

Vibhor Srivastava

From: Vibhor Srivastava
Sent: 30 November 2022 15:28
To: Regional Office Bangalore
Cc: monitoring-ec@nic.in; zobangalore.cpcb@nic.in; goacoastalzone@gmail.com;
Environment Cell Mormugao Port Trust; Jeyaraj Thamburaj; Sathish Kumar R
Subject: Reg: EC_CRZ Compliance _ AMPTPL- April - 2022 to September - 2022
Attachments: HYC_AMPTPL_APR 22 - SEPT 22.pdf

Respected Sir/ Madam,

Please find attached the Half Yearly EC & CRZ Compliance Report for “**Adani Mormugao Port Terminal Pvt. Ltd.**”,
Goa for the period “**April-2022 to September-2022**”.

Regards,

Vibhor Srivastava

Assistant Manager – Environment,

Address : Adani Mormugao Port Terminal Pvt. Ltd. Sub Station Building

Near Gate No. 2 of Mormugao Port Trust, Mormugao, Goa, 403803,India

Office: **+91 832 25 79326** | or Mob: **+916359897585** | Email: Vibhor.Srivastava@adani.com

adani

Growth
with
Goodness

Our Values: Courage | Trust | Commitment





Ref: AMPTPL/2022/ 900

Date: 25.11.2022

To

Additional Chief Conservator of Forests (C),
Ministry of Environment, Forest and Climate Change,
Regional Office (SZ), Kendriya Sadan,
4th Floor, E&F Wings, 17th Main Road,
Koramangala II Block, Bangalore-560034 (Karnataka)
rosz.bng-mefcc@gov.in

Dear Sir,

Sub : Half yearly Compliance report of Environment and CRZ clearance for modernization and operation of Berth – 07 in M/s Mormugao Port for the period of April 2022 to September 2022 – Reg.


Ref : Environment and CRZ clearance for modernization of Berth No. – 07 for coal handling granted to M/s Mormugao Port Trust vide letter dated 30th December 2013 bearing F. No. 10-39/2009-IA.III.

Adani Mormugao Port Terminal Private Limited is concessionaire of M/s Mormugao Port Trust for Berth No. – 7. Please find enclosed herewith the compliance report to the conditions stipulated in the cited reference for the Half Yearly period **April 2022 to September 2022** in soft copy for your kind reference.

Thanking You

Yours Faithfully,

For **M/s Adani Mormugao Port Terminal Private Limited**


Authorized Signatory

Copy to:

1. **The Director (Monitoring-IA-III Division),** Ministry of Environment, Forest & Climate Change, Indira Paryavaran Bhawan, Jor Bagh, New Delhi – 110003.
2. **The Zonal Officer,** Central Pollution Control Board, 1st & 2nd Floor, Nisaraga Bhawan, A Block, Thimmaiah Main Road, 7th D Cross, Shivanagar, opposite Pushpanjali theatre, Bengaluru – 560010
3. **The Member Secretary,** Goa State Pollution Control Board, Nr. Pilerne Industrial Estate, Opp. Saligao Seminary, Saligao – Bardez, Goa – 403511
4. **The Member Secretary,** Goa Coastal Zone Management Authority (GCZMA) 1st Floor, Pt. Deendayal Upadhyay Bhavan, Behind Pundalik Devasthan, Parvorim.
5. **The Chairman,** Mormugao Port Trust, Administrative Office, Headland Sada, Mormugao, Goa – 403804.

Adani Mormugao Port Terminal Pvt Ltd.
Sub Station Building,
Near Gate No. 2 of Mormugao Port Trust,
Mormugao, 403 803,
Goa, India

Tel: - +91 832 2579200
Fax: - +91 832 2579299
info@adani.com
www.adani.com

Registered Office: Adani Corporate House, Shantigram, Near Vaishno Devi Circle, S. G.Highway, Khodiyar, Ahmedabad-382421, Gujarat

**EC & CRZ
Clearance
Compliance
Report**

Environmental Clearance Compliance Report



**Adani Mormugao Port Terminal Private
Limited, Goa**

of

**Adani Ports and Special Economic
Zone Limited**

For the Period of:

April-2022 to September-2022

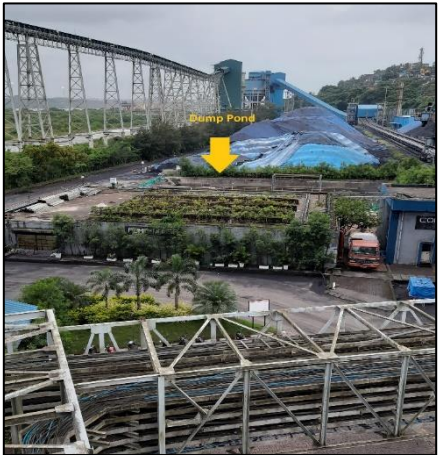

Index



S.No.	Particulars	Page No.
1	EC & CRZ Clearance Compliance Report	1
2	Annexures	
	Annexure 1: Environmental Monitoring reports for the period Apr'22 to September'22	22
	Annexure 2: EMP Compliance report.	58
	Annexure 3: Environment statement in Form V for FY 20-21	68

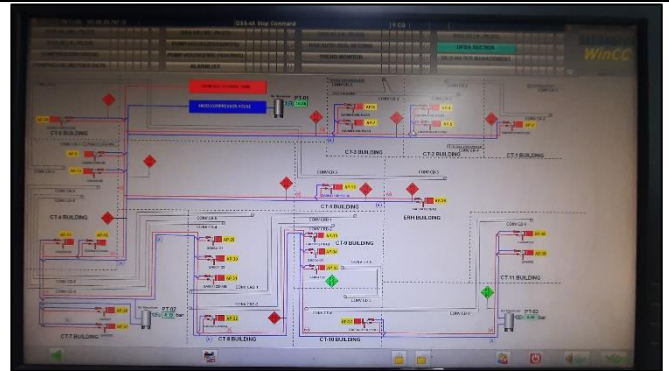
Half yearly Compliance report for Environment and CRZ Clearance for the modernization of Berth No. 7 for coal handling at Marmugao Port, Goa vide F No. 10-39/2009-IA.III dt. 30.12.2013

Sr. No.	Conditions	Compliance						
6	Specific Conditions							
i	<p>"Consent for Establishment" shall be obtained from Goa Pollution Control Board under Air and Water Act and a copy shall be submitted to the Ministry before start of any construction work at the site.</p>	<p>Complied, Copy of Consent for Establishment (CFE) submitted in six monthly compliance report dated 25th November, 2014 (CTE copy attached below). All construction works completed and terminal is in operation with valid Consent from GSPCB (No.12/2019-PCB/347405/R0002737 dated 24/03/2020 valid up to 31/01/2025).</p> <div data-bbox="842 875 1481 1543" style="border: 1px solid black; padding: 5px;"> <p style="text-align: center;">GOA STATE POLLUTION CONTROL BOARD गोंय राज्य प्रदुशण नियंत्रण मंडळ</p> <p>Phone Nos. : 91-832-2438667, 2438628 2438663, 2438660 Tel / Fax No. : 0832-2438628 Email : gspcb@rediffmail.com</p> <p style="text-align: right;">Dempo Towers, 1st Floor, EDC Porto Plaza, Panaji, Goa 403 001.</p> <p style="text-align: center;">GSPCB Logo</p> <p>No. 5/356/10-PCB/ Vol. IV 8/3 6/3 Date: 22/03/12</p> <p style="text-align: center;">Consent to Establish under Section 26 of the Water (Prevention & Control of Pollution) Act, 1974 & under Section 21 of the Air (Prevention & Control of Pollution) Act, 1981 and Authorisation under Rule 5 of the Hazardous Wastes (Management, Handling and Transboundary Movement) Rules 2009 [To be referred as Water Act, Air Act and HW (M.H & T) Rules respectively]</p> <p style="text-align: center;">Consent to Establish is hereby granted to:</p> <p style="text-align: center;">MORMUGAO PORT TRUST (Red Category)</p> <p style="text-align: center;">Development of Mechanised Coal handling terminal at berth no. 7, Headland Sada, Vaseo-dn-Gama, Goa</p> <p>Located in the area declared under the provisions of the Water Act, Air Act and Authorisation under the provisions of HW (M.H & T) Rules, subject to the provisions of the Act and the Rules and the Orders that may be made further and subject to the following terms and conditions:</p> <ol style="list-style-type: none"> The Consent to Establish is valid upto Commissioning of the unit or 3 years which ever is earlier. This Consent to Establish is valid for the manufacture/ production/ extraction/ installation/ servicing/ trade/ activity as mentioned below: <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Sr. No</th> <th>Description</th> <th>Quantity</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">1.</td> <td>Development of Mechanised Coal handling terminal at berth no. 7</td> <td style="text-align: center;">5.2 million tons</td> </tr> </tbody> </table> <ol style="list-style-type: none"> CONDITIONS UNDER WATER ACT: <ol style="list-style-type: none"> The daily quantity of industrial effluent from the factory shall not exceed NIL. The daily quantity of domestic effluent generated during the construction stage shall not exceed 40 KLD. Domestic Effluent treatment and Disposal:- Soak pit shall not be constructed for the disposal of sewage. It should be connected into the existing STP of the Port. </div>	Sr. No	Description	Quantity	1.	Development of Mechanised Coal handling terminal at berth no. 7	5.2 million tons
Sr. No	Description	Quantity						
1.	Development of Mechanised Coal handling terminal at berth no. 7	5.2 million tons						

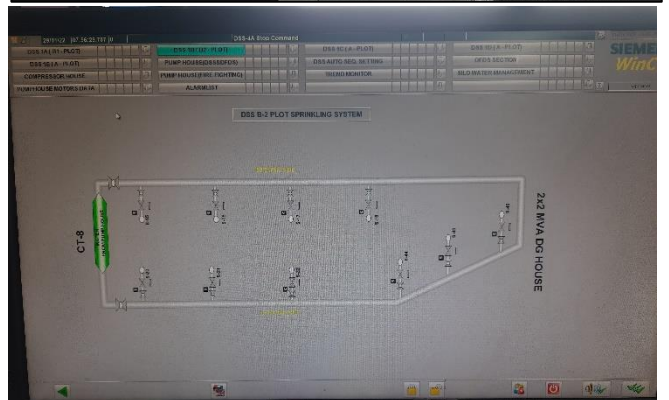
Half yearly Compliance report for Environment and CRZ Clearance for the modernization of Berth No. 7 for coal handling at Marmugao Port, Goa vide F No. 10-39/2009-IA.III dt. 30.12.2013

Sr. No.	Conditions	Compliance
ii	The project proponent shall provide lining for collection of run off from coal stockyard and the leachate shall be treated before disposal.	<p>Complied, Runoff from Coal Stock Yard is being collected in RCC dump pond provided with proper lining. Settled water from dump pond is being reused for dust suppression and settled coal solid particles are sent back to coal stock piles. Dump pond water quality is also monitored. Report of the same is attached as part of Six monthly monitoring report (Annexure 1)</p>  

<p>iii</p>	<p>The project proponent shall provide dry fog and sprinkling systems for effective dust suppression.</p>	<p>Complied For effective dust suppression following measures are provided:</p> <ul style="list-style-type: none"> • 224 Nos. of dry fog dust suppression system have been provided in conveyor system and at all transfer points. • 43 Nos. Automatic Water Sprinklers have been provided at coal stock yard for dust suppression. • 02 Nos. Mist Canon provided (one is mobile canon and other one tyre mounted)   
------------	---	--



Layout of DFDS system installed at all transfer and other locations.





DSS system installed at yards



iv Entire transportation of coal shall be in closed conveyor.

Complied.
The coal is being transported through covered conveyor from jetty to silo/ stock yard. AMPTPL has provided 2700 meters long covered conveyor system from jetty to silo including 11

Half yearly Compliance report for Environment and CRZ Clearance for the modernization of Berth No. 7 for coal handling at Murmugao Port, Goa vide F No. 10-39/2009-IA.III dt. 30.12.2013

Sr. No.	Conditions	Compliance
		<p>closed Transfer Points provided with Dry Fog Dust Suppression (DFDS) nozzles.</p>  
v	There shall be no washing of conveyor belt	<p>Complied No washing of Conveyor belt is done.</p>

vi The project proponent shall provide wind screen min 15 m height fabric HDPE all along the periphery. The height shall be designed taking into account the wind velocity modelling etc. Also explore creepers in consultation with forest department.

Complied



Wind screen of MS structure along with HDPE fabric/ perforated sheet of 15 metres height has been provided along the coal stacking yard facility taking into account the wind velocity. Wind screen has been covered with agronet.




Plantation has also been done all along the wind screens to ensure better wind breaking.






Half yearly Compliance report for Environment and CRZ Clearance for the modernization of Berth No. 7 for coal handling at Murmugao Port, Goa vide F No. 10-39/2009-IA.III dt. 30.12.2013

Sr. No.	Conditions	Compliance
vii	Coal shall be kept under moist conditions using water sprinklers. Transportation shall be in closed conveyors with water spray.	<p>Complied The coal is being stored under the moist condition. Jet Sprinklers are provided for the same. Coal is being transported through covered conveyors with inbuilt dry fog dust suppression system.</p>  

Half yearly Compliance report for Environment and CRZ Clearance for the modernization of Berth No. 7 for coal handling at Marmugao Port, Goa vide F No. 10-39/2009-IA.III dt. 30.12.2013

Sr. No.	Conditions	Compliance
viii	All the conditions stipulated by Goa Coastal Zone Management Authority (GCZMA) vide letter No. GCZMA/S/13-14/09/360 dated 07.06.2013, shall be complied with.	<p>Complied. No specific conditions stipulated by GCZMA. NOC letter is attached below:</p> <div data-bbox="836 622 1490 1621" style="border: 1px solid black; padding: 5px;"> <p align="center">GOA COASTAL ZONE MANAGEMENT AUTHORITY C/o Department of Science, Technology & Environment, (Govt. of Goa) Opp. Saligao Seminary, P.O. Saligao, Bardez, Goa - 403 511 Phone: (0832) 2407580, 2407187, 2407189 Fax: (0832) 2407176 <small>e-mail: dscet@goa.gov.in</small></p> <hr/> <p>Ref. No. GCZMA/S/13-14/09/360 Dated: 7/06/2013</p> <p>To, The Chairman, Mormugao Port Trust, Administrative Office, Headland Sada, Goa. 403803</p> <p>Sub : Development of Coal Handling Terminal at Berth No. 7 of Mormugao Port, Goa on DBFOT basis- CRZ Clearance/recommendation Reg.</p> <p>Ref : 1) The Minutes of the 76th Meeting of the Expert Appraisal Committee for Coastal Regulation Zone, Infrastructure Development and Miscellaneous Projects held on 20th to 22nd July 2009 at Van Vigyan Bhavan, Sector - V, R. K. Puram, New Delhi</p> <p>2) Your application no. CE/PC-3/3355 dated 17.08.2009 and subsequent submissions of "Consent to Establish" no. S/356/10-PCB/Vol. IV/8363 dated 02/03/2012 issued by GSPCB, Comprehensive EIA Report prepared by WAPCOS and Comprehensive Hydrodynamic Study Report prepared by CWPRS vide CE/PC-3/7972 dated 06.03.2012 for the grant of CRZ clearance/recommendations for the subject project.</p> <p>Sir,</p> <p>With reference to the above mentioned subject, it is hereby conveyed that Goa Coastal Zone Management Authority (GCZMA) has examined your application during its 84th Board Meeting held on 06th June 2013 at Goa in line with the Minutes of the 76th Meeting of the Expert Appraisal Committee (EAC) for Coastal Regulation Zone, Infrastructure Development and Miscellaneous Projects held on 20th to 22nd July 2009 at New Delhi and subsequently accorded clearance for the subject project.</p> <p>It is further clarified that this development and modernization project is located within the existing port area of Vasco-da-Gama City and Water front as well as Foreshore facilities are situated within the jurisdiction of Mormugao Port Trust, which is zoned as CRZ-II.</p> <p>In accordance with the provisions of the clause 4 (i) (f) of the Coastal Regulation Zone Notification of 2011, the Goa Coastal Zone Management Authority, Government of Goa has no objection to the said project provided prior Environmental Clearance is obtained from the Ministry of Environment and Forests, Government of India.</p> <p>Grant of CRZ clearance for the subject project is conveyed herewith and accordingly recommended for Environmental Clearance.</p> <p align="right">Yours faithfully,  (Levinson J. Martins) Member Secretary (GCZMA) & Director/Ex-Officio, Joint Secretary (STE)</p> </div>
ix	Periodical study on shore line changes shall be conducted and mitigation carried out if necessary. The details shall be submitted along with the six monthly monitoring reports.	<p>Complied. M/s MPT did shore line study in 2016. AMPTPL is only one of the terminal operator. This is an old berth within the existing premises of MPT and only modernization activity has been done.</p>

Half yearly Compliance report for Environment and CRZ Clearance for the modernization of Berth No. 7 for coal handling at Marmugao Port, Goa vide F No. 10-39/2009-IA.III dt. 30.12.2013

Sr. No.	Conditions	Compliance																																																																																												
x	Oil spills if any shall be properly collected and disposed as per the Rules. Proper Oil Contingency Management Plan shall be put in place.	<p>Complied., AMPTPL is abiding by the Oil Spill Contingency Management Plan of M/s MPT (Attached below). No such incident occurred during the compliance period.</p> <table border="1" data-bbox="847 741 1477 1375"> <thead> <tr> <th colspan="4" data-bbox="847 741 1477 792">  MORMUGAO PORT TRUST DISASTER MANAGEMENT PLAN </th> </tr> <tr> <th data-bbox="847 792 938 815"></th> <th data-bbox="938 792 1262 815">CONTENTS</th> <th data-bbox="1262 792 1337 815">PAGE NO</th> <th data-bbox="1337 792 1477 815">REV REF/DATE</th> </tr> </thead> <tbody> <tr> <td data-bbox="847 815 938 837">PART-1</td> <td data-bbox="938 815 1262 837">Framework</td> <td data-bbox="1262 815 1337 837"></td> <td data-bbox="1337 815 1477 837"></td> </tr> <tr> <td data-bbox="847 837 938 860">SECTION</td> <td data-bbox="938 837 1262 860"></td> <td data-bbox="1262 837 1337 860"></td> <td data-bbox="1337 837 1477 860"></td> </tr> <tr> <td data-bbox="847 860 938 882"></td> <td data-bbox="938 860 1262 882" style="text-align: center;">SECTION - 5 Preparedness</td> <td data-bbox="1262 860 1337 882"></td> <td data-bbox="1337 860 1477 882"></td> </tr> <tr> <td data-bbox="847 882 938 904">5.11</td> <td data-bbox="938 882 1262 904">Communication Systems</td> <td data-bbox="1262 882 1337 904">21</td> <td data-bbox="1337 882 1477 904"></td> </tr> <tr> <td data-bbox="847 904 938 927">5.12</td> <td data-bbox="938 904 1262 927">Communication-Command And Response Structure</td> <td data-bbox="1262 904 1337 927">22</td> <td data-bbox="1337 904 1477 927"></td> </tr> <tr> <td data-bbox="847 927 938 949">5.13</td> <td data-bbox="938 927 1262 949">Drills And Exercises</td> <td data-bbox="1262 927 1337 949"></td> <td data-bbox="1337 927 1477 949"></td> </tr> <tr> <td data-bbox="847 949 938 972"></td> <td data-bbox="938 949 1262 972" style="text-align: center;">SECTION - 6 Response</td> <td data-bbox="1262 949 1337 972"></td> <td data-bbox="1337 949 1477 972"></td> </tr> <tr> <td data-bbox="847 972 938 994">6.1</td> <td data-bbox="938 972 1262 994">Mormugao Port Disaster Management Conceptual Plan Framework</td> <td data-bbox="1262 972 1337 994">23</td> <td data-bbox="1337 972 1477 994"></td> </tr> <tr> <td data-bbox="847 994 938 1016">6.2</td> <td data-bbox="938 994 1262 1016">On Site MPT Disaster Management</td> <td data-bbox="1262 994 1337 1016">24</td> <td data-bbox="1337 994 1477 1016"></td> </tr> <tr> <td data-bbox="847 1016 938 1039">6.3</td> <td data-bbox="938 1016 1262 1039">Central Disaster Management Group- Basic Functions</td> <td data-bbox="1262 1016 1337 1039">25</td> <td data-bbox="1337 1016 1477 1039"></td> </tr> <tr> <td data-bbox="847 1039 938 1061">6.4</td> <td data-bbox="938 1039 1262 1061">On Site Action Group - Basic Responsibilities</td> <td data-bbox="1262 1039 1337 1061"></td> <td data-bbox="1337 1039 1477 1061"></td> </tr> <tr> <td data-bbox="847 1061 938 1084">6.5</td> <td data-bbox="938 1061 1262 1084">Emergency Classification</td> <td data-bbox="1262 1061 1337 1084">26</td> <td data-bbox="1337 1061 1477 1084"></td> </tr> <tr> <td data-bbox="847 1084 938 1106">6.6</td> <td data-bbox="938 1084 1262 1106">Central Disaster Management Group – Responsibilities</td> <td data-bbox="1262 1084 1337 1106">27</td> <td data-bbox="1337 1084 1477 1106"></td> </tr> <tr> <td data-bbox="847 1106 938 1128">6.7</td> <td data-bbox="938 1106 1262 1128">Disaster Management On Site Action Group- Organization Responsibilities</td> <td data-bbox="1262 1106 1337 1128">32</td> <td data-bbox="1337 1106 1477 1128"></td> </tr> <tr> <td data-bbox="847 1128 938 1151">6.8</td> <td data-bbox="938 1128 1262 1151">Disaster Management On Site Action Group - Responsibilities</td> <td data-bbox="1262 1128 1337 1151">33</td> <td data-bbox="1337 1128 1477 1151"></td> </tr> <tr> <td data-bbox="847 1151 938 1173"></td> <td data-bbox="938 1151 1262 1173" style="text-align: center;">SECTION-7 Emergency Facilities</td> <td data-bbox="1262 1151 1337 1173"></td> <td data-bbox="1337 1151 1477 1173"></td> </tr> <tr> <td data-bbox="847 1173 938 1196">7.1</td> <td data-bbox="938 1173 1262 1196">Emergency Control Centre At Port Control Station</td> <td data-bbox="1262 1173 1337 1196">36</td> <td data-bbox="1337 1173 1477 1196"></td> </tr> <tr> <td data-bbox="847 1196 938 1218">7.2</td> <td data-bbox="938 1196 1262 1218">Port Fire Fighting Resources</td> <td data-bbox="1262 1196 1337 1218">37</td> <td data-bbox="1337 1196 1477 1218"></td> </tr> <tr> <td data-bbox="847 1218 938 1240">7.3</td> <td data-bbox="938 1218 1262 1240">Port Oil Spill Response Equipment</td> <td data-bbox="1262 1218 1337 1240">38</td> <td data-bbox="1337 1218 1477 1240"></td> </tr> <tr> <td data-bbox="847 1240 938 1263">7.4</td> <td data-bbox="938 1240 1262 1263">Mutual Aid</td> <td data-bbox="1262 1240 1337 1263">39</td> <td data-bbox="1337 1240 1477 1263"></td> </tr> <tr> <td data-bbox="847 1263 938 1285"></td> <td data-bbox="938 1263 1262 1285" style="text-align: center;">SECTION-8 Disaster Response</td> <td data-bbox="1262 1263 1337 1285"></td> <td data-bbox="1337 1263 1477 1285"></td> </tr> </tbody> </table>	 MORMUGAO PORT TRUST DISASTER MANAGEMENT PLAN					CONTENTS	PAGE NO	REV REF/DATE	PART-1	Framework			SECTION					SECTION - 5 Preparedness			5.11	Communication Systems	21		5.12	Communication-Command And Response Structure	22		5.13	Drills And Exercises				SECTION - 6 Response			6.1	Mormugao Port Disaster Management Conceptual Plan Framework	23		6.2	On Site MPT Disaster Management	24		6.3	Central Disaster Management Group- Basic Functions	25		6.4	On Site Action Group - Basic Responsibilities			6.5	Emergency Classification	26		6.6	Central Disaster Management Group – Responsibilities	27		6.7	Disaster Management On Site Action Group- Organization Responsibilities	32		6.8	Disaster Management On Site Action Group - Responsibilities	33			SECTION-7 Emergency Facilities			7.1	Emergency Control Centre At Port Control Station	36		7.2	Port Fire Fighting Resources	37		7.3	Port Oil Spill Response Equipment	38		7.4	Mutual Aid	39			SECTION-8 Disaster Response		
 MORMUGAO PORT TRUST DISASTER MANAGEMENT PLAN																																																																																														
	CONTENTS	PAGE NO	REV REF/DATE																																																																																											
PART-1	Framework																																																																																													
SECTION																																																																																														
	SECTION - 5 Preparedness																																																																																													
5.11	Communication Systems	21																																																																																												
5.12	Communication-Command And Response Structure	22																																																																																												
5.13	Drills And Exercises																																																																																													
	SECTION - 6 Response																																																																																													
6.1	Mormugao Port Disaster Management Conceptual Plan Framework	23																																																																																												
6.2	On Site MPT Disaster Management	24																																																																																												
6.3	Central Disaster Management Group- Basic Functions	25																																																																																												
6.4	On Site Action Group - Basic Responsibilities																																																																																													
6.5	Emergency Classification	26																																																																																												
6.6	Central Disaster Management Group – Responsibilities	27																																																																																												
6.7	Disaster Management On Site Action Group- Organization Responsibilities	32																																																																																												
6.8	Disaster Management On Site Action Group - Responsibilities	33																																																																																												
	SECTION-7 Emergency Facilities																																																																																													
7.1	Emergency Control Centre At Port Control Station	36																																																																																												
7.2	Port Fire Fighting Resources	37																																																																																												
7.3	Port Oil Spill Response Equipment	38																																																																																												
7.4	Mutual Aid	39																																																																																												
	SECTION-8 Disaster Response																																																																																													
xi	All the conditions stipulated in the earlier Clearances including the recommendations of Environment Management Plan, Disaster Management Plan shall be strictly complied with	<p>Noted and being complied. Compliance of earlier clearance is being submitted by M/s MPT.</p> <p>All recommendations made in the Environment Management Plan as contained in the Environment Impact Assessment of the project are effectively implemented and being followed. EMP Compliance status is attached as Annexure 2.</p>																																																																																												

Half yearly Compliance report for Environment and CRZ Clearance for the modernization of Berth No. 7 for coal handling at Marmugao Port, Goa vide F No. 10-39/2009-IA.III dt. 30.12.2013

Sr. No.	Conditions	Compliance																					
xii	<p>Cargo shall be unloaded directly into hopper from the ship and transported to the stack yards through closed conveyor system only. Inbuilt dust suppression systems shall be provided at hoppers and all the transfer points / storage yards. Cargo shall not be unloaded directly onto the Berth. Water meters shall be provided at different locations to record the consumption of water used for dust suppression and daily log shall be maintained.</p>	<p>Complied, Coal is being unloaded directly into hopper from the ship and transported to the stack yards through closed conveyor system. Inbuilt dust suppression system has been provided in hoppers, transfer towers and storage yards to avoid fugitive emissions. Coal cargo is not being unloaded directly onto the berth.</p> <p>AMPTPL has installed water flow meters and log sheet is being maintained to record water consumption in dust suppression system.</p> <table border="1" data-bbox="836 954 1441 1285"> <thead> <tr> <th>S.No.</th> <th>Month</th> <th>Consumption (KL)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Apr-22</td> <td>5036</td> </tr> <tr> <td>2</td> <td>May-22</td> <td>6276</td> </tr> <tr> <td>3</td> <td>Jun-22</td> <td>7886</td> </tr> <tr> <td>4</td> <td>Jul-22</td> <td>6586</td> </tr> <tr> <td>5</td> <td>Aug-22</td> <td>8188</td> </tr> <tr> <td>6</td> <td>Sep-22</td> <td>6013</td> </tr> </tbody> </table> <div data-bbox="836 1323 1493 1742"> </div> <div data-bbox="836 1749 1147 1998"> </div> <div data-bbox="1152 1749 1493 1998"> </div>	S.No.	Month	Consumption (KL)	1	Apr-22	5036	2	May-22	6276	3	Jun-22	7886	4	Jul-22	6586	5	Aug-22	8188	6	Sep-22	6013
S.No.	Month	Consumption (KL)																					
1	Apr-22	5036																					
2	May-22	6276																					
3	Jun-22	7886																					
4	Jul-22	6586																					
5	Aug-22	8188																					
6	Sep-22	6013																					


xiii At least 15 m width of green belt along the periphery and 15 m width along the stockyard shall be undertaken including plantation of mangroves in consultation with Forest Department.

Complied/Being Complied

Green belt with suitable native species has been developed, along the periphery and coal stock yard. About **29,595** nos. plants have been planted and 50 numbers between Apr 22 – Sept 22 in port premises and survival rate is well maintained. Additionally, AMPTPL has also developed vertical gardens. The plant species includes Conocarpus, Coconut, Palm, etc. There are no mangroves in the vicinity of Berth No. 7.



Half yearly Compliance report for Environment and CRZ Clearance for the modernization of Berth No. 7 for coal handling at Marmugao Port, Goa vide F No. 10-39/2009-IA.III dt. 30.12.2013

Sr. No.	Conditions	Compliance
		
iv	<p>The dredge material shall be reused for low level rising wherever possible and excess shall be dumped into sea at the designated dumping areas identified based on mathematical model studies.</p>	<p>Complied, Construction of the project already completed and currently terminal is in operation. There was no dredging during the compliance period.</p>

xv To prevent discharge of sewage and other liquid wastes including ballast into marine environment, adequate system for collection, treatment and disposal of liquid wastes must be provided.

Complied

There is no discharge of sewage and other liquid waste into marine environment. The domestic sewage is being collected in septic tanks provided within the premises of AMPTPL and sent to Sewage Treatment Plant of PWD at Baina for further treatment.



MPT is complying with MARPOL conditions.

DC/S-(21)2016/23

Date: 24/05/2016

HARBOUR NOTICE NO. 23 (TEMP) 2016

Sub: Removal of sludge, bilge water, waste oil, etc. from ships/barges/crafts etc. at Mormugao Port

The following three companies at present are doing the work of reception of sludge, bilge water, waste oil etc. in Mormugao Port Trust.

Sr. No.	Name of the company and address	Contact persons	Contact No. (Mobile)	Email address
1	M/s Shiva Petro-Synth Specialities Limited, Sastech Associates, Karma Plaza, 1 st floor, Shop No. 11, Vasco-Da-Gama, 403 802	Mr. Umesh Bhagat	9552545733	sludgeoilgoa.shiva@yahoo.com
		Mr. Krishna Kamulkar	9552569044	
2	M/s Canacona Hydrocarbons, Flat No. 5B, 3rd floor, Lotus Apartment, F.L.Gomes Road, Vasco da gama, Goa	Mr. Vikram P. Nayak	9823108823	canaconahydrocarbon@yahoo.com
		Mr. Peter Arputha Jothy	9445708888	
		Mr. Dominic Savio	8390457969	
3	M/s Shree Pooshphans Chemicals, 403/404, Dev Krupa Premises Co-op. Society Ltd., 4 th Floor, 28, Raichur Street, Dana Bundar, Mumbai 400 008.	Mr. Suleman A. Makandar	9370180355	info@slopsreception.com operations@slopsreception.com
		Mr. Alishabakash M. Falir	9370180355	
		Jayant M. Jadhav	9890787983	

Sd/-
DY. CONSERVATOR (i/c)

To,

- 1) All Shipping Agents
- 2) The President, Mormugao Fishing Trawlers Association
- 3) The President, Mormugao Barge Owners Association
- 4) The President, Mormugao Passenger Launches Owners Association
- 5) Fisheries Survey of India, Abo Jetty, Near Police Station, Baga, Mormugao


c.c. to: Communication Officer

Please advise Signal/cum-RTD to inform the above message to all the Ships calling at this Port and proper entries should be made in the Shipping Log Book.

c.c. to: Dy. Chairman/Chairman's table

c.c. to: DCDirector (P&MS)/FAS&AO/Commander CIB/FC/ECME/TW/Secretary/CMO
All Pilots/HM/CO/SS/Port Signal Station/Plot Room/MS/CO/PR/SE/M/ISO/M

Half yearly Compliance report for Environment and CRZ Clearance for the modernization of Berth No. 7 for coal handling at Murmugao Port, Goa vide F No. 10-39/2009-IA.III dt. 30.12.2013

Sr. No.	Conditions	Compliance
xvi	<p>Necessary arrangements for the treatment of the effluents and solid wastes must be made and it must be ensured that the untreated effluents and solid wastes are not discharged into the water or on the beach; and no effluent or solid wastes shall be discharged on the beach.</p>	<p>Complied The domestic sewage is being collected in septic tanks provided within the premises of AMPTPL and sent to Sewage Treatment Plant of PWD at Baina for further treatment. STP inlet characteristic of water is regularly analyzed by NABL accredited laboratory. The monitoring results for the period April 2022 to September -2022 is enclosed as Annexure 1. Solid waste generated is properly segregated, stored and disposed to Goa Waste Management Corporation (GSPCB) in line to Solid Waste Management Rules 2016 as amended. Food waste is recycled in an OWC and used as manure. No effluent or solid wastes is being discharged into the water or on the beach.</p> 

Half yearly Compliance report for Environment and CRZ Clearance for the modernization of Berth No. 7 for coal handling at Marmugao Port, Goa vide F No. 10-39/2009-IA.III dt. 30.12.2013

Sr. No.	Conditions	Compliance
xvii	The quality of treated effluents, solid wastes, emissions and noise levels and the like, from project area must conform to the standards laid down by the competent authorities including the Central or State Pollution Control Board under the Environment (Protection) Act 1986	<p>Complied Regular Environmental Monitoring is carried out, to assess the quality of treated effluents from STP, Ambient Air Quality, Ambient Noise level, DG set emissions through NABL accredited and MoEF&CC recognized laboratory. In addition, AMPTPL has also installed one CAAQMS at Sada village and the realtime data is connected with GSPCB server. Results for all the monitoring parameters are within the prescribed limit. Summary of the monitoring report for the period Apr 22 – Sept 22 is enclosed as Annexure-1.</p>  
xviii	All the mitigation measures submitted in the EIA report shall be prepared in a matrix format and the compliance for each mitigation plan shall be submitted to MoEF along with half yearly compliance report to MoEF-RO.	<p>Complied All the mitigation measures/EMP submitted in EIA are being followed. EMP Compliance in matrix format is enclosed as Annexure - 2. The same is being submitted as part of Six monthly compliance report to all the concerned authorities</p>

Half yearly Compliance report for Environment and CRZ Clearance for the modernization of Berth No. 7 for coal handling at Murmugao Port, Goa vide F No. 10-39/2009-IA.III dt. 30.12.2013

Sr. No.	Conditions	Compliance																					
xix	The funds earmarked for environment management plan shall be included in the budget and this shall not be diverted for any other purpose.	<p>Complied, Separate budget for implementation of Environment Management Plan is in place and it is not diverted for any other purpose. A brief summary of environmental expenditure during the compliance period is given below.</p> <table border="1" data-bbox="833 757 1493 1641"> <thead> <tr> <th data-bbox="833 757 967 909">S. No.</th> <th data-bbox="967 757 1326 909">Description of Work</th> <th data-bbox="1326 757 1493 909">Amount lakhs (Rs.) (Approx)</th> </tr> </thead> <tbody> <tr> <td data-bbox="833 909 967 1050">1</td> <td data-bbox="967 909 1326 1050">Environment Quality Monitoring & Control (Pollucon, CAAQMS, Camera)</td> <td data-bbox="1326 909 1493 1050">10.61</td> </tr> <tr> <td data-bbox="833 1050 967 1144">2</td> <td data-bbox="967 1050 1326 1144">GSPCB Monitoring & Statuary Payments</td> <td data-bbox="1326 1050 1493 1144">0.8317</td> </tr> <tr> <td data-bbox="833 1144 967 1267">3</td> <td data-bbox="967 1144 1326 1267">Tarpaulin and other waste disposal</td> <td data-bbox="1326 1144 1493 1267">2.18</td> </tr> <tr> <td data-bbox="833 1267 967 1375">4</td> <td data-bbox="967 1267 1326 1375">Green belt Maintenance & Development</td> <td data-bbox="1326 1267 1493 1375">2.93</td> </tr> <tr> <td data-bbox="833 1375 967 1516">5</td> <td data-bbox="967 1375 1326 1516">Environment Monitoring Cell, Training and Awareness</td> <td data-bbox="1326 1375 1493 1516">11.58</td> </tr> <tr> <td colspan="2" data-bbox="833 1516 1326 1641">Total</td> <td data-bbox="1326 1516 1493 1641">28.14</td> </tr> </tbody> </table> <p data-bbox="833 1641 1493 1711">In addition to above following expenditure also has been incurred;;</p> <ol data-bbox="880 1749 1465 1848" style="list-style-type: none"> 1. Yard Tarpaulin Covering: 26.32 Lakhs. 2. Rake Tarpaulin Covering: 1.25 Cr. 3. Road Sweeping Machine: 12.05 Lakhs 	S. No.	Description of Work	Amount lakhs (Rs.) (Approx)	1	Environment Quality Monitoring & Control (Pollucon, CAAQMS, Camera)	10.61	2	GSPCB Monitoring & Statuary Payments	0.8317	3	Tarpaulin and other waste disposal	2.18	4	Green belt Maintenance & Development	2.93	5	Environment Monitoring Cell, Training and Awareness	11.58	Total		28.14
S. No.	Description of Work	Amount lakhs (Rs.) (Approx)																					
1	Environment Quality Monitoring & Control (Pollucon, CAAQMS, Camera)	10.61																					
2	GSPCB Monitoring & Statuary Payments	0.8317																					
3	Tarpaulin and other waste disposal	2.18																					
4	Green belt Maintenance & Development	2.93																					
5	Environment Monitoring Cell, Training and Awareness	11.58																					
Total		28.14																					

Half yearly Compliance report for Environment and CRZ Clearance for the modernization of Berth No. 7 for coal handling at Marmugao Port, Goa vide F No. 10-39/2009-IA.III dt. 30.12.2013

Sr. No.	Conditions	Compliance
xx	The project proponent shall set up separate environmental management cell for effective implementation of the stipulated environmental safeguards under the supervision of a Senior Executive	Complied AMPTPL is having well structured Environment Management Cell staffed with qualified manpower and well supported by team at regional office (Chennai) as well as Head Office in Ahmedabad for effective implementation of the stipulated environmental safeguards under the supervision Unit/Business Head AMPTPL.
7. General Conditions		
i	Appropriate measures must be taken while undertaking digging activities to avoid any likely degradation of water quality.	Complied, There was no digging activity during the compliance period. Construction activity is completed and project is in operational phase.
ii	Full support shall be extended to the officers of this Ministry/Regional Office at Bangalore by the project proponent during inspection of the project for monitoring purposes by furnishing full details and action plan including action taken reports in respect of mitigation measures and other environmental protection activities.	Complied. Full support is being extended to the officers of Ministry/Regional Office, as well as officers of Central and State Pollution Control Board during their visit. During compliance period GSPCB officials visited twice in June 22 All the necessary support was extended to them and the same shall be continued in future also.
iii	A six-monthly monitoring report shall need to be submitted by the project proponents to the Regional Office of this Ministry at Bangalore regarding the implementation of the stipulated conditions.	Complied Six monthly EC & CRZ clearance Compliance reports of the stipulated conditions are regularly submitted to Regional Office of Ministry at Bengaluru, and other authorities (CPCB, GSPCB, MoEF&CC, GCZMA, MPT etc.). Last Compliance report for the period October 2021 - March 2022 was submitted vide letter no. AMPTPL/2022/809 dated 24.05.2022.
iv	Ministry of Environment & Forests or any other competent authority may stipulate any additional conditions or modify the existing ones, if necessary in the interest of environment and the same shall be complied with.	Noted for Compliance.
v	The Ministry reserves the right to revoke this clearance if any of the conditions stipulated are not complied with the satisfaction of the Ministry.	Noted.
vi	In the event of a change in project profile or change in the implementation agency, a fresh reference shall be made to the Ministry of Environment and Forests.	Noted. There is no change in project profile or implementation agency.

	Adani Marmugao Port Terminal Pvt. Ltd.	From : April 2022 To : September 2022
Compliance to the conditions stipulated in Environment and CRZ clearance.		

Half yearly Compliance report for Environment and CRZ Clearance for the modernization of Berth No. 7 for coal handling at Marmugao Port, Goa vide F No. 10-39/2009-IA.III dt. 30.12.2013		
Sr. No.	Conditions	Compliance
vii	The project proponents shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of start of land development work.	Complied Financial Closure Date: 14 th May, 2010 Concession agreement date with MPT: 22 nd September, 2009
viii	A copy of the clearance letter shall be marked to concern Panchayat/local NGO, if any, from whom any suggestion/representation have been made, received while processing the proposal.	Complied Complied by Mormugao Port Trust (MPT).
ix	Goa State Pollution Control Board shall display a copy of the clearance letter at the Regional Office, District Industries Center and Collector's Office/Tehsildar's office for 30 days.	Noted. This condition does not pertain to project proponent. However, it is learnt that Goa State Pollution Control Board has complied with the same.
8.	These stipulations would be enforced among others under the provisions of Water (Prevention and Control of Pollution) Act 1974, the Air (Prevention and Control of Pollution) Act 1981, the Environment (Protection) Act, 1986, the Public Liability (Insurance) Act, 1991 and EIA Notification 1994, including the amendments and rules made thereafter.	Noted for Compliance.

Half yearly Compliance report for Environment and CRZ Clearance for the modernization of Berth No. 7 for coal handling at Murmugao Port, Goa vide F No. 10-39/2009-IA.III dt. 30.12.2013

Sr. No.	Conditions	Compliance									
9.	All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department, Forest Conservation Act, 1980 and Wildlife (Protection) Act, 1972 etc. shall be obtained, as applicable by project proponents from the respective competent authorities.	<p>Complied All applicable clearances from the concerned statutory authorities have been obtained. (This is for kattupalli, to be updated for Goa)</p> <table border="1" data-bbox="831 651 1490 1572"> <thead> <tr> <th data-bbox="831 651 963 719">Permis sion</th> <th data-bbox="963 651 1287 719">Ref.No.</th> <th data-bbox="1287 651 1490 719">Date</th> </tr> </thead> <tbody> <tr> <td data-bbox="831 719 963 1480">GSPCB CTO</td> <td data-bbox="963 719 1287 1480"> 1. No.12/2019-PCB/347405/ROO 02737 dt. 24.03.2020, 2. Amendment 1 - 12/2019-PCB/347405/HF/T ech/14377 dt. 16.11.2020, 3. Amendment 2- 12/2019-PCB/347405/HF/T ech/22761 dt. 31.03.2022. 4. Amendment 3 - 12/2019-PCB/34705/HF/Te ch-3815 07.06.2022 5. Amendment 4 - 12/2019-PCB/34705/HF/Te ch/5776 - dt. 04.07.2022 </td> <td data-bbox="1287 719 1490 1480"> 1. 24.03.2020 2. 16.11.2020 3. 31.03.2022 4. 07.06.2022 5. 04.07.2022 </td> </tr> <tr> <td data-bbox="831 1480 963 1572">NOC Fire & Safety</td> <td data-bbox="963 1480 1287 1572">DFES/FPNA/2022/113</td> <td data-bbox="1287 1480 1490 1572">1. 22.11.2022</td> </tr> </tbody> </table>	Permis sion	Ref.No.	Date	GSPCB CTO	1. No.12/2019-PCB/347405/ROO 02737 dt. 24.03.2020, 2. Amendment 1 - 12/2019-PCB/347405/HF/T ech/14377 dt. 16.11.2020, 3. Amendment 2- 12/2019-PCB/347405/HF/T ech/22761 dt. 31.03.2022. 4. Amendment 3 - 12/2019-PCB/34705/HF/Te ch-3815 07.06.2022 5. Amendment 4 - 12/2019-PCB/34705/HF/Te ch/5776 - dt. 04.07.2022	1. 24.03.2020 2. 16.11.2020 3. 31.03.2022 4. 07.06.2022 5. 04.07.2022	NOC Fire & Safety	DFES/FPNA/2022/113	1. 22.11.2022
Permis sion	Ref.No.	Date									
GSPCB CTO	1. No.12/2019-PCB/347405/ROO 02737 dt. 24.03.2020, 2. Amendment 1 - 12/2019-PCB/347405/HF/T ech/14377 dt. 16.11.2020, 3. Amendment 2- 12/2019-PCB/347405/HF/T ech/22761 dt. 31.03.2022. 4. Amendment 3 - 12/2019-PCB/34705/HF/Te ch-3815 07.06.2022 5. Amendment 4 - 12/2019-PCB/34705/HF/Te ch/5776 - dt. 04.07.2022	1. 24.03.2020 2. 16.11.2020 3. 31.03.2022 4. 07.06.2022 5. 04.07.2022									
NOC Fire & Safety	DFES/FPNA/2022/113	1. 22.11.2022									

Half yearly Compliance report for Environment and CRZ Clearance for the modernization of Berth No. 7 for coal handling at Marmugao Port, Goa vide F No. 10-39/2009-IA.III dt. 30.12.2013

Sr. No.	Conditions	Compliance																					
10.	The project proponent shall advertise in at least two local Newspapers widely circulated in the region, one of which shall be in the vernacular language informing that the project has been accorded Environmental and CRZ Clearance and copies of clearance letters are available with the Goa State Pollution Control Board and may also be seen on the website of the Ministry of Environment and Forests at http://www.envfor.nic.in . The advertisement should be made within 10 days from the date of receipt of the Clearance letter and a copy of the same should be forwarded to the Regional office of this Ministry at Bangalore.	<p>Complied MPT has given advertisement on 11th January, 2014 in the newspapers mentioned below.</p> <ol style="list-style-type: none"> 1) Sunaparant 2) Times of India, Goa. <p>Copy of the same has already been submitted to RO-MoEF&CC (Bangalore).</p> <ul style="list-style-type: none"> • The details of the past six Half yearly compliance reports are as tabulated below for reference. <table border="1"> <thead> <tr> <th>S.No.</th> <th>Compliance period</th> <th>Date of submission</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Apr'19 to Sep'19</td> <td>26.11.2019</td> </tr> <tr> <td>2.</td> <td>Oct'19 to Mar'20</td> <td>20.05.2020</td> </tr> <tr> <td>3.</td> <td>Apr'20 to Sep'20</td> <td>28.11.2020</td> </tr> <tr> <td>4.</td> <td>Oct'20 to Mar'21</td> <td>27.05.2021</td> </tr> <tr> <td>5.</td> <td>Apr'21 to Sep'21</td> <td>26.11.2021</td> </tr> <tr> <td>6.</td> <td>Oct'21 to Mar'22</td> <td>24.05.2022</td> </tr> </tbody> </table>	S.No.	Compliance period	Date of submission	1.	Apr'19 to Sep'19	26.11.2019	2.	Oct'19 to Mar'20	20.05.2020	3.	Apr'20 to Sep'20	28.11.2020	4.	Oct'20 to Mar'21	27.05.2021	5.	Apr'21 to Sep'21	26.11.2021	6.	Oct'21 to Mar'22	24.05.2022
S.No.	Compliance period	Date of submission																					
1.	Apr'19 to Sep'19	26.11.2019																					
2.	Oct'19 to Mar'20	20.05.2020																					
3.	Apr'20 to Sep'20	28.11.2020																					
4.	Oct'20 to Mar'21	27.05.2021																					
5.	Apr'21 to Sep'21	26.11.2021																					
6.	Oct'21 to Mar'22	24.05.2022																					
11.	This Clearance is subject to final order of the Hon'ble Supreme Court of India in the matter of Goa Foundation Vs. Union of India in Writ Petition (Civil) No. 460 of 2004 as may be applicable to this project.	Noted.																					
12.	Status of compliance to the various stipulated environmental conditions and environmental safeguards will be uploaded by the project proponent in its website.	<p>Complied Copy of six monthly EC&CRZ compliance report is being regularly uploaded by AMPTPL on company website at https://www.adaniports.com/ports-downloads?port=Marmugao-Terminal</p>																					
13.	Any appeal against this clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.	Noted.																					
14.	A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zilla Parisaad/Municipal Corporation, Urban Local Body and the Local NGO, if any, from whom suggestions/representations, if any were received while processing the proposal. The clearance letter shall also be put on the website of the company by proponent.	<p>Complied The same has been Complied by Marmugao Port Trust.</p>																					

	Adani Murmugao Port Terminal Pvt. Ltd.	From : April 2022 To : September 2022
Compliance to the conditions stipulated in Environment and CRZ clearance.		

Half yearly Compliance report for Environment and CRZ Clearance for the modernization of Berth No. 7 for coal handling at Murmugao Port, Goa vide F No. 10-39/2009-IA.III dt. 30.12.2013		
Sr. No.	Conditions	Compliance
15.	The proponent shall upload the status of compliance of the stipulated Clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MoEF, the respective Zonal Office of CPCB and the SPCB.	<p>Complied AMPTPL is regularly uploading the status of compliance of the stipulated clearance condition including results of monitored data in the company website. The same can be viewed at https://www.adaniports.com/ports-downloads?port=Murmugao-Terminal Six monthly compliance report is regularly submitted to Regional office of MoEF&CC at Bangalore, CPCB Zonal office, SPCB and other authorities. Last compliance report for the period October2021 - March 2022 was submitted vide letter no. AMPTPL/2022/809 dated 24.05.2022.</p>
16.	The environmental statement for each financial year ending 31 st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of Clearance conditions and shall also be sent to the respective Regional Offices of MoEF by e-mail.	<p>Complied Environment Statement in Form V is submitted to Goa State Pollution Control Board as well as MoEF Regional office Bangalore for each financial year. Environment Statement for the year FY 2021-22 has been submitted online on 28.09.2022 vide Application No. 1470909 and has also been uploaded on company website. Copy of the same is enclosed as Annexure-3. Copy of the same is available on company website at https://www.adaniports.com/ports-downloads?port=Murmugao-Terminal</p>

Enclosures:

Annexure Number	Details of Annexure
Annexure 1:	Environmental Monitoring reports for the period April'22 to September'22
Annexure 2:	EMP Compliance report.
Annexure 3:	Environment statement in Form V for FY 21-22

Annexure 1

“ENVIRONMENTAL MONITORING REPORT” FOR



**ADANI MURMUGAO PORT TERMINAL PVT. LTD. (AMPTPL),
GROUND FLOOR, PORT USERS COMPLEX, NEAR STATE BANK OF INDIA,
MORMUGAO HARBOUR, GOA 403802 INDIA – TEL 0832 2594253**

APRIL-2022 TO SEPTEMBER-2022

PREPARED BY:



M/s POLLUCON LABORATORIES PVT.LTD.

PLOT NO.5/6 “POLLUCON HOUSE”,

OPP. BALAJI INDUSTRIAL SOCIETY,

OLD SHANTINATH MILL LANE,

NEAR GAYTRI FARSAN, NAVJIVAN CIRCLE,

UDHANA MAGDALLA ROAD, SURAT-395007

PHONE/FAX – (+91 261) 263 5750, 263 5751.

E-mail: pollucon@gmail.com

Web: www.polluconlab.com



TC-5945



ISO 9001:2015



ISO 14001:2015



ISO45001:2018

"ENVIRONMENT MONITORING REPORT"

FOR



**ADANI MURMUGAO PORT TERMINAL PVT. LTD. (AMPTPL),
GROUND FLOOR, PORT USERS COMPLEX, NEAR STATE BANK OF INDIA,
MORMUGAO HARBOUR, GOA 403802 INDIA – TEL 0832 2594253**

For and on behalf of Pollucon Laboratories Pvt. Ltd., Surat

Approved by : Dr. Arun Kumar Bajpai

Signed :

Designation : Lab Manager (Q)

This report has been prepared by Pollucon laboratories Pvt. Ltd. with all reasonable skills, care and diligence, incorporating our General Terms and Conditions of Business and taking account of the resources devoted, flow chart, diagram etc. is provided by the client itself.

CONTENTS

Sr. No.	Title	Page No.
1	AMBIENT AIR QUALITY MONITORING	4
2	SEA WATER & SENDIMENTS MONITORING	7
3	STP WATER MONITORING	13
4	DUMP POND WATER MONITORING	15
5	DRINKING WATER MONITORING	17
6	SOIL QUALITY MONITORING	20
7	NOISE LEVEL MONITORING	22
8	D.G. STACK MONITORING	29
9	WEATHER DATA MONITORING	31

CHAPTER – 1

AMBIENT AIR QUALITY MONITORING

MONITORING PERIOD: APRIL-2022 TO SEPTEMBER-2022

Results of AAQM for Sada Village [APRIL-2022 TO SEPTEMBER-2022]

Sr. No.	Date of sampling	Particulate Matter (PM ₁₀)	Particulate Matter (PM _{2.5})	Lead as Pb	Benzo (a) Pyrene (BaP)-particulate phase only	Arsenic as As	Nickel as Ni	Carbon Monoxide as CO	Benzene as C ₆ H ₆	Ammonia (NH ₃)	Sulphur Dioxide (SO ₂)	Oxides of Nitrogen (NO ₂)	Ozone (O ₃)
		µg/m ³	µg/m ³	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/m ³	µg/m ³
1	04/04/2022	49.42	22.67	ND*	ND*	ND*	ND*	0.42	ND*	16.52	6.59	14.63	12.54
2	07/04/2022	52.64	26.65	ND*	ND*	ND*	ND*	0.33	ND*	13.62	9.82	19.87	17.54
3	11/04/2022	59.56	29.50	ND*	ND*	ND*	ND*	0.29	ND*	19.32	11.86	17.57	15.18
4	14/04/2022	40.93	17.64	ND*	ND*	ND*	ND*	0.15	ND*	14.25	13.51	21.57	13.53
5	18/04/2022	50.47	28.62	ND*	ND*	ND*	ND*	0.26	ND*	11.22	15.59	24.25	10.21
6	21/04/2022	58.28	34.58	ND*	ND*	ND*	ND*	0.42	ND*	18.23	12.38	15.38	16.25
7	25/04/2022	62.58	25.48	ND*	ND*	ND*	ND*	0.54	ND*	25.64	9.24	20.25	18.53
8	28/04/2022	48.63	21.33	ND*	ND*	ND*	ND*	0.18	ND*	12.63	7.60	18.53	11.26
9	02/05/2022	51.65	25.56	ND*	ND*	ND*	ND*	0.32	ND*	20.24	18.65	24.23	15.16
10	05/05/2022	63.47	28.67	ND*	ND*	ND*	ND*	0.27	ND*	18.63	12.40	20.64	20.24
11	09/05/2022	70.47	37.55	ND*	ND*	ND*	ND*	0.15	ND*	14.15	15.66	26.57	18.57
12	12/05/2022	62.35	31.26	ND*	ND*	ND*	ND*	0.44	ND*	24.52	14.58	17.63	12.45
13	16/05/2022	57.25	24.56	ND*	ND*	ND*	ND*	0.46	ND*	10.24	8.71	15.33	19.24
14	19/05/2022	42.62	15.63	ND*	ND*	ND*	ND*	0.17	ND*	19.22	6.52	12.37	10.26
15	23/05/2022	47.52	18.61	ND*	ND*	ND*	ND*	0.34	ND*	11.28	16.34	18.53	14.67
16	26/05/2022	61.36	20.66	ND*	ND*	ND*	ND*	0.30	ND*	17.67	9.39	25.62	16.46
17	30/05/2022	55.66	30.26	ND*	ND*	ND*	ND*	0.39	ND*	15.45	17.75	21.34	11.55
18	02/06/2022	55.64	24.77	ND*	ND*	ND*	ND*	0.21	ND*	24.62	15.63	25.82	20.26
19	06/06/2022	66.52	32.44	ND*	ND*	ND*	ND*	0.42	ND*	21.53	13.20	22.25	10.45
20	09/06/2022	56.58	23.55	ND*	ND*	ND*	ND*	0.32	ND*	17.62	16.49	23.33	12.48
21	13/06/2022	69.36	30.43	ND*	ND*	ND*	ND*	0.29	ND*	10.58	11.76	15.52	14.25
22	16/06/2022	58.76	25.52	ND*	ND*	ND*	ND*	0.36	ND*	12.56	14.54	17.52	18.69
23	20/06/2022	50.36	21.63	ND*	ND*	ND*	ND*	0.27	ND*	20.36	8.48	24.38	13.51
24	23/06/2022	46.52	19.61	ND*	ND*	ND*	ND*	0.44	ND*	13.27	12.29	16.83	16.28
25	27/06/2022	59.78	26.45	ND*	ND*	ND*	ND*	0.52	ND*	16.58	19.12	27.64	17.54
26	30/06/2022	42.62	15.63	ND*	ND*	ND*	ND*	0.26	ND*	14.25	7.96	20.53	11.25
27	04/07/2022	41.37	15.63	ND*	ND*	ND*	ND*	0.11	ND*	14.77	6.47	14.55	16.53
28	07/07/2022	45.65	23.80	ND*	ND*	ND*	ND*	0.19	ND*	20.43	9.56	18.16	13.57
29	11/07/2022	52.52	17.48	ND*	ND*	ND*	ND*	0.25	ND*	13.22	7.67	15.56	11.28
30	14/07/2022	48.67	20.24	ND*	ND*	ND*	ND*	0.13	ND*	18.25	13.64	26.65	15.59
31	18/07/2022	56.23	19.53	ND*	ND*	ND*	ND*	0.18	ND*	22.24	11.45	20.24	9.25
32	21/07/2022	50.23	26.49	ND*	ND*	ND*	ND*	0.30	ND*	16.52	10.30	21.23	17.34
33	25/07/2022	44.52	16.43	ND*	ND*	ND*	ND*	0.16	ND*	19.64	14.56	27.57	7.92
34	28/07/2022	40.24	18.78	ND*	ND*	ND*	ND*	0.21	ND*	12.62	12.60	24.25	14.55

35	01/08/2022	56.28	22.63	ND*	ND*	ND*	ND*	0.34	ND*	21.25	10.20	20.23	15.35
36	04/08/2022	62.15	34.66	ND*	ND*	ND*	ND*	0.30	ND*	14.35	16.41	26.34	11.32
37	08/08/2022	48.46	16.39	ND*	ND*	ND*	ND*	0.14	ND*	10.25	9.57	16.52	13.46
38	11/08/2022	55.36	21.29	ND*	ND*	ND*	ND*	0.38	ND*	15.88	14.29	27.58	16.22
39	15/08/2022	64.55	29.42	ND*	ND*	ND*	ND*	0.27	ND*	13.16	17.49	23.63	10.24
40	18/08/2022	57.25	20.37	ND*	ND*	ND*	ND*	0.13	ND*	17.83	12.58	19.56	12.65
41	22/08/2022	51.25	23.34	ND*	ND*	ND*	ND*	0.36	ND*	12.48	15.46	22.37	17.59
42	25/08/2022	65.45	25.90	ND*	ND*	ND*	ND*	0.15	ND*	26.08	6.53	15.59	20.63
43	29/08/2022	60.27	33.44	ND*	ND*	ND*	ND*	0.37	ND*	16.23	8.71	18.32	14.56
44	01/09/2022	50.35	27.58	ND*	ND*	ND*	ND*	0.29	ND*	22.62	7.58	21.56	12.36
45	05/09/2022	63.45	33.57	ND*	ND*	ND*	ND*	0.25	ND*	16.57	14.67	28.44	20.94
46	08/09/2022	55.62	23.43	ND*	ND*	ND*	ND*	0.39	ND*	12.63	10.57	22.37	18.71
47	12/09/2022	42.56	19.53	ND*	ND*	ND*	ND*	0.26	ND*	20.65	17.56	17.67	14.16
48	15/09/2022	45.63	16.55	ND*	ND*	ND*	ND*	0.55	ND*	15.84	13.59	24.26	19.29
49	19/09/2022	57.56	24.52	ND*	ND*	ND*	ND*	0.40	ND*	10.56	9.49	14.63	13.15
50	22/09/2022	48.62	25.31	ND*	ND*	ND*	ND*	0.23	ND*	18.37	12.47	19.51	11.57
51	26/09/2022	60.48	32.52	ND*	ND*	ND*	ND*	0.44	ND*	13.57	8.97	16.27	15.33
52	29/09/2022	67.53	28.71	ND*	ND*	ND*	ND*	0.22	ND*	14.23	18.16	25.25	10.34

ND*: - Not Detected; Detection Limit: Ozone as O₃ (µg/m³): 10

ND*: - Not Detected; Detection Limit - Lead as Pb (µg/m³): 0.5

ND*: - Not Detected; Detection Limit - Carbon Monoxide as CO (mg/m³): 0.01

ND*: - Not Detected; Detection Limit - Ammonia NH₃ (µg/m³): 10

ND*: - Not Detected; Detection Limit - Benzene as C₆H₆ (µg/m³): 2

ND*: - Not Detected; Detection Limit - Benzo (a) Pyrene (BaP) - Particulate Phase only (ng/m³): 0.5

ND*: - Not Detected; Detection Limit - Arsenic as As (ng/m³): 2

ND*: - Not Detected; Detection Limit - Nickel as Ni (ng/m³): 10

CHAPTER – 2

SEA WATER AND SEA SEDIMENTS MONITORING MONITORING PERIOD: APRIL-2022 TO SEPTEMBER-2022

Results of Sea water Monitoring

SR. NO.	PARAMETERS	UNIT	RESULTS					
Sampling Location			Near Jetty					
GPS Location			15° 24.748'N, 73° 47.938'E					
Date of sampling			11/04/2022		12/05/2022		13/06/2022	
			Surface	Bottom	Surface	Bottom	Surface	Bottom
1	pH	--	8.19	8.13	8.25	8.17	8.12	8.06
2	Temperature	°C	30.5	30.3	30.2	30	30.3	30.1
3	Total Suspended Solids	mg/L	46	37	57	45	51	37
4	BOD (3 Days @ 27 °C)	mg/L	3.80	3.26	3.28	2.30	2.74	2.56
5	Dissolved Oxygen	mg/L	5.90	5.80	6.00	5.90	6.05	5.95
6	Salinity	ppt	36.74	36.96	35.96	36.32	36.2	36.58
7	Oil & Grease	mg/L	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
8	Nitrate as NO ₃	µmol/L	3.24	3.1	3.45	3.31	2.85	2.73
9	Nitrite as NO ₂	µmol/L	0.87	0.74	0.64	0.59	0.89	0.74
10	Ammonical Nitrogen as NH ₃	µmol/L	2.36	2.23	2.54	2.46	2.38	2.21
11	Phosphates as PO ₄	µmol/L	1.93	1.85	2.33	2.25	2.09	1.94
12	Total Nitrogen	µmol/L	6.47	6.07	6.62	6.36	6.12	5.68
13	Petroleum Hydrocarbon	µg/L	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
14	Total Dissolved Solids	mg/L	37680	37886	36492	36805	37128	37548
15	COD	mg/L	18.40	17.24	15.32	10.64	12.68	11.80
17								
17.1	Primary Productivity	mgC/L/day	52.65		51.30		51.75	
18								
18.1	Chlorophyll	mg/m ³	2.50	2.34	2.80	2.64	2.69	2.45
18.2	Phaeophytin	mg/m ³	0.54	0.38	0.45	0.57	0.63	0.89
18.3	Cell Count	No _x 10 ³ /L	186	130	240	206	258	192
18.4	Name of Group Number and name of group species of each group	--	Coscinodiscus sp., Cyclotella sp., Pleurosigma sp., Rhizosolenia sp., Dinophysis sp.	Nitzschia sp., Tricodesmizim sp., Cheatoceros sp., Navicula sp.	Coscinodiscus sp., Cyclotella sp., Pleurosigma sp., Cheatoceros sp., Tricodesmizim sp.	Nitzschia sp., Rhizosolenia sp., Odontella sp., Ceratzem sp.	Coscinodiscus sp., Ceratium sp., Rhilosolenia sp., Biddulphia sp., Sketetonema sp.,	Odontella sp., Nitzschia sp., Pleurosigma sp., Navicula sp., Cyclotella sp.
19								
19.1	Abundance (Population)	Nox10 ³ /100m ³	28		35		27	
19.2	Name of Group Number and name of group species of each group	--	Cyclopodia, Gastropods, Bivalves, Polychaetes,		Calanoidel, Acartia, Gastropods, Polychaetes,		Foraminiferans, Polychaetes, Gastropods, Decopodes,	
19.3	Total Biomass	mL/100 m ³	2.70		3.70		2.60	

20	Microbiological Parameters				
20.1	Total Bacterial Count	CFU/mL	2120	2250	2440
20.2	Total Coliform	/mL	Present	Present	Present
20.3	E.coli	/mL	Absent	Absent	Absent
20.4	Enterococcus species	/mL	Present	Present	Present
20.5	Salmonella species	/mL	Absent	Absent	Absent
20.6	Shigella species	/mL	Absent	Absent	Absent
20.7	Vibrio species	/mL	Absent	Absent	Absent

Results of Sea water Monitoring

SR. NO.	PARAMETERS	UNIT	RESULTS					
Sampling Location			Near Jetty					
GPS Location			15° 24.748' N, 73° 47.938' E					
Date of sampling			14/07/2022		11/08/2022		12/09/2022	
			Surface	Bottom	Surface	Bottom	Surface	Bottom
1	pH	--	8.27	8.23	8.39	8.27	8.27	8.21
2	Temperature	°C	30.3	30.1	29.8	29.7	29.5	29.3
3	Total Suspended Solids	mg/L	42	37	39	31	46	34
4	BOD (3 Days @ 27 °C)	mg/L	2.76	2.54	1.76	1.54	3.40	2.60
5	Dissolved Oxygen	mg/L	5.95	5.90	6.15	6.00	5.90	5.85
6	Salinity	ppt	36.24	36.58	35.2	35.46	35.68	36.24
7	Oil & Grease	mg/L	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
8	Nitrate as NO ₃	µmol/L	2.81	2.75	1.89	1.73	3.75	3.29
9	Nitrite as NO ₂	µmol/L	0.69	0.63	0.35	0.29	0.79	0.63
10	Ammonical Nitrogen as NH ₃	µmol/L	2.34	2.29	1.97	1.8	0.83	0.71
11	Phosphates as PO ₄	µmol/L	2.03	1.94	2.15	2.06	2.94	2.68
12	Total Nitrogen	µmol/L	5.84	5.67	4.21	3.82	5.37	4.63
13	Petroleum Hydrocarbon	µg/L	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
14	Total Dissolved Solids	mg/L	37239	37592	36417	36618	36754	37298
15	COD	mg/L	12.36	11.24	7.40	5.60	13.60	11.70
17								
17.1	Primary Productivity	mgC/L/day	50.40		53.10		52.20	
18								
18.1	Chlorophyll	mg/m ³	2.67	2.56	2.40	2.37	2.69	2.53
18.2	Phaeophytin	mg/m ³	0.28	0.65	0.74	0.58	0.24	0.21
18.3	Cell Count	No.x 10 ³ /L	252	184	224	206	252	214
18.4	Name of Group Number and name of group species of each group	--	Pleurosigma sp., Ceratium sp., Rhilosolera sp., Biddulphia sp., Sketetonema sp.	Coscinodiscus sp., Nitzschia sp., Navicula sp., Thalassionem a sp.	Coscinodiscus sp., Thalassionem as, Sketetonema sp., Rhizosolera sp., Tricodesmium sp.	Nitzschia sp., Pleurosigma sp., Cyclotella sp., Gyro sigma sp., Fragillaria sp.	Cheatocherus sp., Odentella sp., Cyclotella sp., Tricodesmium sp., Sketetonema sp., Leptocylindrus sp.	Nitzschia sp., Ceratium sp., Spirulina sp., Pleurosigma sp., Navicula sp.
19								
19.1	Abundance (Population)	Nox10 ³ /100m ³	35		42		54	
19.2	Name of Group Number and name of group species of each group	--	Foraminiferans, Polychaetes, Nematods, Bivalves, Copepods		Foraminiferans, Copepods, Gastropods, Bivalves		Copepods, Cyclopoida, Bivalves, Polychaetes	
19.3	Total Biomass	mL/100 m ³	3.45		3.95		4.45	
20	Microbiological Parameters							

20.1	Total Bacterial Count	CFU/mL	2370	2550	2480
20.2	Total Coliform	/mL	Present	Present	Present
20.3	E.coli	/mL	Absent	Absent	Absent
20.4	Enterococcus species	/mL	Present	Present	Present
20.5	Salmonella species	/mL	Absent	Absent	Absent
20.6	Shigella species	/mL	Absent	Absent	Absent
20.7	Vibrio species	/mL	Absent	Absent	Absent

Results of Sea Sediment Monitoring

SR. NO.	PARAMETERS	UNIT	RESULTS					
Sampling Location			Near Jetty					
GPS Location			N 15° 24.748', E 73° 47.938'					
Date of sampling			11/04/2022	12/05/2022	13/06/2022	14/07/2022	11/08/2022	12/09/2022
1	Organic Matter	%	0.400	0.370	0.350	0.420	0.310	0.476
2	Phosphorus as P	µg/g	674	590	618	672	514	713
3	Texture	--	Sandy	Sandy	Sandy	Sandy	Sandy	Sandy
4	Petroleum Hydrocarbon	µg/g	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
5	Heavy Metals							
5.1	Aluminum as Al	%	4.82	4.70	4.92	4.65	4.32	4.93
5.2	Total Chromium as Cr+3	µg/g	137	156	118	129	173	164
5.3	Manganese as Mn	µg/g	593	612	729	652	580	790
5.4	Iron as Fe	%	4.68	4.98	4.86	5.04	4.72	5.14
5.5	Nickel as Ni	µg/g	31.75	47.69	53.12	41.52	35.68	48.29
5.6	Copper as Cu	µg/g	42.96	51.37	35.98	32.94	41.97	53.78
5.7	Zinc as Zn	µg/g	87.52	105	97.20	83.75	95.63	113
5.8	Lead as Pb	µg/g	3.17	2.38	1.95	1.38	2.16	2.59
5.9	Mercury as Hg	µg/g	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
6	Benthic Organisms							
6.1	Macrobenthos (No and name of groups present, No and name of species of each group present)	--	Gastropods, Bivalves, Polychaetes, Crustaceans	Gastropods, Bivalves, Polychaetes	Polychaetes, Gastropods, Bivalves	Polychaetes, Amphipods, Bivalves, Crustaceans	Bivalves, Gastropods, Amphipods, Polychaetes	Polychaetes, Crustaceans, Gastropods, Bivalves
6.2	MeioBenthos (No and name of groups present, No and name of species of each group present)	--	Foraminiferans	Foraminiferans, Nematodes	Nematodes	Foraminiferans	Nematodes	Foraminiferan, Nematodes
6.3	Population	no/m ²	439	468	380	441	353	575

CHAPTER – 3

STP WATER MONITORING

MONITORING PERIOD: APRIL-2022 TO SEPTEMBER-2022

Results of STP water quality monitoring

SR. NO.	PARAMETERS	UNIT	RESULTS					
			Baina Sewerage Plant STP Inlet					
Sampling Location			12/04/2022	15/05/2022	13/06/2022	15/07/2022	18/08/2022	15/09/2022
Date of sampling			12/04/2022	15/05/2022	13/06/2022	15/07/2022	18/08/2022	15/09/2022
1	pH	--	7.89	7.13	7.38	7.46	7.58	7.93
2	Total Suspended Solids	mg/L	236	67	19	116	132	107
3	BOD (3 Days @ 27 °C)	mg/L	68	72	95	129	25	68
4	COD	mg/L	295	323	284	72	103	319
5	Oil & Grease	mg/L	5.4	4.9	8.4	5.6	7.4	5.2
6	Residual Free Chlorine	mg/L	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected

SR. NO.	PARAMETERS	UNIT	RESULTS					
			Baina Sewerage Plant STP Outlet					
Sampling Location			12/04/2022	15/05/2022	13/06/2022	15/07/2022	18/08/2022	--
Date of sampling			12/04/2022	15/05/2022	13/06/2022	15/07/2022	18/08/2022	--
1	pH	--	7.71	6.93	7.14	7.25	7.43	--
2	Total Suspended Solids	mg/L	19	15	12	18	24	--
3	BOD (3 Days @ 27 °C)	mg/L	16	11	14	16	19	--
4	COD	mg/L	73	52	68	96	84	--
5	Oil & Grease	mg/L	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	--
6	Residual Free Chlorine	mg/L	0.7	0.6	0.7	0.6	0.8	--

CHAPTER – 4

DUMP POND WATER QUALITY MONITORING MONITORING PERIOD: APRIL-2022 TO SEPTEMBER-2022

Results of Dump Pond Water quality monitoring

SR. NO.	PARAMETERS	UNIT	RESULT					
			Dump Pond-1 Near CT 08		Dump Pond-2 Near Pump House		Dump Pond-3 - Nr. Jetty	
	Sampling Location		16/06/2022	12/09/2022	16/06/2022	12/09/2022	16/06/2022	12/09/2022
1	pH	--	7.96	7.89	8.23	8.09	8.03	8.13
2	Total Dissolved Solids	mg/L	384	345	429	405	516	537
3	Total Suspended Solids	mg/L	37	29	45	32	53	45
4	Turbidity	NTU	5.73	6.95	5.26	6.17	6.59	7.48
5	BOD (3 Days @ 27 °C)	mg/L	27	23	29	25	23	21
6	Dissolved Oxygen	mg/L	5.80	5.70	5.75	5.90	5.80	5.90
7	COD	mg/L	132	115	147	157	130	115
8	Salinity	ppt	0.189	0.214	0.186	0.205	0.243	0.227
9	Oil & Grease	mg/L	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
10	Total Hardness as CaCO ₃	mg/L	153	132	138	126	159	176
11	Fluoride as F	mg/L	0.39	0.28	0.46	0.53	0.43	0.58
12	Chloride as Cl	mg/L	105	119	103	114	135	126
13	Zinc as Zn	mg/L	0.094	0.086	0.078	0.081	0.068	0.075
14	Cadmium as Cd	mg/L	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
15	Lead as Pb	mg/L	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
16	Mercury as Hg	mg/L	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected

CHAPTER – 5

DRINKING WATER QUALITY MONITORING

MONITORING PERIOD: APRIL-2022 TO SEPTEMBER-2022

Results of Drinking Water Quality Monitoring

SR. NO.	PARAMETERS	UNIT	RESULT			
			Sub Station Building Canteen		Near AMPTPL Exit Gate	
	Sampling Location		06/06/2022	15/09/2022	06/06/2022	15/09/2022
	Date of sampling					
1	Colour	Hazen	3	3	4	3
2	Turbidity	NTU	0.290	0.376	0.380	0.310
3	Conductivity	µmho/cm	567	541	552	514
4	pH	--	7.35	7.45	7.43	7.56
5	Chloride as Cl	mg/L	87	97	92	87
6	Total Dissolved Solids	mg/L	381	365	375	339
7	Total Hardness as CaCO ₃	mg/L	135	113	106	115
8	Iron as Fe	mg/L	0.200	0.150	0.073	0.064
9	Sulphate as SO ₄	mg/L	29.37	17.58	31.64	24.19
10	Calcium as Ca	mg/L	39.6	35.6	28.8	25.6
11	Magnesium as Mg	mg/L	8.64	5.76	8.16	12.24
12	Fluoride as F	mg/L	0.250	0.152	0.390	0.270
13	Nitrate as NO ₃	mg/L	0.470	0.674	0.420	0.682
14	Manganese as Mn	mg/L	Not Detected	Not Detected	Not Detected	Not Detected
15	Copper as Cu	mg/L	Not Detected	Not Detected	Not Detected	Not Detected
16	Cadmium as Cd	mg/L	Not Detected	Not Detected	Not Detected	Not Detected
17	Arsenic as As	mg/L	Not Detected	Not Detected	Not Detected	Not Detected
18	Mercury as Hg	mg/L	Not Detected	Not Detected	Not Detected	Not Detected
19	Lead as Pb	mg/L	Not Detected	Not Detected	Not Detected	Not Detected
20	Zinc as Zn	mg/L	Not Detected	Not Detected	Not Detected	Not Detected
21	Coliform	/100 mL	Absent	Absent	Absent	Absent
22	E-Coli	/100 mL	Absent	Absent	Absent	Absent
23	Residual Free Chlorine	mg/L	Not Detected	Not Detected	Not Detected	Not Detected

Results of Drinking Water Quality Monitoring

SR. NO.	PARAMETERS	UNIT	RESULT			
			Near Workshop Area		Near Amenity Building	
Sampling Location			06/06/2022	15/09/2022	06/06/2022	15/09/2022
Date of sampling			06/06/2022	15/09/2022	06/06/2022	15/09/2022
1	Colour	Hazen	3	4	3	4
2	Turbidity	NTU	0.570	0.510	0.430	0.520
3	Conductivity	µmho/cm	529	495	524	510
4	pH	--	7.38	7.29	7.19	7.23
5	Chloride as Cl	mg/L	67	61	75	61
6	Total Dissolved Solids	mg/L	349	337	356	343
7	Total Hardness as CaCO ₃	mg/L	118	109	113	102
8	Iron as Fe	mg/L	0.085	0.069	0.098	0.132
9	Sulphate as SO ₄	mg/L	19.37	15.32	18.64	14.68
10	Calcium as Ca	mg/L	32.8	34.0	28.4	30.4
11	Magnesium as Mg	mg/L	8.64	5.76	10.08	6.24
12	Fluoride as F	mg/L	0.210	0.198	0.170	0.230
13	Nitrate as NO ₃	mg/L	0.640	0.750	0.550	0.690
14	Manganese as Mn	mg/L	Not Detected	Not Detected	Not Detected	Not Detected
15	Copper as Cu	mg/L	Not Detected	Not Detected	Not Detected	Not Detected
16	Cadmium as Cd	mg/L	Not Detected	Not Detected	Not Detected	Not Detected
17	Arsenic as As	mg/L	Not Detected	Not Detected	Not Detected	Not Detected
18	Mercury as Hg	mg/L	Not Detected	Not Detected	Not Detected	Not Detected
19	Lead as Pb	mg/L	Not Detected	Not Detected	Not Detected	Not Detected
20	Zinc as Zn	mg/L	Not Detected	Not Detected	Not Detected	Not Detected
21	Coliform	/100 mL	Absent	Absent	Absent	Absent
22	E-Coli	/100 mL	Absent	Absent	Absent	Absent
23	Residual Free Chlorine	mg/L	Not Detected	Not Detected	Not Detected	Not Detected

CHAPTER – 6

SOIL QUALITY MONITORING

MONITORING PERIOD: APRIL-2022 TO SEPTEMBER-2022

Results of Soil quality monitoring

SR. NO.	PARAMETERS	UNIT	RESULTS			
			NEAR CT-1		NEAR ADANI SITE	
Sampling Location			NEAR CT-1		NEAR ADANI SITE	
Date of sampling			16/06/2022	19/09/2022	16/06/2022	19/09/2022
1	Type	--	Sandy Loam	Sandy Loam	Sandy Loam	Sandy Loam
2	Gravel	%	0.3	0.5	0.4	0.8
3	Coarse Sand	%	3.7	4.5	3.6	3.2
4	Medium Sand	%	3	14	42	45
5	Fine Sand	%	56	48	16	18
6	Total Sand	%	63	67	62	67
7	Silt & Clay	%	37	33	38	33
8	pH (1:5)	--	8.35	8.45	8.92	8.60
9	Electricity Conductivity	µmho/cm	884	827	816	715
10	Alkali matter	mg/kg	350	324	340	321
11	Cation Exchange Capacity	meq/100 g	9.45	9.90	9.60	9.90
12	Sodium Absorption Ratio	--	7.94	7.56	8.36	8.45
13	Organic Matter	mg/kg	0.52	0.48	0.62	0.51
14	Available Nitrogen	meq/100 g	0.66	0.56	0.74	0.63
15	Available Potassium	mg/kg	4.9	5.8	3.9	4.4
16	Available Phosphorus	mg/kg	8.30	7.90	4.42	5.16
17	Available Sodium	%	3.94	4.15	4.30	4.10
18	Permeability	%	0.55×10^{-1}	0.62×10^{-6}	0.58×10^{-1}	0.54×10^{-6}

CHAPTER – 7

NOISE LEVEL MONITORING

MONITORING PERIOD: APRIL-2022 TO SEPTEMBER-2022

Results of Day Time Noise level monitoring

April-2022					
Day Time dB(A)					
SR. NO.	Sampling Time	Near fire station	Near security tower	Adani Site Office Near Gate No.02	Sada village
		19/04/2022	26/04/2022	02/04/2022	14/04/2022
1	6:00-7:00	47.3	48.3	46.9	47.8
2	7:00-8:00	48.1	49.5	47.3	48.7
3	8:00-9:00	49.9	50.7	48.2	50.1
4	9:00-10:00	50.8	52.9	49.2	52.2
5	10:00-11:00	52.8	53.8	50.4	53.7
6	11:00-12:00	53.6	54.9	51.6	54.7
7	12:00-13:00	55.7	55.9	52.1	54.8
8	13:00-14:00	56.4	56.6	53.4	52.8
9	14:00-15:00	57.2	58.5	55.8	51.9
10	15:00-16:00	58.8	57.7	54.1	50.2
11	16:00-17:00	56.8	55.6	53.3	52.3
12	17:00-18:00	54.3	54.5	52.2	54.4
13	18:00-19:00	52.1	53.6	53.2	53.9
14	19:00-20:00	51.3	52.5	52.6	53.6
15	20:00-21:00	50.3	50.9	51.5	51.8
16	21:00-22:00	49.5	49.4	50.5	50.6
Day Time Limit		75 dB(A)Leq			55 dB(A) Leq

Results of Night Time Noise level monitoring

April-2022					
Night Time dB(A)					
SR. NO.	Sampling Time	Near fire station	Near security tower	Adani Site Office Near Gate No.02	Sada village
		19-04-2022 & 20/04/2022	26-04-2022 & 27-04-2022	02-04-2022 & 03/04/2022	14-04-2022 & 15/04/2022
1	22:00-23:00	48.2	48.6	49.3	43.6
2	23:00-00:00	47.8	47.5	48.5	42.8
3	00:00-01:00	46.8	45.5	46.7	41.8
4	01:00-02:00	45.5	46.2	47.5	42.5
5	02:00-03:00	44.2	47.9	46.7	40.3
6	03:00-04:00	45.1	46.7	45.7	40.7
7	04:00-05:00	46.6	45.4	46.3	44.3
8	05:00-06:00	47.8	44.3	44.5	42.7
Night Time Limit		70 dB(A)Leq			45 dB(A) Leq

**Limit as per CTO No. is 12/2019-PCB/347405/R0002737 dated 24.03.2020 valid up to 31/01/2025.

Results of Day Time Noise level monitoring

May-2022					
Day Time dB(A)					
SR. NO.	Sampling Time	Near fire station	Near security tower	Adani Site Office Near Gate No.02	Sada village
		20/05/2022	06/05/2022	09/05/2022	04/05/2022
1	6:00-7:00	52.8	50.6	59.4	51.5
2	7:00-8:00	54.7	53.2	46.5	44.3
3	8:00-9:00	51.6	49.5	54.3	50.5
4	9:00-10:00	58.9	55.3	60.3	52.3
5	10:00-11:00	55.1	59.8	65.6	48.7
6	11:00-12:00	52.5	61.3	57.6	53.1
7	12:00-13:00	57.8	63.1	66.7	50.2
8	13:00-14:00	59.6	60.9	55.2	47.8
9	14:00-15:00	53.3	58.2	54.1	44.2
10	15:00-16:00	60.7	65.4	61.4	51.8
11	16:00-17:00	57.4	62.5	57.3	49.6
12	17:00-18:00	54.2	58.6	64.5	53.6
13	18:00-19:00	58.3	61.8	59.2	52.0
14	19:00-20:00	51.0	53.4	50.4	47.3
15	20:00-21:00	57.5	58.4	48.9	47.6
16	21:00-22:00	62.4	52.1	51.3	46.7
Day Time Limit		75 dB(A)Leq			55 dB(A) Leq

Results of Night Time Noise level monitoring

May-2022					
Night Time dB(A)					
SR. NO.	Sampling Time	Near fire station	Near security tower	Adani Site Office Near Gate No.02	Sada village
		20/05/2022 & 21/05/2022	06/05/2022 & 07/05/2022	09/05/2022 & 10/05/2022	04/05/2022 & 05/05/2022
1	22:00-23:00	46.2	52.8	48.9	41.3
2	23:00-00:00	50.8	48.7	46.2	39.6
3	00:00-01:00	52.3	44.2	51.4	43.5
4	01:00-02:00	47.5	48.6	49.3	44.8
5	02:00-03:00	42.1	45.5	45.4	41.9
6	03:00-04:00	50.6	47.8	41.6	40.5
7	04:00-05:00	53.5	50.1	49.7	42.7
8	05:00-06:00	57.1	52.6	45.1	40.2
Night Time Limit		70 dB(A)Leq			45 dB(A) Leq

**Limit as per CTO No. is 12/2019-PCB/347405/R0002737 dated 24.03.2020 valid up to 31/01/2025.

Results of Day Time Noise level monitoring

June-2022					
Day Time dB(A)					
SR. NO.	Sampling Time	Near fire station	Near security tower	Adani Site Office Near Gate No.02	Sada village
		20/06/2022	23/06/2022	06/06/2022	03/06/2022
1	6:00-7:00	54.3	50.1	55.8	45.9
2	7:00-8:00	52.8	53.6	51.3	47.0
3	8:00-9:00	52.6	51.3	54.6	49.6
4	9:00-10:00	55.7	54.4	49.8	53.5
5	10:00-11:00	53.2	49.7	56.7	50.6
6	11:00-12:00	56.9	56.3	58.4	54.1
7	12:00-13:00	52.7	57.9	52.1	52.3
8	13:00-14:00	61.9	60.4	59.9	46.8
9	14:00-15:00	59.7	61.3	60.3	52.2
10	15:00-16:00	54.2	52.4	59.2	50.8
11	16:00-17:00	62.9	50.2	55.4	53.9
12	17:00-18:00	60.8	57.3	61.3	50.4
13	18:00-19:00	51.2	58.0	58.7	52.1
14	19:00-20:00	60.6	56.2	56.4	51.3
15	20:00-21:00	56.7	56.9	53.2	52.9
16	21:00-22:00	55.3	46.5	52.3	53.4
Day Time Limit		75 dB(A)Leq			55 dB(A) Leq

Results of Night Time Noise level monitoring

June-2022					
Night Time dB(A)					
SR. NO.	Sampling Time	Near fire station	Near security tower	Adani Site Office Near Gate No.02	Sada village
		20/06/2022 & 21/06/2022	23/06/2022 & 24/06/2022	06/06/2022 & 07/06/2022	03/06/2022 & 04/06/2022
1	22:00-23:00	53.6	50.4	49.2	42.3
2	23:00-00:00	50.1	52.3	42.1	41.6
3	00:00-01:00	51.9	50.4	53.6	43.6
4	01:00-02:00	48.7	45.2	46.8	40.5
5	02:00-03:00	42.1	42.3	47.5	42.5
6	03:00-04:00	47.9	55.6	50.4	44.3
7	04:00-05:00	49.2	51.1	51.3	39.8
8	05:00-06:00	47.3	49.8	45.7	43.6
Night Time Limit		70 dB(A)Leq			45 dB(A) Leq

**Limit as per CTO No. is 12/2019-PCB/347405/R0002737 dated 24.03.2020 valid up to 31/01/2025.

Results of Day Time Noise level monitoring

July-2022					
Day Time dB(A)					
SR. NO.	Sampling Time	Near fire station	Near security tower	Adani Site Office Near Gate No.02	Sada village
		19/07/2022	05/07/2022	11/07/2022	02/07/2022
1	6:00-7:00	58.9	55.4	60.4	50.4
2	7:00-8:00	55.1	57.8	55.6	52.5
3	8:00-9:00	54.6	54.2	59.8	54.3
4	9:00-10:00	52.7	58.9	54.3	52.1
5	10:00-11:00	58.9	53.4	61.2	53.6
6	11:00-12:00	51.4	60.2	62.3	54.1
7	12:00-13:00	57.3	61.4	56.2	52.8
8	13:00-14:00	65.4	64.2	62.8	50.4
9	14:00-15:00	63.5	66.8	63.4	52.7
10	15:00-16:00	60.4	56.1	62.1	53.8
11	16:00-17:00	65.4	50.2	61.6	50.4
12	17:00-18:00	62.2	61.4	59.7	53.6
13	18:00-19:00	55.4	63.6	55.2	51.4
14	19:00-20:00	66.8	60.5	61.5	49.8
15	20:00-21:00	53.2	54.1	57.4	53.9
16	21:00-22:00	59.8	51.6	56.3	51.2
Day Time Limit		75 dB(A)Leq			55 dB(A) Leq

Results of Night Time Noise level monitoring

July-2022					
Night Time dB(A)					
SR. NO.	Sampling Time	Near fire station	Near security tower	Adani Site Office Near Gate No.02	Sada village
		19/07/2022 & 20/07/2022	05/07/2022 & 06/07/2022	11/07/2022 & 12/07/2022	02/07/2022 & 03/07/2022
1	22:00-23:00	56.9	53.2	51.4	43.1
2	23:00-00:00	54.2	54.3	45.6	39.8
3	00:00-01:00	55.6	52.4	56.3	44.6
4	01:00-02:00	50.1	50.9	51.4	43.5
5	02:00-03:00	45.9	46.8	53.8	40.7
6	03:00-04:00	52.8	59.8	48.7	41.8
7	04:00-05:00	54.3	56.3	54.6	43.7
8	05:00-06:00	53.2	53.7	49.8	41.5
Night Time Limit		70 dB(A)Leq			45 dB(A) Leq

**Limit as per CTO No. is 12/2019-PCB/347405/R0002737 dated 24.03.2020 valid up to 31/01/2025.

Results of Day Time Noise level monitoring

August-2022						
Day Time dB(A)						
SR. NO.	Sampling Time	Near fire station	Near security tower	Adani Site Office Near Gate No.02	Sada village	
		09/08/2022	05/08/2022	22/08/2022	24/08/2022	
1	6:00-7:00	47.2	49.0	47.3	46.4	
2	7:00-8:00	47.4	46.9	48.7	47.2	
3	8:00-9:00	48.6	49.2	49.8	49.9	
4	9:00-10:00	50.2	51.6	51.5	50.8	
5	10:00-11:00	52.6	52.5	53.7	50.9	
6	11:00-12:00	52.1	52.2	53.2	53.0	
7	12:00-13:00	53.2	54.8	54.2	52.7	
8	13:00-14:00	54.1	53.2	53.8	53.1	
9	14:00-15:00	55.3	54.2	55.6	53.9	
10	15:00-16:00	58.0	56.8	54.6	52.6	
11	16:00-17:00	55.0	54.9	53.3	51.9	
12	17:00-18:00	54.7	53.5	52.8	54.1	
13	18:00-19:00	52.3	54.1	51.1	53.8	
14	19:00-20:00	52.9	51.9	51.0	51.7	
15	20:00-21:00	50.8	51.3	50.3	49.7	
16	21:00-22:00	50.4	50.7	50.8	49.4	
Day Time Limit		75 dB(A)Leq			55 dB(A) Leq	

Results of Night Time Noise level monitoring

August-2022						
Night Time dB(A)						
SR. NO.	Sampling Time	Near fire station	Near security tower	Adani Site Office Near Gate No.02	Sada village	
		09-08-2022 & 10/08/2022	05-08-2022 & 06/08/2022	22-08-2022 & 23/08/2022	24-08-2022 & 25-08-2022	
1	22:00-23:00	53.4	53.7	53.6	42.5	
2	23:00-00:00	51.7	50.6	53.0	43.6	
3	00:00-01:00	51.7	50.7	49.4	41.1	
4	01:00-02:00	52.2	51.6	50.1	43.9	
5	02:00-03:00	48.3	49.0	49.6	44.3	
6	03:00-04:00	47.6	49.7	50.6	41.2	
7	04:00-05:00	48.1	50.3	47.5	43.9	
8	05:00-06:00	47.3	48.6	48.2	40.6	
Night Time Limit		70 dB(A)Leq			45 dB(A) Leq	

**Limit as per CTO No. is 12/2019-PCB/347405/R0002737 dated 24.03.2020 valid up to 31/01/2025.

Results of Day Time Noise level monitoring

September-2022					
Day Time dB(A)					
SR. NO.	Sampling Time	Near fire station	Near security tower	Adani Site Office Near Gate No.02	Sada village
		27/09/2022	06/09/2022	22/09/2022	02/09/2022
1	6:00-7:00	48.8	51.1	49.5	47.0
2	7:00-8:00	48.9	49.4	50.2	48.1
3	8:00-9:00	50.7	51.3	52.1	50.6
4	9:00-10:00	52.1	53.6	53.8	51.4
5	10:00-11:00	54.7	54.8	55.9	51.5
6	11:00-12:00	54.2	54.7	52.9	53.7
7	12:00-13:00	55.0	57.2	55.7	53.6
8	13:00-14:00	55.9	55.0	55.3	54.0
9	14:00-15:00	56.7	55.8	57.5	52.8
10	15:00-16:00	59.5	58.3	56.5	53.3
11	16:00-17:00	55.1	57.4	55.6	52.6
12	17:00-18:00	56.8	55.6	54.6	53.2
13	18:00-19:00	53.8	55.9	52.6	54.3
14	19:00-20:00	55.2	54.4	53.0	52.4
15	20:00-21:00	52.7	53.2	52.4	50.2
16	21:00-22:00	52.5	52.4	53.2	50.1
Day Time Limit		75 dB(A)Leq			55 dB(A) Leq

Results of Night Time Noise level monitoring

September-2022					
Night Time dB(A)					
SR. NO.	Sampling Time	Near fire station	Near security tower	Adani Site Office Near Gate No.02	Sada village
		27/09/2022 & 28/09/2022	06/09/2022 & 10/09/2022	22/09/2022 & 23/09/2022	02/09/2022 & 03/09/2022
1	22:00-23:00	54.1	55.0	54.6	43.2
2	23:00-00:00	52.2	51.7	54.4	44.1
3	00:00-01:00	52.3	51.9	50.8	41.7
4	01:00-02:00	52.7	52.2	51.0	44.5
5	02:00-03:00	48.8	49.8	51.0	43.7
6	03:00-04:00	48.7	51.2	52.0	41.8
7	04:00-05:00	48.7	51.8	48.6	44.4
8	05:00-06:00	48.4	49.1	49.1	41.2
Night Time Limit		70 dB(A)Leq			45 dB(A) Leq

**Limit as per CTO No. is 12/2019-PCB/347405/R0002737 dated 24.03.2020 valid up to 31/01/2025.

CHAPTER – 8

D.G. STACK & D.G. STACK NOISE MONITORING

MONITORING PERIOD: APRIL-2022 TO SEPTEMBER-2022

D.G. Stack Monitoring Results

SR. NO.	TEST PARAMETER	UNIT	DG Stack - 1 (2000 KVA)		LIMIT#
			Make Cummins Sr. No.:25388675		
			16/06/2022	26/09/2022	
			RESULTS	RESULTS	
1	Particulate Matter	mg/Nm ³	24.34	28.62	75
2	Sulfur Dioxide as SO ₂	Kg/hr	0.013	0.011	--
3	Oxides of Nitrogen as NOX	ppm	29.41	31.55	710
4	Non Methyl Hydro Carbon (NMHC)	mg/Nm ³	Not Detected	Not Detected	100
5	Carbon Monoxide (CO)	mg/Nm ³	22.13	23.31	150
6	Sulfur Content in fuel	%	0.026	0.024	< 2.0

#: Details Provided by Customer.

Results on 15 % O2 Correction when Oxygen is greater than 15 %

SR. NO.	TEST PARAMETER	UNIT	DG Stack - 2 (2000 KVA)		LIMIT#
			Make Cummins Sr. No.: 25390869		
			16/06/2022	26/09/2022	
			RESULTS	RESULTS	
1	Particulate Matter	mg/Nm ³	21.52	22.56	75
2	Sulfur Dioxide as SO ₂	Kg/hr	0.011	0.009	--
3	Oxides of Nitrogen as NOX	ppm	27.63	29.48	710
4	Non Methyl Hydro Carbon (NMHC)	mg/Nm ³	Not Detected	Not Detected	100
5	Carbon Monoxide (CO)	mg/Nm ³	23.31	24.46	150
6	Sulfur Content in fuel	%	0.024	0.020	< 2.0

#: Details Provided by Customer.

Results on 15 % O2 Correction when Oxygen is greater than 15 %

SR. NO.	TEST PARAMETER	UNIT	DG Stack – 3 (380 KVA)		LIMIT#
			Make Cummins Sr. No.: 25386499		
			16/06/2022	26/09/2022	
			RESULTS	RESULTS	
1	Particulate Matter	g/kw-hr	0.0021	0.0022	0.3
2	Sulfur Dioxide (SO ₂)	Kg/hr	0.0007	0.0005	1.8
3	Oxides of Nitrogen as NOX	g/kw-hr	0.0051	0.0053	9.2
4	Hydro Carbon (HC)	g/kw-hr	Not Detected	Not Detected	1.3
5	Carbon Monoxide (CO)	g/kw-hr	0.0023	0.0021	3.5

#: Details Provided by Customer.

Results on 15 % O2 Correction when Oxygen is greater than 15 %

D.G. Stack Noise Level Monitoring Results

SR. NO.	SAMPLING LOCATION	Outside DG Room 1 m distance	
		09/06/2022	26/09/2022
		RESULTS	RESULTS
1	DG Stack - 1 (2000 KVA) Cummins Sr. No.:25388675	72.6	73.3
2	DG Stack - 2 (2000 KVA) Cummins Sr. No.: 25390869	70.4	71.6
3	DG Stack - 3 (380 KVA)Cummins Sr. No.: 25386499	67.8	70.2
		LIMIT**	75 dB(A)

**as per Noise limit for diesel generator sets (upto 1000 KVA) manufactured on or after the 1st January, 2005

CHAPTER – 9
WEATHER DATA MONITORING
MONITORING PERIOD: APRIL-2022 TO SEPTEMBER-2022

Date	Avg Wind Speed (Km/hr)	Temperature (°C)	RH %	Precip. (mm)
01/04/2022	3.45	28.3	72.17	0.00
02/04/2022	2.36	28.5	71.58	0.00
03/04/2022	2.92	28.6	69.58	0.00
04/04/2022	3.09	28.9	71.04	0.00
05/04/2022	3.78	28.1	74.25	3.00
06/04/2022	3.54	28.6	70.79	0.00
07/04/2022	2.38	29.0	73.68	0.00
08/04/2022	4.78	29.6	73.16	0.00
09/04/2022	4.55	29.0	76.79	0.00
10/04/2022	2.72	29.5	72.88	0.00
11/04/2022	3.74	28.9	72.92	0.00
12/04/2022	3.08	29.9	68.08	0.00
13/04/2022	3.28	29.7	69.79	0.00
14/04/2022	4.45	28.6	74.55	1.00
15/04/2022	7.00	26.2	76.00	0.00
16/04/2022	3.81	29.9	65.71	0.00
17/04/2022	2.54	28.8	69.54	0.00
18/04/2022	3.40	29.3	65.92	0.00
19/04/2022	5.02	29.2	66.04	0.00
20/04/2022	5.23	29.8	68.42	0.00
21/04/2022	5.61	30.1	74.92	0.00
22/04/2022	3.70	29.8	67.33	0.00
23/04/2022	3.55	30.3	70.96	0.00
24/04/2022	2.92	29.8	72.17	1.00
25/04/2022	4.43	29.1	70.38	2.00
26/04/2022	3.89	29.7	72.42	0.00
27/04/2022	2.24	30.4	70.08	0.00
28/04/2022	4.94	29.3	77.08	5.00
29/03/2022	2.27	29.7	72.63	0.00
30/04/2022	2.91	30.1	72.38	0.00
01/05/2022	2.80	30.1	69.08	0.00
02/05/2022	2.27	29.9	69.13	0.00
03/05/2022	5.11	30.1	70.21	0.00
04/05/2022	4.64	30.2	70.79	0.00
05/05/2022	4.40	28.6	68.09	0.00
06/05/2022	5.35	29.9	69.71	0.00
07/05/2022	6.04	29.3	72.21	0.00
08/05/2022	7.52	29.4	76.04	0.00
09/05/2022	4.36	29.9	73.04	0.00
10/05/2022	5.55	29.8	72.63	0.00
11/05/2022	2.44	29.1	74.71	0.00
12/05/2022	1.98	28.6	79.71	0.00
13/05/2022	3.11	29.0	81.29	0.00
14/05/2022	2.37	29.8	71.54	0.00
15/05/2022	4.27	29.8	70.42	0.00
16/05/2022	5.05	29.9	75.29	0.00
17/05/2022	4.55	29.3	74.33	0.00
18/05/2022	2.90	28.2	79.83	0.00
19/05/2022	3.06	27.4	81.96	6.00
20/05/2022	2.12	23.5	87.92	3.00
21/05/2022	4.85	26.1	81.38	0.00

22/05/2022	4.21	28.2	79.83	0.00
23/05/2022	3.13	29.1	79.71	3.00
24/05/2022	2.92	29.5	80.00	0.00
25/05/2022	3.95	29.7	73.17	0.00
26/05/2022	2.77	29.5	71.25	0.00
27/05/2022	2.61	29.7	67.75	0.00
28/05/2022	2.59	29.1	71.63	0.00
29/05/2022	2.32	29.2	70.71	0.00
30/05/2022	2.51	29.6	70.54	0.00
31/05/2022	3.37	29.5	71.42	0.00
01/06/2022	2.90	28.5	73.24	0.00
02/06/2022	3.19	28.5	75.50	0.51
03/06/2022	3.33	29.2	73.00	0.00
04/06/2022	4.27	29.5	71.30	0.00
05/06/2022	2.36	29.7	72.67	0.00
06/06/2022	3.83	28.9	72.96	0.00
07/06/2022	3.77	28.8	73.79	3.30
08/06/2022	3.25	28.1	79.08	0.76
09/06/2022	5.54	28.2	78.33	1.27
10/06/2022	3.95	27.1	82.17	17.29
11/06/2022	4.14	26.0	86.63	17.03
12/06/2022	4.71	25.8	87.75	34.55
13/06/2022	6.13	26.8	83.14	4.32
14/06/2022	3.88	28.1	77.33	1.27
15/06/2022	2.13	28.4	79.29	4.31
16/06/2022	3.92	27.6	79.17	8.64
17/06/2022	2.67	27.9	79.38	8.38
18/06/2022	3.04	27.9	77.08	4.32
19/06/2022	3.05	27.3	79.71	1.27
20/06/2022	2.80	26.8	83.17	13.21
21/06/2022	2.16	25.3	90.42	6.10
22/06/2022	2.93	24.9	91.08	13.72
23/06/2022	4.10	26.4	83.17	15.25
24/06/2022	3.52	25.7	90.33	26.18
25/06/2022	4.38	26.8	84.42	31.23
26/06/2022	4.18	27.3	84.17	7.63
27/06/2022	3.70	27.4	83.83	6.35
28/06/2022	2.65	27.3	82.96	2.29
29/06/2022	1.77	25.9	90.67	28.97
30/06/2022	1.88	25.5	91.67	23.35
01/07/2022	2.63	26.1	90.08	4.32
02/07/2022	3.40	27.3	84.00	0.51
03/07/2022	3.32	27.0	83.42	0.00
04/07/2022	2.70	26.0	86.88	46.22
05/07/2022	4.06	26.0	89.65	38.61
06/07/2022	3.96	27.0	84.79	5.84
07/07/2022	3.19	25.6	90.00	16.76
08/07/2022	2.63	25.6	91.21	61.21
09/07/2022	2.94	26.6	85.96	0.51
10/07/2022	2.83	26.5	84.88	0.00
11/07/2022	3.32	26.0	86.67	8.89
12/07/2022	3.11	25.8	87.63	11.44
13/07/2022	3.62	25.9	85.08	4.83



14/07/2022	3.84	26.2	85.63	11.94
15/07/2022	4.51	27.2	83.79	5.33
16/07/2022	3.11	26.6	88.21	26.17
17/07/2022	2.59	26.6	86.58	3.56
18/07/2022	2.42	26.5	86.00	3.31
19/07/2022	2.08	26.8	83.71	2.03
20/07/2022	2.27	26.7	85.21	1.02
21/07/2022	2.26	27.1	81.96	0.00
22/07/2022	2.39	27.0	81.46	0.00
23/07/2022	2.51	27.0	79.96	0.00
24/07/2022	2.53	26.4	84.63	0.00
25/07/2022	2.12	26.6	83.08	1.53
26/07/2022	2.20	26.6	82.79	0.00
27/07/2022	2.92	26.7	84.71	0.00
28/07/2022	4.12	27.0	86.58	0.00
29/07/2022	2.25	27.7	86.21	0.00
30/07/2022	2.91	27.6	86.42	0.00
31/07/2022	2.29	27.5	83.71	0.00
01/08/2022	5.12	27.3	83.25	3.81
02/08/2022	4.31	26.9	85.08	0.00
03/08/2022	6.16	26.2	88.42	0.51
04/08/2022	2.57	26.4	86.88	0.00
05/08/2022	3.91	25.7	87.67	1.53
06/08/2022	2.88	26.2	88.38	8.64
07/08/2022	2.79	25.9	89.83	1.53
08/08/2022	3.68	25.5	90.38	10.67
09/08/2022	4.43	26.0	87.63	6.61
10/08/2022	4.88	26.4	86.79	1.27
11/08/2022	4.92	26.8	84.42	3.81
12/08/2022	4.12	26.9	83.54	2.79
13/08/2022	2.65	26.4	85.75	2.80
14/08/2022	1.87	26.2	85.89	0.00
15/08/2022	3.16	26.5	84.42	0.00
16/08/2022	4.66	26.7	84.46	1.02
17/08/2022	4.10	26.5	83.58	1.02
18/08/2022	2.30	26.7	81.29	1.02
19/08/2022	2.51	26.8	80.29	3.56
20/08/2022	2.46	26.7	83.88	1.02
21/08/2022	2.76	26.7	81.58	4.82
22/08/2022	2.46	26.4	84.21	2.04
23/08/2022	2.84	26.2	85.58	2.04
24/08/2022	2.46	26.1	85.63	5.84
25/08/2022	1.93	26.1	85.00	1.02
26/08/2022	4.02	26.2	87.13	0.00
27/08/2022	3.24	26.6	83.96	4.06
28/08/2022	2.37	26.6	83.33	0.00
29/08/2022	3.73	26.7	84.25	0.00
30/08/2022	4.46	26.4	86.29	0.00
31/08/2022	2.55	26.9	86.92	0.51
01/09/2022	3.14	26.6	87.63	0.00
02/09/2022	5.66	26.3	89.00	0.00
03/09/2022	6.18	26.6	85.71	0.00
04/09/2022	2.18	27.4	83.00	0.00

05/09/2022	1.35	26.9	86.43	0.00
06/09/2022	--	--	--	--
07/09/2022	4.65	26.6	88.14	26.92
08/09/2022	4.63	25.9	89.42	2.03
09/09/2022	6.54	25.8	91.50	7.38
10/09/2022	3.69	26.0	90.88	3.55
11/09/2022	4.74	25.8	92.25	6.86
12/09/2022	4.47	25.7	90.54	5.09
13/09/2022	4.44	26.4	87.96	1.27
14/09/2022	4.45	26.4	87.92	0.51
15/09/2022	4.77	26.2	89.75	2.80
16/09/2022	3.14	26.2	86.79	0.00
17/09/2022	4.26	26.6	86.42	1.78
18/09/2022	3.05	26.0	86.79	0.00
19/09/2022	2.10	26.3	81.17	0.00
20/09/2022	1.79	24.9	74.31	0.00
21/09/2022	2.11	25.8	79.46	0.00
22/09/2022	2.48	25.3	76.54	1.02
23/09/2022	3.95	24.7	78.12	0.00
24/09/2022	2.49	24.9	79.02	0.00
25/09/2022	2.22	25.7	79.73	0.00
26/09/2022	3.19	24.9	76.93	0.00
27/09/2022	3.13	25.4	76.13	0.00
28/09/2022	2.06	25.4	78.10	0.00
29/09/2022	2.41	26.0	78.94	0.00
30/09/2022	2.41	25.0	84.22	0.00

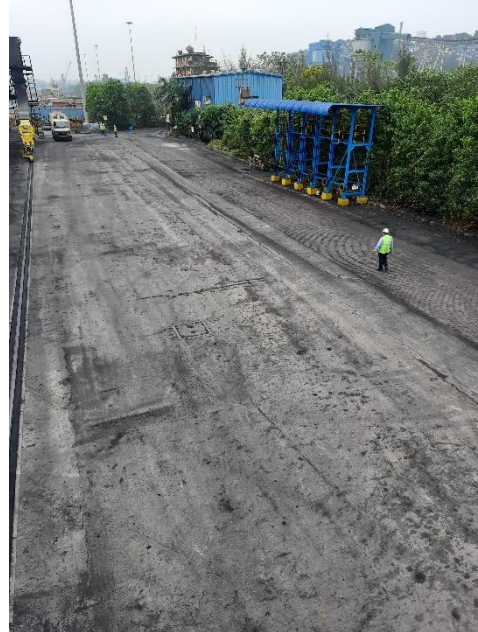
Note: Instrument was not in operation during 14th August, 2022 at 10:00 to 15:59, 25th August, 2022 at 15:00 to 26th August, 2022 at 16:59 and 05th September, 2022 at 15:00 to 07th September, 2022 at 10:59 due to maintenance of instrument.

ANNEXURE 2

EMP – COMPLIANCE STATUS

SI. NO	MEASURES	STATUS
1	Proposed roads in coal terminal shall be black topped to avoid entertainment of fugitive dust	<p>Complied.</p> <p>Both internal and external roads are paved with Cement Concrete and black top.</p>  <p>In addition, following is practised to control/minimise fugitive dust</p> <ul style="list-style-type: none"> Facility is using road sweeping machines for house-keeping apart from manual labours. 

Compliance to the conditions stipulated in Environment and CRZ clearance.



- Advanced Suction Type Road Sweeping machine is also deployed
- Regular house-keeping is carried out
- It is ensured that trucks remain covered with tarpaulin and properly fastened during transportation of cargo.



- There's speed restriction for vehicles entering the premises.
- Truck wheel washing arrangement is made inside the port to minimize dust emission.

Compliance to the conditions stipulated in Environment and CRZ clearance.



- PUC Certification for vehicles is ensure.



- Cargo is kept covered with tarpaulin all the time (Except during loading & unloading)





2

The Municipal waste generated at the terminal is to be disposed along with the solid waste being disposed at present by the MPT.


Being complied.

Municipal waste generated is properly segregated, stored and disposed along with Solid Waste to local authorities in line to Solid Waste Management Rules 2016 as amended Dispatch register is maintained. Food waste is being fed to OWC for composting.




Compliance to the conditions stipulated in Environment and CRZ clearance.

		
3	<p>Adequate numbers Toilets shall be constructed in terminal office and office area. The sewage shall be treated in septic tank. The treated sewage from septic tank shall be disposed into existing sewage network of MPT.</p>	<p>Complied.</p> <p>Toilet has been constructed at berth, office and workshop area. Sewage from the septic tank is transported by sewage tankers to STP located at PWD Baina. STP inlet & outlet characteristic of water is regularly analyzed by NABL accredited laboratory. The monitoring results for the period April 22 - September 22 is enclosed as Annexure 1</p>
4	<p>Drinking water facilities and waste disposal facilities shall be located away from each other.</p>	<p>Complied.</p>
5	<p>The water Effluent from coal stock yard to be settled in a settling tank</p>	<p>Complied.</p> <p>Port has constructed three water dump ponds. Water effluent from coal stock yard is collected & settled in these dump ponds. Baffle walls have been constructed in all 3 dup ponds to enhance sedimentation of Cargo.</p> 
6	<p>Efficient pollution control technique for dust control to be utilized at open stock piles, conveyor transfer points, dump hopper loading points and other such dust generation locations.</p>	<p>Complied.</p> <p>A. Dry fog dust suppression system has been provided in conveyor and 224 no's of transfer points.</p>



Compliance to the conditions stipulated in Environment and CRZ clearance.

		<p>B. 43 Nos water sprinklers have been provided at coal stock yard for dust suppression.</p> <p>C. 2 Nos of Mist Canon systems are provided. (one is mobile canon and other one tire mounted)</p> <p>D. Covered conveyor belts are being used for transportation.</p> 
7	The stacker can operate from distance with boom to keep the stack pile surface to a minimum.	Complied.
8	All the regularly used roadways at site must be swept daily with a tank mounted road sweeper and washed by a truck mounted cart.	<p>Being Complied.</p> <p>Water tanker equipped with mist cannon arrangement is used to spray water on road to ensure the entrapment of fugitive emission. Also, vacuum sweeping machine and Bob cat have been deployed to remove dust from roads.</p>
, 9	All the transport shall be properly covered at the bottom and top with perfect sealing of plastic/tarpaulin sheets.	<p>Complied.</p> <p>It is ensured that trucks/ rakes remain covered with tarpaulin and properly fastened during transportation of cargo.</p>



Compliance to the conditions stipulated in Environment and CRZ clearance.

		 
<p>10</p>	<p>The stock yard should be covered with screens/ wall of height of at least 7 to 8 mtr.</p>	<p>Complied.</p> <p>Wind screen of MS structure along with HDPE fabric/ perforated sheet of 15 metres height has been provided along the coal stacking yard.</p> 
<p>11</p>	<p>The will be properly covered with tarpaulin and overloading will not allowed to avoid spillage of loose material on the roads. Regular maintenance and washing of wheel to be done.</p>	<p>Being complied.</p> <p>All the loaded trucks are covered with tarpaulin. Truck wheel washing arrangement is made inside the port to minimize dust emission.</p>
<p>12</p>	<p>Ambient noise level due to vehicular traffic to be controlled by developing green belt.</p>	<p>Complied.</p> <p>Green belt developed along the periphery and coal stock yard. Currently about 29,595 plants</p>


Compliance to the conditions stipulated in Environment and CRZ clearance.

		<p>are planted in port premises and are maintained well.</p> <p>Besides Ambient Noise levels are being monitored on a regular basis and reports of the same is being submitted to MoEF&CC as part of Six monthly compliance report and to GSPCB on regular basis. Ambient Noise levels for the period April 22 – September 22 is attached as Annexure 1</p>
<p>13</p>	<p>Noise level from air compressor to be reduced by fitting exhaust muffler and intake mufflers</p>	<p>Complied.</p> <p>Air compressor is kept in an acoustic enclosure to minimize noise from these machines. Exposures of workers to high noise level are minimized by job rotation and use of ear muff.</p> 
<p>14</p>	<p>Green belt development.</p>	<p>Complied.</p> <p>Green belt developed along the periphery and coal stock yard. Currently about 29,595 plants are planted in port premises and are maintained well.</p> 

Compliance to the conditions stipulated in Environment and CRZ clearance.

		
<p>15</p>	<p>For controlling fire from coal stock following measures to be adopted.</p> <ol style="list-style-type: none"> 1. 3 No. of mobile fire tender to be placed at coal stack pile area. 2. Autogenous combustion of coal stock to be prevented by limiting stock height not more than 6 M. 3. Lump size of coal to be restricted to 20mm which will not lead to formation of air voids, eliminating the possibility of combustion 	<p>Complied.</p> <ol style="list-style-type: none"> 1. Installed fixed fire fighting system (49 fire hydrants & 28 hose reels) at coal stack pile & all CT's 

Compliance to the conditions stipulated in Environment and CRZ clearance.

		 <p>2. Stack height is being maintained at 11 meters as per the current CTO. Regular sprinkling of water is carried out to control autogenous combustion.</p> <p>3. Being complied.</p> <p>Also there are 14 No. of water monitors (used for high water volume during fire) are provided around coal stock area.</p>
<p>16</p>	<p>Implementation of Environmental Monitoring Programme.</p>	<p>Being complied.</p> <p>Regular Environmental Monitoring is carried out to assess the quality of treated effluents from STP, Ambient Air quality, Noise level are being monitored through NABL accredited laboratory M/s Pollucon Laboratories Pvt Ltd. regularly and confirming the standards. Also CAAQMS is installed & running successfully. Monitoring reports is being submitted to MoEF&CC as part of Six monthly compliance report and to GSPCB on regular basis. Environment Monitoring Report for the period April 22 – September 22 is attached as Annexure 1.</p>

Compliance to the conditions stipulated in Environment and CRZ clearance.





Ports and
Logistics

Ref No: AMPTPL/2022/ 878

Date: 28.09.2022

To
Additional Chief Conservator of Forests (C),
Ministry of Environment, Forest and Climate Change,
Regional Office (SZ), Kendriya Sadan,
4th Floor, E&F Wings, 17th Main Road,
Koramangala II Block, Bangalore-560034 (Karnataka)
rosz.bng-mefcc@gov.in

Sub: Submission of Environmental Statement (Form-V) for the FY 2021-22.
Ref: Consent Order No. 12/2019-PCB/347405/R0002737 dated 24.03.2020

Respected Sir,

With reference to the captioned subject and cited references above, we submit herewith the Environmental Statement of **M/s Adani Mormugao Port Terminal Private Limited, Goa** in Form-V prescribed under Rule 14 of the Environment (Protection) Rules 1986 for the financial year ending 31st March 2022.

Submitted for your kind information and records.

Thanking You

For Adani Mormugao Port Terminal Private Limited,


Authorized Signatory

Adani Mormugao Port Terminal Pvt. Ltd.
Sub Station Building
Near Gate No.2 of MPT
Mormugao, Goa-403803, India
CIN No. U61100GJ2009PTC057727

Tel +91 832 2579200
Fax +91 832 2579299
info@adani.com
www.adani.com

Registered Office: Adani Corporate House", Shantigram, Near Vaishno Devi Circle, S. G. Highway, Khodiyar, Ahmedabad 382421, Gujarat

Vibhor Srivastava

From: Vibhor Srivastava
Sent: 30 September 2022 18:06
To: Regional Office Bangalore
Subject: Reg: Form V_AMPTPL_Goa_FY 21-22
Attachments: Form V - 2021_22_AMPTPL_MoEF&CC.pdf

Respected Sir,

With reference to the captioned subject and cited references above, we submit herewith the Environmental Statement of **M/s Adani Mormugao Port Terminal Private Limited (Attached)**, in Form-V prescribed under Rule 14 of the Environment (Protection) Rules 1986 for the financial year ending 31st March 2022.

Submitted for your kind information and records.

Regards,

Vibhor Srivastava

Assistant Manager – Environment,

Address : Adani Mormugao Port Terminal Pvt. Ltd. Sub Station Building

Near Gate No. 2 of Mormugao Port Trust, Mormugao, Goa, 403803,India

Office: **+91 832 25 79326** | or Mob: **+916359897585** | Email: Vibhor.Srivastava@adani.com

adani

Growth
with
Goodness

Our Values: Courage | Trust | Commitment





Online Consent Management & Monitoring System

Ministry of Environment, Forest and Climate Change
Government of India



- Home
- Consent Management
- Amendment
- BANK GURANTEE
- Environmental Statement
- Monitoring Report
- Logout

- Add Environment Statement
- Delete In-Progress Environment Statement

Send us your **feedback and suggestions**

click here for any kind **complaints or query**



Welcome ADANI MURMUGAO PORT TERMINAL PVT. LTD

Date : 28-9-2022

Application No : 1470909

You have successfully submitted Environmental Statement for this duration 2021-2022.
[View Environment Statement](#)



GOA STATE POLLUTION CONTROL BOARD

FORM V

(See Rule 14)

Environmental Statement for the financial year ending on 31st March on or before 30th of September every year.

PART A

- (i) Name and address of the owner/ occupier of the industry operation or process : ADANI MURMUGAO PORT TERMINAL PVT. LTD
- (ii) Industry category Primary-(STC Code) : RED, Ports and harbour, jetties and dredging operations
Secondary-(STC Code)
- (iii) Production capacity : 5.2 Million Tonnes

Production Name	Production Capacity	Production Unit
Handling of Coal	5.2	Million Tonnes/Year

- (iv) Year of establishment : 2013
- (v) Date of the last environment statement submitted : 28/09/2022

PART B

1. Water consumption m³/ d

Process :

Cooling :

Domestic :

Name of products	Process water consumption per unit of product output	
	During the previous financial year	During the current financial year
Handling of Coal	0.013 m ³ /MT	0.012 m ³ /MT

2. Raw material consumption

Name of raw materials	Name of products	Consumption of raw material per unit	
		During the previous financial year	During the current financial year
Nil	Nil	Nil	Nil

*Industry may use codes if disclosing details of raw materials would violate contractual obligations, otherwise all industries have to name the raw material used.

PART C

Pollution discharged to environment/ unit of output.

Pollution	Quantity of pollutants discharged(mass/day)	Concentration of pollutants in discharges(mass/volume)	Percentage of variation from prescribed standards with reasons
Water			
Water	No pollutant discharged to environment		
Air			
Air	DG sets are provided as standby power source and were used during power failure. The height of DG stacks are as per CPCB/GSPCB standards. All the monitored parameters are within standards.		
Air	DG STACK 1 (2000 KVA) - June 2021	PM - 24.56 mg/Nm ³ , NOx - 31.55 ppm, CO - 18.08 mg/Nm ³ , NMHC - BDL, Sulfur in fuel - 0.022%	
Air	DG STACK 1 (2000 KVA) - Sep 2021	PM - 22.42 mg/Nm ³ , NOx - 35.59 ppm, CO - 25.31 mg/Nm ³ , NMHC - BDL, Sulfur in fuel - 0.026%	
Air	DG STACK 1 (2000 KVA) - Dec 2021	PM - 25.61 mg/Nm ³ , NOx - 31.42 ppm, CO - 22.51 mg/Nm ³ , NMHC - BDL, Sulfur in fuel - 0.020%	
Air	DG STACK 1 (2000 KVA) - Mar 2022	PM - 27.81 mg/Nm ³ , NOx - 33.44 ppm, CO - 24.54 mg/Nm ³ , NMHC - BDL, Sulfur in fuel - 0.022%	
Air	DG STACK 2 (2000 KVA) - June 2021	PM - 20.42 mg/Nm ³ , NOx - 33.48 ppm, CO - 17.18 mg/Nm ³ , NMHC - BDL, Sulfur in fuel - 0.021%	
Air	DG STACK 2 (2000 KVA) - Dec 2021	PM - 23.33 mg/Nm ³ , NOx - 28.45 ppm, CO - 18.32 mg/Nm ³ , NMHC - BDL, Sulfur in fuel - 0.020%	

Air	DG STACK 2 (2000 KVA) - Mar 2022	PM - 25.62 mg/Nm ³ , NOx - 30.58 ppm, CO - 21.24 mg/Nm ³ , NMHC - BDL, Sulfur in fuel - 0.025%	-
Air	DG STACK 3 (380 KVA) - June 2021	PM - 0.0021 g/kw-hr, NOx - 0.0064 g/kw-hr, CO - 0.0015 g/kw-hr, NMHC - BDL, SO ₂ - 0.0007 kg/hr	-
Air	DG STACK 3 (380 KVA) - Sep 2021	PM - 0.0022 g/kw-hr, NOx - 0.0054 g/kw-hr, CO - 0.0019 g/kw-hr, NMHC - BDL, SO ₂ - 0.0008 kg/hr	-
Air	DG STACK 3 (380 KVA) - Dec 2021	PM - 0.0020 g/kw-hr, NOx - 0.0053 g/kw-hr, CO - 0.0017 g/kw-hr, NMHC - BDL, SO ₂ - 0.0006 kg/hr	-
Air	DG STACK 3 (380 KVA) - Mar 2022	PM - 0.0025 g/kw-hr, NOx - 0.0057 g/kw-hr, CO - 0.0020 g/kw-hr, NMHC - BDL, SO ₂ - 0.0006 kg/hr	-
Air	DG STACK 2 (2000 KVA) - Sep 2021	PM - 26.33 mg/Nm ³ , NOx - 28.45 ppm, CO - 18.32 mg/Nm ³ , NMHC - BDL, Sulfur in fuel - 0.020%	-

Name of Pollutants : .

PART D Hazardous Wastes

(as specified under Hazardous Wastes (Management and Handling) Rules, 1989)

Hazardous Wastes	Total Quantity (Kg)	
	During the previous financial year	During the current financial year
(a) From process	A). Cat. 5.1 Used Oil – 2.95 MT B). Cat. 5.2 Cotton Waste contaminated with Oil – 1.08 MT	A). Cat. 5.1 Used Oil – 2.94 MT B). Cat. 5.2 Cotton Waste contaminated with Oil – 0.28 MT C). Cat 33.1 Empty Barrels – 0.26 MT
(b) From pollution control facilities	Nil	Nil

PART E Solid Wastes

	Total Quantity	
	During the previous financial year	During the current financial year
(a) From process	Nil	Nil
(b) From pollution control facility	Nil	Nil

(c)(1) Quantity recycled or re-utilised within the unit	Food Waste - 0.379 MT (In OWC)	Food Waste - 2.35 MT (In OWC)
(2) Sold	Nil	Nil
(3) Disposed	Food Waste - 1.203 MT	Nil

PART F

Please specify the characterization (in terms of composition and quantum) of hazardous as well as solid wastes and indicate disposal practice adopted for both these categories of wastes • Hazardous waste includes used oil (Cat 5.1), Cotton waste contaminated with oil (Cat 5.2). & Empty Barrels (Cat 33.1). Used oil and the oil soaked cotton waste generated during various maintenance activities are collected in barrels kept in earmarked covered hazardous waste storage area as per the provisions of Hazardous Waste Management Rules, 2016 as amended & disposed of through GSPCB authorized / registered recycler.

- The used batteries and E -waste also stored in workshop storage area and disposed through approved vendor in line to E-waste Management Rules, 2016 as amended..
- Hazardous waste return in Form 4 was submitted in line with the Hazardous and Other Wastes (Management & Trans boundary Movement) Rules, 2016.
- E-waste return in Form 3 was submitted in line with the E-waste Management Rules 2016
- Solid Waste includes mainly domestic waste (office & kitchen waste) which is fed in Organic Waste Composter (In FY 21-22 – 2.35 MT of food waste was fed into OWC).

PART G

Impact of the pollution abatement measures taken on conservation of natural resources and on the cost of production All the domestic waste water generated at site is treated at existing sewage treatment plant located at PWD Baina. Unit has developed adequate green belt within port premises. .

PART H

Additional measures/ investment proposal for environmental protection abatement of pollution, prevention of pollution • Unit is undertaking Regular Environmental Monitoring at port & surrounding area through MoEF&CC recognized laboratory. All the monitored environmental parameters are found well within the standards prescribed & the details of monitored data is regularly submitted to GSPCB, CPCB, MoEF&CC and other concerned authorities.

- Unit has also installed Continuous Ambient Air Quality Monitoring System (CAAQMS) for the parameters CO, SO₂, NO_x, PM₁₀ & PM_{2.5} and the monitored real time data is connected with GSPCB server.
- Coal Stacks are kept covered with tarpaulin at all time, except during loading & unloading operations and adequate water Sprinkling is carried out regularly during loading and unloading operations.
- Unit has also provided dump pond and conveyance channel for collection of runoff generated from the coal yard.
- Unit has provided Sprinklers at coal yard & conveyor system and carrying out regular water sprinkling to control the fugitive dust. Wind screen covered with agronet/ jute cloth is provided around the periphery of coal yard.
- Unit has installed 2 cameras in coal stack yard and its online connectivity has been provided to GSPCB.
- As a precautionary measure an anemometer has been installed along with a hooter on Substation building and three different alert levels have been configured in PLC based on the Wind speed as follows:
 - For 25km/h to 27.99km/h - Hooter blows for 5 Seconds followed by a 1 Second Stop and the same repeats.
 - For 28km/h to 29.99km/h - The Hooter blows for 2 Seconds followed by a 1 second stop and the same repeats.

- For Above 30km/h - The Hooter continuously blows without any stop.
- Unit has taken continuous steps for developing green belt area within port premises. Vertical garden has also been developed as part of Environment Initiatives.

PART I

Any other particulars for improving the quality of the environment • Handling of all types of wastes in line with 5R (Reduce, Reuse, Recycle, Recover and Reprocess)Principle.

- Integrated Management System (ISO 9001:2015, 14001:2015, 45001:2018, 27001:2013 and ISO 50001:2018) certified Port.
- Port has been certified as “Zero Waste to Landfill port” by CII Delhi.
- AMPTPL is 5S Certified Port by National Productivity Council (NPC).
- AMPTPL is bestowed with the top honors and the details of accolades received during the year 2021-22 are mentioned here under;
 - o “Gold Award” in services sector for outstanding achievement in Energy Efficiency 2021 by Apex India Foundation.
 - o “Platinum Award” in Service Sector for Outstanding Achievement in Environmental Excellence 2020” by Apex India Foundation.
 - o “Gold Award” in Service Sector for Outstanding Achievement in Environmental Excellence 2019” by Apex India Foundation.
 - o “Gold Award” in services sector for outstanding achievement in Environment preservation in 10th Exceed Environment Award and Conference 2021.
 - o “Gold Award” in services sector for outstanding achievement in Environment preservation in 12th Exceed Environment Award and Conference 2022.
- Baffle walls have been constructed in Dump ponds to increase sedimentation of Cargo.
- Community Development : AMPTPL provided two interactive study touch screen panels to local Goa school for students at a cost of Rs. 3.3 Lakhs.

Remarks : Nil .