*	BDL*	BDL*	0.11	BDL*	22.43	8.76	21.55	21.50	
4	12/04/2018	50.33	30.46	BDL*	BDL*	BDL*	BDL*	0.25	BDL*	29.50	18.38	27.65	17.32	
5	16/04/2018	62.42	27.54	BDL*	BDL*	BDL*	BDL*	0.61	BDL*	16.59	11.70	16.35	25.28	
6	19/04/2018	54.32	31.30	BDL*	BDL*	BDL*	BDL*	0.45	BDL*	17.52	6.70	30.76	30.49	
7	23/04/2018	69.33	28.66	BDL*	BDL*	BDL*	BDL*	0.23	BDL*	13.52	15.48	23.25	15.73	
8	26/04/2018	57.18	25.76	BDL*	BDL*	BDL*	BDL*	0.40	BDL*	20.28	5.73	18.04	20.60	
9	30/04/2018	65.30	23.77	BDL*	BDL*	BDL*	BDL*	0.47	BDL*	18.44	12.63	26.27	26.42	
10	03/05/2018	82.46	48.53	BDL*	BDL*	BDL*	BDL*	0.62	BDL*	15.57	13.86	29.54	20.55	
11	07/05/2018	75.34	26.54	BDL*	BDL*	BDL*	BDL*	0.26	BDL*	23.85	10.30	21.49	22.84	
12	10/05/2018	56.52	34.55	BDL*	BDL*	BDL*	BDL*	0.34	BDL*	44.55	12.67	32.30	16.54	
13	14/05/2018	69.46	28.84	BDL*	BDL*	BDL*	BDL*	0.64	BDL*	30.38	7.63	38.70	24.33	
14	17/05/2018	79.34	46.28	BDL*	BDL*	BDL*	BDL*	0.44	BDL*	25.64	9.50	40.29	26.80	
15	21/05/2018	50.57	23.86	BDL*	BDL*	BDL*	BDL*	0.87	BDL*	18.69	18.81	36.47	25.35	
16	24/05/2018	66.41	43.25	BDL*	BDL*	BDL*	BDL*	0.36	BDL*	27.20	14.31	20.54	18.48	
17	28/05/2018	56.32	24.55	BDL*	BDL*	BDL*	BDL*	0.21	BDL*	42.77	16.21	26.15	27.86	
18	31/05/2018	80.33	40.32	BDL*	BDL*	BDL*	BDL*	0.57	BDL*	10.67	11.53	34.39	17.29	
19	04/06/2018	69.29	35.59	BDL*	BDL*	BDL*	BDL*	0.45	BDL*	24.52	6.81	34.80	30.32	
20	07/06/2018	50.38	23.65	BDL*	BDL*	BDL*	BDL*	0.16	BDL*	17.89	17.63	30.32	17.23	
21	11/06/2018	76.40	41.52	BDL*	BDL*	BDL*	BDL*	0.46	BDL*	35.70	11.34	26.55	27.35	
22	14/06/2018	60.27	25.75	BDL*	BDL*	BDL*	BDL*	0.58	BDL*	38.40	13.60	33.51	25.52	
23	18/06/2018	52.66	32.61	BDL*	BDL*	BDL*	BDL*	0.53	BDL*	29.29	10.53	28.61	23.46	
24	21/06/2018	72.63	37.25	BDL*	BDL*	BDL*	BDL*	0.25	BDL*	26.25	5.64	18.66	28.70	
25	25/06/2018	82.42	44.37	BDL*	BDL*	BDL*	BDL*	0.55	BDL*	40.53	19.48	31.64	26.74	
26	28/06/2018	42.61	15.75	BDL*	BDL*	BDL*	BDL*	0.33	BDL*	18.15	15.43	37.33	22.38	
27	02/07/2018	41.64	17.56	BDL*	BDL*	BDL*	BDL*	0.24	BDL*	12.58	10.59	33.71	21.20	
28	05/07/2018	55.45	30.60	BDL*	BDL*	BDL*	BDL*	0.31	BDL*	19.34	5.80	18.50	18.53	
29	09/07/2018	65.53	35.65	BDL*	BDL*	BDL*	BDL*	0.29	BDL*	30.47	9.51	22.86	25.65	

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30	12/07/2018	53.64	22.63	BDL*	BDL*	BDL*	BDL*	0.44	BDL*	23.60	11.61	16.87	15.69
31	16/07/2018	76.39	38.64	BDL*	BDL*	BDL*	BDL*	0.71	BDL*	33.53	15.39	35.79	24.37
32	19/07/2018	49.61	19.31	BDL*	BDL*	BDL*	BDL*	0.34	BDL*	20.54	6.55	31.24	26.42
33	23/07/2018	71.54	34.65	BDL*	BDL*	BDL*	BDL*	0.40	BDL*	26.46	12.44	25.34	20.64
34	26/07/2018	69.62	31.55	BDL*	BDL*	BDL*	BDL*	0.42	BDL*	35.72	17.31	19.35	28.41
35	30/07/2018	52.86	25.40	BDL*	BDL*	BDL*	BDL*	0.41	BDL*	16.35	19.48	29.24	16.44
36	02/08/2018	60.63	30.43	BDL*	BDL*	BDL*	BDL*	0.39	BDL*	22.82	14.49	22.62	17.21
37	06/08/2018	51.26	20.59	BDL*	BDL*	BDL*	BDL*	0.24	BDL*	21.63	10.72	15.33	21.15
38	09/08/2018	68.72	36.51	BDL*	BDL*	BDL*	BDL*	0.60	BDL*	31.24	20.49	19.63	28.31
39	13/08/2018	58.36	23.59	BDL*	BDL*	BDL*	BDL*	0.66	BDL*	29.35	17.52	32.63	20.41
40	16/08/2018	62.61	31.57	BDL*	BDL*	BDL*	BDL*	0.38	BDL*	14.54	9.68	26.38	29.57
41	20/08/2018	38.53	17.56	BDL*	BDL*	BDL*	BDL*	0.14	BDL*	10.20	8.50	33.80	22.36
42	23/08/2018	61.60	27.58	BDL*	BDL*	BDL*	BDL*	0.26	BDL*	24.30	11.43	20.71	25.49
43	27/08/2018	46.55	18.56	BDL*	BDL*	BDL*	BDL*	0.30	BDL*	20.81	7.52	23.37	19.29
44	30/08/2018	59.37	29.28	BDL*	BDL*	BDL*	BDL*	0.29	BDL*	17.67	18.76	27.83	15.55
45	03/09/2018	50.27	22.42	BDL*	BDL*	BDL*	BDL*	0.14	BDL*	10.52	6.57	15.60	14.27
46	06/09/2018	68.68	32.80	BDL*	BDL*	BDL*	BDL*	0.57	BDL*	26.25	13.55	21.61	30.27
47	10/09/2018	52.78	20.50	BDL*	BDL*	BDL*	BDL*	0.66	BDL*	23.55	14.30	35.43	24.62
48	13/09/2018	70.88	28.37	BDL*	BDL*	BDL*	BDL*	0.29	BDL*	15.67	8.40	31.27	26.74
49	17/09/2018	68.24	33.61	BDL*	BDL*	BDL*	BDL*	0.18	BDL*	12.59	16.45	28.44	16.27
50	20/09/2018	78.31	38.32	BDL*	BDL*	BDL*	BDL*	0.49	BDL*	21.79	9.65	22.73	18.63
51	24/09/2018	83.39	40.31	BDL*	BDL*	BDL*	BDL*	0.39	BDL*	18.81	7.54	19.33	29.26
52	27/09/2018	62.55	26.28	BDL*	BDL*	BDL*	BDL*	0.32	BDL*	28.51	12.21	24.92	21.44

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 (µg/m3): 0.5

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

BDL*: - Below Detection Limit - Ammonia NH₃ (µg/m³): 10

BDL*: - Below Detection Limit - Benzene as C₆H₆ (µg/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-1.4: Ambient Air Quality Monitoring Results At Container Terminal

		Location-4: Container Terminal (N 21° 05.187'E 72° 37.774)												
Sr. No.	Date of Sampling	PMio	PM _{2.5}	Pb	BaP	As	NI	со	C ₆ H ₆	NH ₃	SO2	NOX	03	
NO.	Samping	µg/m ³	µg/m³	µg/m ³	ng/m ³	ng/m ³	ng/m ³	mg/m ³	µg/m ³	µg/m ³	µg/m ³	µg/m³	µg/m³	
1	02/04/2018	52.60	22.42	BDL*	BDL*	BDL*	BDL*	0.71	BDL*	30.65	8.37	26.78	28.54	
2	05/04/2018	72.32	32.48	BDL*	BDL*	BDL*	BDL*	0.16	BDL*	40.46	10.51	19.45	24.40	
3	09/04/2018	84.37	40.54	0.58	BDL*	2.18	10.21	0.44	BDL*	33.41	5.42	27.35	26.42	
4	12/04/2018	65.41	37.19	BDL*	BDL*	BDL*	BDL*	0.13	BDL*	10.42	9.72	15.70	15.48	
5	16/04/2018	54.59	20.64	BDL*	BDL*	BDL*	BDL*	0.19	BDL*	36.17	6.70	23.55	20.64	
6	19/04/2018	76.29	41.32	BDL*	BDL*	BDL*	BDL*	0.55	BDL*	15.33	14.63	33.76	17.33	
7	23/04/2018	61.28	24.42	BDL*	BDL*	BDL*	BDL*	0.18	BDL*	29.43	13.41	30.67	19.48	
8	26/04/2018	73.62	33.63	BDL*	BDL*	BDL*	BDL*	0.27	BDL*	24.83	7.55	21.74	25.38	
9	30/04/2018	58.73	18.53	BDL*	BDL*	BDL*	BDL*	0.39	BDL*	20.54	11.69	18.48	16.61	
10	03/05/2018	65.39	36.44	BDL*	BDL*	BDL*	BDL*	0.19	BDL*	22.62	11.20	35.33	22.42	
11	07/05/2018	86.35	38.67	0.54	BDL*	BDL*	BDL*	0.53	BDL*	36.34	18.22	31.25	30.67	
12	10/05/2018	79.19	26.76	BDL*	BDL*	BDL*	BDL*	0.65	BDL*	11.69	10.59	20.61	18.63	
13	14/05/2018	64.25	30.57	BDL*	BDL*	BDL*	BDL*	0.78	BDL*	18.43	16.53	27.49	16.32	
14	17/05/2018	55.45	35.45	BDL*	BDL*	BDL*	BDL*	0.89	BDL*	31.48	12.39	30.61	23.21	
15	21/05/2018	78.45	32.43	BDL*	BDL*	2.18	BDL*	0.66	BDL*	16.65	13.71	24.26	21.68	
16	24/05/2018	53.20	25.80	BDL*	BDL*	BDL*	BDL*	0.52	BDL*	24.21	7.47	18.63	26.36	
17	28/05/2018	68.46	21.59	BDL*	BDL*	BDL*	BDL*	0.38	BDL*	37.30	21.29	33.64	20.83	
18	31/05/2018	79.39	28.62	BDL*	BDL*	BDL*	BDL*	0.18	BDL*	13.34	17.70	22.56	15.66	
19	04/06/2018	51.63	19.72	BDL*	BDL*	BDL*	BDL*	0.52	BDL*	28.59	15.61	24.37	18.53	
20	07/06/2018	60.28	26.75	BDL*	BDL*	BDL*	BDL*	0.36	BDL*	10.91	11.27	27.51	29.71	
21	11/06/2018	57.53	39.64	BDL*	BDL*	BDL*	BDL*	0.19	BDL*	40.22	17.59	31.21	21.20	
22	14/06/2018	78.65	33.52	0.52	BDL*	2.56	BDL*	0.44	BDL*	12.68	8.62	22.49	17.58	
23	18/06/2018	64.89	36.52	BDL*	BDL*	2.38	BDL*	0.31	BDL*	33.65	18.63	35.64	19.76	
24	21/06/2018	83.60	42.48	BDL*	BDL*	BDL*	BDL*	0.37	BDL*	30.36	16.30	38.58	25.37	
25	25/06/2018	59.66	29.43	BDL*	BDL*	BDL*	BDL*	0.26	BDL*	23.62	14.32	21.58	20.57	
26	28/06/2018	69.33	25.60	BDL*	BDL*	BDL*	BDL*	0.14	BDL*	14.55	9.81	26.78	15.61	
27	02/07/2018	57.52	25.64	BDL*	BDL*	BDL*	BDL*	0.27	BDL*	16.47	8.53	28.72	15.67	
28	05/07/2018	68.70	41.82	BDL*	BDL*	BDL*	BDL*	0.18	BDL*	13.51	10.15	15.71	23.46	
29	09/07/2018	73.61	32.47	BDL*	BDL*	BDL*	BDL*	0.32	BDL*	37.53	15.65	27.77	20.63	

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30	12/07/2018	49.88	29.56	BDL*	BDL*	BDL*	BDL*	0.50	BDL*	27.56	6.64	33.40	19.52
31	16/07/2018	83.54	42.65	0.52	BDL*	BDL*	BDL*	0.22	BDL*	23.43	9.65	19.53	16.25
32	19/07/2018	59.46	26.72	BDL*	BDL*	BDL*	BDL*	0.58	BDL*	29.23	20.52	21.63	22.51
33	23/07/2018	82.29	49.27	BDL*	BDL*	2.10	10.40	0.45	BDL*	18.70	5.56	30.48	24.53
34	26/07/2018	75.35	37.56	BDL*	BDL*	BDL*	BDL*	0.66	BDL*	21.56	12.65	18.45	18.37
35	30/07/2018	63.38	27.81	BDL*	BDL*	BDL*	BDL*	0.36	BDL*	10.28	11.23	23.52	28.03
36	02/08/2018	67.35	34.35	BDL*	BDL*	BDL*	BDL*	0.45	BDL*	13.53	10.69	29.42	21.61
37	06/08/2018	76.80	38.18	BDL*	BDL*	BDL*	BDL*	0.50	BDL*	24.51	12.67	31.20	24.60
38	09/08/2018	82.62	43.56	BDL*	BDL*	BDL*	BDL*	0.61	BDL*	19.13	14.39	35.48	16.81
39	13/08/2018	73.22	32.85	BDL*	BDL*	BDL*	BDL*	0.37	BDL*	31.59	15.38	18.83	28.41
40	16/08/2018	56.85	28.60	BDL*	BDL*	BDL*	BDL*	0.64	BDL*	36.40	6.54	21.70	18.33
41	20/08/2018	48.54	25.60	BDL*	BDL*	BDL*	BDL*	0.11	BDL*	14.39	9.43	26.49	20.23
42	23/08/2018	66.80	30.56	BDL*	BDL*	BDL*	BDL*	0.32	BDL*	33.52	17.34	32.44	29.66
43	27/08/2018	52.75	21.39	BDL*	BDL*	BDL*	BDL*	0.55	BDL*	25.42	13.25	15.74	17.56
44	30/08/2018	72.30	37.19	BDL*	BDL*	BDL*	BDL*	0.16	BDL*	12.36	8.66	19.44	22,46
45	03/09/2018	60.27	29.56	BDL*	BDL*	BDL*	BDL*	0.31	BDL*	18.63	11.10	19.52	19.37
46	06/09/2018	70.62	26.33	BDL*	BDL*	BDL*	BDL*	0.46	BDL*	19.51	19.21	30.28	18.38
47	10/09/2018	81.52	46.40	0.56	BDL*	BDL*	BDL*	0.26	BDL*	26.59	6.36	22.30	30.49
48	13/09/2018	61.29	23.43	BDL*	BDL*	BDL*	BDL*	0.62	BDL*	34.50	10.31	21.34	20.23
49	17/09/2018	86.22	49.23	BDL*	BDL*	BDL*	BDL*	0.48	BDL*	10.25	12.38	25.36	23.53
50	20/09/2018	69.21	27.51	BDL*	BDL*	BDL*	BDL*	0.22	BDL*	28.62	14.27	27.79	21.73
51	24/09/2018	59.30	32.44	BDL*	BDL*	BDL*	BDL*	0.50	BDL*	21.57	16.17	36.57	16.47
52	27/09/2018	78.35	39.27	BDL*	BDL*	BDL*	BDL*	0.42	BDL*	35.42	8.99	32.85	24.71

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 (µg/m³): 0.5

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

BDL*: - Below Detection Limit - Ammonia NH₃ (µg/m³): 10

BDL*: - Below Detection Limit - Benzene as C₆H₆ (µg/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-1.5: Ambient Air Quality Monitoring Results At Hazira Village

800	(BOD AN) AN			Loca	tion-5:	Hazira	Village	(N 21°	05.44' E	72° 38	3.44′)		
Sr. No.	Date of Sampling	PM10	PM _{2.5}	Pb	BaP	As	Ni	со	C ₆ H ₆	NH ₃	SO2	NOx	03
1011	company	µg/m ³	µg/m ³	µg/m³	ng/m ³	ng/m ³	ng/m ³	mg/m ³	µg/m ³	µg/m ³	µg/m ³	µg/m ³	µg/m ³
1	02/04/2018	69.11	27.61	BDL*	BDL*	BDL*	BDL*	0.21	BDL*	25.89	19.59	23.44	21.27
2	05/04/2018	85.69	40.34	BDL*	BDL*	BDL*	BDL*	0.63	BDL*	49.63	13.76	31.58	27.56
3	09/04/2018	90.41	47.46	0.64	BDL*	2.46	10.47	0.48	BDL*	37.91	17.66	36.48	17.43
4	12/04/2018	75.59	45.37	BDL*	BDL*	BDL*	BDL*	0.30	BDL*	33.60	12.39	33.52	30.29
5	16/04/2018	83.62	35.36	BDL*	BDL*	2.24	10.26	0.66	BDL*	43.46	23.62	28.54	28.60
6	19/04/2018	70.61	32.59	0.78	BDL*	2.68	10.70	0.74	BDL*	29.28	20.60	42.27	19.32
7	23/04/2018	89.30	48.34	BDL*	BDL*	BDL*	10.52	0.96	BDL*	38.84	18.44	37.17	29.35
8	26/04/2018	79.43	38.37	BDL*	BDL*	BDL*	BDL*	0.69	BDL*	52.71	10.44	27.45	18.49
9	30/04/2018	82.32	33.47	0.76	BDL*	2.75	10.36	0.82	BDL*	46.24	14.65	24.41	26.62
10	03/05/2018	86.45	51.28	BDL*	BDL*	BDL*	BDL*	0.88	BDL*	11.88	15.43	26.37	26.23
11	07/05/2018	63.28	30.41	BDL*	BDL*	BDL*	BDL*	0.71	BDL*	41.27	20.65	40.66	28.68
12	10/05/2018	88.41	49.22	0.56	BDL*	2.34	10.63	0.55	BDL*	52.42	16.62	35.27	21.71
13	14/05/2018	79.62	44.32	BDL*	BDL*	BDL*	BDL*	0.92	BDL*	38.46	22.78	30.40	27.20
14	17/05/2018	64.55	38.50	BDL*	BDL*	BDL*	BDL*	0.33	BDL*	45.46	17.70	27.25	29.26
15	21/05/2018	93.41	47.63	0.84	BDL*	2.64	10.98	0.63	BDL*	21.28	21.44	33.73	20.17
16	24/05/2018	74.47	32.51	BDL*	BDL*	BDL*	BDL*	0.45	BDL*	18.30	11.72	29.68	23.39
17	28/05/2018	94.28	50.40	0.65	BDL*	2.46	10.30	0.79	BDL*	47.28	19.01	41.26	30.32
18	31/05/2018	85.69	46.63	BDL*	BDL*	BDL*	BDL*	0.94	BDL*	22.75	9.84	38.36	24.62
19	04/06/2018	82.62	46.83	BDL*	BDL*	BDL*	BDL*	0.71	BDL*	41.64	22.42	43.60	24.61
20	07/06/2018	90.23	49.25	0.68	BDL*	2.18	10.30	0.50	BDL*	30.50	19.26	37.40	22.79
21	11/06/2018	85.73	44.54	BDL*	BDL*	BDL*	BDL*	0.63	BDL*	55.62	24.66	42.60	28.83
22	14/06/2018	92.31	54.21	0.76	BDL*	2.75	10.61	0.54	BDL*	19.40	20.50	29.36	20.35
23	18/06/2018	78.99	42.71	0.58	BDL*	2.55	10.91	0.24	BDL*	47.49	16.39	39.42	25.27
24	21/06/2018	88.30	50.33	BDL*	BDL*	BDL*	BDL*	0.60	BDL*	38.57	18.59	41.89	30.24
25	25/06/2018	76.67	36.63	BDL*	BDL*	BDL*	BDL*	0.76	BDL*	45.52	26.43	34.76	21.79
26	28/06/2018	63.94	30.83	BDL*	BDL*	BDL*	BDL*	0.22	BDL*	22.43	17.79	23.57	27.52
27	02/07/2018	62.52	28.58	BDL*	BDL*	BDL*	BDL*	0.21	BDL*	24.71	14.49	20.51	28.94
28	05/07/2018	84.66	47.50	BDL*	BDL*	BDL*	BDL*	0.25	BDL*	32.40	18.65	28.23	17.58
29	09/07/2018	92.77	53.25	0.70	BDL*	2.48	10.71	0.73	BDL*	27.48	21.52	41.27	27.61

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30	12/07/2018	72.47	32.58	BDL*	BDL*	BDL*	BDL*	0.47	BDL*	46.75	9.64	36.87	30.42
31	16/07/2018	88.79	46.54	0.65	BDL*	BDL*	BDL*	0.98	BDL*	39.43	11.32	29.45	22.88
32	19/07/2018	65.33	30.46	BDL*	BDL*	BDL*	BDL*	0.48	BDL*	42.60	22.87	38.38	29.49
33	23/07/2018	93.44	51.75	0.84	BDL*	2.56	10.81	0.19	BDL*	55.60	16.49	33.88	26.51
34	26/07/2018	86.04	40.58	0.75	BDL*	2.32	10.40	0.60	BDL*	30.03	25.51	30.10	20.40
35	30/07/2018	77.73	34.33	BDL*	BDL*	BDL*	BDL*	0.54	BDL*	28.65	20.60	40.27	21.82
36	02/08/2018	88.67	48.50	0.84	BDL*	2.34	10.54	0.69	BDL*	50.31	18.65	36.33	26.89
37	06/08/2018	68.29	31.25	BDL*	BDL*	BDL*	BDL*	0.42	BDL*	42.58	21.61	33.59	28.66
38	09/08/2018	75.35	39.38	0.75	BDL*	2.18	10.36	0.56	BDL*	35.76	25.55	39.26	24.31
39	13/08/2018	81.25	36.38	BDL*	BDL*	BDL*	BDL*	0.92	BDL*	36.20	19.22	27.52	22.63
40	16/08/2018	73.70	44.25	BDL*	BDL*	BDL*	BDL*	0.54	BDL*	29.19	23.62	37.08	20.38
41	20/08/2018	58.72	33.42	BDL*	BDL*	BDL*	BDL*	0.25	BDL*	23.62	13.45	17.56	27.30
42	23/08/2018	87.53	40.29	0.63	BDL*	2.46	10.80	0.68	BDL*	44.52	24.49	40.24	30.51
43	27/08/2018	60.44	28.50	BDL*	BDL*	BDL*	BDL*	0.44	BDL*	39.26	16.20	26.60	25.34
44	30/08/2018	79.36	46.25	BDL*	BDL*	BDL*	BDL*	0.23	BDL*	18.61	22.87	34.22	19.45
45	03/09/2018	67.65	33.46	BDL*	BDL*	BDL*	BDL*	0.40	BDL*	21.87	15.61	26.41	23.29
46	06/09/2018	79.36	43.25	0.65	BDL*	2.16	10.40	0.63	BDL*	29.50	25.71	38.30	27.35
47	10/09/2018	88.64	49.29	0.84	BDL*	2.38	10.51	0.94	BDL*	30.53	18.55	30.70	30.04
48	13/09/2018	95.68	39.08	BDL*	BDL*	BDL*	BDL*	0.79	BDL*	42.64	16.76	37.59	20.03
49	17/09/2018	79.70	35.29	BDL*	BDL*	BDL*	BDL*	0.64	BDL*	23.40	20.42	42.35	18.95
50	20/09/2018	94.36	52.42	0.76	BDL*	2.88	10.80	0.55	BDL*	37.60	23.32	44.29	28.59
51	24/09/2018	76.34	38.54	BDL*	BDL*	BDL*	BDL*	0.87	BDL*	26.72	19.33	32.39	22.60
52	27/09/2018	87.57	47.42	0.60	BDL*	2.54	10.71	0.68	BDL*	55.78	17.20	39.14	29.52

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 Delhl , 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 (µg/m3): 0.5

BDL*: - Below Detection Limit - Carbon Monoxide as CO (mg/m³): 0.01 BDL*: - Below Detection Limit - Ammonia NH₃ (µg/m³): 10

BDL*: - Below Detection Limit - Benzene as C₆H₆ (µg/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: Apr., 2018 TO Sept., 2018

4B. GROUND WATER QUALITY MONITORING: -

GROUND WATER OPEN WELL Sr. AUG-18 SEP-18 UNIT JULY-18 APRIL-18 MAY-18 JUNE-18 TEST PARAMETERS NO. 22/09/2018 13/08/2018 22/06/2018 30/07/2018 22/05/2018 26/04/2018 2 3 2 3 Hazen 3 4 Colour 1 Agreeable Agreeable Agreeable Agreeable Agreeable Agreeable Odour 2 Agreeable Agreeable Agreeable Agreeable Agreeable Agreeable 3 Taste 1.2 1.64 0.32 0.24 NTU 0.74 0.58 Turbidity 4 7.68 7.54 7.3 7.4 7.94 7.17 -pH Value 5 344 338 436 412 476 390 mg/L 6 Total Hardness as CaCO3 0.04 0.052 0.028 0.032 0.044 0.011 mg/L Iron as Fe 7 74 98.2 62 100 88.97 92 mg/L 8 Chloride as Cl < 0.2 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 mg/L **Residual Free Chlorine** 9 0.5 0.4 0.26 0.12 0.2 0.5 mg/L Fluoride as F 10 602 578 835 814 756 840 mg/L Total Dissolved Solids 11 71 70.4 88 96 86.4 124 mg/L Calcium as Ca 12 38 41.28 40.32 51.84 39.84 41.76 mg/L 13 Magnesium as Mg 0.013 0.015 0.02 0.022 0.036 BDL* mg/L Copper as Cu 14 0.032 0.024 0.017 0.012 0.021 BDL* mg/L Manganese as Mn 15 39.4 46.2 48.2 56.2 48.4 70.2 mg/L Sulphate as SO4 16 0.94 1.1 0.34 0.32 0.34 0.74 mg/L Nitrate Nitrogen as NO3 17 BDL* BDL* BDL* BDL* BDL* BDL* Phenolic compounds as C₆H₅OH mg/L 18 BDL* BDL* BDL* BDL* BDL* BDL* mg/L Mercury as Hg 19 BDL* BDL* BDL* BDL* BDL* BDL* mg/L 20 Cadmium as Cd BDL* BDL* BDL* BDL* BDL* BDL* mg/L 21 Selenium as Se BDL* BDL* BDL* BDL* BDL* BDL* mg/L 22 Arsenic as As BDL* BDL* BDL* BDL* BDL* BDL* mg/L Cvanide as CN 23 BDL* BDL* BDL* BDL* BDL* BDL* mg/L Lead as Pb 24 BDL* BDL* BDL* BDL* BDL* BDL* mg/L Zinc as Zn 25 BDL* BDL* BDL* BDL* BDL* BDL* Anionic Detergents as MBAS mg/L 26 BDL* BDL* BDL* BDL* BDL* BDL* Chromiumas Cr⁺⁶ mg/L 27 BDL* BDL* BDL* BDL* BDL* BDL* mg/L 28 Mineral Oil 400 382 462 484 432 214 Alkalinity mg/L 29 0.021 0.015 0.008 0.012 0.011 BDL* mg/L Aluminum as Al 30 0.016 0.019 0.026 0.02 BDL* 0.06 mg/L Boron as B 31 Pesticides 32 BDL* BDL* BDL* BDL* BDL* BDL* µg/I Alachor 32.1 BDL* BDL* BDL* BDL* BDL* BDL* µg/l Atrazine 32.2 BDL* BDL* BDL* BDL* BDL* BDL* µg/I 32.3 Aldrin/Dieldrine BDL* BDL* BDL* BDL* BDL* BDL* µg/l Alpha HCH 32.4 BDL* BDL* BDL* BDL* BDL* BDL* µg/l Beta HCH 32.5 BDL* BDL* BDL* BDL* BDL* µg/l BDL* Butachlor 32.6 BDL* BDL* BDL* BDL* BDL* BDL* µg/l 32.7 Chlorpyriphos

Table-1.6: Ground Water Quality Results for the period: April, 2018 to Sep., 2018

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EX.				GR	OUND WAT	ER OPEN WI	ELL	
Sr. NO.	TEST PARAMETERS	UNIT	APRIL-18	MAY-18	JUNE-18	JULY-18	AUG-18	SEP-18
			26/04/2018	22/05/2018	22/06/2018	30/07/2018	13/08/2018	22/09/2018
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/l	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*
32.10	Monocrotophos	µg/l	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
		µg/l	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
32.18	Phorate	/100 ml	Absent	Absent	Absent	Absent	Absent	Absent
33 34	Coliform E-Coli	/100 ml		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: Apr., 2018 TO Sept., 2018

4C. SURFACE WATER QUALITY MONITORING: -

	N INCODENCIAL CONTRACTOR			At Mora	a Village (Su	rface Water	– Pond)	
Sr. No.	Parameters	Unit	APRIL-18	MAY-18	JUNE-18	JULY-18	AUG-18	SEP-18
			26/04/18	22/05/18	22/06/18	30/07/18	13/08/18	22/09/18
1	Odour	225	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
2	Colour	Hazen	3	3	4	6	8	10
3	Taste		Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
4	pH Value		7.78	7.37	7.1	8.73	8.31	8.14
5	Turbidity	NTU	1.9	1.4	2.6	1.88	6.2	4.8
6	Total Dissolved Solids	mg/L	692	980	1040	1408	408	478
7	Total Hardness as CaCO ₃	mg/L	140	398	510	632	135	140
8	Chloride as Cl	mg/L	146	110	129	148	72	82
9	Fluoride as F	mg/L	0.6	0.3	0.45	0.32	0.75	0.8
10	Iron as Fe	mg/L	0.18	0.18	0.21	0.16	0.24	0.28
11	Coliform	/100 ml	Present	Present	Present	Present	Present	Present
12	E-Coli	/100 ml	Absent	Absent	Present	Absent	Absent	Absent

Table-1.7: Surface Water (Pond) Quality Results for the period: April, 2018 to Sep., 2018

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: Apr., 2018 TO Sept., 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: April, 2018 to Sep., 2018

s.	TEST	al la company		CB2 SC	OUTH END	RES TOWARD	ULTS OF S	DE FROM	R QUALIT	IN(N 21º	5'1.92", E	72°37'50	5.58")	
NO.	PARAMETERS	UNIT	APRI	L-18	MAY		JUNE		JULY	-18	AUGU	5T-18	SEPTEM	BER-18
			Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom
1	рH		8.15	8.21	8.18	8.12	8.17	8.15	8.25	8.16	8.1	8.01	8.08	8
2	Temperature	°C	30.8	30	31.4	31.1	31.6	31.2	30.8	30.6	30.9	30.7	31	30.8
3	Total Suspended Solids	mg/L	340	290	390	272	367	312	412	390	386	322	351	296
4	BOD (3 Days @ 27 ℃)	mg/L	5	4	4.2	3.2	3	4	4	3	3.6	2.8	4	3
5	Dissolved Oxygen	mg/L	6.4	6.1	6.2	5.8	6.3	5.9	6.8	6.5	5.8	5.2	6.2	5.8
6	Salinity	ppt	30.1	29.9	31.2	29.6	31	30	29.2	28.4	29.4	28.6	29.8	29.2
7	Oil & Grease	mg/L	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	BĎL*	BDL*	BDL*
8	Nitrate as NO3	µmol /L	17.8	15.2	13.2	10.8	14.6	12	17.8	12.6	20.2	13.1	15.4	10.1
9	Nitrite as NO ₂	µmol /L	2.1	1.7	2.4	2	1.6	1.2	1.6	1.2	2.4	1.6	1.3	1
10	Ammonical Nitrogenas NH ₃	µmol /L	2.4	2.2	2.8	2.6	2.3	1.9	3.5	2.6	3.1	2.4	1.9	1.5
11	Phosphates as PO4	µmol /L	2.1	1.8	2.25	1.9	2.49	1.91	2.5	2.11	3.8	2.1	2.4	2.4
12	Total Nitrogen	µmol /L	12.4	9.8	10.8	8.2	17.1	14.2	22.9	16.4	25.7	17.1	18.6	12.6
13	Petroleum Hydrocarbon	µg/L	15	12	22	12	18	13	23	18	20	15	20	12
14	Total Dissolved Solids	mg/L	34322	34018	34982	34380	34740	33912	33710	32980	33210	33090	33912	33204
15	COD	mg/L	18	16	14	12	12	10	15	10	16	10	12	8
A	Flora and Fauna												2.	
16.1	Primary Productivity	mgC/L /day	2.2	0.65	1.8	0.94	2.48	1.3	3.06	2.25	3.29	2.13	3.1	1.9
B	Phytoplankton	Intel		0.000	(2010	145770346		-		0.50	2.24	2.2	2.8
17,1	Chlorophyll	mg/ m ¹	2.7	0.44	2.5	1.2	3.43	2.63	3.92	2.92	3.56	2.21	3.3	-
17.2	Phaeophytin	mg/ m ³	0.8	0.65	1.2	0.8	2.58	2.4	2.23	1.47	2.85	1.51	1.9	1.3
17.3	Cell Count	No.x 10 ³ /	140	95	170	110	110	63	164	98	172	80	150	60
17.4	Name of Group Number and name of group species of each group		Anabae na sp. Anklstr odesm us sp. Navicul a sp. Scened esmus sp. Pediast rum sp.	Fragilla ria sp. Nitzschi a sp. Thallasl osira sp. 	Navicul a sp Oscillat oria sp Thalass lossira sp closteri um sp Nitzschi a sp	Navicul a sp Fragilla rla sp Melosir a sp 	Navicul a Nitzach ia Leptocy lindrus Thalass iosira	Melosir a Nitzach ia Navicul a 	Melosir a closteri um sp Pediast rum Nitzschi a Thallasi osira Navicul a	Navicul a Nitzschi Bacteri astrem Melosir a 	Navicul a Nitzschi Thallasi osira Melosir a	Nitzschi a Fragrill a Bacteri astrem	Navicul a Nitzschi a Thallasi osira Melosir a Biddulp hla	Nitzsci a Fragri a Melos a
С	Zooplanktons	8	A				(_ <u>i</u>				
18.1	Abundance	Nox10 3/100		.8	1	45		15	e	50		54	8	5
18.2	Name of Group Number	<u>m3</u>	Ampl Cteno Lamellil	epods hipods phores pranches	Dec	epods apods hipods	Gast	ponds ropods apods	Cope Ostro Deca	nipods epods acods apods	Iso Gasti Ostr	epods pond ropods acods	Ison Gastr Ostra	epods bond opods acods
18.3	Total Blomass	ml/10 0 m ³	e	5.2	4	1.5	3	.76	5	i.8	8	3.5	8.	25

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D Microbiological Parameters

	marchological	raramete						
19.1	Total Bacterial Count	CFU/ ml	1780	1990	1860	2040	1950	1980
19.2	Total Coliform	/ml	Absent	Absent	Absent	Absent	Absent	Absent
19.3	E.coli	/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	/mi	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-1.9: Sea Water Quality Analysis Results of MP1 West End towards Channel from the Sea Basin for the period: April, 2018 to Sep., 2018

s.	TEST	UNIT		MP1		D TOWAR	SULTS OF	NEL FROM	ER QUALI 1 SEA BAS	TY ANAL	/SIS 5'9.78",E	72°37'24	4.48")	
NO.	PARAMETERS	0.1141		IL-18	MA	Y-18		E-18		Y-18		ST-18		4BER-18
		1.1	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Botton
1	pH		8.02	8.15	8.07	8.02	8.12	8.05	8.12	8.05	8.13	8.03	8.16	8.03
2	Temperature Total Suspended	oC	31.2	30.6	31.2	30.9	31.5	31.3	30.2	30	30.8	30.1	30.5	30.3
3	Solids	mg/ L	440	380	460	428	403	278	450	372	416	390	312	274
4	BOD (3 Days @ 27 °C)	mg/ L	6	4	4	3	3	2	3	1	2	BDL*	3	BDL*
5	Dissolved Oxygen	mg/ L	6.2	5.8	6.4	6	6	5.8	6.6	6	6.6	5.4	6.4	6
6	Salinity	ppt	29.8	29.4	31	29.8	32	31	30.1	29.6	30.4	30.1	30.2	30
7	Oil & Grease	mg/ L µmo	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
8	Nitrate as NO ₃	I/L	20.2	18.1	16.4	12.2	17.6	15.4	13.8	10.2	7.4	3.4	11.6	5.4
9	Nitrite as NO ₂ Ammonical	μπο 1/L	2.4	1.8	2	1.6	1.8	1.2	2.8	2.4	2.1	1.8	1.5	0.88
10	Nitrogenas NH ₃	µmo I/L	2.9	2.5	3.1	2.8	2.6	2.2	3	2.3	4.4	3	1.8	1.2
11	Phosphates as PO ₄	µmo I/L	1.78	1.6	2.15	1.96	3.05	2.87	2.8	2.6	2.9	2.7	2.6	2.4
12	Total Nitrogen	µṁo I/L	15.4	13.8	11.8	9.8	12.4	10.2	19.6	14.9	13.9	8.2	14.9	7.48
13	Petroleum Hydrocarbon	µg/L	18	10	10	6	14	8	14	8	15	10	10	8
14	Total Dissolved Solids	mg/ L	34210	33940	35460	35210	35790	35332	34112	33872	33902	33640	33756	33582
15	COD	mg/ L	20	18	14	12	10	8	12	5	10	5	8	BDL*
A	Flora and Fauna													
16.1	Primary Productivity	mgC/L /day	2.1	0.7	2.8	1.1	1.9	1.3	4.8	3.1	3.69	1.75	2.54	1.08
B	Phytoplankton				· · · · ·									
17.1	Chlorophyll	mg/ m²	2.8	0.5	2.4	1.5	3.19	2.37	3.8	2.1	3.33	2.11	3.33	2.5
17.2	Phaeophytin	mg/ m ³	1.1	0.9	1.6	1.3	2.67	1.24	3.8	1.6	2.31	1.6	2.58	1.24
17.3	Cell Count	No.x 10³/	124	95	110	86	127	72	240	180	198	92	204	80
17,4	Name of Group Number and name of group species of each group		Ankistr odesm us sp. Navicul a sp. Pediast rum sp. Nitzschi a sp.	Melosir a sp. Nitzschi a sp. Fragilla rla sp.	Pediastr um sp. Navicul a sp. Skeleto nema sp. Oscillat oria sp. Biddulp hia sp.	Navicul a sp. Nitzsch ia sp. Melosir a sp 	Thallasi osira Navicul a Nitzachi a Skeleto nema	Synedr a Navicu la 	Pediast rum Nitzach la Navicul a Biddulp hla Thallasi osira	Navicul a Nitzach Ia Pediast rum	Pediast rum Closteri um Navicul a Thallasi osira	Navicul a Nitzach ia Bacteri astrum	Pediast rum Nitzach ia Navicul a Thallasi osira	Navicul a Melosir a Bacteri astrum
С	Zooplanktons								,					
18.1	Abundance (Population)	Nox10 3/100 m3	1	8	3	0	31	3	5	5	5	7	7	7
18.2	Name of Group Number and name of group species of each group	-	Cope Isop Amph	ods	Mys Polych Cope Gastro	aetes pods	Copej Decaj Polych	oods	Cope Gastro Ostra	pods	Polych Gastro Ostrae	opods	Polych Gastro Ostra	opods
19.3	Total Biomass	ml/10 0 m ³	6.	4	5.	2	30	.5	4.	8	5.	5	6.	4

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D Microbiological Parameters

	mauniological	roiamete						
19.1 1	Total Bacterial Count	CFU/ ml	1650	1850	1780	2310	2250	2290
19.2	Total Coliform	/ml	Absent	Absent	Absent	Absent	Absent	Absent
19.3	E.coll	/ml	Absent	Absent	Absent	Absent	Absent	Absent
19.6	Enterococcus species	/ml	Absent	Absent	Absent	Absent	Absent	Absent
1951	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: April, 2018 to Sep., 2018

S.	TEST	UNIT				WARDS C	SULTS OF	ROM SEA	BASIN (21° 5'14	.67", E 7			
NO.	PARAMETERS	0.0.1	APRI	(L-18		7-18		E-18		Y-18		IST-18	SEPTEN	IBER-18
		1.1	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Botton
1	pH	(Care)	8.17	8.12	8.25	8.17	8.13	8.09	8.32	8.25	8.19	8.12	8.24	8.16
2	Temperature	oC	30.8	30.5	31.4	30.9	31.2	30	30.4	30.1	30	30	20.8	20.4
3	Total Suspended Solids	mg/ L	440	390	380	342	410	372	388	362	440	410	356	310
4	BOD (3 Days @ 27 °C)	mg/ L	4	2	3	2	5	4	5	2	2	1	2	BDL*
5	Dissolved Oxygen	mg/ L	6	5.6	6.2	5.8	6.4	6.2	6.3	5.8	6.6	6.2	6.4	6
6	Salinity	ppt	30.2	29.8	30.8	30.5	31	30	30.3	29.8	30.6	29.6	30.8	30.1
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	17.2	13.8	14.8	11.2	19.6	13.2	20.6	15.2	19.4	11.2	14	10
9	Nitrite as NO ₂	µmo I/L	2.2	1.8	1.6	1.1	2.4	1.6	2	1.7	3.6	2	2.4	1.6
10	Ammonical Nitrogenas NH ₃	µmo VL	3	2.7	4.4	3.1	2.8	2.2	3.3	2.7	1.8	1.2	1.2	1
11	Phosphates as PO ₄	µmo I/L	2.1	1.8	1.84	1.65	2.98	2.15	2.12	1.9	2.35	2.1	2.1	180
12	Total Nitrogen	µmo VL	15.8	12.2	9.6	7.8	14.6	10.2	25.9	19.6	24.8	14.4	17.6	12.6
13	Petroleum Hydrocarbon	µg/L	14	8	18	16	20	14	29	6	14.6	10	18	8
14	Total Dissolved Solids	mg/	33710	33430	34840	34362	35116	34992	34526	34090	33960	33210	34216	33974
15	COD	mg/	18	8	11	10	18	16	18	7	14	10	10	BDL*
A	Flora and Fauna		000.00											A
16.1	Primary Productivity	mgC/L /day	1.2	0.75	1.44	0.85	1.8	0.95	2.74	2.07	3.15	2.7	2.61	1.57
B	Phytoplankton				·									1
17.1	Chlorophyll	mg/ m ³	2.6	0.4	2.9	1.5	3.31	2.7	3.28	2.28	3.8	2.38	3.76	2.28
17.2	Phaeophytin	mg/ m'	1.5	0.5	1.1	0.8	1.51	1.06	2.13	1.33	2.18	1.86	2.04	1.94
17.3	Cell Count	No.x 10 ³ /	95	80	120	90	121	69	180	88	156	76	166	82
17.4	Name of Group Number and name of group species of each group	3	Pediast rum sp. Closteri um sp. Thallasi osira sp. Navicul a sp.	Nitzschi a sp. Navicul a sp. Melosir a sp. 	Pediast rum sp. Navicul a sp. Closteri um sp. Oscillat oria sp. Biddulp hia sp.	Navicul a sp. Skeleto nema sp. Bacillari a sp. 	Leptocy lindrus Navicul a Nitzach ia Syndra	Navicul a Melosir a 	Navicul a Melosir a Nitasch ia Closterl um Biddulp hia Synedr a	Navicul a Thallasi osira Nitasch ia 	Navicul a Melosir a Nitasch ia Closteri um Thallasi osira Synedr a	Navicul a Fragiazi a Nitasch la 	Melosir a Rhizoso leria Nitasch la Synedr a Fragilla ria	Synedr a Fraglaz a Navicu a
С	Zooplanktons					122200	21							
18.1	Abundance (Population)	Nox10 3/100 m3	2	4	2	2	5	1	5	4	5	9	7	9
18.2	Name of Group Number and name of group species of each group	1	Cope	acods epods niferans	Nema Cope	niferans itodes ipods ipods	Deca Gastr	pods pods opods naetes	Gastr Ostra	epods opods acods apods	Gastr	epods opods opods	Gastr	pods opods pods
18.3	Total Biomass	ml/10 0 m ³	8	.2	7	.5	4	02	5	.8	4	.9		5

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19.1	Total Bacterial Count	CFU/ ml	1710	1990	1640	1980	2100	1940
19.2	Total Coliform	/ml	Absent	Absent	Absent	Absent	Absent	Absent
19.3	E.coli	/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	Shigelia species	/ml	Absent	Absent	Absent	Absent	Absent	Absent
19.7	Vibrio species	/ml	Absent	Absent	Absent	Absent	Absent	Absent

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: Apr., 2018 TO Sept., 2018

4E. DUMP POND DISCHARGE WATER QUALITY MONITORING: -

Table-1.11:	Dump Pond Water Q	ality Analysis Results for the Period: April, 2018 to Sep., 201	18
-------------	--------------------------	---	----

(BOIL)	WE FOUND SHOULD FEED WITH A	TAUR, 100	28/05/2018	16/08/2018	16/08/2018	16/08/2018
Sr. No.	Parameters	Unit	OLD COAL YARD	NEAR PUMP HOUSE COAL YARD	OLD COAL YARD	РЕТ СОСК
1	рН	122	8.98	8.01	7.76	7.92
2	Total Dissolved Solids	mg/L	2210	1046	168	162
3	Total Suspended Solids	mg/L	65	72	170	156
4	Turbidity	NTU	102	136	14.2	10.2
5	BOD (3 Days @ 27 °C)	mg/L	24	30	8.2	8.6
6	Dissolved Oxygen	mg/L	6.2	6.1	6.6	5.2
7	COD	mg/L	90	158	42	40
8	Salinity	ppt	0.92	1.4	0.055	0.068
9	Oil & Grease	mg/L	2.1	1.8	BDL*	BDL*
10	Total Hardness as CaCO ₃	mg/L	110	92	76	46
11	Fluoride as F	mg/L	1.1	0.64	0.32	0.28
12	Chloride as Cl	mg/L	508	780	30	38
13	Zinc as Zn	mg/L	0.035	0.064	0.01	0.012
14	Cadmium as Cd	mg/L	BDL*	BDL*	BDL*	BDL*
15	Lead as Pb	mg/L	BDL*	BDL*	BDL*	BDL*
16	Mercury as Hg	mg/L	BDL*	BDL*	BDL*	BDL*

BDL*: Below Detection Limit, Minimum Detection Limit, Mercury as Hg: 0.00025 mg/L, Oll & 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.

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ANNEXURE-4F:

AMBIENT NOISE LEVEL MONITORING RESULTS

PERIOD: Apr., 2018 TO Sept., 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: April, 2018 to Sep., 2018 At Near Port Gate No.: 2

Sampling Location	1 - Near Port Gate No.: 2 N 21º 05.426'E 72º37.739'							
ongitude Latitude	03/04/2018		04/06/2018	02/07/2018	02/08/2018	03/09/2018		
Date of Monitoring	02/04/2018	03/05/2018						
6:00-7:00	56.8	63.0	55.2	68.2	69.6	70.2		
7:00-8:00	53.6	60.3	54.2	59.1	61.7	67.2		
8:00-9:00	58.5	67.9	63.2	73.5	70.3	65.3		
9:00-10:00	67.0	62.2	72.0	72.6	65.2	70.4		
10:00-11:00	64.8	73.2	67.0	69.0	68.2	66.8		
11:00-12:00	66.6	68.8	62.5	71.0	71.4	68.7		
12:00-13:00	69.9	64.3	70.8	57.9	62.3	60.3		
13:00-14:00	71.1	70.2	73.5	74.9	64.2	55.3		
14:00-15:00	52.6	55.7	56.3	61.7	63.6	68.2		
15:00-16:00	72.0	69.9	73.8	50.3	60.4	56.0		
16:00-17:00	65.1	71.1	69.3	67.2	56.3	61.2		
17:00-18:00	63.6	61.2	64.2	62.2	66.2	69.2		
18:00-19:00	73.6	66.8	68.7	58.6	55.9	62.3		
19:00-20:00	70.9	74.2	61.1	66.4	72.6	53.9		
20:00-21:00	68.1	72.3	71.1	70.5	69.6	54.3		
21:00-22:00	62.7	65.2	59.9	63.9	71.2	63.5		

Table-1.13:	Noise Level Monitoring	Results during	the Night	Time in Leq.	dB(A) for	the period: April,	2018 to
Sep., 2018 At 1	Near Port Gate No.: 2						

Sampling Location	1 - Near Port Gate No.: 2								
Longitude Latitude	N 21° 05.426′E 72°37.739′								
Date of Monitoring	02/04/2018 & 03/04/2018	03/05/2018 & 04/05/2018	04/06/2018 & 05/06/2018	02/07/2018 & 03/07/2018	02/08/2018 & 03/08/2018	03/09/2018 & 04/09/2018			
22:00-23:00	65.1	66.0	61.9	60.0	59.2	55.2			
23:00-00:00	58.7	61.2	63.2	64.4	56.2	62.1			
00:00-01:00	66.2	67.4	58.9	59.0	62.8	61.2			
01:00-02:00	61.5	65.4	68.2	53.9	61.6	51.2			
02:00-03:00	57.6	59.2	62.4	63.9	57.3	59.5			
03:00-04:00	55.2	54.8	60.2	58.8	55.2	64.7			
04:00-05:00	60.3	62.3	59.2	65.6	57.2	58.3			
05:00-06:00	43.8	46.9	50.9	56.8	55.2	59.9			

"dB(A) Leq. denotes the time weighted average of the level of sound in decidels on scale A which is related 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 normsasper 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: April, 2018 to Sep., 2018 At HSE Building Terrace

Sampling Location	2 - HSE Building Terrace							
Longitude Latitude	SUDULU A	dian di Cal	N 21° 05.043'	E 72° 38.491				
Date of Monitoring	05/04/2018	07/05/2018	07/06/2018	05/07/2018	24/08/2018	13/09/2018		
6:00-7:00	63.2	70.0	62.2	72.3	68.3	69.3		
7:00-8:00	49.2	50.3	56.2	61.9	62.5	65.0		
8:00-9:00	59.3	68.2	71.2	66.0	69.2	72.3		
9:00-10:00	65.3	58.2	67.6	57.2	59.3	52.0		
10:00-11:00	66.2	67.2	65.7	52.2	65.2	62.5		
11:00-12:00	57.8	66.9	69.2	56.6	67.9	54.3		
12:00-13:00	70.8	71.2	63.6	55.3	68.1	64.3		
13:00-14:00	68.1	60.2	61.2	59.9	50.7	66.1		
14:00-15:00	61.5	63.7	52.3	60.2	65.2	55.3		
15:00-16:00	69.8	72.0	71.0	54.4	64.5	58.2		
16:00-17:00	64.9	59.2	60.1	68.8	62.9	63.2		
17:00-18:00	67.0	73.2	55.7	53.6	56.2	60.3		
18:00-19:00	72.9	69.6	57.7	58.0	60.8	56.3		
19:00-20:00	60.5	62.9	68.0	71.4	53.6	61.0		
20:00-21:00	71.4	65.5	64.5	51.1	61.2	67.2		
21:00-22:00 JB(A) Leq. denotes the t	55.2	61.1	59.0	67.0	66.6	72.9		

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

Sampling Location	2 - HSE Building Terrace								
Longitude Latitude Date of Monitoring	N 21° 05.043' E 72° 38.491'								
	05/04/2018 & 06/04/2018	07/05/2018 & 08/05/2018	07/06/2018 & 08/06/2018	05/07/2018 & 06/07/2018	24/08/2018 & 25/08/2018	13/09/2018 & 14/09/2018			
22:00-23:00	62.3	64.8	56.8	60.6	65.1	63.2			
23:00-00:00	64.6	63.2	60.1	61.2	60.6	56.3			
00:00-01:00	66.5	58.2	61.1	63.6	61.2	57.9			
01:00-02:00	55.2	57.0	51.2	64.3	63.6	65.9			
02:00-03:00	57.8	62.2	65.4	66.0	58.2	53.6			
03:00-04:00	58.5	66.0	63.4	69.2	59.3	60.2			
04:00-05:00	54.1	59.9	66.4	65.3	64.2	51.3			
05:00-06:00	50.4	56.9	52.3	62.0	60.1	64.1			

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

Sampling Location Longitude Latitude	3 - Central Water Pump House N 21° 04.697' E 72° 38.420'							
Date of Monitoring	09/04/2018	10/05/2018	11/06/2018	09/07/2018	09/08/2018	18/09/2018		
6:00-7:00	55.3	57.8	54.0	64.8	70.9	65.4		
7:00-8:00	69.0	67.1	58.8	65.0	68.2	62.0		
8:00-9:00	62.4	71.9	64.0	73.0	60.2	65.3		
9:00-10:00	59.9	66.0	72.0	68.1	71,1	63.2		
10:00-11:00	71.0	61.1	67.2	55.2	64.5	59.3		
11:00-12:00	54.4	60.3	61.5	72.0	69.6	68.3		
12:00-13:00	70.3	70.2	69.0	58.9	62.3	52.3		
13:00-14:00	72.7	69.0	70.0	54.9	59.3	55.9		
14:00-15:00	60.3	65.5	53.7	56.3	65.5	64.3		
15:00-16:00	65.9	59.6	60.9	61.1	69.7	53.2		
16:00-17:00	67.0	71.8	59.2	66.3	57.2	51.6		
17:00-18:00	68.8	70.9	72.1	62.3	63.6	66.3		
18:00-19:00	57.7	63.3	65.8	51.2	52.3	54.3		
19:00-20:00	56.6	64.1	70.3	57.0	50.2	58.3		
20:00-21:00	64.2	70.3	68.8	63.7	58.8	60.3		
21:00-22:00	66.6	62.7	63.2	69.9	53.2	71.5		

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: April, 2018 to	Sep.,
2018 At Central Water Pump House	

Sampling Location	3 - Central Water Pump House								
Longitude Latitude	N 21° 04.697' E 72° 38.420'								
Date of Monitoring	09/04/2018 & 10/04/2018	10/05/2018 & 11/05/2018	11/06/2018 & 12/06/2018	09/07/2018 & 10/07/2018	09/08/2018 & 10/08/2018	18/09/2018 & 19/09/2018			
22:00-23:00	63.0	53.6	52.7	56.7	60.6	61.2			
23:00-00:00	65.8	57.4	59.4	55.6	63.6	56.2			
00:00-01:00	67.3	65.3	64.2	53.8	63.5	49.3			
01:00-02:00	49.5	53.7	61.3	56.6	60.6	62.5			
02:00-03:00	56.9	60.8	62.3	64.9	61.7	58.3			
03:00-04:00	55.7	62.0	64.1	65.1	56.7	63.9			
04:00-05:00	58.6	62.1	59.7	68.4	59.3	56.3			
05:00-06:00	64.8	65.3	67.1	69.9	61.6	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: April, 2018 to Sep., 2018 At Container Terminal

Sampling Location	4 - Container Terminal								
Longitude Latitude		N 21° 05.187' E 72° 37.774'							
Date of Monitoring	12/04/2018	14/05/2018	14/06/2018	12/07/2018	13/08/2018	21/09/2018			
6:00-7:00	62.6	56.9	61.1	67.8	64.3	69.7			
7:00-8:00	58.8	57.2	63.7	56.3	68.1	73.0			
8:00-9:00	54.9	58.3	53.2	65.5	63.3	70.9			
9:00-10:00	65.5	64.3	71.2	72.2	66.3	68.3			
10:00-11:00	61.5	62.2	67.4	51.6	59.5	66.2			
11:00-12:00	69.8	69.4	59.2	57.7	60.7	54.3			
12:00-13:00	64.1	65.3	54.3	74.0	58.3	59.3			
13:00-14:00	66.0	60.5	57.9	59.3	66.5	67.2			
14:00-15:00	63.6	66.1	70.0	71.0	68.3	55.3			
15:00-16:00	74.4	55.3	62.5	68.7	57.4	63.3			
16:00-17:00	71.0	64.5	74.1	58.2	54.9	64.3			
17:00-18:00	73.9	69.8	72.0	61.2	62.4	58.2			
18:00-19:00	67.3	68.1	73.3	55.9	66.6	61.3			
19:00-20:00	68.9	69.5	55.2	52.3	62.7	56.3			
20:00-21:00	70.3	59.0	65.8	63.2	61.8	71.9			
21:00-22:00	60.9	63.1	68.6	64.8	65.1	57.8			

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: April, 2018 to Sep., 2018 At Container Terminal

Sampling Location	4 - Container Terminal N 21° 05.187' E 72° 37.774'							
Longitude Latitude Date of Monitoring								
	12/04/2018 & 13/04/2018	14/05/2018 & 15/05/2018	14/06/2018 & 15/06/2018	12/07/2018 & 13/07/2018	13/08/2018 & 14/08/2018	21/09/2018 & 22/09/2018		
22:00-23:00	68.1	51.3	55.3	58.1	59.5	52.3		
23:00-00:00	52.1	55.0	56.7	60.2	63.2	65.7		
00:00-01:00	57.2	60.7	63.6	65.3	61.3	58.2		
01:00-02:00	64.4	62.3	65.8	57.8	60.9	54.3		
02:00-03:00	54.9	57.9	58.5	61.6	64.3	66.4		
03:00-04:00	53.4	54.4	52.2	59.8	62.5	63.5		
04:00-05:00	60.2	63.0	66.2	67.2	55.3	59.3		
05:00-06:00	56.7	61.8	62.7	66.3	54,9	59.9		

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: April, 2018 to Sep., 2018 At Hazira Village

Sampling Location	5 - Hazira Village							
Longitude Latitude			N 21° 05.44'	E 72° 38.44'		AA		
Date of Monitoring	16/04/2018	17/05/2018	18/06/2018	16/07/2018	16/08/2018	22/09/2018		
6:00-7:00	55.7	54.2	63.5	69.3	60.3	66.6		
7:00-8:00	59.4	70.2	70.8	64.8	68.5	56.2		
8:00-9:00	63.5	53.3	68.3	55.7	69.3	62.3		
9:00-10:00	54.8	62.3	65.8	58.3	61.4	55.8		
10:00-11:00	68.1	70.3	61.3	65.4	62.3	64.8		
11:00-12:00	58.0	63.0	69.8	53.2	70.3	68.5		
12:00-13:00	64.4	60.3	67.3	57.8	68.2	66.3		
13:00-14:00	67.3	71.2	68.5	61.3	58.3	59.6		
14:00-15:00	53.1	69.4	69.9	52.9	64.8	68.2		
15:00-16:00	62.3	68.8	70.6	59.8	54.4	52.1		
16:00-17:00	56.5	67.3	64.4.	63.2	57.9	60.7		
17:00-18:00	69.7	72.3	62.7	56.2	55.5	65.3		
18:00-19:00	60.9	55.3	58.3	68.2	65.4	68.3		
19:00-20:00	52.9	58.3	54.5	62.0	62.2	69.2		
20:00-21:00	66.0	65.6	57.1	67.3	66.8	53.6		
21:00-22:00	61.8	64.5	60.9	72.6	68.1	57.4		

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: April, 2018 to Sep., 2018 At Hazira Village

Sampling Location Longitude Latitude Date of Monitoring	5 - Hazira Village N 21° 05.44' E 72° 38.44'					
	22:00-23:00	62.4	61.3	65.6	64.5	61.8
23:00-00:00	51.6	48.8	53.6	57.8	55.6	58.2
00:00-01:00	55.3	59.9	60.9	58.3	61.0	57.4
01:00-02:00	50.3	54.3	55.3	63.3	52.3	62.5
02:00-03:00	46.4	51.3	50.2	55.8	59.5	58.6
03:00-04:00	52.2	58.6	59.6	62.3	56.6	56.7
04:00-05:00	57.5	60.3	62.3	65.8	61.5	59.5
05:00-06:00	54.0	53.9	58.1	56.2	60.7	48.4

*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 & STACK EMISSION AND NOISE LEVEL MONITORING RESULTS

PERIOD: Apr., 2018 TO Sept., 2018



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

Sr.	Parameters Unit Particulate Matter mg/Nm ³	i lastas la	DG SET TOYO DENKI -1		DG SET TOYO DENKI -2		DG SET TOYO DENKI -3	
No.		Unit	MAY-18	AUG-18	MAY-18	AUG-18	MAY-18	AUG-18
1		mg/Nm ³	15.5	19.84	11.74	13.41	12.83	15.63
2	Sulphur Dioxide	ppm	6.61	7.91	5.37	7.51	4.34	6.27
3	Oxide of Nitrogen	ppm	39.23	32.67	36.95	25.77	32.89	28.77
4	Carbon Monoxide (CO)	mg/m ³	5.73	10.1	7.43	6.44	3.93	7.63
5	Non Methyl Hydro Carbon (NMHC)	mg/m ³	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*

Table-1.22: DG Sets Stack Monitoring Results for the period: April, 2018 to Sep., 2018

Table-1.23: DG Sets Noise Level Monitoring Results for the period: April, 2018 to Sep., 2018

6 I 65	DG Set Average Noise Level In Leq. dB(A)								
Sr. No.	Sampling Location	At 1 M Distance From The Enclosure							
	Sampling Date	MAY-18	AUG-18						
1.	DG SET TOYO DENKI -1	71.2	72.7						
2.	DG SET TOYO DENKI -2	73.5	70.5						
3.	DG SET TOYO DENKI -3	72.4	71.8						

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ANNEXURE-4H:

SEA SEDIMENT QUALITY MONITORING RESULTS

PERIOD: Apr., 2018 TO Sept., 2018

4H. SEA SEDIMENT QUALITY MONITORING: -

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

S.	PARAMETERS	UNIT	CB2 S		TOWARDS 1° 5'1.92",			OM SEA BASIN 3")	
NO.			APRIL-18	MAY-18	JUNE-18	JULY-18	AUG-18	SEP-18	
1	Organic Matter	%	0.36	0.54	0.48	0.65	0.55	0.65	
2	Phosphorus as P	µg/g	810	920	680	620	740	920	
3	Texture		Sandy Silt	Sandy Silt	Sandy Silt	Sandy Silt	Sandy Silt	Sandy Silt	
4	Petroleum Hydrocarbon	hð/ð	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	
5	Heavy Metals								
5.1	Aluminum as Al	%	4.8	5.1	4.9	5.3	5.3	5.5	
5.2	Total Chromium as Cr ⁺³	µg/g	140	112	132	112	130	156	
5.3	Manganese as Mn	µg/g	1540	1710	1680	1780	1810	1922	
5.4	Iron as Fe	%	4.6	4.9	4.9	5.1	4.7	4.9	
5.5	Nickel as Ni	µg/g	42	56	36	42	40	32	
5.6	Copper as Cu	µg/g	38.2	32	29	30	31	40	
5.7	Zinc as Zn	µg/g	172	210	170	210	156	260	
5.8	Lead as Pb	µg/g	12.6	8.4	10.8	7.5	7.4	3.2	
5.9	Mercury as Hg	µg/g	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	
6	Benthic Organisms								
6.1	Macrobenthos (No and name of groups present, No and name of species of each group present)		Polychaetes Bivalves	Polychaete worms Brachyurans	Polycheates Bivalues	Bivalues Polycheates Decapods	Bivalues Polycheates	Bivalues Polycheates	
6.2	MeioBenthos (No and name of groups present, No and name of species of each group present)	-	Copepods	Foraminifer ans Bryozoans	Copepods	Copepods	Bryozons Ostracodes	Copepods Ostracodes	
6.3	Population	No./m ²	480	210	380	471	324	412	

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 period: April, 2018 to Sep., 2018

s.	PARAMETERS	UNIT	MP1 WEST END TOWARDS CHANNEL OF SEA BASIN (N 21° 5'9.78",E 72°37'24.48")						
NO.		2,0000	APRIL-18	MAY-18	JUNE-18	JULY-18	AUG-18	SEP-18	
1	Organic Matter	%	0.28	0.44	0.52	0.45	0.38	0.54	
2	Phosphorus as P	µg/g	740	610	940	810	930	810	
3	Texture		Sandy Silt	Sandy Silt	Sandy Silt	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	%	5.1	5.6	5.25	5.1	5.4	5.3	
5.2	Total Chromium as Cr ⁺³	µg/g	108	98	110	142	170	110	
5.3	Manganese as Mn	µg/g	1680	1820	1570	1840	1620	1788	
5.4	Iron as Fe	%	4.9	4.7	5.1	5.05	4.9	4.8	
5.5	Nickel as Ni	µg/g	58	38	58	36	48	44	
5.6	Copper as Cu	µg/g	23.4	29	36	38	24	28	
5.7	Zinc as Zn	µg/g	188	270	212	232	214	234	
5.8	Lead as Pb	µg/g	10.2	7.2	8.6	6.2	5.1	2.6	
5.9	Mercury as Hg	µg/g	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	
6	Benthic Organisms								
6.1	Macrobenthos (No and name of groups present, No and name of species of each group present)		Polychaet e worms	Bivalves Polychaet e	Polycheat es Isopods	Polycheat es Decapods Isopods	Polycheat es Decapods	Polycheat es Chaetogn athes	
6.2	MeioBenthos (No and name of groups present, No and name of species of each group present)		Nematode s Copepods	Nematode s Bryozoans	Bryozoans	Ostracode S	Bryozoans	Copepods	
6.3	Population	No./m ²	590	180	176	412	235	324	

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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"Pollucon House", Plot No. 5 & 6, Opp.Balaji Industrial Society, Old Shantinath Silk Mill Lane, Near Gaytri Farsan Mart, Navjivan Circle,Udhana Magdalla Road, Surat-395007, Gujarat, India.

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

s.	PARAMETERS	UNIT	C			E 72°37'40.		N
NO.		- Chill	APRIL-18	MAY-18	JUNE-18	JULY-18	AUG-18	SEP-18
1	Organic Matter	%	0.6	0.75	0.64	0.72	0.62	0.6
2	Phosphorus as P	µg/g	770	840	770	890	810	980
3	Texture		Sandy Silt	Sandy Silt	Sandy Silt	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	%	5.3	5.45	5.05	5.5	4.9	5.2
5.2	Total Chromlum as Cr ⁺³	µg/g	152	172	127	130	152	172
5.3	Manganese as Mn	µg/g	1710	1960	1810	1580	1570	1490
5.4	Iron as Fe	%	5.1	5.3	4.8	5.2	5.2	4.75
5.5	Nickel as Ni	µg/g	35	65	42	58	56	52
5.6	Copper as Cu	µg/g	44.6	36	24	44	18	23
5.7	Zinç as Zn	µg/g	156	198	150	263	196	218
5.8	Lead as Pb	µg/g	14.8	9.9	13.2	5.5	2.8	3.8
5.9	Mercury as Hg	µg/g	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
6	Benthic Organisms							
6.1	Macrobenthos (No and name of groups present, No and name of species of each group present)	<u>02</u>	Polychaete worms Decapods	Polychaete worms Bivalves	Polycheate s Gastropod s	Polycheate s Bivalues	Polycheate s Bivalues	Polycheate s Decapods
6.2	MeioBenthos (No and name of groups present, No and name of species of each group present)		Nematode s	Bryozoans Nematods	Bryozoans	Copepods Ostracodes	Copepods	Copepods
6.3	Population	No./m ²	450	240	265	529	206	206

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: Apr., 2018 TO Sept., 2018

4I. SOIL QUALITY MONITROING: -

Table-1.28A : Soil Quality Testing Results for the period: April, 2018 to Sep., 2018

SR. NO.	PARAMETERS	UNIT	NEAR LT CANTEEN PARKING	NEAR PORT GATE NO. 2 30/04/2018	
			30/04/2018		
1 '	Туре		Clay	Clay	
Grain Size	Analysis			7	
2	Gravel	%	3.9	2.8	
3	Coarse Sand	%	6	3.9	
4	Medium Sand	%	10.2	13.2	
5	Fine Sand	%	57.9	56.1	
6	Total Sand	%	22	24	
7	Silt + Clay	%	78	76	
8	pH (1:5)		9.3	9.05	
9	Electricity Conductivity	µmho/cm	1860	1960	
10	Alkali matter	mg/kg	590	760	
11	Cation Exchange Capacity	meq/100 gm	60	52	
12	Sodium Absorption Ratio		12	13.2	
13	Organic Matter	mg/kg	0.8	0.56	
14	Available Nitrogen	meq/100 gm	0.24	0.32	
15	Available Potassium	mg/kg	2.6	4.1	
16	Available Phosphorus	mg/kg	0.34	0.36	
17	Available Sodium	mg/kg	0.65	1.1	
18	Permeability	cm/sec	4.2 × 10 ⁻⁵	4.2 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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Table-1.28A : Soil Quality Testing Results for the period: April, 2018 to Sep., 2018

SR. NO.	PARAMETERS	UNIT	NEAR LT CANTEEN PARKING	NEAR PORT GATE NO. 2 28/06/2018	
		din ndav	28/06/2018		
1	Туре	22	Clay	Clay	
Grain Size	Analysis				
2	Gravel	%	2.4	2.1	
з.	Coarse Sand	%	8.2	6.2	
4	Medium Sand	%	12.6	15.4	
5	Fine Sand	%	53.8	58	
6	Total Sand	%	23	22	
7	Silt + Clay	%	77	78	
8	рН (1:5)		8.95	8.95	
9	Electricity Conductivity	µmho/cm	1920	2010	
10	Alkali matter	mg/kg	610	702	
11	Cation Exchange Capacity	meq/100 gm	55	58	
12	Sodium Absorption Ratio		14	15	
13	Organic Matter	mg/kg	0.72	0.45	
14	Available Nitrogen	meq/100 gm	0.18	0.24	
15	Available Potassium	mg/kg	3	3.5	
16	Available Phosphorus	mg/kg	0.25	0.4	
17	Available Sodium	mg/kg	0.75	0.9	
18	Permeability	cm/sec	3.8 × 10 ⁻⁵	3.9 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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Table-1.28A : Soll Quality Testing Results for the period: April, 2018 to Sep., 2018

SR. NO.	PARAMETERS	UNIT	NEAR LT CANTEEN PARKING	NEAR PORT GATE NO. 2 27/09/2018	
	n na sana sana sa ka sa ka sa sa ka		27/09/2018		
1	Туре	<u></u>	Clay	Clay	
Grain Size	Analysis				
2	Gravel	%	1.2	1.1	
3	Coarse Sand	%	7.4	5.8	
4	Medium Sand	%	14.4	13.4	
5	Fine Sand	%	30	24.2	
6	Total Sand	%	53	44.5	
7	Silt + Clay	%	47	55.5	
8	pH (1:5)		8.65	8.89	
9	Electricity Conductivity	µmho/cm	1720	1778	
10	Alkali matter	mg/kg	590	690	
11	Cation Exchange Capacity	meq/100 gm	48	50	
12	Sodium Absorption Ratio		12	13	
13 .	Organic Matter	mg/kg	0.58	0.35	
14	Available Nitrogen	meq/100 gm	0.21	0.18	
15	Available Potassium	mg/kg	4	4	
16	Available Phosphorus	mg/kg	0.32	4.2	
17	Available Sodium	mg/kg	1.1	0.95	
18	Permeability	cm/sec	3.6 × 10 ⁻⁵	3.8 X 10 ⁻⁵	

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

Authorized Signatory

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"Pollucon House", Plot No. 5 & 6, Opp.Balaji Industrial Society, Old Shantinath Silk Mill Lane, Near Gaytri Farsan Mart, Navjivan Circle,Udhana Magdalla Road, Surat-395007, Gujarat, India.

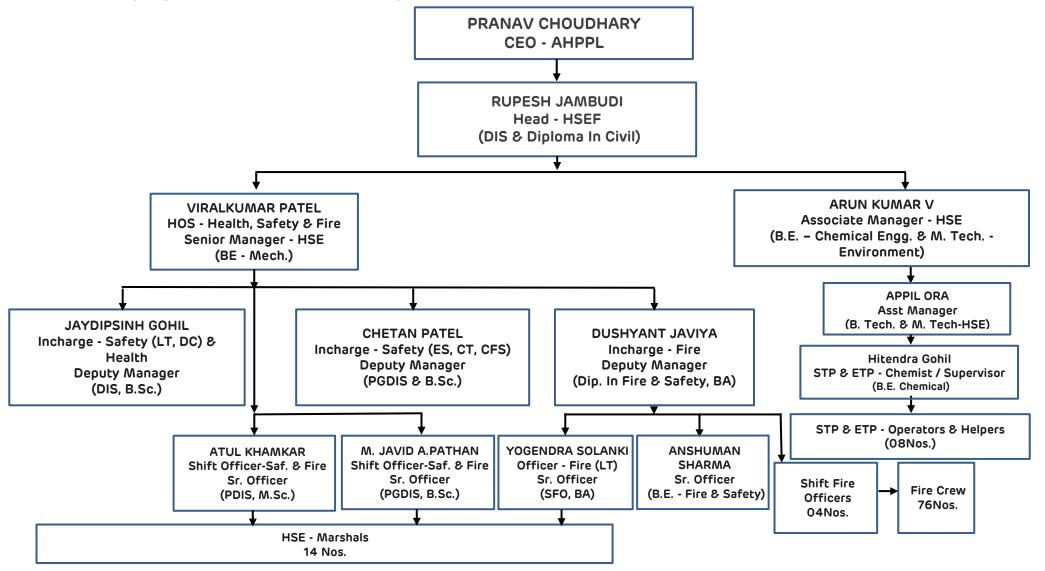


ANNEXURE-5:

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: 2018-19

<u>Annexure-6</u>: Details of Environment Management Budget For The Financial Year: 2018-19

S. No.	Activities	Budget Amount (In Lacs)	Expenditure (INR In Lacs till 30 th Sept, 18)
1	Salary of Environmental Professionals	15.00	2.38
2	Environmental Study / Audit and Consultancy Services	21.81	0.00
3	Legal & Statutory Expenses	3.00	0.01
4	Environmental Monitoring Services	15.37	8.36
5	Mangrove Afforestation/Plantation & Bio-Shielding Pilot Project	12.78	4.83
6	Hazardous Waste Management & Disposal	12.76	1.56
7	Horticulture Development - Greenery and Plantation	139.65	48.20
8	O&M of Sewage Treatment Plants and Effluent Treatment Plant	41.75	6.97
9	Environment Day Celebration	2.00	2.00
10	Treatment and Disposal of Bio-Medical Waste	1.07	0.03
11	Environmental Initiatives & Others Miscellaneous	5.50	82.52
	Total Amount (INR In Lacs)	270.69	156.86



ANNEXURE-7:

COMPLIANCE REPORT OF CONDITIONS STIPULATED IN CONSENT TO ESTABLISH (CTE-77767) ISSUED BY GUJARAT POLLUTION CONTROL BOARD, GANDHINAGAR (GUJARAT) VIDE LETTER NO.: GPCB/CCA-SRT-1314(6)/ID_35352/352537, DATED 16/04/2016



Annexure-7: Compliance Report for Consent to Establish (CTE-77767) granted by Gujarat Pollution Control Board vide letter No.: GPCB/CCA-SRT/1314(6)/ID_35352/ 352537, dated 16/04/2016 to setting up of DG Set (Stand by) of Capacity 750 KVA located at Near Hazira Pvt. Ltd., Hazira: 394270, Tal.: Chorasi, Dist.: Surat.

S. No.		Conditi	ons	Compliance Status
SPEC	CIFIC CONDI	ITIONS:		
•		ty period of t 0/03/2021	he order will be Five	Noted.
•		•	gement for acoustic levels within Norms.	Complied. All the sound intensive components (DG Sets and Compressor) are with acoustic enclosures. Noise level is being monitored through M/s. Pollucon Laboratories, Surat (a MoEF&CC recognized and NABL accredited laboratory). Monitoring reports show that noise level is well within the norms at project boundary. Please refer the noise level monitoring reports for the period Apr., 2018 to Sept., 2018 is enclosed as <u>Annexure- 4F</u> .
•	Unit shall Sets.	obtain CCA-	amendment for D.G.	Complied. AHPPL obtained the CC&A from Gujarat Pollution Control Board CCA Order No.: AWH-77379 vide letter No.: GPCB/CCA-SRT-1314(6)/ID_35352/ 352538 dated 16/04/2016.
The	Conditions u	under Air Act 1	981 shall be read as:	
1.	Set (Stand Sr. No.	By). Fuel	ed as fuel only in D.G.	Complied with. Diesel is being used for DG set.
2.	compreher	nsive adequate	160 Lit./Hr. nstall & operate a e air pollution control e prescribed norms.	Complied. AHPPL has installed & operate a comprehensive adequate air pollution control system in order to achieve prescribed norms. 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



	MOEF	vide n	otifica	tion da		/2009 and	Laboratories (a MoEF&CC and NABL accredited laboratory) within port			
	•				l conforn ndards n	Ambient air quality monitoring is being carried out through M/s. Pollucon				
5.	Ambient air quality within and outside the premises of the unit shall conform National						Complied.			
	atmosphere.						emitted into the atmosphere.			
	sampling of gases being emitted into the						facilitate the sampling of gases being			
	platform/ladder etc., shall be provided with stacks/vents chimney in order to facilitate						i.e.: Port hole, Platform/ladder etc. to			
			•			•	adequate stack monitoring facilities			
4.	Stack	monit	oring	faciliti	es like	port hole,	Complied. AHPPL has provided the			
							2018 to Sept., 2018.			
						I]	/ Analysis Reports for the period Apr. ,			
		By) 750 KVA			NOx	50 ppm	limit. Please refer the <u>Annexure-4G</u> for the DG Sets stack emission Monitoring			
	1.	(Stand	11		PM SO₂	150 mg/NM ³ 100 ppm	the pollutants are found under the			
	No.	to D.G. Set	In Meter	Control System		Limit	during current monitoring period all			
	Stack	Stack attached	Stack Height	Air Pollution	Parameters	Permissible	recognized and NABL accredited laboratory) within port premises and			
	stand	ards:		· · · · · · · · · · · · · · · · · · ·			Pollucon Laboratories (a MoEF&CC			
	Sets	stack s	shall	conform	n to the	following	being carried out through M/s.			
3.	The f	lue gas	emiss	ion thre	ough Prop	posed D.G.	Complied. Stack emission monitoring is			
							premises.			
							69.80 ha within the port			
							area developed so far is approx.			
							landscaping etc. Total greenbelt			
							greenbelt area for plantation at periphery / avenue plantation /			
							and 10. Company has set up dedicated			
							through Road Sweeping Machines,			
							9. Regular cleaning the roads			
							with tarpaulin,			
							to hinterland is being done through dumpers / trucks covered			
							8. Transportation of cargo from port			
							high and 1200 meters long,			
							7. Wind Brake Shield of 14 meters			
						6. Water Mist Canon / Fog System,				
							5. Water spray through Water Browsers,			
							Discharge Chute,			
							Nozzles in Conveyor System and			
							4. Dust Suppression System / Spray			
							yard,			
							Km. long conveyor belt with hood. 3. Water sprinklers in to the coal			
							to coal storage yard through 1.7			



	No.		Weighted Average	in Ambient Air	monitoring period all the pollutants are			
		Sulphur Dioxide (SO ₂),	Annual	50	found under the limit. Please refer the			
	1.	$\mu g/M^3$	24 Hours	80	Annexure-4A for the Environmental			
	_	Nitrogen Dioxide	Annual	40	Monitoring/Analysis Reports for the			
	2.	(NO ₂), μg/M ³	24 Hours	80	period Apr., 2018 to Sept., 2018 .			
	3.	Particulate Matter (Size less than 10 μ m) OR PM ₁₀ μ g/M ³	Annual 24 Hours	60 100				
	4.	Particulate matter (Size less than 2.5 um) OR $PM_{2.5} \mu g/M^3$	Annual 24 Hours	40 60				
6.	The	industry shall take	adequate	measures for	Complied.			
	cont	rol of noise levels	from its	own sources	Ambient Noise Level Monitoring is			
	with	in the premises so	as to main	ntain ambient	being carried out through M/s.			
	air q	uality standards in	respect of	f noise to less				
	thar	n 75 dB(A) during	day time	and 70 dB(A)	recognized and NABL accredited			
	duri	ng night time. Da	y time is	reckoned in	laboratory) within port premises and			
	betv	veen 6 a.m. and 10	p.m. and	night time is				
	reck	oned between 10 p	.m. and 6	a.m.	the noise level are found under the			
					norms. Please refer the Annexure-4F			
					for the Ambient Noise Level Monitoring			
					Reports for the period Apr., 2018 to			
					Sept., 2018.			
7.	The	applicant shall pro	ovide prop	er ventilation	Complied with. AHPPL has provided			
	and	exhaust facilities	s so as	to maintain	proper ventilation and exhaust			
	heal	thy working atr	nosphere	within the	facilities to maintained healthy			
	fact	ory premises.			working atmosphere within the port			
					premises.			
8.	The	other conditions	of the C	onsent Order	Noted.			
	No.:	WH-47069 Dated	: 21/05/2	015 Valid up	The said consent has been renewed			
	to	Dated- 04/04/	2017 s	hall remain	with consent order no. AWH-87176 on			
	uncl	nanged.			17.07.2017 valid till 14.04.2022			



ANNEXURE-8:

DETAIL OF WASTE COLLECTION AND DISPOSAL OFF FROM VESSELS



<u>Annexure-8</u>: Detail of Liquid/Wastes Collection & Disposed off from Vessels by GPCB Approved Third Party During period Apr., 2018 To Sept., 2018

S. No.	Vessel Name	Party Name	Quantity (MT)
1	MV FLAG LAMA	UNITED SHIPPING COMPANY	6.75
2	MV HHL VENICE	ATLAS ORGANICS PVT LTD	10.27
3	MV DUBAI AMBASSADOR	UNITED SHIPPING COMPANY	9.22
4	MV REAL HAPPINESS	UNITED SHIPPING COMPANY	19.46
5	MT BON ATLANTICO	ATLAS ORGANICS PVT LTD	11.6
6	MV SEARIDER	UNITED SHIPPING COMPANY	31.29
		TOTAL	88.59



ANNEXURE-9:

DISPOSAL CERTIFICATE OF WASTE and CC& A copies of waste vendors



DATE: 11/10/2018

To, ADANI HAZIRA PORT PVT LTD NEAR LNG TERMINAL, AT & PO HAZIRA, CHORYASHI, SURAT-394270

Sub: Certification For Disposal of Hazardous waste.

Respected Sir,

We have received the below mentioned quantity of hazardous waste for coprocessing. Disposal of Hazardous waste for co-processing At **Recycling Solutions Pvt Ltd** has been done by way of Co-processing as per the statutory guidelines.

Sr.No	Waste Name	Manifest. No.	Date	Qty/MT
1	PIG WASTE	1807003450	06-09-2018	2.05
2	PIG WASTE	1807003602	12-09-2018	1.4
3	PIG WASTE	1807003636	15-09-2018	1.26
4	PIG WASTE	1807003695	18-09-2018	1.44
5	PIG WASTE	1807003267	23-08-2018	1.54
			TOTAL	7.69

In event of any queries, please feel free to contact us for further assistance.

Yours Truly,

For, Rei cling **Solutions Private Limited.** Authorized Signatory



PARYAVARAN BHAVAN Sector 10-A, Gandhinagar 382 010 Phone : (079) 23226295 Fax : (079) 23232156 Website : www.gpcb.gov.in

BY R.P.A.D

In exercise of the power conferred under section-25 of the Water (Prevention and Control of Pollution) Act-1974, under section-21 of the Air (Prevention and Control of Pollution)-1981 and Authorization under rule 6(2) of the Hazardous and Other Wastes (Management and Transboundary Movement) Rules 2016 & as amended from time to time framed under the Environment (Protection) Act-1986.

And whereas Board has received consolidated consent application Inward I.D.NO. 115518 dated 28/11/2016 for the Consolidated Consent and Authorization (CC & A) of this Board and under the provisions/rules of the aforesaid acts. Consents & Authorization are hereby granted as under

CONSENTS AND AUTHORISATION:

(Under the provisions /rules of the aforesaid environmental acts) To, M/s Recycling Solution Pvt Ltd. Plot no.-223, GIDC Estate, Panoli Ankleshwar-394116 Dist-Ankleshwar

1. Consent Order No: AWH - 83687, Date of Issue-16/01/2017

Hazardous and and Act-1981 Act-1974, Air Other Wastes (M&TM) Rules - 2016 shall be valid up to 31/12/2021 for the following activities C Estate. Panoli, and Dist. Ankleshwar – 394116. at Plot N

No	o. 223, 🤇	JIDC Estate, Panon, and Dist. Printed	Conceity
ļ	Sr	Facility	Capacity
	No.		240MT/Day
	1.	(Solid ,Semi Solid & Liquid)	2401017Day
	ļ	Waste Mix Pre-Processing Facility	

2. SUBJECT TO THE FOLLOWING SPECIFIC CONDITIONS

- 2.1 Applicant shall have to obtain trial/regular permission from SPCB / CPCB prior to send the prepare fuel to Cement industry.
- 2.2 Pre-processing of hazardous and other wastes shall be carried out only after making the entry into the passbook issued by the SPCB.
- 2.3 Unit shall maintain and submit monthly records of waste received and pre processed to
- 2.4 Applicant shall operate the processing facility in such a way so that stored volume of the Board. Hazardous waste/prepared fuel shall not exceed the storage time of 90 days from date of receipt and in case of exceeding the time limit, applicant shall stop immediately receiving hazardous waste from member units until prepared fuel from such stored hazardous waste is sent to cement industries for co-processing.
- 2.5 Applicant shall operate the processing facility in such a way so that stored volume of Hazardous waste/prepared fuel shall not exceed the storage capacity at any point of time, Once the stored volume reaches to the storage capacity, facility shall stop immediately receiving hazardous waste from member units.

2.6 Applicant shall have to strictly comply and adhered to the MOU signed and legal undertaking submitted to the board in letter and spirit. 0°

Clean Gujarat Green Gujarat



ISO-9001-2008 & ISO-14001 - 2004 Certified Organisation

- 2.7 Applicant shall have to obtain the membership of Common Hazardous Waste TSDF and Incineration facility.
- 2.8 Applicant shall carry out only Collection, Storage and transportation of Hazardous waste from Member Units to their processing facility and processing (blending) for the preparation of fuel for co-processing (Co-Incineration).
- 2.9 Applicant shall not send prepared fuel for co-processing (Co-Incineration) without obtaining prior CCA amendment of the Board.
- 2.10 Applicant shall have to comply with all the recommendations, suggestions and Environmental stipulations given by Hon. Supreme Court of INDIA, Ministry of Environment & Forests New Delhi, Central Pollution Control Board Delhi and Gujarat Pollution Control Board from time to time.
- 2.11 In case of deviation or alteration in the project including the implementing agency, a fresh reference shall be made to GPCB and MoEF, New Delhi for modification in the Clearance conditions or imposition of new one for ensuring environmental protection. The applicant shall be responsible for implementing the suggested safe guards.
- 2.12 Applicant shall follow the Guidelines of CPCB for labeling, transportation, storage and disposal of hazardous wastes in an environmental sound manner.
- 2.13 Applicant shall have to take all the precautions to control fugitive emission and Odour control from the different operations of your site as per the Guideline of CPCB.
- 2.14 The Project proponent shall make necessary arrangement for online monitoring of below shown parameters and display it online on XGN of Common Hazardous waste Incineration facility.
- 2.15 The project proponent shall use Hazardous waste tracking system of X tended Green Node (XGN) for on line real time data updationon Transportation of Hazardous waste by them. The compilation of real time data for preparing online manifest by the generator, Transporter and receptor shall have to be maintained on daily basis & submitted by the generator and receptor of the facility to the concerned Regional Office, and Head Office, GPCB.
- 2.16 The project proponent shall have to transport Hazardous waste through dedicated Vehicles with GPS (Global Positioning System) enabled system and in line with Hazardous and other wastes (Management and Transboundary Movement) Rules-2016.
- 2.17 Applicant shall carry out TCLP test in and around the processing facility and submit the report at regular interval.
- 2.18 Applicant shall furnish the copy of insurance policy as per Public Liability Insurance act 1991 to the Board.
- 2.19 Applicant shall prepare on site emergency plan and Disaster management plan as per the various guidelines published by competent authority and also conduct mock drill in co-ordination with local district co-ordination and Regional office GPCB.
- 2.20 Applicant shall submit the plan in accordance with the Chemical Accidents (Emergency Planning, preparedness and response) Rules, 1996 published by MOEF New Delhi.
- 2.21 It shall be the responsibility/duty of the applicant to take adequate steps while handling hazardous wastes to contain contaminants and prevent accidents and their consequences on human and environment, and prevent person working on the site with information, training and equipment necessary to ensure their safety.
- 2.22 Applicant shall be liable for all damage caused to the environment or third party due to improper handling and storage of the hazardous wastes or disposal of the hazardous wastes.
- 2.23 Applicant shall be liable to pay financial penalties as levied for any violation of the provisions under Hazardous Wastes (Management, Handling and Trans Boundary Movement) Rules, 2008 by the State Pollution Control Board with the prior approval of the Central Pollution Control Board.
- 2.24 In case of transportation of hazardous wastes through a State other than the State of origin or destination the occupier shall intimate the concerned State Pollution Control Boards before, he hands over the hazardous wastes to the transporter (if applicable).



PARYAVARAN BHAVAN Sector 10-A, **Gandhinagar** 382 010 Phone : (079) 23226295 Fax : (079) 23232156 Website : www.gpcb.gov.in

3. CONDITIONS UNDER WATER ACT :

- 3.1 The Discharge of industrial effluent from the common facilities and other related operations of the site shall be "ZERO" KLD.
- 3.2 The quantity of the domestic waste water (Sewage) shall not exceed 2.9KLD.
- 3.3 Sewage shall be disposed of through septic tank and soak pit system.

4. CONDITION UNDER AIR ACT:

- 4.1 There is no Flue Gas and process gas emission from the process and other ancillary operation.
- 4.2 The Stack of 14 meter height is attached to the AFRF Plant for air replenishment system.
- 4.3 The Applicant shall take all necessary measure to curb the foul odour and shall submit the monthly report of ODC 50consumption.
- 4.4 There shall be wheel washing facility at the site to avoid dusting while transportation of hazardous waste.
- 4.5 Ambient air quality within the premises of the facility shall conform to the following Standards:-

PARAMETER	Concentration Air	on in Ambient	Method of Measurement
	Annual	24 hrs. Average	
Particulate matter-10 (PM 10)	60 μg/m3	100 μg/m3	Gravimetric, TOEM Beta attenuation
Particulate matter-2.5 (PM 2.5)	40 μg/m3	60 μg/m3	Gravimetric, TOEM Beta attenuation
Sulphur Dioxide(SO ₂)	50 µg/m3	80 µg/m3	Improved West and Gacke Ultraviolet fluorescene
Nitrogen Dioxide (NO ₂)	40 µg/m3	80 µg/m3	Modified Jacob & Hoechheiser (Na-Arsenite) Chemiluminescence
Benzene	5 μg/m3		Gas chromatography based continuous analyzer Adsorption and Desorption followed by GC analysis
Benzo (a) pyrene (BaP)- Particulate Phase only	01 ng/m3		Solvent extraction followed by HPLC/GC analysis
Arsenic(As)	06 ng/m3		AAS/ICP method after sampling on EPM 2000 or equivalent filter paper
Nickel (Ni)	20 ng/m3		AAS/ICP method after sampling on EPM 2000 or equivalent filter paper
Lead (Pb)	0.50µg/m3	1.0 μg/m3	AAS/ICP method after sampling on EPM 2000 or equivalent filter paper ED-XRF using Teflon filter
Ammonia	Ammonia 100 μg/m3 400 μg/m3		Chemiluminescence Indophenol blue method



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Ozone	100 μg/m3 8 hours	180 µg/m3 1 hour	UV photometric Chemiluminescence Chemical Method
Carbon Monoxide (CO)	02 μg/m3	04 μg/m3	Non dispersive Infra Red (NDIR)
	8 hours	1 hour	spectroscopy

5. <u>CONDITIONS UNDER HAZARDOUS WASTE MANAGEMENT RULES:</u>

A. General condition:

- 1. Number of authorization: AWH 83687 Date of issue: 16/01/2017
- M/s. RECYCLING SOLUTION PRIVATE LIMITED is hereby granted an authorization to operate facility for following hazardous waste on the premises situated at Plot No. 223, GIDC Estate, Panoli, Dis!. - Ankleshwar - 394116.

Sr. No.	Waste	Quantity	Schedule	Facility
1	Incinerable Hazardous waste(Solid/Liquid/ Semi Solid)	240 MTPA		Reception from member units through dedicated vehicle, storage, and blending within premises.
2	Distillation Residues from contaminated organic solvents	24 MT/Day	37.3	Collection, Storage, Transportation, disposal at CHWIF.
3.	Empty Drums/container /Barrels/Carboy contaminated with Hazardous chemicals/ waste	1080MTA	33.1	Receiving drums from member unit, Collection, Storage, Decontamination within premises and selling to authorized Recycler
4.	ETP Sludge from waste water treatment	60MTA	35.3	Collection ,Storage, Transportation, Disposal to TSDF

- 3. The authorization is granted to operate processing facility to prepare fuel for co-incineration (Co-processing) by reception of Hazardous waste from member units.
- 4. The authorization shall be force for a period up to Five years valid up to 31/12/2021
- 5. The applicant shall have to regularly monitor ground water, ambient air quality and shall submit reports to GPCB and CPCB regularly.
- 6. The applicant shall submit monthly report with details of Hazardous waste received, treatment given, stock lying and disposal of at landfill site.
- 7. The Authorized person shall comply with the provisions of the Environment (Protection) Act, 1986, and the rules made there under.
- 8. The Authorization or its renewal shall be produced for inspection at the request of an officer Authorized by the State Pollution Control Board.
- 9. The person Authorized shall not rent, lend, sell, transfer or otherwise transport the hazardous and other wastes except what is permitted through this authorization.
- 10. Any unauthorized change in personnel, equipment or working conditions as mentioned in the application by the person authorized shall constitute a breach of his authorization.
- 11. The person authorized shall implement Emergency Response Procedure (ERP) for which this authorization is being granted considering all site specific possible scenarios such as spillages,



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leakages, fire etc. and their possible impacts and also carry out mock drill in this regard at regular interval of time:

- 12. The person authorized shall comply with the provisions outlined in the Central Pollution Control Board guidelines on "Implementing Liabilities for Environmental Damages due to Handling and Disposal of Hazardous Waste and Penalty"
- 13. It is the duty of the authorized person to take prior permission of the State Pollution Control Board to close down the facility.
- 14. The imported hazardous and other wastes shall be fully insured for transit as well as for any accidental occurrence and its clean-up operation.
- 15. The record of consumption and fate of the imported hazardous and other wastes shall be maintained.
- 16. The hazardous and other waste which gets generated during recycling or reuse or recovery or pre-processing or utilization of imported hazardous or other wastes shall be treated and disposed of as per specific conditions of authorisation.
- 17. The importer or exporter shall bear the cost of import or export and mitigation of damages if any.
- 18. An application for the renewal of an authorisation shall be made as laid down under these Rules.
- 19. Any other conditions for compliance as per the Guidelines issued by the Ministry of Environment, Forest and Climate Change or Central Pollution Control Board from time to time.
- 20. Annual return shall be filed by June 30th for the period ensuring 31st March of the year.

B. Specific Conditions:

- 1. In case of renewal of authorisation, a self-certified compliance report in respect of effluent, emission standards and the conditions specified in the authorization for hazardous and other wastes shall be submitted to SPCB.
- 2. The occupier of the facility shall comply Standard operating procedure/ guidelines published by MoEF&CC or CPCB or GPCB form time to time.
- 3. Unit shall comply provisions of E-Waste Management Rules-2016.
- 4. The disposal of Hazardous Waste shall be carried out as per the waste Management hierarchy.

6. **GENERAL CONDITION:**

- 6.1 Adequate plantation shall be carried out all along the periphery of the TSDF premises in such a way that the density of plantation is at least 1000 trees per acre of land and a green belt of 5meters width is developed.
- 6.2 The applicant shall have to submit the returns in prescribed form regarding water consumption and shall have to make payment of water cess to the Board under the Water Cess Act- 1977.
- 6.3 Applicant shall have to comply with Risk Assessment and Disaster management Plan. .nt

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- 6.4 Applicant shall have to carry out mock drill both on site and off site for all the possible eventualities at a regular interval of time. For any of the disastrous situation escape route shall have to be predefined properly marked and shall be brought to the knowledge of all the concerned.
- 6.5 Applicant shall have to comply with the Environmental Audit Scheme introduced by Hon'ble High Court and shall submit the Environment Audit Report every year in accordance with directions given in the High Court Order dated 16/09/1999 in Environmental Audit Scheme.
- 6.6 The concentration of Noise in ambient air within the premises of industrial unit shall not exceed following levels:

Between 6 A.M. and 10 P.M.: 75 dB (A)

Between 10 P.M. and 6 A.M.: 70 dB (A)

- 6.7 You shall comply with the manufacturing, Storage and Import of Hazardous Chemicals Rules-1989 framed under the Environment (Protection) Act-1986.
- 6.8 The owner/facility operator is fully responsible for compliance of all the directions issued by the Apex Court and High court from time to time.
- 6.9 Full support shall be extended to the officers of MoEF, CPCB, GPCB and all other relevant authorities by the project proponents during their inspection for monitoring purposes by furnishing full details and action plans including the action taken reports in respect of initiative measures and other environmental protection activities.
- 6.10 GPCB reserves the right to stipulate additional condition if found necessary. The company shall implement these conditions in a time bound manner.

FOR AND ON BEHALF OF GUJARAT POLLUTION CONTROL BOARD

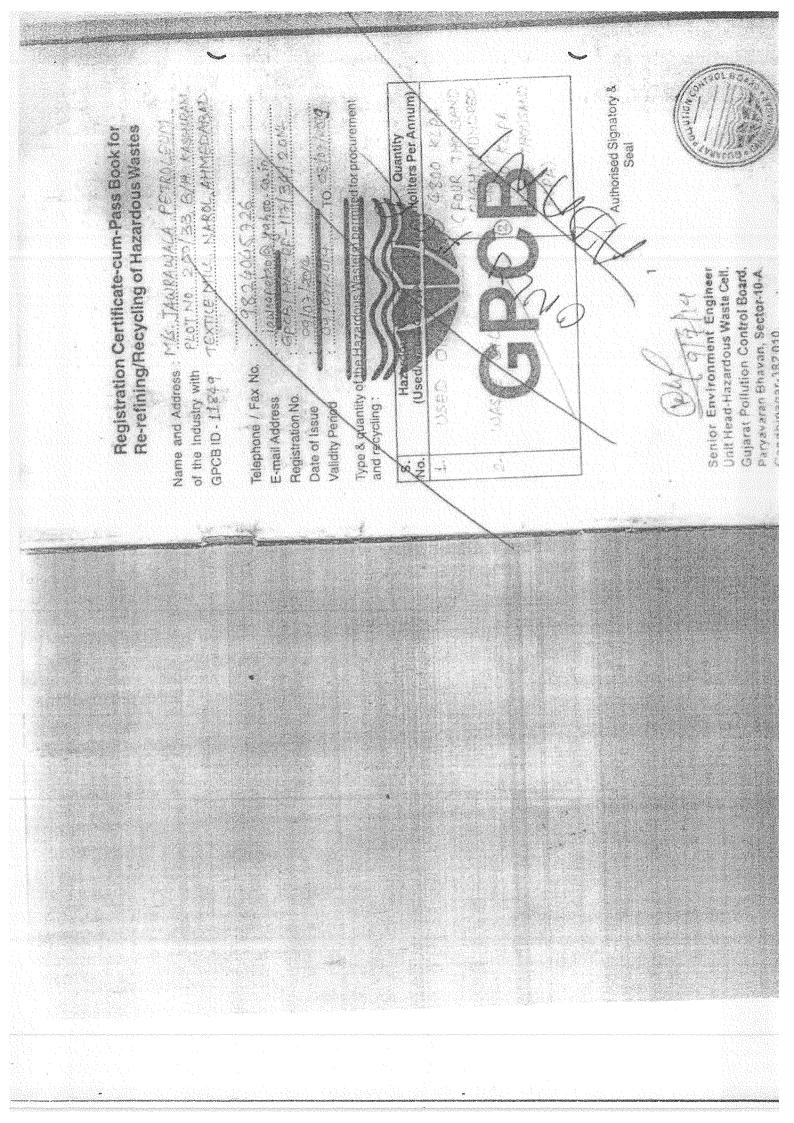
(K.C.MISTRY)

Dy. Chief Environment Scientist Unit head, Hazardous waste cell

Issued to: No. GPCB/HAZ-CCA-Ank-1375(5)/ID-13376/ M/s Recycling Solution Pvt Ltd. Plot no.-223, GIDC Estate, Panoli Ankleshwar-394116 Dist-Ankleshwar

outward No. 4069131241031201

Date:



GUIARAT POLLUTION CONTROL BOARD NERIAL NO ZIZAWIH PARYAVARAN BHAVAN Sector-10-A. Gandhinagar-382.021 Websile : www.gpcb.gov.in GPCB By R.P.A.D. In exercise of the power conferred under section-25 of the Water (Prevention and Control of Pollution) Act-1974, under section-21 of the Air (Prevention and Control of Pollution)-1981 and Authorisation under rule 3(B) & 5(4) of the Hazardous Waste (Management, Handling.) Rules-1989 & as amended up to year 2003 framed under the Environmental (Protection) Act-1986 And whereas Board has received consolidated consent application letter 13/02/2014 for the Consolidated Consent and Authorization (CC & A) of this Board under the provisio aforesaid Acts. Consents & Authorization are hereby granted a Juder. CONSENTS AND AUTHORISATION: (under the provisions /rules of the aforesaid environmental acts) To: M/S. JAWRAWALA PETROLEUM, PLOT NO. 200/33. B/H. KASHIRAM TEXTILE. NAROL. AHMEDABAD. Consent Order No.: AWH-61464 date of Issue: 01/04/2014. 1 The consents shall be valid up to 12/02/2019 for use of guild for the discharge of trade effluent & emission due to operation of industrial plant for manufacture of the following items/products: Quantity Product NO 600 KL/Month Recycled waste Oil (industrial fuel). Decontamination, Detoxic, Recycling & Bounditioning of 20000 7 Nor Month all Type of MS Barrels, HDPE droms HDPE carboys & containers/Liners etc. 100 MT/Month Plastic (Scrap) Granules 400 KL/Month Re-Refined used oil 4 CONDITIONS UNDER THE WATER ACT: 3

- The quantity of the industrial effluent to be generated from the variation for the process and other ancillary industrial operations shall not exceed 12600 line day, but if which 2000 lit/day treated effluent shall be reuse and 1600 lit/day treated effluent shall be included and 1600 lit/day treated effluent shall be reuse and 1600 lit/day treated effluent shall be included and 1600 lit/day treated and 1600 lit/day treated and 1600 lit/day treated effluent shall be included and 1600 lit/day treated and 1600 lit/day treated and 1600 lit/day 3.1 lit/day treated efficient shall be incinerated in incinerative (Ne. 100 discharge). Thus there shall be No discharge of any industrial effluent within or out we industrial unit.
- The quantity of the domestic waste water (sey age) that we keeed 1600 lit/day. 3.2

TRADE EFFLUENT: 3.3

- martur Domestic effluent shall be disposed off through septid tank/soak pit system 3.3.1

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PARYAVARAN BHAVAN

Sector-10-A, Gandhinagar-382 021. Website : www.gpcb.gov.in

GPCB CONDITIONS UNDER THE AIR ACT:

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The following shall be used as fuel in boiler furnace heater respectively

	1 Onantily
Sr.No. Fuel	
1 Wood	100 KG/Day Performance
	15 Linhou
D 1100	

- 4.2 The applicant shall install & operate air pollution control system in order to achieve norms prescribed below.
- 4.2.1 The flue gas emission through stack attached to boiler furnace/heater shall confirm to the following standard:

Stack No.	Stack attached to	Stack height in Meter	APCM	Parameter	Permissible 1 junit 150 mg/NM ³
1	Furnace (3Nos)	30 (Common stack)	Scrubber & Heat Quencliff)	Patienlate matter SO ₂ NO ₃	100 ppm 50 ppm
2	Thermic Fluid Heater	17	-X		50 mg/NM ³
	Captive Incinerator	11	Scrubber	SO2 NOA HCL CL2 HF CO TOC	200 mg/NM ³ 400 mg/NM ³ 50 mg/NM ³ 09 mg/NM ³ 04 mg/NM ³ 100 mg/NM ³ 20 mg/NM ³

4.2.2 There shall be no process gas emission.
4.2.2 Ambient air quality within and outside the premiser of the unit shall conform National Ambient Air Quality standards notified by MOEF internotification dated 16/11/2009 and mainly to the following standards:-

šr. No.	Pollutant	Zime Weighted Average	Concentration in Ambient air
	Sulphur Dioxide (SO2), µg/m3	Annual 24 Hours	\$0 80
9	Nitrogen Dioxide (NO2), µg/ m3	Annual 24 Hours	
3.	Particulate Matter (Size less than 10 µm) OR PM10 µg/ m3	Annual 24 Hours	60, *
in an	Particulate Matter (Size less than 2.5 mm) OR PM 2.5 µg/ m3	Annual 24 Hours	

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Applicant shall provide portholes, ladder, platform etc at chimney(s) for monitoring the air signs and the same shall be open for inspection to and for use of Board's staff. The signey(s) vents attached to various sources of emission shall be designed by numbers such as S-S-2, etc. and these shall be painted/displayed to facilitate identification.

The industry shall take adequate measures for control of noise levels from its own sources within the premises so as to maintain ambient air quality standards in respect of noise to less than 75dB(a) during day time and 70 dB (A) during night time. Daytime is reckoned in between 6a m and 10 p.m. and nighttime is reckoned between 10 p.m. and 6 a.m.

The applicant shall provide proper ventilation and exhaust facilities so as to maintain healthy working atmosphere within the factory premises.

GENERAL CONDITIONS: -

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- Any change in personnel, equipment or working conditions as mentioned in the consents form/order should immediately be intimated to this Board.
- AUTHORISATION FOR THE MANAGEMENT & HANDLING OF HAZARDOUS WASTES Form-2 (See rule 3(c) &5 (5) Form for grant of authorization for occupier or operator) Authing hazardous waste
 Number of authorization: AHW-61464 date of Usur 01/04/2014.
- 6.1.1 M/s JAWRAWALA PETROLEUM is hereby granted an arthoristion to operate facility for following hazardous wastes on the premises situated at NO. 200(33, B/H. KASHIRAM TEXTLE NAROL AHMEDABAD.

	FEXTILE, NAROL, AH	MEDADAD.	man from the second for the second	
Sr. No.	Waste	Quantity	Vatego/ Q	
Ι.	ETP Waste	1.5 MT/Year	134.J	Collection, Storage. Transportation Disposal at TSDF approved by the board.
2	Jsed Oil	400 KL/Month	5.1 (Recepton)	Reception Storage, Transportation, and
3/	Waste Oil	600 KL/Month	S2 (Reception)	Reprecessing within industria
74	Discarded Container /Drums/Barrels/ Carboys/Containers /Liners	20000 Nos Month	33,3 (Reception)	Collection, Storage, Decontamination, Transportation, Disposal by setting to authorized recycler
si successo de la companya de la com Esta de la companya de	Oily Sludge	768 KL/Year		Collection, Storage, Disposal
6	Spent clay Containing Oil	120 MT/Year	4.6	at CHWIF or Disposal in TSDF after self incineration
				approved by GPCB.
7	Filters & Filtering materials	840 KG/Year	AS. 1	Collection, Storage, Transportmion, Disposal at
8	Incineration Ash	120 MT/Year	136.2	TSDF approved by the board

6.1.2 The authorisation is granted to operate a facility for collection, storage, within the factors programs, transportation and ultimate disposal of Hazardous wastes as mentioned above.
6.1.3 The authorization shall be in force for a period up to 12/02/2019.

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By R.P.A.D.

In exercise of the power conferred under section-25 of the Water (Prevention and Control of Pollution) Act-1974, under section-21 of the Air (Prevention and Control of Pollution)-1981 and Authorisation under rule 3(B) & 5(4) of the Hazardous Waste (Management, Handling & Transboundary Movement) Rules-2008 framed under the Environmental (Protection) Act-1986.

And whereas Board has received consolidated consent application letter dated 4/07/2014 for the Renewal of Consolidated Consent and Authorization (CC & A) of this Board under the provisions / rules of the aforesaid Acts. Consents & Authorization are hereby granted as under:

CONSENTS AND AUTHORISATION:

(under the provisions /rules of the aforesaid environmental acts)

To; M/S. UNITY PETROLIUM, OPP. PWD STORE, CHANDOLA LAKE, DANILIMDA AHMEDABAD.

1.

Consent Order No.: AWH-65534 date of Issue: 09/10/2014.

The consents shall be valid up to 03/07/2019 for use of outlet for the discharge of trade effluent & emission due to operation of industrial plant for manufacture of the following items/products:

Sr.No.	Product	Quantity
1.	Re-refining of used -lubricating oil	50 Kl/Month
2	Light cut Oil (by product)	05 Kl/Month

3. CONDITIONS UNDER THE WATER ACT:

- 3.1 The quantity of trade effluent from the factory shall be Nil.
- 3.2 The quantity of Sewage effluent from the factory shall not exceed 400 Lit/day.
- 3.3 Domestic effluent shall be disposed off through septic tank/soak pit system.
- 3.4 The directives issued by the Board from time to time in view of direction issued by the Honorable High of Gujarat in the matter of S.C.A.770/95 and any other shall have to be complies with.

4. CONDITIONS UNDER THE AIR ACT:

4.1 The following shall be used as fuel in furnace.

Sr.No.	Fuel	Quantity
1.	LDO/LOW Boils (lights cut oil)	18 KL/Month

4.2 The applicant shall install & operate air pollution control system in order to achieve norms prescribed below.

GUJARAT POLLUTION CONTROL BOARD PARYAVARAN BHAVAN Sector-10-A, Gandhinagar-382 021. Website : www.gpcb.gov.in



The flue gas emission through stack attached to pit furnace shall conform to the 4.2.1

	THE TRACE AND A THE	
c Fluid 11	PARTICULATE MATTER SO ₂	150 mg/Nm ³ 100 ppm 50 ppm
	e (2 Nos) 11	MATTER SO ₂

- There shall be no process gas emission 4.2.2
- Ambient air quality within and out side the premises of the unit shall conform National Ambient Air Quality standards notified by MOEF vide notification dated 16/11/2009 4.2.3 d mainly to the following standards:-

and	mainly to the following standards.	Time Weighted	Concentration in
Sr. No.	Pollutant	Average	Ambient air
1.	Sulphur Dioxide (SO2), µg/ m3	Annual 24 Hours	50 80
2.	Nitrogen Dioxide (NO2), µg/ m3	Annual 24 Hours	40 80
3.	Particulate Matter (Size less than 10 µm) OR PM10 µg/	Annual 24 Hours	60 100
4.	m3 Particulate Matter (Size less than 2.5 mm) OR PM 2.5 μg/ m3	Annual 24 Hours	40 60

- The applicant shall provide portholes, ladder, platform etc at chimney(s) for monitoring the air emissions and the same shall be open for inspection to/and for use of Board's 4.3. staff. The chimney(s) vents attached to various sources of emission shall be designed by numbers such as S-1, S-2, etc. and these shall be painted/displayed to facilitate identification.
- The industry shall take adequate measures for control of noise levels from its own sources within the premises so as to maintain ambient air quality standards in respect of 4.4. noise to less than 75dB(a) during day time and 70 dB (A) during night time. Daytime is reckoned in between 6a.m. and10 p.m. and nighttime is reckoned between 10 p.m. and 6 a.m.
- The applicant shall provide proper ventilation and exhaust facilities so as to maintain 4.5 healthy working atmosphere within the factory premises.



- 5 GENERAL CONDITIONS: -
- 5.1 Any change in personnel, equipment or working conditions as mentioned in the consents form/order should immediately be intimated to this Board.
- 6. AUTHORISATION FOR THE MANAGEMENT & HANDLING OF HAZARDOUS WASTES Form-2 (See rule 3 (c) & 5 (5)

Form for grant of authorisation for occupier or operator handling hazardous waste

6.1 Number of authorisation: AWH- 65534 date of Issue: 09/10/2014.

6.6.1 M/S. UNITY PETROLIUM,, is hereby granted an authorisaton to operate facility for following hazardous wastes on the premises situated at : OPP. PWD STORE, CHANDOLA LAKE DANILIMDA. AHMEDABAD.

Sr. No.	Waste	Quantity	Process Category	Facility
1	ETP sludge	360 Kg /Year	34.3	Collection, Storage, Transportation, Disposal at TSDF approved by the Board.
2.	Used Oil	720 Kl/ Year	5.1	Collection, Storage, and reused as lubricant
3.	Discarded Container/ Liners	250 Nos/Year	33.3	Collection, Storage, Decontamination, Transportation, Disposal by selling to authorised recycler
4	Distillation Residue	84 Kl/ Year	20.3	Collection, Storage, Transportation, Disposal at TSDF approved by the Board.
5	Iron sludge	20 MT/ Month.	26.2	Collection, Storage, Transportation, Disposal at TSDF approved by the Board.

- 6.1.2 The authorisation is granted to operate a facility for collection, storage, <u>within the</u> <u>factory premises</u>, transportation and ultimate disposal of Hazardous wastes at <u>TSDF</u> approved by the Board.
- 6.1.3 The authorisation shall be in force for a period up to 03/07/2019.
- 6.1.4 The authorisation is subject to the conditions stated below and such other conditions as may be specified in the rules from time to time under the Environment (Protection) Act-1986.

6.1.5 TERMS AND CONDITIONS OF AUTHORISATION

- a) The applicant shall comply with the provisions of the Environment (Protection) Act 1986 and the rules made there under.
- b) The authorisation shall be produced for inspection at the request of an officer authorized by the Gujarat Pollution Control Board.



GUJARAT POLLUTION CONTROL BOARD PARYAVARAN BHAVAN Sector-10-A, Gandhinagar-382 021. Website : www.gpcb.gov.in

- c) The persons authorized shall not rent, lend, sell, transfer of otherwise transport the hazardous wastes without obtaining prior permission of the Gujarat Pollution Control Board.
- d) Any unauthorized change in personnel, equipment or working conditions as mentioned in the authorisation order by the persons authorized shall constitute a breach of this authorisation.
- e) It is the duty of the authorised person to take prior permission of the Gujarat Pollution Control Board to close down the facility.
- f) An application for the renewal of an authorisation shall be made as laid down in rule 5 (6) (ii).
- g) Industry shall have to manage waste oil, discarded containers etc as per Amended Rules 2003.
- h) Industry shall submit annual report within 15 days and sub sequently by 31st January every year.

For and on behalf of Gujarat Pollution Control Board

(M.V. Patel)

Environmental Engineer

NO: GPCB/ABD-AMC-CCA-168/ID-14562/ 23005 Issued to: M/S. UNITY PETROLIUM, OPP. PWD STORE, CHANDOLA LAKE, DANILIMDA AHMEDABAD.

Copy to:

- 1. The Regional Officer, G.P.C.Board, Ahmedabad with a request to carry out monitoring sampling and inspection under the provisions of the Water Act 1974, Air Act, 1981
- 2. Unit-1

GPCB

-

No.GPCB/HAZ-RF-104/ 2280 81

Date:

To, **Unity Petroleum Co.,** Opp: PWD Store, Nr. Chandola Lake, Danilimda, Ahmedabad-382405

GUJARAT POLLUTION CONTROL BOARD PARYAVARAN BHAVAN Sector 10-A, Gandhinagar 382 010 Phone : (079) 23226295 Fax : (079) 23232156 Website : www.gpcb.gov.in

10 OCT 2014.

Sub: Renewal of registration Certificate cum Pass Book for Environmentally Sound Re-refining /Recycling of Hazardous Wastes – reg.

Ref:1) Intimation received from CPCB vide letter no B-9016/1(reg)/10/HWMD 5633-34 dated 22-11-2010

2) Minutes of 22nd Registration Committee meeting dated 22/08/2014.

3) Your application for renewal of registration cum passbook dated 28/05/14.

Sir,

With reference to your application for renewal in registration dated 28/05/2014, please find enclosed herewith the "Registration Certificate cum Pass Book for Re-refining of Hazardous Wastes" as specified in respect of "Used Oil @ 600 KLPA (Six Hundred KLPA Only)".

With Regards,

Philo10/14

(V. R. Ghadge) Senior Environment Engineer

Encl: Original Pass-Book no.Orange-42/2014.



PARYAVARAN BHAVAN Sector 10-A, **Gandhinaga** 382 010 Phone : (079) 23226295 Fax : (079) 23232156 Website : www.qpcb.gov.in

Date

CCA-Amendment (No. AWH-83268)

NO: GPCB/CCA-SRT-1515/ID-41873/ TO, M/s.J.S.Enterprise Block No: 12,45,13,14-A, & 14-B, Plot No: D Type 10 to 14, JaJohumi Industrial Estate, Olpad Sayan Road, Atodara:- 394130, Tat: Olpad, Dist:- Surat.

SUB: Amendment in the consolidated consent & Authorization of the Board.

- REF: 1) CCA order No: AWH-63089, Dated- 25/06/2014 under various Environmental Acts/Rules. 2) This office CTE-amendment order no:- GPCB/CCA-SRT-1515/ID-41873/371558. Dtd:-30/09/2016.
 - 3) Your CCA Amendment Application Inward ID No.113244 dated 24/10/2016.

In exercise of the power conferred under section-25 of the Water (Prevention and Control of Pollution) Act-1974, under section-21 of the Air (Prevention and Control of Pollution)-1981 and Authorization under rule 3(c) & 5(5) of the Hazardous Waste (Management) Handling and Trans boundary Movement) Rules-2008 & framed under the Environment (Protection) Act-1986, The Board has granted CCA vide order No. AWH-63089 issued vide this office letter no: GPCB/CCA-SRT-1515/ID-41873/219810 dated 24/07/2014, valid up to 03/04/2014.

The Board has right to review and amend the conditions of the said CCA order. The said CCA order is further amended as below.

- This order shall be read as CCA-Amendment Order No. AWH-83268 date of issued 22/12/2016 valid up to 03/04/2019.
- 2. The condition No-2 of the said CCA order is amended as below
 - The consents shall be valid up to 03/04/2019 for use of outlet for the discharge of trade effluent &
 emission due to operation of industrial plant for manufacture of the following items/products:

Sr.	Product	Quantity as per CCA dated:24/07/2014	Quantiy as per CTE- Amendment	Total quantity after CCA-Amendment
No.		dated 24/0//2014	dated:- 30/09/2016	CCA-Amendment
1	Decontamination of (HDPE/MS) Drums	HDPE @ 180 MT/Month (60,000 Nos/Month) or M/S @ 300 MT/Month (60,000 Nos/Month	Nil	HDPE Drums@ 180 MT/Month (60,000 Nos/Month) or M.S Drums @ 300 MT/Month (60,000 Nos/Month)
2	Bags/Liners	3 MT/Month	Nil	3 MT/Month
3	Modified PET	Nil	100 MT/Month	100 MT/Month
4	Powder Coating Color	Nil	50 MT/Month	50 MT/Month

M/sJLS.Enterprise(II)-41873) Clean Gujarat Green Gujarat ISO-9001-2008 & ISO-14001 - 2004 Certified Organisation

SUBJECT TO THE FOLLOWING CONDITIONS: -

- 1. Industry shall comply with stand operating procedure (SOP) for decontamination of drums, liner containers etc of Central Pollution Control Board & Gujarat Pollution Control Board.
- Industry shall not procure any Hazardous Waste attracts provision of Hazardous Waste Rules-2016 with prior approval of the Board.
- The rest of the subject to the conditions of the CCA order no:- AWH-63089, Dated:-25/06/2014 shall remain unchanged. You are directed to comply with these conditions judiciously.
- 3. The condition No-3 of the said CCA order is amended as below:
 - 3. CONDITIONS UNDER WATER ACT, 1974:
 - 3.1. Water Source: Borewell.
 - 3.2. The quantity of the fresh water consumption for industrial purpose, after CCA-Amendment, shall be increased from 5.5 KL/Day to 12.5 KL/Day.
 - 3.3. The quantity of the water consumption for domestic purpose, after CCA-Amendment, shall be increased from 0.5 KL/Day to 1 KL/Day.
 - 3.4. The quantity of the industrial effluent to be generated from the manufacturing process and other ancillary industrial operations, after CCA-Amendment, shall be increased from 5 KL/Day to 5.5 KL/Day.
 - 3.5. The effluent shall be treated into ETP. Treated effluent shall be reused up to maximum extent and remaining shall be evaporated into the multiple effect evaporator. Condensate of evaporator shall be reused into plant maintain the Zero liquid discharge at all time.
 - 3.6. Industry shall provide fixed pipeline with flow meter at inlet to ETP & Evaporator and maintain its records.
 - 3.7. The quantity of the domestic waste water (Sewage), after CCA-Amendment, shall be increased from 0.4 KL/Day to 0.8 KL/Day.
 - 3.8. Domestic effluent shall be disposed off through septic tank/soak pit system.
 - 4. Condition No-4 of the said CCA order is amended as below.

4. CONDITIONS UNDER AIR ACT, 1981:

4.1 The Following shall be used as fuel in Steam Boiler, Thermo Pack, and D.G.Sets respectively.

Sr. No.	Fuel	Quantity
1)	F.O. or LDO	100 lit/Day or 310 lit/day
2)	Agro Waste/Wood/Imported Coal	1 MT/Day
3)	Diesel	20 lit/hr

- 4.2. Applicant shall install & operate air pollution control system in order to achieve norms prescribed below:
- 4.3 The flue gas emission through stack attached to Steam Boiler, Thermo Pack, and D.G.Sets shall conform to the following standards:

Stack No.	Stack attached to	Stack height in Meter	Air Pollution Control system	Parameter	Permissible Limit
1	Steam Boiler (0.5 TPH)	19 (Common		Particulate Matter SO ₂	150 mg/NM3 100 ppm
	Thermopack	Stack)	Cyclone	NO _x Particulate Matter	50 ppm 150 mg/NM ³
	(600 U)		Separator	SO ₂ NO ₂	100 ppm 50 ppm

M/s. J.S.Enterprise(ID-41873)

2	D.G.Set	11	 Particulate Matter	150 mg/NM3
	(70 KVA)		SO ₂	100 ppm
í	Stand by	1	NOx	50 ppm

- 4.4 There shall be no process gas emission form the manufacturing process as well as any other ancillary process.
- 4.5 Industry shall take adequate measure to Control dusting due to storage, transportation & handling of Coal & fly ash.
- 4.6 Industry shall comply with Coal handling guideline of the Board.
- 4.7 Industry shall comply with fly ash notification.
- 4.5 Ambient air quality within the premises of the industry shall conform to the following standards.

ARAMETERS	PERMISSIBLE LIMIT (Microgram/M	
Γ	Annual	24 Hrs Average
Particulate Matter-10 (PM 10)	60	100
Particulate Matter- 2.5 (PM 2.5)	40	60
SO ₂	50	80
NOx	40	80

- 4.6 The applicant shall provide portholes, ladder, platform etc ar chimmey(s) for monitoring the air emissions and the same shall be open for inspection to/and for use of Board's staff. The chimmey(s) vents attached to various sources of emission shall be designed by numbers such as S-1, S-2, etc. and these shall be painted/displayed to facilitate identification.
- 4.7 The industry shall take adequate measures for control of noise levels from its own sources within the premises so as to maintain ambient alr quality standards in respect of noise to less than 75dB(a) during day time and70 dB (A) during night time. Daytime is reckoned in between 6 a.m. and 10 p.m. and nightlime is reckoned between 10 p.m. and 6 a.m

4.8 D.G. Sets Conditions

The D.G. Set shall have acoustic enclosure and shall comply sith the standards specified at Sr. no. 95 of Schedule-1 of the rule-3 of E.P. Rules -1986 and Noise pollution level as per the Air Act-1981.

D.G.Sets standards:-

The flue gas emission through stack attached to D.G.Sets shall conform to the following standards.

- a) The minimum height of stack to be provided with each of the generator set shall be H=h + 0.2 (KVA) 1/2, where H= Total stack height in meter, h= height of the building in meters where or by the side of which the generator set is installed.
- b) Noise from DG set shall be controlled by providing an acoustic enclosure or by treating the room acoustically, at the users end.
- c) The acoustic enclosure or acoustic treatment of the room shall be designed for minimum 25 dB (A) insertion loss or for meeting the ambient noise standards, whichever is on the higher side (if the actual ambient noise is on the higher side, if

They not be possible to check the performance of the acoustic enclosure' acoustic treatment. Under such circumstances the performance may be checked for **noise** reduction up to actual ambient noise level, preferably, in the night time). The measurement for insertion loss may be done at different points at 0.5 m from the acoustic enclosure/room, and the averaged.

M/s. J.S.Enterprise(ID-41873)

- d) The D.G. Set shall be provided with proper exhaust muffler with insertion loss of minimum 25 dB (A).
- e) All efforts shall be made to bring down the noise level due to the D.G.Set, outside the premises, within the ambient noise requirements by proper siting and control measures.
- f) Installation of a D.G. Sets must be strictly in compliance with the recommendations of the D.G.Set manufacturer.
- g) A proper routine and preventive maintenance procedure for the D.G.Set should be set and followed in consultation with the DG Set manufacture which would help prevent noise levels of the DG Set from deteriorating with use
- 5. Condition No. 6.2 of the said CCA order is amended as below.
 - 6.2 M/s. J.S.Enterprise is hereby granted an authorization to operate facility for following hazardous wastes on the premises situated at <u>Block No: 12.45,13,14-A, & 14-B, Plot No:</u> D Type 10 to 14, Jal Bhumi Industrial Estate, Olpad Sayan Road, Atodara: 394130, Tal: Olpad, Dist: Surat.

Sr. No.	Waste	Quantity	Schedule-I/	Facility
			Category	
1	ETP Sludge	5	35.3	Collection, Storage, Transportation
		Kg/Month		and disposal at GPCB authorized
				TSDF Site.
2	Used Oil	50	5.1	Collection, storage, transportation
		Lit/month		and disposal by selling to Registered
				re-refiners.
3	Discarded	180.3	33.1	Collection, storage transportation
	Containers/	MT/Month		and disposal to authorized
	Barrels/Liners	1		decontaminator
4	Scrap/paint	8	33.1	Collection, storage transportation
	waste	Kg/Month	(and disposal at Common incinerator
5	Liner/Bag	3.0	33.1	Collection, storage transportation
		MT/Month		and disposal to authorized
		1		decontaminator
6	Distillation	1.2	37.3	Collection, storage transportation
	residue	MT/Year	· Y	and disposal at Common incinerator
7	Evaporation	50		Collection, Storage, Transportation
	Salt	Lit/year 🤇	6	and disposal at GPCB authorized
				TSDF Site.

The rest of the conditions of the above referred CCA order shall remain unchanged. You are
directed to comply with these conditions judiciously.

For and on behalf of Gujarat Pollution Control Board a 5121000

(Smt. U. K. Upadhyay) Environmental Engineer

at the state of th M/s. J.S.Enterprise(ID-41873)

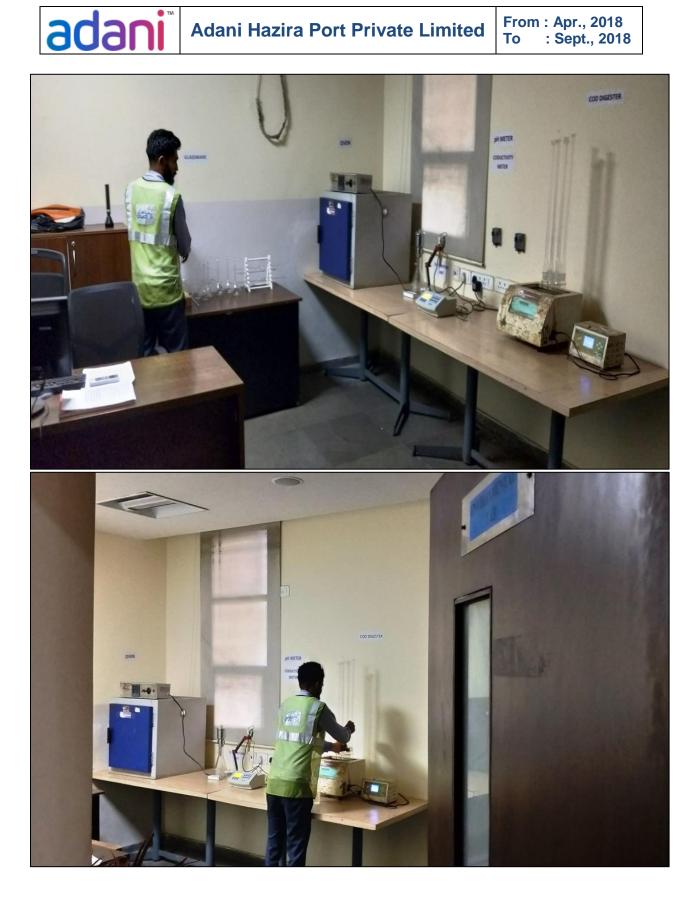


ANNEXURE-10:

Photographs of Environmental Lab, Storm Water Drain and Bund Wall at Rock Phosphate yard



From : Apr., 2018 To : Sept., 2018







Bund Wall in Rock Phosphate Yard to contain the run-off





Storm Water Drain near the Rock Phosphate Yard