

# Adani Krishnapatnam Port (AKPL)



**Certified Half yearly compliance report on EC, CFE & CFO conditions for period of October 2022 to March 2023 for submission to MoEF&CC and APPCB**

Prepared by



For submission to  
MoEF&CC and APPCB  
Regional Office,  
Nellore



**Sai Laboratories  
Private Limited**



Ports and  
Logistics

Ref.No. AKPL /EHS-EC/MoEF&CC/020/2023-24

Dated: 30.05.2023

To

The Integrated Regional Officer (IRO),  
Ministry of Environment, Forest & Climate Changes (MoEF&CC),  
Green House Complex, Gopal Reddy Road,  
Vijayawada - 520010, Andhra Pradesh.

Sub: Submission of Certified Half yearly Compliance Report on conditions of Environmental and CRZ clearances for phase I, II & III of Krishnapatnam Port for the period October 22 to March 2023 through NABL accredited 3<sup>rd</sup> party – Reg.

Ref:

1. EC & CRZ clearance for Phase I of Krishnapatnam Port vide F. No: 10-22/2005-IA-III dated 26.07.2006
2. EC & CRZ clearance for Phase II of Krishnapatnam Port vide F.No: 11-62/2009-IA-III dated 13.11.2009
3. EC & CRZ clearance for Phase III of Krishnapatnam Port vide F.No: 10-18/2016-IA-III dated 11.01.2021

Dear Sir,


Adani Krishnapatnam Port located at PO Bag No.1, Muthukur (M), SPSR Nellore Dist. Andhra Pradesh is herewith submitting Certified Half yearly EC & CRZ Clearance Compliance Report for the period from October, 2022 to March, 2023 in compliance with the following statutory conditions.

- a. MoEF & CC. S.O. 3067 (E) dated 01.12.2009, S.O. 5845 (E) dated 26.11. 2018 and the News Paper Notification dated 15.09.2019, the project proponent of Andhra Pradesh State shall upload their 6 monthly compliance reports through [ecompliance-ap@gov.in](mailto:ecompliance-ap@gov.in).
- b. Notification issued by A P Pollution Control Board on 07.09.2019 in vernacular Newspaper, (Hindu & Eenadu) all the Red category of in the State of Andhra Pradesh, should furnish the half yearly compliance reports to all the stipulated conditions in EC & CRZ Clearance, CTE & CTO Orders through website i.e., <https://pcb.ap.gov.in>, and, the first half yearly compliance reports shall be furnished by the industry and second half yearly compliance reports shall be the audited through NABL accredited third party.

Thanking you,

Yours sincerely,

For ADANI KRISHNAPATNAM PORT LIMITED

  
Vijay Majji

(AGM- Environment)



Encl: NABL Accredited Agency Certified 6 Monthly EC & CRZ Clearance Compliance Report for the period from October – 2022 to March – 2023

- Copy to : 1. The regional Director, CPCB Zonal office, Bengaluru and  
2. Environment Engineer, A.P Pollution Control Board, Regional Office, Nellore

Adani Krishnapatnam Port Ltd  
(Formerly, Krishnapatnam Port Company Ltd)  
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# SAI LABORATORIES PVT.LTD.

(ISO 9001 and 18001 certified, MOEF recognized/NABL accredited)



Lr. No. SLPL/H/PO/LAB/23-24

Date: 30.05.2023

To  
The Integrated Regional Officer (IRO),  
Ministry of Environment, Forest & Climate Changes (MoEF&CC),  
Green House Complex, Gopal Reddy Road,  
Vijayawada  
Andhra Pradesh – 520010.

Sir,

Sub:- AKPL – NABL Accredited Agency Certified 6 Monthly EC & CRZ Clearance Compliance for the period from October – 2022 to March – 2023 – Submitted – Reg.

- Ref:-
1. EC & CRZ Clearance No. 10-22/2005-IAIII dated July 26, 2006.
  2. EC & CRZ Clearance No. 11-62/2009- IA.III dated November 13, 2009
  3. EC & CRZ Clearance 10-18/2016-IA.III dated January 11, 2021.

@@@

With reference to the above, we **Sai Laboratories Private Limited.**, (NABL Accreditation No.TC/8396, dated 05.07.2022, valid up to 04.07.2024) and Falcon Resilient Infra Consultant (FRICS) are submitting the certified compliance reports of **M/s. Adani Krishnapatnam Port Limited, PO Bag No.1, Muthukur (M), SPSR Nellore Dist. Andhra Pradesh**, for the period from October 2022 to March 2023 in compliance with the following statutory conditions.

- a. MoEF & CC. S.O. 3067 (E) dated 01.12.2009, S.O. 5845 (E) dated 26.11. 2018 and the News Paper Notification dated 15.09.2019, the project proponent of Andhra Pradesh State shall send upload their 6 monthly compliance reports through [ecompliance-ap@gov.in](mailto:ecompliance-ap@gov.in).

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for SAI LABORATORIES PVT.LTD.



**ALLAM SATYANARAYANA**  
**MANAGING DIRECTOR**

Copy submitted to the Environmental Engineer. A.P. Pollution Control Board, Regional Office, Visakhapatnam

## Document Control

<b>Project Number</b>	C23002		
<b>Project Name</b>	Half yearly compliance audit on EC, CFE & CFO conditions from October 2022 to March 2023.		
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- Annexure M : Quality, Environment, Health & Safety and Energy Policy of AKPL



# 1 Introduction

Krishnapatnam Port has been developed on BOST (Build-Operate-Share-Transfer) basis through a special purpose company called "Krishnapatnam Port Company Limited (KPCL)" in terms of the Concession Agreement entered into with Government of Andhra Pradesh (GoAP).

Adani Ports and Special Economic Zone (APSEZ), a part of globally diversified Adani Group, is the largest port developer and operator in India. In less than two decades, the company has built a formidable presence in port infrastructure and logistics services. APSEZ acquired the Krishnapatnam Port Company Ltd., (KPCL). APSEZ is a major controlling shareholder in Adani Krishnapatnam Port Ltd (AKPL).

Krishnapatnam Port is a multi-purpose port located in the east coast of SPSR Nellore District of Andhra Pradesh. Krishnapatnam port is a major economic gateway that caters to the land locked southern hinterland of India with multimodal connectivity. All Weather Port with Deep Draft Capable of Handling Capesize and Panamax Vessels. Round-The-Clock Navigation and provides Two Way Traffic for Both Onshore & Offshore Logistics. State of the art Infrastructure with Bulk Cargo Handled by Mechanized Handling Systems. At Dedicated Storage Areas, Port Provides Clean And Contamination Free Handling Facilities For Break-Bulk Cargo.

## 1.1 Project Location

Krishnapatnam Port is an all-weather, deep water, multi-purpose port located at 14° 15'10" N Latitude and 80° 08'05" E Longitude in the state of Andhra Pradesh along east coast of India about 180 km to north of Chennai Port.

Krishnapatnam Port has easy access to the hinterlands in close proximity covering Andhra Pradesh, Karnataka and North Tamil Nadu by road, rail and air. It has become the largest automated port in the South Asia. It has been rated high in terms of operations, reliability, optimum cost, time and best available services to customers. Some of the key features of KPCL are fastest turn around time for all types of vessels, minimal waiting time, Deep Draft capable of Handling Cape size and Panamax Vessels leading to significant savings in Ocean Freight, 365 days of operation (all-weather port), huge backup area of 6800 acres allotted by GoAP (under various Phase-of development), quick response customer service, mechanised handling systems and two-way traffic for both onshore & offshore logistics. Port location, port limits and approved Master Plan of AKPL is shown in **Figure 1:1** to **Figure 1:3**.



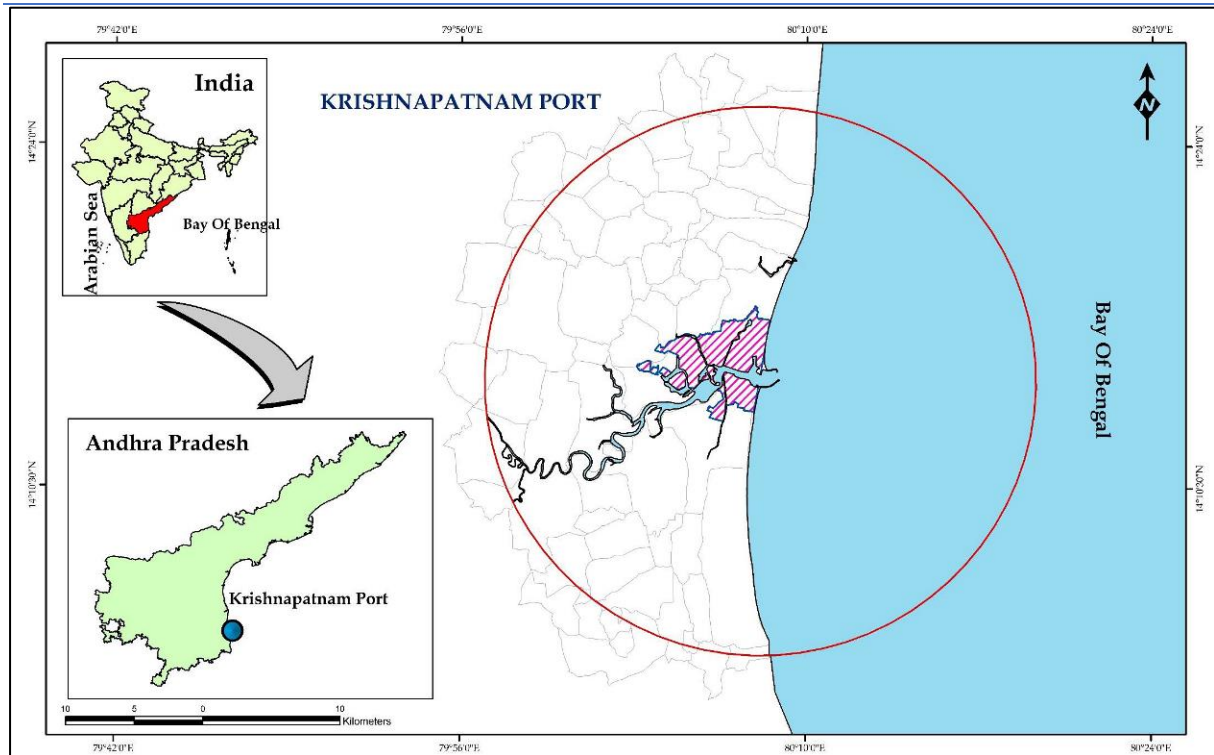


Figure 1:1 Port Location

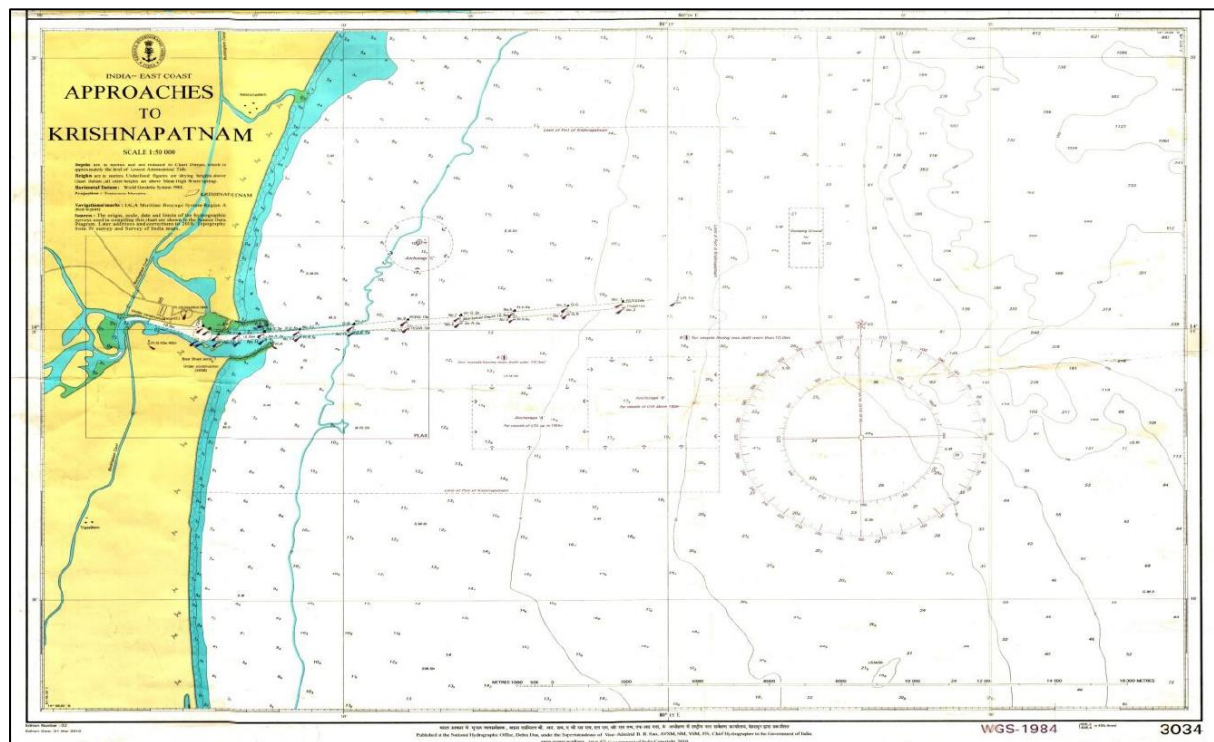


Figure 1:2 Port limits of AKPL



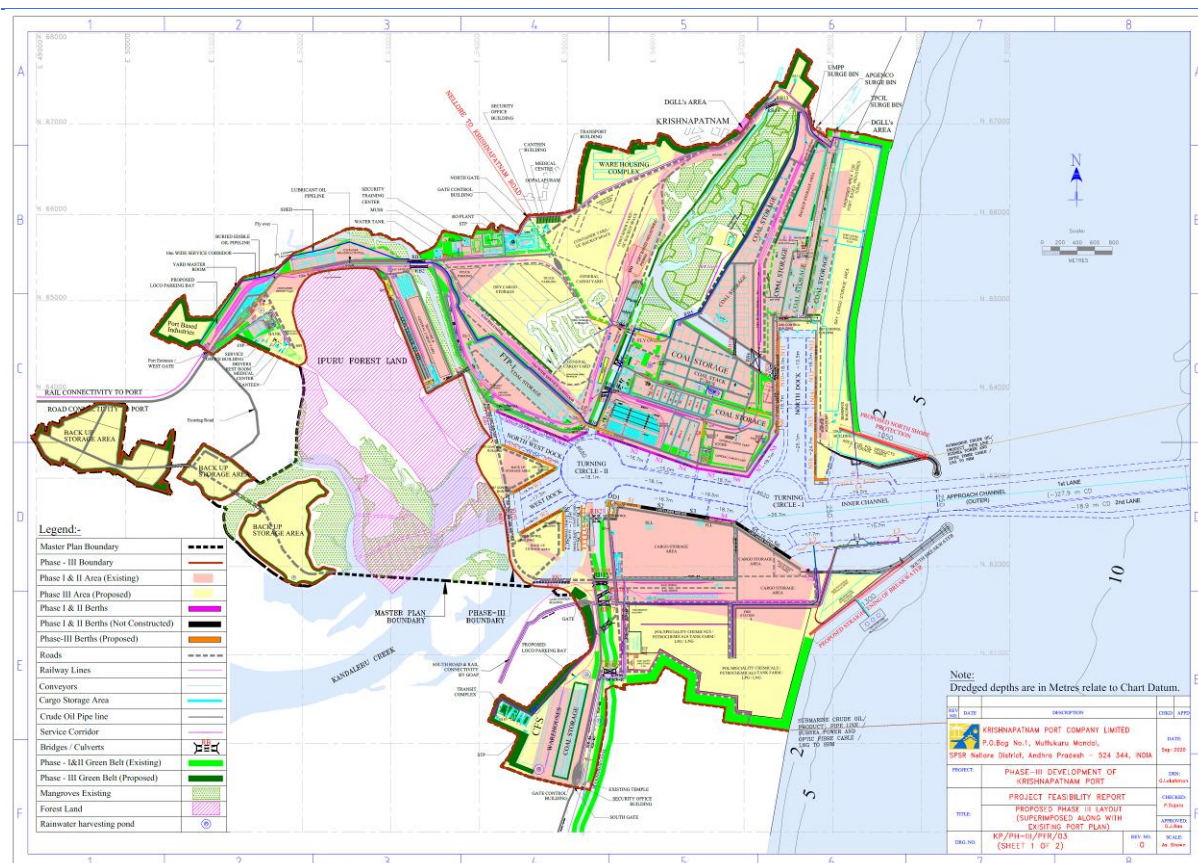


Figure 1:3 Approved Layout

## 1.2 Classification of the Port

As per the Environment Impact Assessment (EIA) Notification dated 14<sup>th</sup> September 2006 and the amendments thereof, Krishnapatnam port is classified under 'Category A' as schedule under activity 7(e).

## 1.3 Approved Facilities as per Environmental and CRZ Clearances and its Status

The existing Port is proposed to be developed in 3 phases. The Phase-I development was completed, and commercial operations started on 20<sup>th</sup> March 2009. The Phase-II development was completed for 9 berths as against the EC approved 14 berths. CFO has been obtained for 12 berths developed in the Phase-I (3 berths) and the Phase-II (9 berths) developments of the port. The details of the EC & CRZ clearances and its amendments granted for the developments at AKPL are presented below.

S.No.	EC letter No and Date	Details of Clearance obtained	Approved Facilities	Status
1.	No.10-22/2005-IAIII dated July 26 <sup>th</sup> 2006	Environmental & CRZ Clearance	<ul style="list-style-type: none"> <li>No. of berths= 3 (850m length)</li> <li>Total Cargo= 28 MTPA</li> </ul>	Construction completed



			<ul style="list-style-type: none"> <li>Approach Channel= 160 m wide.</li> <li>Turning Circle= 450m diameter and 14.95m depth.</li> <li>Total Capital dredging= 14 million m<sup>3</sup>.</li> <li>Reclamation = 6 million m<sup>3</sup>.</li> <li>Annual Maintenance dredging = 1 million m<sup>3</sup>.</li> <li>South Breakwater= 0.95 km</li> <li>North Breakwater= 1.20 km</li> </ul>	
2.	F. No.1162/2009-IA.III dated November 13 <sup>th</sup> 2009	EC and CRZ clearance for Phase-II development	<ul style="list-style-type: none"> <li>No. of berths= 14</li> <li>Total Cargo= 44.3 MTPA+3.3 MTEU</li> <li>Total dredging= 52 million m<sup>3</sup>.</li> <li>Reclamation = 9 million m<sup>3</sup>.</li> <li>Extension of South Breakwater= 1624 m</li> <li>Extension of North Breakwater= 1312 m</li> <li>Plantation of mangroves=50 Ha.</li> <li>Public Hearing Conducted on 20/02/2009</li> </ul>	Construction completed for 9 berths
3.	F. No.11-62/2009- IA.III dated August 18 <sup>th</sup> 2015	Extension of validity of EC and CRZ clearance for Phase-II	Extension of validity of EC&CRZ clearance for Phase-II development till 12.11.2017.	--
4.	F. No.11-62/2009-IA.III (Pt) dated March 16 <sup>th</sup> 2016	Amendment in EC and CRZ Clearance for Phase-II	<ul style="list-style-type: none"> <li>Cargo Storage area A1= 128.50 Ac</li> <li>Cargo Storage area A2= 141.50 Ac shifted from earlier locations.</li> <li>One berth shifted from North to west.</li> <li>Road cum railway bridge of 135m long to form a</li> </ul>	Construction completed



			<p>Merry-go-round system as per the directions of South-Central Railway.</p> <ul style="list-style-type: none"> <li>• Railway Bridges 3 numbers of 300 RM, 340 RM and 120 RM to form essential railway connectivity to the South Port area</li> <li>• Edible Oil pipelines of 10.5 km long to transport edible oil from berth refinery located close to the port's boundary</li> <li>• Road flyovers on existing railway lines required for efficient cargo evacuation.</li> </ul>	
5.	F. No.11-62/2009-IA.III dated April 16 <sup>th</sup> 2018	Extension of validity of EC and CRZ clearance for Phase-II development	Extension of validity of EC&CRZ clearance for Phase-II development till 12.11.2019.	--
6.	F.No.10-18/2016-IA.III dated January 11 <sup>th</sup> 2021	EC and CRZ clearance for Phase-III development	<ul style="list-style-type: none"> <li>• 16 Berths including 3 jetties for liquid cargo</li> <li>• 3 SBMs in deep water to cater 150.2 MTPA</li> <li>• 1.1 MTEUsPA of container cargo</li> <li>• Proposed expansion entail dredging of 60 million m3.</li> </ul>	Only one liquid jetty L4 is developed and operation is pending.
7.	F. No. 10-22/2005-IA.III dated February 8 <sup>th</sup> 2023	Transfer of EC and CRZ clearance for Phase-I development	Transfer of EC & CRZ clearance from M/s.Krishnapatnam Port Limited to M/s. Adani Krishnapatnam Port Limited	--
	F. No. 11-62/2009-IA.III dated February 8 <sup>th</sup> 2023	Transfer of EC and CRZ clearance for Phase-II development	Transfer of EC & CRZ clearance from M/s.Krishnapatnam Port Limited to M/s. Adani Krishnapatnam Port Limited	--
8.	F.No.10-18/2016-IA.III dated March 21 <sup>st</sup> 2021	Transfer of EC and CRZ clearance for Phase-III development	Transfer of EC & CRZ clearance from M/s.Krishnapatnam Port Limited to M/s. Adani Krishnapatnam Port Limited	--



## 1.4 Approved cargo profile as per Environment and CRZ clearance

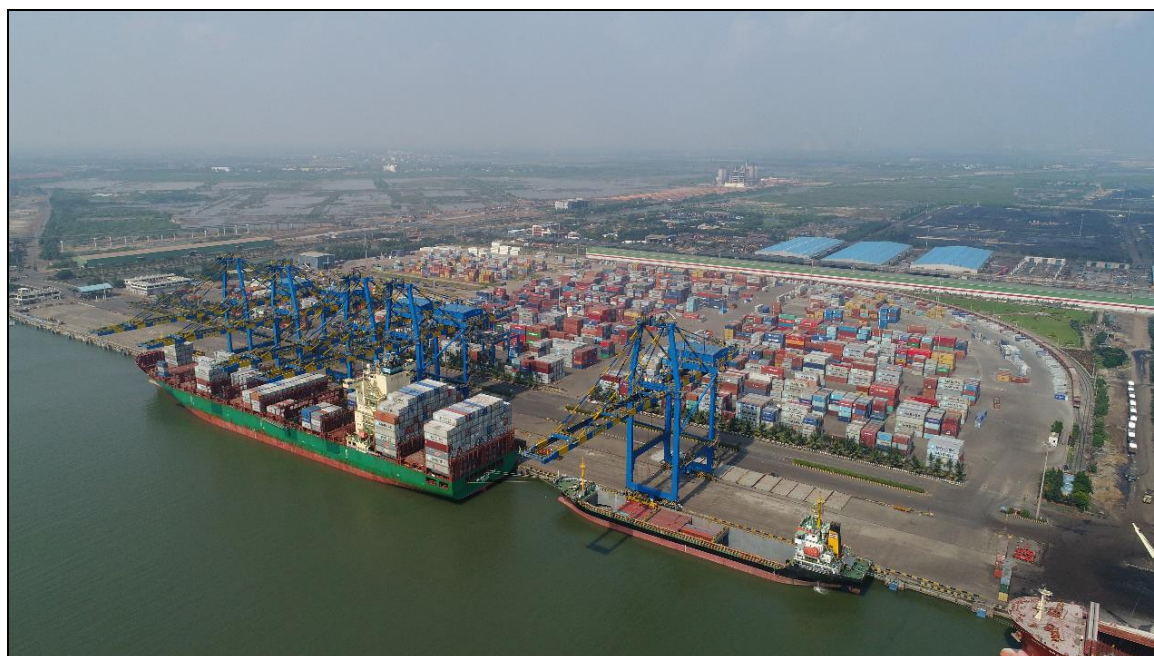
Following are the phases of cargo handling approved since 2006.

Particulars	Phase-I	Phase-II	Phase-III
Coal	51 MMTPA		88 MMTPA
Iron Ore	8 MMTPA		-
General Cargo	9 MMTPA		10.5 MMTPA
Liquid Cargo	-		51.7 MMTPA
Container	2 MTEUsPA		1.1 MTEUsPA
No. of Berths	Approved 17 Constructed 12		Approved 16 (Incl 3 Liquid Berths) and 3 SBMs Constructed 1 Liquid jetty
Total Capacity	68 MMTPA (Non-Container) + 2 MTEUsPA (Container)		150.2 MMTPA (Non-Container) + 1.1 MTEUsPA (Container)

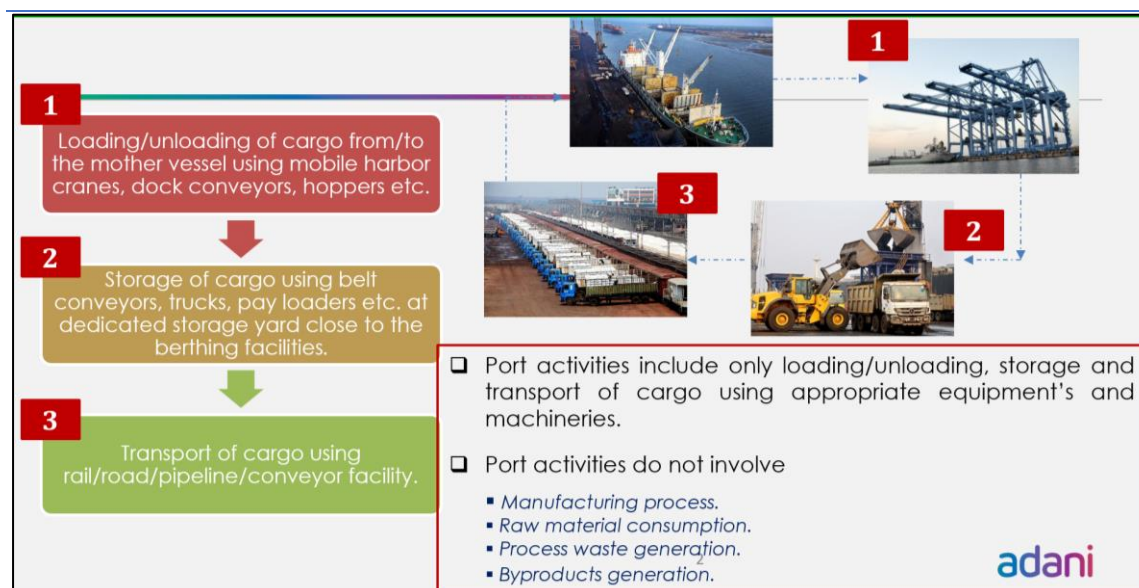
## 1.5 Process Description

AKPL is currently operating 13 No. of Berths. Out of which Berth No. N1 and N2 are Container berths, Berth No.N4,N6,N7,N8, NW1, NW2 & NW3 are fully mechanized berths. Berths N3, N5 & S4 are semi-mechanized berths. Berth no L4 is Liquid Jetty dedicated for POL products.

AKPL is handling dry cargo such as coal, iron ore through mechanized system to the maximum extent possible and the Fertilizers, Food grains, Sugar, Cement & Cement Clinker, barites, Feldspar, Edible Oils are being handled through semi-mechanized system. AKPL handled 48.22 MTPA of consented cargoes for the FY 2022-2023 which is within the limits against approved volume of 78.0 MTPA.







**Figure 1:4 AKPL activity process flow**

## 1.6 Indian Register Class (IR) Certifications of AKPL

AKPL is an ISO 28000:2007, ISO 27001:2013, ISO 14001 2015 DNV, ISO 45001: 2018 IR Class Certified Port providing Integrated Seaport Facilities and Related Services for Handling, Storage and Delivery of Cargo.

Key highlights of Krishnapatnam Port are:

- Krishnapatnam Port has deep draft, all weather and direct berthing facilities. The port is capable of handling.
  - largest crude carriers in the World viz. VLCC
  - largest cape size bulk carrier in the World
  - largest container vessel in the World
  - largest car carrier in the World
  - largest LNG vessel in the World
- Port has installed high speed ship unloaders / mobile harbor cranes for faster discharge of coal cargo and mechanized storage yards & integrated conveyor system to handle huge volumes of cargo.
- Deep draft berth facilitate berthing of largest container vessels arriving at the ports and best-in-class infrastructure ensures world class productivity, fast turnaround of vessels and efficient evacuation of containers from the port.
- Port extends marine and vessel related services on demand to the vessels that come calling. Young fleet and a regular and rigorous repair and maintenance cycle, guaranteeing a high degree of reliability and quality, which are pivotal for the smooth running of port operations.
- Cargo can be received and evacuated by road, rail, air, conveyors and pipelines.
- The port can handle 80 rakes per day for inbound and out bound cargo. Separate sidings are provided for Agri, Fertilizer, Coal cargo and Liquid cargo.
- The port has 4 / 6-lanes road connectivity allowing easy movement of cargo to and from the port.





## CERTIFICATE OF APPROVAL

Issued by Indian Register Quality Systems  
(A Division of IRCLASS Systems and Solutions Private Limited)

This is to certify that the Supply Chain Security Management Systems of

Organisation: Adani Krishnapatnam Port Limited

Address: P.O. Bag No.1, Muthukur Mandal,  
SPSR Nellore District - 524344,  
Andhra Pradesh, India

has been assessed and found conforming to the following requirement

Standard: ISO 28000:2007

Scope: Providing Port facilities for berthing, double  
banking, handling of ships, bulk, break bulk,  
liquid and containerized cargos, its storage and  
transportation by road, rail, pipeline and conveyor

Certificate No.: IRQS/210900752

Original Certification Date: 16/02/2012  
(Unaccredited)

Current Date of Granting: 11/06/2021

Expiry Date: 10/06/2024



**Shashi Nath Mishra**  
Head IRQS

This approval is subject to continued satisfactory maintenance of the Supply Chain Security Management Systems of the organization to the above standard which will be monitored by IRQS. The use of the Accreditation Mark indicates accreditation with respect to activities covered by the certificate with accreditation no. IRQS - 99027435. Condition Overleaf

COA/IRQS/ANAB/SCSMS/Rev 01

Head Office: 52A, Adi Shankaracharya Marg, Opp.Powai Lake, Powai, Mumbai - 400 072, India.





## CERTIFICATE OF APPROVAL

Issued by Indian Register Quality Systems  
(A Division of IRCLASS Systems and Solutions Private Limited)

This is to certify that the Information Security Management Systems of

Organisation: Adani Ports & Special Economic Zone Ltd.

Address: Site Krishnapatnam -  
P.O. Bag No: 1, Muthukur Mandal,  
SPSR Nellore District- 524 344,  
Andhra Pradesh

has been assessed and found conforming to the following requirement

Standard: ISO/IEC 27001:2013

Scope: Information Security in relation to Core Port  
Operations - Information Technology, HR & Admin,  
Finance & Account, Safety & Environment, Security,  
Engineering Services, Dry Cargo Operations,  
Dredging, Commercial & Stores, Container  
Operations, Marine Services, Railway Operations

Source for Control: Statement of Applicability:  
Version 0.0 Dated 23<sup>rd</sup> June 2022

Certificate No.: IRQS/220700760-I

Initial Certification Date: 01/08/2022

Current Date of Granting: 01/08/2022

Expiry Date: 31/07/2025



Shashi Nath Mishra  
Head IRQS

This approval is subject to continued satisfactory maintenance of the Information Security Management Systems of the organization to the above standard which will be monitored by IRQS. The use of the Accreditation Mark indicates accreditation with respect to activities covered by the certificate with accreditation no. C071. Condition Overleaf

COA/IRQS/RVA/ISMS/Rev 00

Head Office: 52A, Adi Shankaracharya Marg, Opp.Powai Lake, Powai, Mumbai - 400 072, India.





## CERTIFICATE OF APPROVAL

Issued by Indian Register Quality Systems  
(A Division of IRCLASS Systems and Solutions Private Limited)

This is to certify that the Environmental Management Systems of

Organisation: Adani Krishnapatnam Port Limited

Address: PO Bag No. 1, Muthukur (M)  
SPSR Nellore Dt - 524344

has been assessed and found conforming to the following requirement

Standard: ISO 14001:2015

Scope: Providing Port Facilities for Berthing,  
Double Banking, Handling of Ships, Bulk,  
Break Bulk, Liquid and Containerized  
Cargos, its Storage and Transportation by  
Road, Rail, Pipeline and Conveyor

Certificate No.: IRQS/210300265

Original Certification Date: 20/02/2012

Current Date of Granting: 19/02/2021

Expiry Date: 18/02/2024



Shashi Nath Mishra  
Head IRQS

This approval is subject to continued satisfactory maintenance of the Environmental Management Systems of the organization to the above standard which will be monitored by IRQS. The use of the Accreditation Mark indicates accreditation with respect to activities covered by the certificate with accreditation no. C071. Condition Overleaf COA/IRQS/RvA/EMS/Rev 00

Head Office: 52A, Adi Shankaracharya Marg, Opp. Powai Lake, Powai, Mumbai - 400 072, India.





## CERTIFICATE OF APPROVAL

Issued by Indian Register Quality Systems  
(A Division of IRCLASS Systems and Solutions Private Limited)

This is to certify that the Occupational Health & Safety Management Systems of

Organisation: Adani Krishnapatnam Port Limited

Address: PO Bag No. 1, Muthukur (M)  
SPSR Nellore Dt - 524344

has been assessed and found conforming to the following requirement

Standard: ISO 45001:2018

Scope: Providing Port Facilities for Berthing, Double Banking, Handling of Ships, Bulk, Break Bulk, Liquid and Containerized Cargos, its Storage and Transportation by Road, Rail, Pipeline and Conveyor

Certificate No.: IRQS/210400266

Original Certification Date: 20/02/2012

Current Date of Granting: 19/02/2021

Expiry Date: 18/02/2024



**Shashi Nath Mishra**  
Head IRQS

This approval is subject to continued satisfactory maintenance of the Occupational Health and Safety Management Systems of the organization to the above standard which will be monitored by IRQS. The use of the Accreditation Mark indicates accreditation with respect to activities covered by the certificate with accreditation no. OHSMS 007. Condition Overleaf  
COA/IRQS/NABCB/OHSMS/Rev 00

Head Office: 52A, Adi Shankaracharya Marg, Opp. Powai Lake, Powai, Mumbai - 400 072, India.



## 1.7 Purpose of the Report

As per the MoEF& CC. S.O. 3067 (E) dated 1st December 2009, it shall be mandatory for the Project Proponent to submit half-yearly compliance reports in respect of the stipulated prior environmental clearance terms and conditions in hard and soft copies to the regulatory authority concerned, on 1st June and 1st December of each calendar year.

As per the MoEF& CC. S.O. 5845 (E) dated 26th Nov, 2018 the Project Proponent shall submit half-yearly (six monthly) compliance reports in soft copy instead of hard copy.

As per the MoEF & CC. S.O. 3067 (E) dated 1st December 2009, it shall be mandatory for the Project Proponent to submit half-yearly compliance reports in respect of the stipulated prior environmental clearance terms and conditions in hard and soft copies to the regulatory authority concerned, on 1st June and 1st December of each calendar year.

As per the MoEF & CC. S.O. 5845 (E) dated 26th Nov, 2018 the Project Proponent shall submit half-yearly (six monthly) compliance reports in soft copy instead of hard copy.

As per the newspaper notification issued by APPCB on 07.09.2019, (Hindu & Eenadu) that - "all the Red & Orange category industries (other than stone crusher & mining units) existing in State of Andhra Pradesh, to furnish the half yearly compliance reports to all the stipulated conditions in Environmental Clearance (EC), and Consent to Establishment (CTE) and Consent to Operation (CTO) through website i.e., <https://pcb.ap.gov.in> by 1st of January and 1st of July of every year.

The first half yearly compliance reports shall be furnished by the industry and second half yearly compliance reports shall be the audited through NABL accredited third party.

As per the newspaper notification issued by the MoEF&CC on 15.09.2019, the project proponent of Andhra Pradesh State shall send their compliance reports to [ecompliance-ap@gov.in](mailto:ecompliance-ap@gov.in)

As per the Consent to Operation Order of APPCB, dated 08.06.2009, the industry shall submit half yearly compliance reports to all the stipulated conditions in Environmental Clearance (EC), Consent for Establishment (CTE) and Consent to Operation (CTO) through website i.e., <https://pcb.ap.gov.in> by 1<sup>st</sup> of January and 1<sup>st</sup> July of every year. The first half yearly compliance reports shall be furnished by the industry and second half yearly compliance reports shall be the audited through NABL accredited third party.

As per the additional conditions stipulated in renewed CFO & HWA Order of APPCB, dated 02.02.2011, CFO renewal dated 24.09.2015 and amendments thereof, CFO renewal dated 29.07.2018 and amendments thereof, CFO for Phase III dated 11.11.2022 the industry shall submit Half yearly compliance reports to all the stipulated conditions in Environmental Clearance (EC) and CRZ clearance, Consent for Establishment (CFE) and Consent for Operation (CFO) through website i.e., <https://pcb.ap.gov.in> by 1<sup>st</sup> of January and 1<sup>st</sup> July of every year. The first half yearly



compliance reports shall be furnished by the industry and second half yearly compliance reports shall be audited through MoEF&CC recognized and National Accreditation Board for Laboratory Testing (NABL) accredited third party.

**The present report is 2<sup>nd</sup> Half- Yearly compliance report for the period from October, 2022 to March, 2023.**

## 1.8 Statutory approvals

### A. Environment & CRZ Clearances obtained

- I. The Environmental Clearance (EC) was accorded for the Phase – I development of this Port by the MoEF, Gol vide Ir no. 10-22/2005-IA-III dated: 26th July, 2006
- II. Phase II development of this Port, the Environmental Clearance has been accorded by the MoEF, Gol vide F. No. 11 – 62 / 2009 – IA.III dated: 13th November, 2009 and MoEF&CC extended vide Oder even No. dated 18.08.2015 & 16.04.2018 and amended by MoEF&CC vide order dt 16.3.2016.
- III. Phase III Expansion of Krishnapatnam Port vide File No: 1018/2016-IA.III dated 11.01.2021, accorded by the MoEF, Gol

### B. Consent for Establishment-CFE

- IV. CFE was accorded by the APPCB vide Order No. APPCB/VJA/NLR/633/HO/2004/9 - 467 dt. 25.05.2004. The Phase - I facility was commissioned during the year 2009.
- V. The CFE accorded by the APPCB vide Order No. 633/PCB/CFE/RO-NLR/HO/2010-390 dt. 08.05.2010 is extended vide APPCB Order dt 02.07.2015 and amended vide APPCB's Orders dt. 14.03.2014, 02.07.2015, 10.02.2016, 04.01.2017 & 22.02.2018.
- VI. CFE accorded by APPCB vide Order No: 633/APPCB/CFE/RO-NLR/HO/2010 Dt. 25.02.2021 and amended vide APPCB order dt. 06.04.2021 and 16.07.2021.

### C. Consent for Operate-CFO

- VII. The CFO has been accorded by the APPCB vide Order No. APPCB/VSP/VJA/NLR/633/CFO/HO/2009-582 dt. 08.06.2009
- VIII. APPCB has accorded CFO renewal Order, vide APPCB's Order No. APPCB/VJA/NLR/11344/CFO/HO/2018 dt. 29.07.2018 & 30.08.2018 which is valid till 31<sup>st</sup> October, 2023.
- IX. APPCB has accorded CFO order vide Consent Order No: APPCB/VJA/NLR/11344/CFO/HO/2019 dated 11/11/2022 valid till 31.08.2027. This CFO has superseded all CFO and its amendments issued by APPCB earlier.

As of now, 13 berths are operational with necessary infrastructure with capacity to handle 78 MTPA of non-container cargo and 2.0 MTEUsPA of container cargo are



commissioned and being operated. Environment & CRZ Clearances obtained given as **Annexure A**, Consent for Establishment-CFE obtained given as **Annexure B** & Consent for Operate-CFO obtained were given as **Annexure C**.

## 1.9 Statutory Returns/compliance Reports

The Environment Department, AKPL is taking care for submission of the following statutory returns/ compliance reports to the concerned statutory departments i.e., MoEF&CC and APPCB.

- **Monthly** - Submitting Consent compliance reports to APPCB with Air Quality Monitoring, Marine & Terrestrial Monitoring reports along with water consumption details (Form – 1) under the Water (Prevention and Control of Pollution) Cess Act, 1977 and amendments thereof.
- **Half-Yearly** - Submitting half yearly compliance of the conditions stipulated in EC, CTE & CTO Orders issued by MoEF&CC and APPCB. Self-Certified 1st Half-yearly compliance report for the period from April to September and NABL Accredited Agency Certified 2nd Half- Yearly compliance report for the period from October to March.
- **Annual/Yearly** –  
Submitting the E-waste annual returns (Form – 3) as per Rule 22 (2) of the Hazardous Wastes (Management, Handling & Transboundary Movement) Rules, 2016 and amendments thereof.  
Submitting the Hazardous Wastes annual returns (Form – IV) as per Rule 22 (2) of the Hazardous Wastes (Management, Handling & Transboundary Movement) Rules, 2016 and amendments thereof to APPCB. Submitting of Environmental Statement (Form –V) to the APPCB.

## 1.10 Institutional Arrangements

M/s. Adani Krishnapatnam Port Limited established an Environment Department for institutional Arrangements for Environment Protection and Conservation. The Department is Headed by the AGM, Environment & ESG, Assistant Manager Environment, Senior Officer Environment, Environment Engineer followed by Senior Officer Horticulture), and other supporting staff.

AKPL appointed an NABL Accredited and MoEF&CC recognized lab “SV Enviro Labs and Consultants” to carry-out monitoring parameters of terrestrial as well as marine water quality and submitting the report to A.P. Pollution Control Board on monthly basis. NABL Certification and MoEF&CC Gazette Notification of the SV Enviro Labs & Consultants was shown in **Figure 1:5** and **Figure 1:6**.







Figure 1:5 NABL Certification of M/s. S.V.Enviro Labs



<b>MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE</b>			
<b>NOTIFICATION</b>			
New Delhi, the 24th August, 2021			
<p><b>S.O. 3511(E).</b>—In exercise of the powers conferred by clause (b) of sub-section (1) of sections 12 and section 13 of the Environment (Protection) Act, 1986 (29 of 1986), read with rule 10 of the Environment (Protection) Rules, 1986, the Central Government hereby makes the following further amendments in the notification of the Government of India in the erstwhile Ministry of Environment and Forests, published in the Gazette of India, Part II, Section 3, Sub-section (ii) <i>vide</i> number S.O. 1174(E), dated the 18<sup>th</sup> July, 2007, namely:—</p>			
In the said notification, in the table,—			
(i) for Sl. No. 13,14,24,56,59,63,64,69,71,79,113,114,115,117,123,124,126,134,175 and 196 and the entries relating thereto, the following Sl. No. and entries shall respectively be substituted, namely:—			
<b>Table</b>			
79	M/s. S.V Enviro Labs and Consultants Block B, B-1 IDA, Autonagar, Visakhapatnam-	(1) Mr. Murali Krishna Malasani (2) Mr. Jalem Srinivas (3) Mr. Akunuru Sam Prasanth	11 <sup>th</sup> November, 2023

**Figure 1:6 MoEF&CC Gazette notification of M/s. S.V.Enviro Labs**

Parameters monitored, frequency and locations for the compliance monitoring were as given below.

#### A. Terrestrial Monitoring

S.No.	Parameter	Frequency	Location & No. of Samples
1.	Air Monitoring PM <sub>10</sub> , PM <sub>2.5</sub> , SO <sub>2</sub> , NO <sub>2</sub> , NH <sub>3</sub> , Ozone (O <sub>3</sub> ), Lead (Pb), Carbon Monoxide, Benzene, Benzo(a)pyrene- (BaP) Arsenic (As), Nickel (Ni)	Monthly Once - 24 Hours basis	<b>7 Locations</b> I. CAAQMS station 1 – at Amenities Complex II. CAAQMS station 2 – at Tamminapatnam Village (South Port) III. CAAQMS station 3 - at Krishnapatnam Village IV. Gopalapuram Village V. Chalivendram Village VI. Port Main Gate (“O” Point) VII. New Light House
2.	Noise Levels covering day and night noise levels in dB (A)	Monthly-24 Hours basis	<b>8 Locations</b> I. Krishnapatnam Village II. Gopalapuram Village III. Chalivendram Village IV. Port Main Gate (“O” Point) V. Amenities Complex VI. New Light House VII. Tamminapatnam Village (South Port) VIII. Any 2 of Port Operational areas (1 Point at North Port & 2nd point at South Port)



S.No.	Parameter	Frequency	Location & No. of Samples
3.	Sewage Treatment Plant Inlet and Outlet pH, Total Suspended Solids, Total Dissolved Solids, Oil & Grease, COD, BOD.	Monthly once	<b>2 Locations</b> STP (Outlet) 500 KLD-1 unit 40 KLD-1 unit

## B. Marine Monitoring

S.No.	Parameter	Frequency	Location & No. of Samples
1.	<p><b>Marine Water monitoring (Low Tide and High Tide)</b></p> <p><u>Physical Analysis:</u> pH, Temperature, Salinity, Density, TDS, TSS &amp; Turbidity</p> <p><u>Chemical Analysis:</u> Potassium, COD, BOD, Oil &amp; Grease, DO, Nitrates, Nitrites, Ammonia, Phosphates, Chlorides, Sodium, Sulphates, Silica, Reactive Silica, Total Phosphorus, Total Nitrogen</p> <p><u>Heavy Metals:</u> Lead, Cadmium, Copper, Zinc</p> <p><u>Biological Analysis:</u></p> <ol style="list-style-type: none"> <li>Primary Productivity</li> <li>Chlorophyll</li> <li>Phytoplankton</li> <li>Numerical Abundance</li> <li>Diversity</li> <li>Zooplankton</li> <li>Diversity</li> <li>Biomass</li> <li>Coliforms</li> <li>Fecal coliforms</li> </ol>	Weekly Once every month/monthly once	<p><b>4 Locations</b></p> <ol style="list-style-type: none"> <li>Port entrance</li> <li>Turning circle</li> <li>Coal berth</li> <li>Reclamation area</li> </ol> <p>2 locations</p> <ol style="list-style-type: none"> <li>Buckingham canal (creek)</li> <li>Kandhalerru (creek)</li> </ol>
2.	<p><b>Marine Sediment:</b></p> <p><u>Physical:</u> Sediment composition, Silt + Clay, Sand, Org matter, pH</p> <p><u>Chemical:</u> Nitrogen, Phosphorus, Potassium, Sodium, Biological, Benthic Communities, MacroBenthos, Epifauna numerical abundance, Infauna numerical abundance</p> <p><u>Heavy Metals:</u> Lead, Cadmium, Copper, Zinc.</p>	Weekly once every month	<p><b>4 Locations</b></p> <ol style="list-style-type: none"> <li>Port Entrance – Approach channel</li> <li>Turning circle</li> <li>Near to Coal berths</li> <li>Reclamation</li> </ol>
3.	<b>Marine Water Turbidity Monitoring</b>	Weekly once every month	<p><b>4 Location</b></p> <ol style="list-style-type: none"> <li>Port Entrance – Approach channel</li> </ol>



S.No.	Parameter	Frequency	Location & No. of Samples
	Turbidity, Total Dissolved Solids and Total Suspended Solids in low tide, high tide and medium tide		II. Turning circle III. Near to Coal berths IV. Reclamation Area

## 1.11 Six Monthly Compliance Report- (October 2022 to March 2023)

In connection with Half-yearly Compliance to MoEF&CC & APPCB, Adani Krishnapatnam Port Ltd appointed M/s. Falcon Resilient Infra Consultants (FRICS) to undertake Environmental Data analysis through NABL and MoEF&CC accredited laboratory for various environmental factors & submit the certified Half-yearly Compliance to MoEF&CC & APPCB.

### 1.11.1 Falcon Resilient Infra Consultants (FRICS)

Falcon Resilient Infra Consultants (FRICS), a nascent company launched by a group of engineers having rich experience in Environmental Engineering, Master Planning, Infrastructure planning, Design and Financial Analysis delivering professional services in Ports and Marine structures, Roads and Highways, Thermal Power Plants, Industrial Parks & Building Sector. Our solutions are tailored to meet the specific needs of our clientele, whether they are a small business or a large enterprise providing infrastructure solutions at stages of Project Life Cycle.

**FRICS has Memorandum of Understanding with M/s.Sai Laboratories Pvt Ltd, Hyderabad which is NABL Accredited, MoEF&CC, CPCB recognized laboratory for conducting Terrestrial and Marine monitoring and MoU is enclosed as Annexure D.**

# SERVICES

We are expertise in making the development efforts more pleasant, environment friendly and socially acceptable. We assist them to comply with environmental and social safeguard requirements during all phases of the project cycle viz. preparatory, construction and operation.

-  Environmental Due Diligence
-  Environment & Social Impact Assessment
-  Environment & Social Management Plan & Management Frameworks
-  Biodiversity Management Plan
-  Risk Analysis

-  HAZOP studies
-  Environmental Audits
-  RS/GIS based Mapping & Analysis
-  Training & Capacity Building
-  Advisory services





# SECTORS

We work on hardship assignments related to various infrastructure projects. We guide our clients right from project concept, development and execution support. Whether it is a SEZ, Ports & Harbours, Highways, we work with a team on a multidisciplinary approach continuing to innovate possessing technical expertise.



Industrial Parks/ SEZ's



River valley projects



Seaports and Harbours



Townships & Area Development



Roads & Highways



Desalination Plants



Thermal Power Plants



Mining

## 1.11.2 Sai Laboratories Private Limited

An ISO 9001:2015 Certified Lab, Recognised by Govt of India, MoEF&CC, NABL Accredited with Certificate Number TC 8396, valid until April 4<sup>th</sup> 2024 & OSHA 45001:2018 has forayed into Environmental Monitoring, Consultancy & Management and fast expanding to potential customers. Sai Laboratories Pvt Ltd is dedicated to offer following services in environmental consultancy.

- Physico-Chemical & Bacteriological Analysis of Water and Wastewater
- Monitoring & Analysis of Various Physico-Chemical Parameters of Ambient Air Quality, Stack Emission Monitoring, Flue Gases, Noise Level Monitoring.
- Indoor Air Quality Monitoring (Gases and Microbiology Monitoring).
- Physico-Chemical & Bacteriological Analysis of Soil & Solid Waste
- Preparation of EA (Environmental Audit/Statement)
- Annual Operation & Maintenance of ETP, STP & WTP





Laboratory facilities at Sai Laboratories Pvt Ltd





Figure 1:7 NABL Certification for M/s.Sai Laboratories private limited



कन्द्रीय प्रदूषण नियंत्रण बोर्ड  
CENTRAL POLLUTION CONTROL BOARD  
पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय भारत सरकार  
MINISTRY OF ENVIRONMENT FOREST & CLIMATE CHANGE GOVT. OF INDIA

F.No. LB/99/7/2021-INST LAB-HO-CPCB-HO/Pvt./ 16324 Dated: 31<sup>st</sup> March 2023

**Provisional Certificate**

To,

Head of Laboratory,  
M/s Sai Laboratories Pvt. Ltd.  
Flat No.-211, Challa Estate, Erragadda, Main Road, Erragadda  
Hyderabad – 500018, Telangana.

Subject: Recognition of M/s Sai Laboratories Pvt. Ltd. Flat No.-211, Challa Estate, Erragadda, Main Road, Erragadda Hyderabad – 500018, Telangana as Environmental laboratory under the Environmental (Protection) Act- 1986.

Sir,

I am directed to refer the online application, dated 19/09/2022 for the recognition of your laboratory under Environmental (Protection) Act, 1986. Based on the recommendations of the concerned Division, approval of Competent Authority for recognition of Environmental laboratories and your acceptance of the revised terms and conditions at Annexure-III & IV of the guidelines for recognition of environmental laboratories, CPCB approves the renewal of recognition of **M/s Sai Laboratories Pvt. Ltd. Flat No.-211, Challa Estate, Erragadda, Main Road, Erragadda Hyderabad – 500018, Telangana** and shall be notified in the Gazette of India. Considering the current requirement of mandatory accreditation/ certifications of the laboratory, **this recognition shall be valid up to 04/07/2024.**

2. As sought in the aforementioned application, **M/s Sai Laboratories Pvt. Ltd. Flat No.-211, Challa Estate, Erragadda, Main Road, Erragadda Hyderabad – 500018, Telangana** may undertake the following tests:

- Physical Tests**-Conductivity, Colour, pH, Fixed & Volatile Solids, Total Solids, Total Dissolved Solids, Total Suspended Solids, Turbidity, Temperature, Velocity & Discharge Measurement of Industrial Effluent Stream, Flocculation Test (Jar Test), Odour, Salinity, Settleable Solids and Sludge Volume Index.
- Inorganic (General and Non-metallic):** Acidity, Alkalinity, Ammonical Nitrogen, Chloride, Chlorine Residual, Dissolved Oxygen, Fluoride, Total Hardness, Total Kjeldahl Nitrogen (TKN), Nitrite Nitrogen, Nitrate Nitrogen, Phosphate, Sulphate, Sulphite, Silica, Cyanide and Sulphide.
- Inorganic (Trace Metals):** Boron, Cadmium, Calcium, Total Chromium, Chromium Hexavalent, Copper, Iron, Lead, Magnesium, Mercury, Nickel, Potassium, Sodium, Sodium Absorption Ratio, Zinc, Arsenic, Aluminium, Manganese and Vanadium.
- Organics (General) and Trace Organics:** Biochemical Oxygen Demand (BOD), Chemical Oxygen Demand (COD), Oil and Grease, Phenolic Compounds, Pesticides (each) (Organo-Chlorine and Organo Nitrogen-Phosphorus), Surfactant, Poly-Chlorinated Biphenyl (PCB's) each and Poly-Nuclear Aromatic Hydrocarbon (PAH).
- Microbiological Test:** Total Coliform, Faecal Coliform, *E. coli*, *Faecal Streptococci*, Total Plate Count and *Enterococcus*.
- Toxicological Tests:** Bioassay Method for Evaluation of Toxicity using Fish and Measurement of toxicity factor using zebra fish (Dimensionless Toxicity Test).
- Characterization of Hazardous Waste:** Preparation of Leachate (TCLP Extract/Water Extract), Ignibility (Flash Point) and Measurement of Heavy Metals/Pesticides in the Waste/Leachate.
- Soil/Sludge/Sediment and Solid Waste:** Boron, Cation Exchange Capacity (CEC), Electrical Conductivity, Nitrogen (Available), Organic Carbon Matter (Chemical Method), pH, Phosphorous (Available), Phosphate (Ortho), Phosphate (Total), Potassium, SAR in Soil Extract, Sodium, Soil moisture, TKN, Calorific Value, Bicarbonate, Calcium, Calcium Carbonate, Chloride, Heavy Metal, Magnesium, Nitrate, Sulphate and Total organic carbon.

Contd.

'परिवेश भवन' पूर्व अर्जुन नगर दिल्ली-110032  
Parivesh Bhawan, East Arjun Nagar Delhi-110032  
दूरभाष Tel: 43102030, 22705792 वेबसाइट Website: www.cpcb.org.in





- ix. **Ambient Air/ Fugitive Emissions:** Nitrogen Dioxide (NO<sub>2</sub>), Sulphur Dioxide (SO<sub>2</sub>), Total Suspended Particulate Matter, Respirable Suspended Particulate Matter PM<sub>10</sub>, Ammonia, Lead, Ozone and PM<sub>2.5</sub>
- x. **Stack Gases/ Source Emission:** Particulate Matter, Sulphur Dioxide, Velocity & Flow, Carbon Dioxide, Carbon Monoxide, Temperature, Oxygen, Oxides of Nitrogen, Acid Mist, Ammonia, Fluoride (Particulate), Total Hydrocarbon and Hydrogen Sulphide.
- xi. **Noise Level:** Noise Level Measurement (20-140 dBa) and Ambient Noise and Source Specific Noise.
- xii. **Meteorological:** Ambient Temperature, Wind Direction, Wind Speed, Relative Humidity, and Rainfall.

3. Further, the following analysts have been approved as Government Analysts.

- i. Ms. Shruti Sham Bankar
- ii. Ms. Dommeti Krishna Kalyani
- iii. Sh. Allam Satyanarayana

4. The laboratory shall compulsorily participate in the Analytical Quality Exercise conducted by the Central Pollution Control Board (CPCB) to ascertain the capability of the laboratory and analysis carried out and shall submit quarterly progress report to CPCB.

5. The surprise inspection/periodic surveillance of the recognized environment laboratory will be undertaken by CPCB to assess its proper functioning systematic operation and reliability of data generated at the laboratory.

6. It is also mandatory for the laboratory to have requisite accreditations of the ISO: 17025 and ISO:45001 and its renewal as per accreditation rules. This recognition is subject to such accreditations and renewals as applicable. The laboratory is required to apply online for further renewal of recognition through CPCB web portal after renewal of the mandatory accreditations / certifications concerned.

7. The laboratory should compulsorily follow the accepted terms and conditions. In case of serious non-compliance of any of the terms and conditions, the laboratory may be black listed for a minimum period of two years and civil/criminal proceedings, as applicable, may be initiated for performing functions on behalf of the Government in an unauthorized manner.

Yours faithfully,

*K. R. J. L.* 31/3/23

(Dr. K. Ranganathan)  
Scientist-E & Divisional Head  
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Central Pollution Control Board  
परिवेश, वन एवं जलवायु परिवर्तन विभाग, भारत सरकार  
(Mo Environment, Forest & Climate Change, Govt. of India)  
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Figure 1:8 CPCB Recognition of M/s. Sai Laboratories Private Limited



### **1.11.3 Scope of Work**

As per the scope of the work, the Environmental data has been collected for various environmental components:

1. Terrestrial sampling, analysis & preparation of reports
2. Sewage Treatment Plant (STP) (Outlet)
3. Ambient Air Quality Monitoring
4. Noise Levels dB (A)
5. Soil Quality
6. Marine sampling, analysis & preparation of reports
7. Preparation of Compliance & Uploading in the portal



## 2 Compliance pursuance, Site visits & 6 months Monitoring Reports

### 2.1 Pursuance of existing compliance status

As a part of the enforcement of compliance on the conditions stipulated in EC, CTE& CTO orders issued by MoEF&CC and APPCB, Consultants team from FRICS along with Sai Laboratories & has visited AKPL & its surroundings and the following methodology was adopted & followed:

1. Site Observation
2. Operations details and procedure.
3. Water - source, consumption, conservation, treatment & disposal details
4. Ambient Air Quality monitoring – outside & within the premises of AKPL.
5. Solid/hazardous waste generation, storage & disposal details.
6. Greenbelt details.
7. EMP & Sustainability activities performed.
8. Promotion of Environment & Sustainability awareness programmes details
9. Behaviour based Safety & Occupational hygiene details.
10. Safety Mock Drill / Emergency Exercise details.
11. Vigilance & Task Force methods being adopted by AKPL.
12. CSR activities performed by AKPL.
13. Innovative Technology & Practices by AKPL.
14. Awards & appreciations received by AKPL.

### 2.2 Site Observations

AKPL is currently operating 13 No. of Berths. Out of which Berth No. N1 and N2 are Container berths, Berth No.N4,N6,N7,N8, NW1, NW2 & NW3 are fully mechanized berths. Berths N3, N5 & S4 are semi-mechanized berths. Berth no L4 is Liquid Jetty dedicated for POL products.

AKPL is handling dry cargo such as coal, iron ore through mechanized system to the maximum extent possible and the Fertilizers, Food grains, Sugar, Cement & Cement Clinker, barites, Feldspar, Edible Oils are being handled through semi-mechanized system.



AKPL is having valid CFO from APPCB - up to 31.07.2027 for cargo handling capacity of 78.0 MTPA, Container cargo of 2.0 MTEUS per Annum.

As per the records and information provided, AKPL handled 48.22 MMT of consented cargos for the FY 2022-2023 which is within the limits against approved volume of 78.0 MTPA.

## 2.3 Cargo handling equipment

- Mechanical Handling Conveyors MHCs - 11 nos
- Liebherr-7 nos
- Gottwald-4 nos
- Hoppers-19 nos
- Grab ship Unloaders GSUs - 4 nos (Electric operated)

## 2.4 Cargo handling equipment at Berths and Stockyards

- Two coal unloaders at each berth. Conveyor streams for transportation from stockyard to interfacing transfer point.
- Iron Ore: Wagon tippler with side arm charger 2 No.s capable of tipping 82 tips/hour and 11 iron ore rakes/day.
- The general cargo will be handled by tyre mounted mobile harbour cranes along with the ships gear. The cargo may be unloaded / loaded into tractor-trailer combinations.
- The Equipment handling Containers include Harbour Mobile Cranes, Stackers, Tractor Trailers, and Rubber Mounted Quay Cranes.

## 2.5 Brief process of cargo handling

### 2.5.1 Coal

- The coal handling system consists of the following:
  - Unloading of coal from ships
  - Transportation of coal to stockyard and stacking
  - Reclaiming from stockyard and transport to the interfacing transfer point at the battery limit of the power plants.
- Coal cargo is received from vessels calling at the port and a fully mechanized coal handling system with gantry grab type ship unloaders of required capacity have been installed to unload coal ships.
- It is then conveyed to the stockyard by the connected conveyor system. At the stockyard it is stacked at the designated areas by the stacker in the form of stockpiles.
- For evacuating to the respective importers, the reclaimer reclaims the respective grade of stockpile and conveys it to the wagon loader, which in turn loads the rakes for onward movement out of the port.
- For evacuating, the reclaimer(s) reclaims the respective grade of stockpile and conveys it to the Transfer Towers through dedicated stream of conveyors, which in turn transfer the cargo to stockyards.
- The MDSS system is available at all Hoppers & Transfer Towers & at stack yards.



## 2.5.2 Iron Ore

- The cargo handling system of Iron ore include:
  - Unloading of iron ore from wagons
  - Transportation and stacking of iron ore in the stockyard
  - Reclaiming the ore from stockyard and transport to the berth
  - Loading into ships.
- Iron ore is an export cargo and it is brought to the port by railway wagons.
- These wagons are unloaded by wagon tippler sidearm charger and the Iron ore thus unloaded is conveyed by the connecting conveyor system to the stacker for stacking in the stockyard.
- Subsequently, a reclaimer is used to reclaim the required quantity of iron ore from the available stockpile and is then conveyed to the ship loader at berths for loading of the iron.
- The ship loaders are of rail mounted equipments and capable of loading huge capacity into the largest vessels.
- The MDSS system is available at all Hoppers & Transfer Towers & at stockyards.

## 2.5.3 General Cargo

The general cargo is handled by tyre mounted mobile harbour cranes along with the ships gear. The cargo will be unloaded / loaded into tractor-trailer combinations.

## 2.6 Brief description of stock yards

- AKPL developed the modern mechanized stockyards.
- The stockyards are supported by scientifically designed Mechanical Dust Suppression System (MDSS) at all yards including coal and iron ore storage area to suppress dust during stacking of cargo in yards.
- The stock yards are established with modern dust suppression water cannons to suppress the dust emission round the clock, controlled by highly sophisticated Programmable logic controllers (PLCs) operated from central control room (CCR).

### 2.6.1 Storage facilities

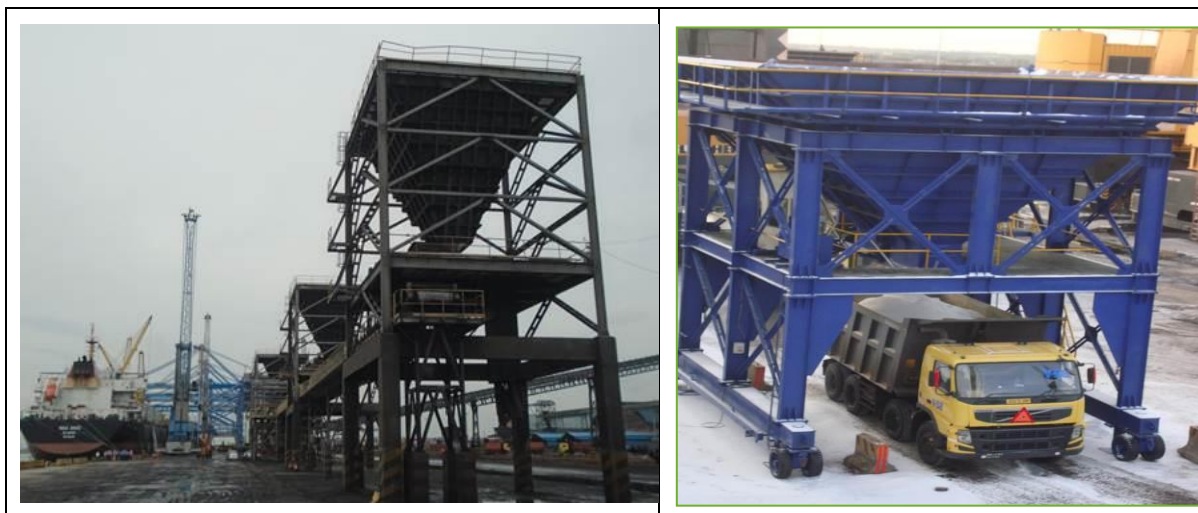
- Open yards for handling Coal Stackyard, Iron Ore Stackyard and General Cargo Storage areas in an area of 507.84 acres
- Closed Go Downs for handling general cargo in an area of 2,06,693 sq m



## 2.7 Operations

### 2.7.1 Cargo Handling with Hopper and Conveyors

General dry bulk cargo unloaded using hoppers on berths.



**Figure 2:1 Mobile Hopper Reclaiming System**

AKPL using Grab ship unloaders and conveyers with water sprinkling system for handling coal from berths to storage yards and also to nearby power plants which reduced dust generation, compared to dumpers for transporting coal



**Figure 2:2 Conveyor streams and Grab ship unloaders**



**Figure 2:3 Mechanical Dust Suppression System at Ship Un loaders using Sprinklers system**



GSUs - 4 nos (Electric operated)

### **2.7.2 Cargo Trucks and Wagons**

AKPL ensure that the trucks and wagons transporting cargos covered with tarpaulin to avoid fugitive emissions/spillages.



**Figure 2:4 Cargo Trucks and Wagons with Tarpaulin Covers**

### **2.7.3 Mechanised Inbound/ Outbound Transport**

KPCL using Grab ship unloaders and conveyers with water sprinkling system for handling coal from berths to storage yards and also to nearby power plants which reduced dust generation, compared to dumpers for transporting coal.





## 2.7.4 Mechanised Dust Suppression Systems

AKPL has installed and operating 250 gun sprinklers which have throw range of up to 50 M, as dust suppression systems in dusty cargo storage yards and railway sidings.

For cleaning of dry roads, 6 no's vacuum sweeping machines are deployed. Cleaning of Warehouses and container yards 4 no's single brush ride on vacuum sweeping machines.

AKPL have procured 13 atomizers as innovative technology in dust suppression system. KPCL is the only port using atomizers whereas other ports using conventional sprinkling system.

As part of sustainable development activities, using these special devices ensure to prevent the dust pollution and to ensure the pollution parameters are within the permissible limits stipulated by statutory departments.



Figure 2:5 Mechanical Dust Suppression System – Water Sprinklers in Coal yards



**Figure 2:6 Vacuum Road Sweeping machines, Manual sweeping Sprinklers for Dry roads**



**Figure 2:7 Atomizers in dust suppression system**



## 2.8 Water - source, consumption, conservation, treatment & disposal

AKPL is withdrawing water from Muthukur Reservoir and from NakkalaKaluva irrigation drain. Government of Andhra Pradesh (GoAP) has allocated 1 MLD of potable water from the Muthukur reservoir and Irrigation Department of Andhra Pradesh has allocated 4 MLD of water from the nearby NakkalaKalava irrigation drain. GoAP and AKPL has entered into a concession agreement dated 28-7-2010 given as **Annexure E**. GoAP is providing water supply till port boundary. AKPL is having zone wise water pump houses of 19 Nos. For water distribution throughout the Port through DSS Tankers and MDSS at Yards.

The water from Muthukur reservoir is used for the domestic purpose while water from NakkalaKalava irrigation drain is used for dust suppression systems, greenbelt and fire-fighting purposes.

As per APPCB Consent, the existing permitted water quantities for different purposes are as **Table 2:1**.

**Table 2:1: Details of Water Quantities and Purposes**

S.No	Purpose	Qty as per CFO (Phase-1 & 2) (KLD)	Proposed in Expansion under Phase-III (KLD)	Total after expansion (KLD)
1.	Dust Suppression and other utilities	1600	1700	3300
2.	Gardening	300	200	500
3.	Domestic	600	600	1200

The application wise actual water consumption details for the financial year 2022-2023 is given in **Table 2:2 and Table 2:3**.

**Table 2:2: Details of Water Consumption**

Month	Year	Domestic Usage	Dust Suppression	Fire Fighting	Green Belt	Total KLD
April	2022	11569	34550	19740	12030	77889
May	2022	10810	33130	19130	12560	75630
June	2022	12030	30290	19070	12660	74050
July	2022	11540	29670	19100	12410	72720
August	2022	11120	30005	19930	12012	73067
September	2022	11870	33720	18620	12320	76530
October	2022	11890	25740	18490	11160	67280
November	2022	11770	27600	18380	11170	68920
<b>Total</b>		<b>92599</b>	<b>244705</b>	<b>152460</b>	<b>96322</b>	<b>586086</b>
<b>Avg/day</b>		<b>380</b>	<b>1003</b>	<b>625</b>	<b>395</b>	<b>2402</b>
<b>Avg/day as per CFO 29.07.2018</b>		<b>400</b>	<b>1050</b>	<b>650</b>	<b>400</b>	<b>2500</b>

**Table 2:3: Details of Water Consumption as per CFO dated 11.11.2022**



Month	Year	Domestic Usage	Dust Suppression & Miscellaneous (Fire Protection Services)	Green Belt	Total KLD
December	2022	18500	45910	11350	75760
January	2023	19150	54720	11150	85020
February	2023	18750	62659	11950	93359
March	2023	18160	67090	12100	97350
<b>Total</b>		<b>74560</b>	<b>230379</b>	<b>46550</b>	<b>351489</b>
<b>Avg/day</b>		<b>616</b>	<b>1904</b>	<b>385</b>	<b>2905</b>
<b>Avg/day as per CFO 11.11.2022</b>		<b>650</b>	<b>1950</b>	<b>400</b>	<b>3000</b>

## 2.9 Water Conservation Measures

- AKPL is maintaining the storm water drains periodically and before monsoon season by removing the sludge accumulated in drains to avoid contamination of surrounding water bodies and the water is using for dust suppression to the possible extent.
- Rainwater Harvesting Tanks are also maintained in the port premises.

## 2.10 Sewage Water – Treatment & disposal

AKPL is currently operating two sewage treatment plants to cater the needs of sewage water treatment which are:

- 40 KLD capacity STP
- 500 KLD capacity STP

These are located outside CRZ area. The treated water is being used for green belt development within port premises.





Figure 2:8 Sewage Treatment Plant at KPCL



The sampling values of 500 KLD STP for the period from October 2022 to March 2023 is as below:

Parameters	Unit	October2022- Values	November2022 -Values	December2022 -Values	January2023- Values	February2023- Values	March 2023- Values						
		STP - 500 KLD Capacity											
		Inlet	Outlet	Inlet	Outlet	Inlet	Outlet	Inlet	Outlet	Inlet	Outlet	Inlet	Outlet
pH	-	7.32	7.60	7.24	7.52	7.12	7.4	7.04	7.48	7.18	7.56	7.26	7.43
TS	mg/l	2028	1729	1959	1654	1897	1592	1996	1682	-	-	-	-
TDS	mg/l	1910	1714	1853	1643	1764	1565	1886	1670	-	-	-	-
TSS	mg/l	118	15.0	106	11.0	97.0	8.0	110	12.0	121	15.0	116	13.0
COD	mg/l	276	71.5	289	63.5	268	50.4	300	70.8	-	-	-	-
BOD	mg/l	110	22.0	118	19.0	102	15	112	20.0	124	23.0	120	21.0
Oil&Grease	mg/l	3.6	<1.0	3.9	<1.0	3.4	10	4.0	<1.0	4.6	<1.0	4.2	<1.0

The sampling values of 40 KLD STP for the period from October 2022 to March 2023 is as below:

Parameters	Unit	October2022- Values	November2022	December2022	January2023	February2023	March 2023						
		STP - 40 KLD Capacity											
		Inlet	Outlet	Inlet	Outlet	Inlet	Outlet	Inlet	Outlet	Inlet	Outlet	Inlet	Outlet
pH	-	-	-	7.50	7.70	7.42	7.61	7.31	7.53	7.42	7.45	7.68	7.26
TS	mg/l	-	-	1841	1599	1776	1540	1872	1610	-	-	-	-
TDS	mg/l	-	-	1739	1592	1659	1508	1770	1602	-	-	-	-
TSS	mg/l	-	-	102	7.0	94.0	5.0	102	8.0	110	11.0	102	13.0
COD	mg/l	-	-	272	53.9	248	38.2	280	50.4	-	-	-	-
BOD	mg/l	-	-	105	16.0	92.0	11.0	104	16.0	116	19.0	109	18.0
Oil&Grease	mg/l	-	-	3.1	<1.0	2.6	<1.0	3.2	<1.0	3.8	<1.0	3.6	<1.0



## 2.11 Ambient Air Quality- CAAQS Data

AKPL installed & operating 3 Nos. of Continuous Ambient Air Quality Monitoring stations (CAAQS) to measure the parameters PM<sub>10</sub> and PM<sub>2.5</sub> at the below mentioned locations and the data is being uploaded to APPCB website.

1. CVR Amenities Complex
2. Thamminapatnam Village
3. Krishnapatnam Village

	
<p>1. CVR Amenities Complex</p>	<p>2. Thamminapatnam Village</p>
	
<p>3. Krishnapatnam Village</p>	

The CAAQM Monthly Averages for the period October-2022 to March 2023 is given in Table 2:4.

**Table 2:4: CAAQM Monthly Averages for the period from October-2022 to March 2023**

Month	Station	Station - 1 – (CVR Amenities Complex)		Station - 2 – (Thamminapatnam Village)		Station - 3 – (Krishnapatnam Village)	
		100 µg /m <sup>3</sup>	60 µg/m <sup>3</sup>	100 µg/m <sup>3</sup>	60 µg/m <sup>3</sup>	100 µg /m <sup>3</sup>	60 µg/m <sup>3</sup>
		PM 10	PM 2.5	PM 10	PM 2.5	PM 10	PM 2.5
October 2022	Minimum	17	11	16	10	8	2
	Maximum	50	50	69	37	74	60
	Average	30	27	32	31	28	14
November 2022	Minimum	20	13	12	5	5	3
	Maximum	88	54	94	49	62	58
	Average	57	36	56	26	39	28
December 2022	Minimum	19	10	8	1	5	1
	Maximum	97	58	90	59	95	56
	Average	58	35	42	27	32	31
January 2023	Minimum	34	19	10	14	37	27
	Maximum	88	56	96	46	15	5
	Average	62	34	30	30	89	66
February 2023	Minimum	30	12	14	9	59	48
	Maximum	86	49	40	37	10	4
	Average	60	26	25	23	30	15
March 2023	Minimum	8	3	6	3	2	1
	Maximum	71	35	36	28	71	47
	Average	22	11	19	11	25	25



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## AAQMS-1 PM 10 & PM 2.5 Calibration Report

DATE: 11/03/2023

Adani Krishnapatnam Port, Muthukur Mandal,  
SPSR Nellore, Andrapradesh.

### Maintenance Work:

1. Cleaned Sample inlet for PM 10 & PM 2.5 Analyzer
2. Checked PM 10 & PM 2.5 analyzer Sample suction pump working status and inside carbon vanes

### Calibration:

SLN O:	Tag No:	Parameter	Foll Conc.	Zero		Span		Deviat on allowed	Remarks
				Before	After	Before	After		
1	FH62C14 Sr. No. E-3009	PM10	Zero		Zero	1238	1233	+/- 20 µg/m3	OK
			1233µg	7 µg/m3	Activate d	µg/m3	µg/m3		
2	FH62C14 Sr. No. E-3010	PM2.5	Zero		Zero	1240	1233	+/- 20 µg/m3	OK
			1233µg	9 µg/m3	Activate d	µg/m3	µg/m3		

We hereby certify that the analyzers are working well within the specified accuracy limits and this certificate is valid for 6 months period from the date of calibration.

Customer Support

Service Engineer




Adani Krishnapatnam Port

Thermo Fisher Scientific India PVT LTD

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## AAQMS-2 PM 10 & PM 2.5 Calibration Report

DATE: 10/03/2023

Adani Krishnapatnam Port, Muthukur Mandal,  
SPSR Nellore, Andhra Pradesh

**Maintenance Work:**

1. Cleaned Sample inlet for PM 10 & PM 2.5 Analyzer
2. Checked PM 10 & PM 2.5 analyzer Sample suction pump working status and inside carbon vanes

**Calibration:**

SLN O:	Tag No:	Parameter	Foil Conc.	Zero		Span		Deviation allowed	Remarks
				Before	After	Before	After		
1	FH62 C4 Sr. No. CM-0739	PM10	Zero	4 µg/m3	Zero Activated	1225 µg/m3	1233 µg/m3	+/- 20 µg/m3	OK
			1267 µg						
2	5014i Sr. No. CM14411009	PM2.5	Zero	8 µg/m3	Zero Activated	1228 µg/m3	1233 µg/m3	+/- 20 µg/m3	OK
			1267 µg						

We hereby certify that the analyzers are working well within the specified accuracy limits and this certificate valid 6 months period from date of calibration.

Customer Support

Service Engineer

*Melkafeh*



Adani Krishnapatnam Port

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CAAQM-3 at Krishnapatnam Village is Self- calibrated machine Met One Instruments, USA



## 2.12 Ambient Air Quality Monitoring

Ambient air quality monitoring is being carried out once in a month for 24 hours at the following locations:

1. Zero Point
2. Thamminapatnam
3. CVR Building
4. Gopalapuram
5. Chalivendram
6. Krishnapatnam
7. Krishnapatnam Village near Light House

The summary of the monitoring results for the period October 2022 to March 2023 are given in

**Table 2:5: AAQ Monitoring Results from October 2022 to March 2023**

S.No	Parameter	Unit	Oct '22	Nov'22	Dec'22	Jan'23	Feb'23	Mar'23	Standards
			Results						
<b>Zero Point</b>									
1.	PM <sub>10</sub>	µg/m <sup>3</sup>	65.1	62.9	60.4	64.2	61.9	64.1	100
2.	PM <sub>2.5</sub>	µg/m <sup>3</sup>	23.8	21.9	20.6	22.4	21.0	22.5	60
3.	SO <sub>2</sub>	µg/m <sup>3</sup>	14.9	13.8	12.9	14.0	13.2	14.1	80
4.	NO <sub>2</sub>	µg/m <sup>3</sup>	16.4	15.7	14.5	15.8	14.6	16.2	80
5.	Ammonia (NH <sub>3</sub> )	µg/m <sup>3</sup>	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	400
6.	Ozone (O <sub>3</sub> )	µg/m <sup>3</sup>	-	10.8	10.0	10.9	10.1	10.8	100
7.	Lead (Pb)	µg/m <sup>3</sup>	-	<0.01	<0.01	<0.01	<0.01	<0.01	01
8.	Carbon Monoxide	µg/m <sup>3</sup>	-	0.27	0.23	0.28	0.25	0.23	2.0
9.	Benzene	µg/m <sup>3</sup>		<0.5	<0.5	<0.5	<0.5	<0.5	05
10.	Benzo(a)pyrene-(BaP)	µg/m <sup>3</sup>		<0.5	<0.5	<0.5	<0.5	<0.5	01
11.	Arsenic (As)	µg/m <sup>3</sup>		<5.0	<5.0	<5.0	<5.0	<5.0	06
12.	Nickel (Ni)	µg/m <sup>3</sup>		<5.0	<5.0	<5.0	<5.0	<5.0	20
<b>Thamminapatnam</b>									
1.	PM <sub>10</sub>	µg/m <sup>3</sup>	58.9	56.1	53.0	57.4	60.2	57.6	100
2.	PM <sub>2.5</sub>	µg/m <sup>3</sup>	24.2	22.8	21.2	23.6	22.4	21.7	60
3.	SO <sub>2</sub>	µg/m <sup>3</sup>	12.6	11.9	10.8	12.0	12.2	12.1	80
4.	NO <sub>2</sub>	µg/m <sup>3</sup>	14.7	13.7	12.5	13.9	14.1	13.7	80
5.	Ammonia (NH <sub>3</sub> )	µg/m <sup>3</sup>	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	400
6.	Ozone (O <sub>3</sub> )	µg/m <sup>3</sup>		10.1	9.3	10.2	9.8	10.2	100
7.	Lead (Pb)	µg/m <sup>3</sup>		<0.01	<0.01	<0.01	<0.01	<0.01	01
8.	Carbon Monoxide	µg/m <sup>3</sup>		0.20	0.16	0.21	0.23	0.21	2.0
9.	Benzene	µg/m <sup>3</sup>	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	05
10.	Benzo(a)pyrene-(BaP)	µg/m <sup>3</sup>	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	01
11.	Arsenic (As)	µg/m <sup>3</sup>	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	06
12.	Nickel (Ni)	µg/m <sup>3</sup>	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	20



S.No	Parameter	Unit	Oct '22	Nov'22	Dec'22	Jan'23	Feb'23	Mar'23	Standards
			Results						
<b>CVR Building</b>									
1.	PM <sub>10</sub>	µg/m <sup>3</sup>	63.8	60.9	57.6	61.5	59.3	56.8	100
2.	PM <sub>2.5</sub>	µg/m <sup>3</sup>	22.9	21.3	20.0	22.7	21.5	20.4	60
3.	SO <sub>2</sub>	µg/m <sup>3</sup>	13.4	12.7	11.9	12.3	11.4	10.6	80
4.	NO <sub>2</sub>	µg/m <sup>3</sup>	15.3	14.8	13.7	14.9	13.8	12.1	80
5.	Ammonia (NH <sub>3</sub> )	µg/m <sup>3</sup>	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	400
6.	Ozone (O <sub>3</sub> )	µg/m <sup>3</sup>		10.6	9.8	10.7	9.9	9.3	100
7.	Lead (Pb)	µg/m <sup>3</sup>		<0.01	<0.01	<0.01	<0.01	<0.01	01
8.	Carbon Monoxide (CO)	µg/m <sup>3</sup>		0.22	0.19	0.24	0.21	9.3	2.0
9.	Benzene	µg/m <sup>3</sup>	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	05
10.	Benzo(a)pyrene-(BaP)	µg/m <sup>3</sup>	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	01
11.	Arsenic (As)	µg/m <sup>3</sup>	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	06
12.	Nickel (Ni)	µg/m <sup>3</sup>	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	20
<b>Gopalapuram</b>									
1.	PM <sub>10</sub>	µg/m <sup>3</sup>	55.1	52.5	49.6	53.8	51.2	54.6	100
2.	PM <sub>2.5</sub>	µg/m <sup>3</sup>	22.7	20.1	18.7	20.6	19.4	21.9	60
3.	SO <sub>2</sub>	µg/m <sup>3</sup>	12.8	12.2	11.3	12.5	11.7	12.7	80
4.	NO <sub>2</sub>	µg/m <sup>3</sup>	14.2	13.6	12.8	13.7	12.9	14.5	80
5.	Ammonia (NH <sub>3</sub> )	µg/m <sup>3</sup>	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	400
6.	Ozone (O <sub>3</sub> )	µg/m <sup>3</sup>		9.7	8.9	9.8	9.0	8.61	100
7.	Lead (Pb)	µg/m <sup>3</sup>		<0.01	<0.01	<0.01	<0.01	<0.02	01
8.	Carbon Monoxide	µg/m <sup>3</sup>		0.18	0.13	0.17	0.14	0.12	2.0
9.	Benzene	µg/m <sup>3</sup>	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	05
10.	Benzo(a)pyrene-(BaP)	µg/m <sup>3</sup>	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	01
11.	Arsenic (As)	µg/m <sup>3</sup>	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	06
12.	Nickel (Ni)	µg/m <sup>3</sup>	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	20
<b>Chalivendram</b>									
1.	PM <sub>10</sub>	µg/m <sup>3</sup>	54.2	51.1	47.9	50.6	48.1	51.3	100
2.	PM <sub>2.5</sub>	µg/m <sup>3</sup>	21.5	18.5	17.0	19.2	17.8	18.7	60
3.	SO <sub>2</sub>	µg/m <sup>3</sup>	12.5	11.7	10.8	11.9	11.0	11.6	80
4.	NO <sub>2</sub>	µg/m <sup>3</sup>	13.4	12.8	11.9	13.0	12.3	13.0	80
5.	Ammonia (NH <sub>3</sub> )	µg/m <sup>3</sup>	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	400
6.	Ozone (O <sub>3</sub> )	µg/m <sup>3</sup>		9.4	8.6	9.7	8.9	9.62	100
7.	Lead (Pb)	µg/m <sup>3</sup>		<0.01	<0.01	<0.01	<0.01	<0.01	01
8.	Carbon Monoxide	µg/m <sup>3</sup>		0.16	0.11	0.15	01.2	0.10	2.0
9.	Benzene	µg/m <sup>3</sup>	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	05
10.	Benzo(a)pyrene-(BaP)	µg/m <sup>3</sup>	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	01
11.	Arsenic (As)	µg/m <sup>3</sup>	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	06
12.	Nickel (Ni)	µg/m <sup>3</sup>	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	20
<b>Krishnapatnam</b>									



S.No	Parameter	Unit	Oct '22	Nov'22	Dec'22	Jan'23	Feb'23	Mar'23	Standards
			Results						
1.	PM <sub>10</sub>	µg/m <sup>3</sup>	62.4	59.7	55.8	59.3	57.5	60.2	100
2.	PM <sub>2.5</sub>	µg/m <sup>3</sup>	24.1	22.4	20.6	22.8	21.3	22.4	60
3.	SO <sub>2</sub>	µg/m <sup>3</sup>	12.5	11.7	10.9	11.7	10.6	11.5	80
4.	NO <sub>2</sub>	µg/m <sup>3</sup>	13.1	12.6	11.4	12.5	11.7	13.2	80
5.	Ammonia (NH <sub>3</sub> )	µg/m <sup>3</sup>	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	400
6.	Ozone (O <sub>3</sub> )	µg/m <sup>3</sup>		10.2	9.3	10.1	9.5	8.91	100
7.	Lead (Pb)	µg/m <sup>3</sup>		<0.01	<0.01	<0.01	<0.01	<0.01	01
8.	Carbon Monoxide	µg/m <sup>3</sup>		0.23	0.18	0.22	0.19	0.17	2.0
9.	Benzene	µg/m <sup>3</sup>		<0.5	<0.5	<0.5	<0.5	<0.5	05
10.	Benzo(a)pyrene-(BaP)	µg/m <sup>3</sup>		<0.5	<0.5	<0.5	<0.5	<0.5	01
11.	Arsenic (As)	µg/m <sup>3</sup>		<5.0	<5.0	<5.0	<5.0	<5.0	06
12.	Nickel (Ni)	µg/m <sup>3</sup>		<5.0	<5.0	<5.0	<5.0	<5.0	20
<b>Krishnapatnam Village near Light House</b>									
1.	PM <sub>10</sub>	µg/m <sup>3</sup>	54.1	50.3	47.2	51.5	50.3	53.7	100
2.	PM <sub>2.5</sub>	µg/m <sup>3</sup>	24.5	22.7	21.5	23.1	21.7	23.1	60
3.	SO <sub>2</sub>	µg/m <sup>3</sup>	10.8	10.3	9.4	10.6	9.5	10.0	80
4.	NO <sub>2</sub>	µg/m <sup>3</sup>	13.5	12.6	11.7	12.9	11.8	13.2	80
5.	Ammonia (NH <sub>3</sub> )	µg/m <sup>3</sup>	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	400
6.	Ozone (O <sub>3</sub> )	µg/m <sup>3</sup>		9.1	8.3	9.4	8.8	9.47	100
7.	Lead (Pb)	µg/m <sup>3</sup>		<0.01	<0.01	<0.01	<0.01	<0.01	01
8.	Carbon Monoxide	µg/m <sup>3</sup>		0.15	0.10	0.14	0.11	0.13	2.0
9.	Benzene	µg/m <sup>3</sup>	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	05
10.	Benzo(a)pyrene-(BaP)	µg/m <sup>3</sup>	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	01
11.	Arsenic (As)	µg/m <sup>3</sup>	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	06
12.	Nickel (Ni)	µg/m <sup>3</sup>	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	20

## 2.13 Waste Management and Disposal

### 2.13.1 Solid waste

AKPL has provided collection bins at about 336 locations for collection of dry & wet solid & domestic waste.

- Developed bin collection system with dedicated collection vehicles and manpower.
- Segregating recyclable at the source and being recycled through vendors.
- Biodegradable waste is converting to manure through natural composting process/Giving to Pig farms.

### 2.13.2 Plastic Waste

- It is being collected and disposed to APPCB authorized plastic waste recycling units. Acknowledgment copy of the same is given as **Annexure F**.



### 2.13.3 E-waste

- E – Waste is being collected and disposed off to SPCB authorized E-waste recyclers. It was reported that KPCL has achieved “zero e-waste generation” during last year.

### 2.13.4 Bio-Medical Waste

- First-Aid Facilities are being provided to the victims. However very less quantity of bio-medical waste is generated and it is disposed off through approved APPCB vendors.

### 2.13.5 Hazardous Waste

- Hazardous waste is disposed through APPCB approved vendors. Manifest for hazardous and other waste handover to APPCB authorized vendor is given as **Annexure G**.



Figure 2:9 Waste Management and Disposal Bins

## 2.14 Marine water & sediment monitoring

The marine water and sediment quality monitoring is being carried out at the following locations:

- Port Entrance (Approach Channel)
- Turning Circle
- Coal Berth
- Reclamation Area (

### 2.14.1 Marine Water

The results of the marine water monitoring for the period October 2022 to March 2023 is given in **Table 2:6**, **Table 2:7** and **Table 2:8**.



**Table 2:6: Marine Water Quality Monitoring Results (October 2022-November 2022)**

S.No	Parameter	Units	Port Entrance (Approach Channel)	Turning Circle	Coal Berth	Reclamation Area	Port Entrance (Approach Channel)	Turning Circle	Coal Berth	Reclamation Area
<b>October 2022</b>							<b>November 2022</b>			
<b>I</b>	<b>Physical</b>									
	pH	-	7.92	7.90	7.86	7.99	7.85	7.83	7.80	7.92
	Temperature	°C	28.4	28.1	28.0	28.6	28.4	28.3	28.2	28.5
	Salinity	ppt	37.3	37.3	37.5	38.0	36.7	36.8	37.1	37.5
	Density	gm/ml	1.023	1.030	1.018	1.038	1.017	1.023	1.014	1.031
	Sechi Disk Transparency	mts	11.8	11.4	10.8	9.7	12.3	11.8	10.9	9.9
<b>II</b>	<b>Chemical</b>									
	Potassium	mg/l	303	298	330	348	260	248	284	310
	COD	mg/l	13.2	13.4	13.0	13.9	13.3	13.5	13.0	13.9
	BOD	mg/l	3.1	3.2	3.0	3.5	3.1	3.2	3.0	3.3
	Oil & Grease	mg/l	<0.1	<0.1	<0.1	0.48	<0.1	<0.1	<0.1	0.35
	D.O	mg/l	6.6	6.7	6.4	4.3	6.6	6.8	6.5	4.6
	Nitrates	mg/l	5.9	5.5	6.2	7.3	4.8	4.5	4.9	6.0
	Nitrites	mg/l	0.15	0.12	0.18	0.20	0.04	0.03	0.05	0.1
	Ammonia	mg/l	<0.01	<0.01	<0.01	0.53	<0.01	<0.01	<0.01	0.41
	Phosphates	mg/l	0.30	0.31	0.35	0.58	0.19	0.21	0.25	0.44
	Chlorides	mg/l	20661	20689	20792	21084	20321	20389	20538	20762
	Sodium	mg/l	8042	8136	8099	8562	7762	7874	7783	8289
	Sulphates	mg/l	3592	3372	3521	3723	3332	3088	3225	3397
	Silicates	mg/l	3.1	3.3	3.2	4.0	2.1	2.2	2.4	3.0
	Reactive Silica	mg/l	0.023	0.025	0.027	0.039	0.013	0.014	0.016	0.025
	Total Phosphorus	mg/l	0.25	0.23	0.28	0.39	0.14	0.11	0.16	0.26
	Total Nitrogen	mg/l	11.1	10.7	11.9	13.5	10.0	9.7	11.0	12.2





S.No	Parameter	Units	Port Entrance (Approach Channel)	Turning Circle	Coal Berth	Reclamation Area	Port Entrance (Approach Channel)	Turning Circle	Coal Berth	Reclamation Area
<b>October 2022</b>							<b>November 2022</b>			
<b>I</b>	<b>Physical</b>									
	pH	-	7.92	7.90	7.86	7.99	7.85	7.83	7.80	7.92
	Temperature	°C	28.4	28.1	28.0	28.6	28.4	28.3	28.2	28.5
	Salinity	ppt	37.3	37.3	37.5	38.0	36.7	36.8	37.1	37.5
	Density	gm/ml	1.023	1.030	1.018	1.038	1.017	1.023	1.014	1.031
	Secchi Disk Transparency	mts	11.8	11.4	10.8	9.7	12.3	11.8	10.9	9.9
<b>III</b>	<b>Biological</b>									
	Primary Productivity	mgCm <sup>-2</sup> d <sup>-1</sup>	41	35	37	25	47	42	46	32
	Chlorophyll	mg/m <sup>3</sup>	1.56	1.46	1.43	1.28	1.66	1.55	1.53	1.38
	Phytoplankton									
	Numerical Abundance	No./ml	2.48	2.40	2.34	2.04	2.57	2.49	2.43	2.15
	Diversity	-	2.31	2.30	2.56	2.15	2.39	2.35	2.62	2.20
	Zooplankton									
	Diversity	-	2.18	2.21	2.28	2.01	2.26	2.30	2.37	2.08
	Biomass	ml/100m <sup>3</sup>	12.0	12.8	12.5	9.56	12.8	13.6	13.3	9.75
	Coliforms	CFU/100ml	22	18	14	29	19	11	17	26
	Feecal Coliforms	CFU/100ml	ND	ND	ND	ND	ND	ND	ND	ND
<b>IV</b>	<b>Heavy Metals</b>									
	Lead	mg/l	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	Cadmium	mg/l	<0.01	<0.01	<0.01	0.32	<0.01	<0.01	<0.01	0.21
	Copper	mg/l	<0.02	<0.02	0.028	0.043	<0.02	<0.02	0.016	0.030



S.No	Parameter	Units	Port Entrance (Approach Channel)	Turning Circle	Coal Berth	Reclamation Area	Port Entrance (Approach Channel)	Turning Circle	Coal Berth	Reclamation Area
<b>October 2022</b>							<b>November 2022</b>			
<b>I</b>	<b>Physical</b>									
	pH	-	7.92	7.90	7.86	7.99	7.85	7.83	7.80	7.92
	Temperature	°C	28.4	28.1	28.0	28.6	28.4	28.3	28.2	28.5
	Salinity	ppt	37.3	37.3	37.5	38.0	36.7	36.8	37.1	37.5
	Density	gm/ml	1.023	1.030	1.018	1.038	1.017	1.023	1.014	1.031
	Secchi Disk Transparency	mts	11.8	11.4	10.8	9.7	12.3	11.8	10.9	9.9
	Zinc	mg/l	0.038	0.035	0.040	0.054	0.025	0.023	0.028	0.043

**Table 2:7: Marine Water Quality Monitoring Results (December 2022-January 2023)**

S.No	Parameter	Units	Port Entrance (Approach Channel)	Turning Circle	Coal Berth	Reclamation Area	Port Entrance (Approach Channel)	Turning Circle	Coal Berth	Reclamation Area
<b>December 2022</b>							<b>January 2023</b>			
<b>I</b>	<b>Physical</b>									
	pH	-	8.01	7.98	7.95	8.05	8.02	7.99	7.95	8.08
	Temperature	°C	27.4	27.5	27.3	27.8	27.9	27.6	27.8	28.3
	Salinity	ppt	36.4	36.3	36.6	37.0	36.6	36.7	36.9	37.2
	Density	gm/ml	1.017	1.022	1.008	1.025	1.021	1.027	1.013	1.029
	Secchi Disk Transparency	mts	12.9	12.3	11.5	10.5	12.7	12.5	11.8	10.5
<b>II</b>	<b>Chemical</b>									
	Potassium	mg/l	255	229	268	282	269	248	290	311
	COD	mg/l	13.7	14.0	13.5	14.2	14.0	14.3	13.7	14.6
	BOD	mg/l	3.0	3.3	3.1	3.5	3.3	3.2	3.1	3.6
	Oil & Grease	mg/l	<0.1	<0.1	<0.1	0.35	<0.1	<0.1	<0.1	0.39



S.No	Parameter	Units	Port Entrance (Approach Channel)	Turning Circle	Coal Berth	Reclamation Area	Port Entrance (Approach Channel)	Turning Circle	Coal Berth	Reclamation Area
<b>December 2022</b>							<b>January 2023</b>			
<b>I</b>	<b>Physical</b>									
	pH	-	8.01	7.98	7.95	8.05	8.02	7.99	7.95	8.08
	Temperature	°C	27.4	27.5	27.3	27.8	27.9	27.6	27.8	28.3
	Salinity	ppt	36.4	36.3	36.6	37.0	36.6	36.7	36.9	37.2
	Density	gm/ml	1.017	1.022	1.008	1.025	1.021	1.027	1.013	1.029
	Secchi Disk Transparency	mts	12.9	12.3	11.5	10.5	12.7	12.5	11.8	10.5
	D.O	mg/l	6.3	6.5	6.6	4.3	6.4	6.3	6.2	4.2
	Nitrates	mg/l	4.1	3.9	4.5	5.3	4.5	4.4	4.9	6.1
	Nitrites	mg/l	0.06	0.08	0.05	0.11	0.11	0.12	0.15	0.17
	Ammonia	mg/l	<0.01	<0.01	<0.01	0.35	<0.01	<0.01	<0.01	0.41
	Phosphates	mg/l	0.13	0.15	0.19	0.39	0.19	0.23	0.27	0.45
	Chlorides	mg/l	20199	20184	20305	20484	20299	20328	20451	20618
	Sodium	mg/l	7589	7704	7525	8039	7737	7815	7734	8185
	Sulphates	mg/l	3115	2986	2990	3198	3224	3082	3061	3319
	Silicates	mg/l	1.6	1.9	1.8	2.4	2.1	2.5	2.3	3.1
	Reactive Silica	mg/l	0.008	0.011	0.013	0.017	0.013	0.017	0.019	0.023
	Total Phosphorus	mg/l	0.08	0.07	0.11	0.21	0.15	0.13	0.18	0.28
	Total Nitrogen	mg/l	10.3	9.6	10.5	11.7	10.1	9.9	10.9	12.4
<b>III</b>	<b>Biological</b>									
	Primary Productivity	mgCm <sup>-2</sup> d <sup>-1</sup>	58	45	51	36	54	40	46	33
	Chlorophyll	mg/m <sup>3</sup>	1.70	1.61	1.55	1.42	1.67	1.56	1.51	1.39
	Phytoplankton									
	Numerical Abundance	No./ml	2.61	2.52	2.47	2.20	2.56	2.48	2.41	2.14



S.No	Parameter	Units	Port Entrance (Approach Channel)	Turning Circle	Coal Berth	Reclamation Area	Port Entrance (Approach Channel)	Turning Circle	Coal Berth	Reclamation Area
<b>December 2022</b>							<b>January 2023</b>			
<b>I</b>	<b>Physical</b>									
	pH	-	8.01	7.98	7.95	8.05	8.02	7.99	7.95	8.08
	Temperature	°C	27.4	27.5	27.3	27.8	27.9	27.6	27.8	28.3
	Salinity	ppt	36.4	36.3	36.6	37.0	36.6	36.7	36.9	37.2
	Density	gm/ml	1.017	1.022	1.008	1.025	1.021	1.027	1.013	1.029
	Secchi Disk Transparency	mts	12.9	12.3	11.5	10.5	12.7	12.5	11.8	10.5
	Diversity	-	2.42	2.40	2.65	2.25	2.39	2.36	2.61	2.09
	Zooplankton									
	Diversity	-	2.31	2.34	2.42	2.65	2.27	2.30	2.38	2.09
	Biomass	ml/100m <sup>3</sup>	12.7	13.6	13.5	9.80	12.3	13.3	12.9	9.77
	Coliforms	CFU/100ml	29	16	26	31	26	17	21	30
	Feacal Coliforms	CFU/100ml	ND	ND	ND	ND	ND	ND	ND	ND
<b>IV</b>	<b>Heavy Metals</b>									
	Lead	mg/l	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	Cadmium	mg/l	<0.01	<0.01	<0.01	0.15	<0.01	<0.01	<0.01	0.22
	Copper	mg/l	<0.02	<0.02	0.011	0.024	<0.02	<0.02	0.018	0.029
	Zinc	mg/l	0.015	0.018	0.021	0.035	0.024	0.020	0.028	0.042



**Table 2:8: Marine Water Quality Monitoring Results (February 2023-March 2023)**

S.No	Parameter	Units	Port Entrance (Approach Channel)	Turning Circle	Coal Berth	Reclamation Area	Port Entrance (Approach Channel)	Turning Circle	Coal Berth	Reclamation Area
<b>February 2023</b>							<b>March 2023</b>			
<b>I</b>	<b>Physical</b>									
	pH	-	7.96	7.92	7.98	8.03	7.99	7.96	8.01	8.04
	Temperature	°C	28.2	28.1	27.8	28.4	28.3	28.2	28.1	28.6
	Salinity	ppt	37.1	37.2	37.3	37.6	37.3	37.5	37.6	37.7
	Density	gm/ml	1.032	1.038	1.025	1.043	1.034	1.041	1.030	1.046
	Secchi Disk Transparency	mts	11.2	11.5	10.6	9.0	10.9	11.3	10.4	8.9
<b>II</b>	<b>Chemical</b>									
	Potassium	mg/l	310	288	339	348	320	311	348	362
	COD	mg/l	14.1	14.3	13.8	14.7	13.6	13.8	13.3	14.0
	BOD	mg/l	3.5	3.3	3.4	3.7	3.1	3.0	3.2	3.4
	Oil & Grease	mg/l	<0.1	<0.1	<0.1	0.48	<0.1	<0.1	<0.1	0.51
	D.O	mg/l	6.3	6.2	6.1	4.1	6.6	6.4	6.3	4.5
	Nitrates	mg/l	5.7	5.5	5.8	6.9	6.0	5.8	6.2	7.4
	Nitrites	mg/l	0.19	0.23	0.24	0.28	0.22	0.26	0.29	0.33
	Ammonia	mg/l	<0.01	<0.01	<0.01	0.52	<0.01	<0.01	<0.01	0.56
	Phosphates	mg/l	0.30	0.32	0.35	0.55	0.34	0.36	0.40	0.57
	Chlorides	mg/l	20554	20589	20673	20834	20699	20758	20835	20986
	Sodium	mg/l	7924	7997	7928	8385	7752	8106	8119	8501
	Sulphates	mg/l	3398	3256	3219	3482	3486	3336	3308	3586
	Silicates	mg/l	2.9	3.2	3.1	3.8	3.2	3.4	3.5	4.1
	Reactive Silica	mg/l	0.023	0.026	0.031	0.035	0.025	0.030	0.034	0.038
	Total Phosphorus	mg/l	0.25	0.23	0.30	0.41	0.28	0.25	0.34	0.45
	Total Nitrogen	mg/l	11.2	10.9	12.1	13.5	11.5	11.1	12.4	13.7



S.No	Parameter	Units	Port Entrance (Approach Channel)	Turning Circle	Coal Berth	Reclamation Area	Port Entrance (Approach Channel)	Turning Circle	Coal Berth	Reclamation Area
<b>February 2023</b>							<b>March 2023</b>			
<b>I</b>	<b>Physical</b>									
	pH	-	7.96	7.92	7.98	8.03	7.99	7.96	8.01	8.04
	Temperature	°C	28.2	28.1	27.8	28.4	28.3	28.2	28.1	28.6
	Salinity	ppt	37.1	37.2	37.3	37.6	37.3	37.5	37.6	37.7
	Density	gm/ml	1.032	1.038	1.025	1.043	1.034	1.041	1.030	1.046
	Secchi Disk Transparency	mts	11.2	11.5	10.6	9.0	10.9	11.3	10.4	8.9
<b>III</b>	<b>Biological</b>									
	Primary Productivity	mgCm <sup>-2</sup> d <sup>-1</sup>	45	39	40	27	45	35	39	25
	Chlorophyll	mg/m <sup>3</sup>	1.60	1.49	1.42	1.31	1.57	1.47	1.39	1.29
	Phytoplankton									
	Numerical Abundance	No./ml	2.49	2.41	2.34	2.10	2.45	2.39	2.33	2.07
	Diversity	-	2.31	2.29	2.50	2.03	2.29	2.25	2.47	2.01
	Zooplankton									
	Diversity	-	2.20	2.24	2.30	2.01	2.17	2.23	2.28	1.98
	Biomass	ml/100m <sup>3</sup>	11.5	12.7	12.1	9.60	11.3	12.4	12.0	9.55
	Coliforms	CFU/100ml	29	18	26	34	21	14	18	29
	Feecal Coliforms	CFU/100ml	ND	ND	ND	ND	ND	ND	ND	ND
<b>IV</b>	<b>Heavy Metals</b>									
	Lead	mg/l	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	Cadmium	mg/l	<0.01	<0.01	<0.01	0.27	<0.01	<0.01	<0.01	0.31
	Copper	mg/l	<0.02	<0.02	0.029	0.040	<0.02	<0.02	0.034	0.045
	Zinc	mg/l	0.038	0.031	0.041	0.054	0.042	0.035	0.046	0.058



### 2.14.2 Marine Water (Turbidity Monitoring)

Marine water turbidity was carried on monthly basis at four location during low, medium and high tides. The results of marine water (turbidity monitoring) for the period October 2022 to March 2023 is given in **Table 2:9** to **Table 2:14**.

**Table 2:9 Results of Marine Turbidity Monitoring for October 2022**

S.No	Parameter	Units	At Harbour				At Deep Sea		
			Port Entrance (Approach Channel)	Turning Circle	Coal Berth	Reclamation Area	14°19'26" N 80°15'43" E	14°16'52" N 80°17'40" E	14°16'11" N 80°17'40" E
<b>Low Tide</b>									
1	Turbidity	NTU	6.3	6.8	5.3	19.2	4.9	4.7	5.5
2	Total Dissolved Solids	mg/l	32989	32852	33078	34052	33989	34358	34921
3	Total Suspended Solids	mg/l	15.5	16.2	17.5	21.3	5.9	7.2	6.7
<b>Medium Tide</b>									
1	Turbidity	NTU	4.4	4.5	4.7	16.9	4	3.5	4.9
2	Total Dissolved Solids	mg/l	32633	32524	32771	33789	33624	34089	34689
3	Total Suspended Solids	mg/l	13.5	13.7	13.8	18.2	5.1	6.3	5.9
<b>High Tide</b>									
1	Turbidity	NTU	7.7	7.8	7.9	21.2	6.2	5.5	6.6



S.No	Parameter	Units	At Harbour				At Deep Sea		
			Port Entrance (Approach Channel)	Turning Circle	Coal Berth	Reclamation Area	14°19'26" N 80°15'43" E	14°16'52" N 80°17'40" E	14°16'11" N 80°17'40" E
2	Total Dissolved Solids	mg/l	33258	33147	33569	34039	34256	34699	35368
3	Total Suspended Solids	mg/l	16.9	17.8	18.2	22.1	7.6	8.4	8.3

**Table 2:10 Results of Marine Turbidity Monitoring for November 2022**

S.No	Parameter	Units	Port Entrance (Approach Channel)	Turning Circle	Coal Berth	Reclamation Area	14°19'26" N 80°15'43" E	14°16'11" N 80°17'40" E	
<b>Low Tide</b>									
1	Turbidity	NTU	5.7	6.3	4.8	18.6	4.7	4.5	5.1
2	Total Dissolved Solids	mg/l	32025	31998	32205	33053	33757	34152	34899
3	Total Suspended Solids	mg/l	15.1	15.7	16.9	20.6	5.3	6.7	6.4
<b>Medium Tide</b>									
1	Turbidity	NTU	4.2	4.3	4.5	16.6	3.6	3.3	4.7
2	Total Dissolved Solids	mg/l	31702	31626	31857	32788	33325	33892	34523
3	Total Suspended Solids	mg/l	13.3	13.4	13.8	18.1	4.8	5.9	5.5
<b>High Tide</b>									
1	Turbidity	NTU	7.2	7.3	7.5	20.5	6	5.2	6.4





S.No	Parameter	Units	Port Entrance (Approach Channel)	Turning Circle	Coal Berth	Reclamation Area	14°19'26" N 80°15'43" E		14°16'11" N 80°17'40" E
2	Total Dissolved Solids	mg/l	32369	32372	32556	33402	34025	34458	35026
3	Total Suspended Solids	mg/l	16.5	17.3	17.6	21.5	7.3	8.2	8

**Table 2:11 Results of Marine Turbidity Monitoring for December 2022**

S.No	Parameter	Units	At Harbour				AT Deep Sea		
			Port Entrance (Approach Channel)	Turning Circle	Coal Berth	Reclamation Area	14°19'26" N 80°15'43" E	14°16'52" N 80°17'40" E	14°16'11" N 80°17'40" E
<b>Low Tide</b>									
1	Turbidity	NTU	6.1	6.5	5.1	18.9	5.3	4.9	5.5
2	Total Dissolved Solids	mg/l	31528	31602	31664	32425	33991	34425	35202
3	Total Suspended Solids	mg/l	14.8	15.5	16.7	20.3	5.8	7.1	6.8
<b>Medium Tide</b>									
1	Turbidity	NTU	4.5	4.1	4.3	16.2	3.9	3.6	4.9
2	Total Dissolved Solids	mg/l	31183	31135	31114	32031	33682	34025	34899
3	Total Suspended Solids	mg/l	13.1	13.2	13.5	17.8	4.5	6.2	5.7
<b>High Tide</b>									
1	Turbidity	NTU	7	7.1	7.2	20.2	6.4	5.5	6.8
2	Total Dissolved Solids	mg/l	31980	32069	32036	32890	34256	34802	35698
3	Total Suspended Solids	mg/l	16.2	17	17.2	21.2	7.8	8.5	8.3



**Table 2:12 Results of Marine Turbidity Monitoring for January 2023**

S.No	Parameter	Units	At Harbour				AT Deep Sea		
			Port Entrance (Approach Channel)	Turning Circle	Coal Berth	Reclamation Area	14°19'26" N 80°15'43" E	14°16'52" N 80°17'40" E	14°16'11" N 80°17'40" E
<b>Low Tide</b>									
1	Turbidity	NTU	5.8	6.5	5	18.8	5.1	4.6	5.3
2	Total Dissolved Solids	mg/l	31895	32158	32025	32859	34189	34621	35410
3	Total Suspended Solids	mg/l	15.3	15.9	17	20.8	5.5	6.9	6.5
<b>Medium Tide</b>									
1	Turbidity	NTU	4.4	4.6	4.8	16.8	4	3.8	4.5
2	Total Dissolved Solids	mg/l	31555	31785	31628	32454	33810	34298	35025
3	Total Suspended Solids	mg/l	13.6	13.7	14.1	18.3	4.2	5.8	5.3
<b>High Tide</b>									
1	Turbidity	NTU	7.4	7.5	7.7	20.8	6.2	5.3	6.6
2	Total Dissolved Solids	mg/l	32368	32489	32420	32450	34452	34992	35840
3	Total Suspended Solids	mg/l	16.8	17.5	17.8	21.8	7.5	8.3	8.1



**Table 2:13 Results of Marine Turbidity Monitoring for February 2023**

S.No	Parameter	Units	At Harbour				AT Deep Sea		
			Port Entrance (Approach Channel)	Turning Circle	Coal Berth	Reclamation Area	14°19'26" N 80°15'43" E	14°16'52" N 80°17'40" E	14°16'11" N 80°17'40" E
<b>Low Tide</b>									
1	Turbidity	NTU	5.3	6.3	4.7	18.5	5.5	5.2	5.8
2	Total Dissolved Solids	mg/l	32580	32415	32404	33387	34425	34892	35915
3	Total Suspended Solids	mg/l	15	15.4	16.8	20.5	6	7.3	7
<b>Medium Tide</b>									
1	Turbidity	NTU	4.2	4.3	4.5	16.6	4.3	4	4.8
2	Total Dissolved Solids	mg/l	32215	32159	32198	33085	34102	34589	35524
3	Total Suspended Solids	mg/l	13	13.5	13.7	18	4.4	6	5.6
<b>High Tide</b>									
1	Turbidity	NTU	7.1	7.3	7.5	20.4	6.6	6.1	6.9
2	Total Dissolved Solids	mg/l	32858	32780	32797	33654	34580	35189	36240
3	Total Suspended Solids	mg/l	16.5	17.3	17.5	21.5	7.2	8.1	8.5



**Table 2:14 Results of Marine Turbidity Monitoring for March 2023**

S.No	Parameter	Units	At Harbour				AT Deep Sea		
			Port Entrance (Approach Channel)	Turning Circle	Coal Berth	Reclamation Area	14°19'26" N 80°15'43" E	14°16'52" N 80°17'40" E	14°16'11" N 80°17'40" E
<b>Low Tide</b>									
1	Turbidity	NTU	5.7	6.8	5.1	19	5.3	4.9	5.5
2	Total Dissolved Solids	mg/l	32590	32905	33186	33772	34225	34589	35702
3	Total Suspended Solids	mg/l	15.6	16.2	17.3	21.2	5.8	7	6.7
<b>Medium Tide</b>									
1	Turbidity	NTU	4.6	4.8	4.7	17	4.1	3.9	4.3
2	Total Dissolved Solids	mg/l	32283	32540	32823	33467	34489	34980	35811
3	Total Suspended Solids	mg/l	13.4	13.8	14.3	18.2	4	5.6	5.2
<b>High Tide</b>									
1	Turbidity	NTU	7.5	7.7	7.8	21.2	6.3	5.6	6.3
2	Total Dissolved Solids	mg/l	32805	33189	33390	34052	34698	34925	35992
3	Total Suspended Solids	mg/l	16.9	17.8	18.1	22.2	6.9	7.8	8



### 2.14.3 Marine Sediment

The results of marine sediment quality monitoring for the period October 2022 to March 2023 is given in **Table 2:15, Table 2:16** and **Table 2:17**.

**Table 2:15: Marine Sediment Quality Monitoring Results (October 2022-November 2022)**

S.No	Parameter	Units	Port Entrance (Approach Channel)	Turning Circle	Coal Berth	Reclamation Area	Port Entrance (Approach Channel)	Turning Circle	Coal Berth	Reclamation Area
<b>October 2022</b>							<b>November 2022</b>			
<b>I</b>	<b>Physical</b>									
	pH	-	7.93	7.89	7.86	7.97	7.87	7.85	7.80	7.92
	Sediment Composition									
	Sand	%	36.3	35.4	35.2	35.8	36.5	36.1	35.7	34.8
	Silt + Clay	%	63.7	64.6	64.8	64.2	63.5	63.9	64.3	65.2
	Org. Matter	%	1.41	1.39	1.45	1.53	1.31	1.29	1.36	1.43
<b>II</b>	<b>Chemical</b>									
	Nitrogen	mg/kg	354	360	339	390	320	333	302	350
	Phosphorus	mg/kg	217	230	252	268	180	194	210	225
	Potassium	mg/kg	370	387	364	391	332	348	325	352
	Sodium	mg/kg	16975	17489	17502	17632	16684	17196	17201	17346
<b>III</b>	<b>Biological</b>									
	Benthos Communities									
	Macro Benthos	nos/m <sup>2</sup>	1162	1165	1145	1121	1168	1174	1154	1127
	Epifauna numerical abundance	nos/haul	29	25	27	16	35	33	36	21



S.No	Parameter	Units	Port Entrance (Approach Channel)	Turning Circle	Coal Berth	Reclamation Area	Port Entrance (Approach Channel)	Turning Circle	Coal Berth	Reclamation Area
<b>October 2022</b>							<b>November 2022</b>			
<b>I</b>	<b>Physical</b>									
	pH	-	7.93	7.89	7.86	7.97	7.87	7.85	7.80	7.92
	Sediment Composition									
	Sand	%	36.3	35.4	35.2	35.8	36.5	36.1	35.7	34.8
	Silt + Clay	%	63.7	64.6	64.8	64.2	63.5	63.9	64.3	65.2
	Org. Matter	%	1.41	1.39	1.45	1.53	1.31	1.29	1.36	1.43
	Infauna numerical abundance	nos/haul	739	713	709	695	747	722	717	703
<b>IV</b>	<b>Heavy Metals</b>									
	Lead	mg/kg	0.48	0.43	0.45	0.61	0.37	0.31	0.34	0.47
	Cadmium	mg/kg	0.067	0.052	0.070	0.085	0.052	0.040	0.056	0.073
	Copper	mg/kg	<0.01	<0.01	<0.01	0.43	<0.01	<0.01	<0.01	0.33
	Zinc	mg/kg	0.062	0.081	0.087	0.79	0.050	0.068	0.075	0.67



**Table 2:16: Marine Sediment Quality Monitoring Results (December 2022-January 2023)**

S.No	Parameter	Units	Port Entrance (Approach Channel)	Turning Circle	Coal Berth	Reclamation Area	Port Entrance (Approach Channel)	Turning Circle	Coal Berth	Reclamation Area
<b>December 2022</b>							<b>January 2023</b>			
<b>I</b>	<b>Physical</b>									
	pH	-	7.96	7.93	7.90	8.03	7.98	7.89	7.92	8.02
	Sediment Composition									
	Sand	%	36.2	35.3	35.9	34.6	36.4	36.2	35.8	34.7
	Silt+Clay	%	63.8	64.7	64.1	65.4	63.6	63.8	64.2	65.3
	Org. Matter	%	1.29	1.25	1.36	1.41	1.35	1.30	1.33	1.41
<b>II</b>	<b>Chemical</b>									
	Nitrogen	mg/kg	338	328	302	343	358	350	324	358
	Phosphorus	mg/kg	180	198	225	325	198	210	232	334
	Potassium	mg/kg	329	348	315	338	334	345	329	352
	Sodium	mg/kg	16540	17160	17179	17298	16742	17314	17303	17497
<b>III</b>	<b>Biological</b>									
	Benthos Communities									
	Macro Benthos	nos/m <sup>2</sup>	1166	1175	1153	1127	1163	1169	1148	1124
	Epifauna numerical abundance	nos/haul	35	34	31	23	32	30	27	20
	Infauna numerical abundance	nos/haul	745	723	718	702	743	718	712	698
<b>IV</b>	<b>Heavy Metals</b>									
	Lead	mg/kg	0.38	0.31	0.33	0.48	0.47	0.42	0.44	0.58
	Cadmium	mg/kg	0.053	0.041	0.055	0.071	0.063	0.052	0.068	0.085



S.No	Parameter	Units	Port Entrance (Approach Channel)	Turning Circle	Coal Berth	Reclamation Area	Port Entrance (Approach Channel)	Turning Circle	Coal Berth	Reclamation Area
<b>December 2022</b>							<b>January 2023</b>			
<b>I</b>	<b>Physical</b>									
	pH	-	7.96	7.93	7.90	8.03	7.98	7.89	7.92	8.02
	Sediment Composition									
	Sand	%	36.2	35.3	35.9	34.6	36.4	36.2	35.8	34.7
	Silt+Clay	%	63.8	64.7	64.1	65.4	63.6	63.8	64.2	65.3
	Org. Matter	%	1.29	1.25	1.36	1.41	1.35	1.30	1.33	1.41
	Copper	mg/kg	<0.01	<0.01	<0.01	0.33	<0.01	<0.01	<0.01	0.41
	Zinc	mg/kg	0.049	0.068	0.073	0.65	0.058	0.078	0.082	0.71

**Table 2:17: Marine Sediment Quality Monitoring Results (February 2023- March 2023)**

S.No	Parameter	Units	Port Entrance (Approach Channel)	Turning Circle	Coal Berth	Reclamation Area	Port Entrance (Approach Channel)	Turning Circle	Coal Berth	Reclamation Area
<b>February 2023</b>							<b>March 2023</b>			
<b>I</b>	<b>Physical</b>									
	pH	-	8.01	7.95	7.99	8.12	8.02	7.98	8.04	8.08
	Sediment Composition									
	Sand	%	36.6	35.9	36.5	34.5	36.3	35.5	35.7	34.6
	Silt+Clay	%	63.4	64.1	63.5	65.5	63.7	64.5	64.3	65.4
	Org. Matter	%	1.32	1.26	1.31	1.39	1.37	1.30	1.34	1.44
<b>II</b>	<b>Chemical</b>									
	Nitrogen	mg/kg	349	340	324	352	358	350	330	362
	Phosphorus	mg/kg	190	202	226	324	202	210	236	340
	Potassium	mg/kg	318	331	318	342	330	339	324	350
	Sodium	mg/kg	16716	17202	17276	17462	16790	17389	17336	17501





<b>III Biological</b>											
	Benthos Communities										
	Macro Benthos	nos/m <sup>2</sup>	1165	1169	1151	1125	1164	1168	1149	1124	
	Epifauna numerical abundance	nos/haul	34	32	30	23	33	30	28	23	
	Infauna numerical abundance	nos/haul	745	716	710	701	746	718	713	702	
<b>IV Heavy Metals</b>											
	Lead	mg/kg	0.42	0.38	0.43	0.55	0.46	0.41	0.50	0.60	
	Cadmium	mg/kg	0.060	0.049	0.065	0.081	0.066	0.055	0.071	0.085	
	Copper	mg/kg	<0.01	<0.01	<0.01	0.38	<0.01	<0.01	<0.01	0.40	
	Zinc	mg/kg	0.055	0.073	0.079	0.70	0.058	0.076	0.082	0.75	



## 2.14.4 Surface Water Monitoring

The source of water is from Muthukur Reservoir and NakkalaKaluva irrigation drain. As per the statutory regulations & requirement, surface water quality monitoring is being carried out by AKPL on monthly basis at two locations viz.

- Buckingham Canal
- Khandaleru Creek

The Analytical Results of Surface water quality at Buckingham Canal and Khandaleru Creek for the period October 2022 to March 2023 is given in **Table 2:18** and **Table 2:19** respectively.

**Table 2:18: Surface Water Quality Results (Buckingham Canal)**

S.No	Parameter	Units	Standard SW-IV	Oct'22	Nov'22	Dec'22	Jan'23	Feb'23	Mar'23
<b>I</b>	<b>Physical</b>								
	pH	-	6.5-8.5	7.63	7.69	7.76	7.69	7.74	7.89
	Temperature	°C		26.0	25.9	25.5	25.7	26.1	26.3
	Salinity	ppt		32.7	32.5	32.7	32.8	33.0	32.9
	Density	gm/ml		1.48	1.45	1.48	1.51	1.42	1.45
<b>II</b>	<b>Chemical</b>								
	Potassium	mg/l		245	236	250	262	280	296
	COD	mg/l		13.3	13.1	13.3	13.5	13.3	13.1
	BOD	mg/l		3.4	3.2	3.4	3.4	3.4	3.1
	Oil & Grease	mg/l		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	D.O	mg/l	3.0 mg/l	6.8	6.9	6.6	6.4	6.6	6.4
	Nitrates	mg/l		1.05	1.03	1.08	1.20	1.24	1.21
	Nitrites	mg/l		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Ammonia	mg/l		0.020	0.018	0.022	0.025	0.028	0.025
	Phosphates	mg/l		0.29	0.27	0.31	0.33	0.37	0.35
	Chlorides	mg/l		18128	18043	18136	18205	18298	18221
	Sodium	mg/l		7284	7193	7284	7371	7428	7369
	Sulphates	mg/l		2736	2646	2712	2790	2865	2804
	Silicates	mg/l		1.31	1.27	1.31	1.34	1.38	1.36
	Reactive Silica	mg/l		0.32	0.30	0.33	0.35	0.38	0.36
	Total Phosphorus	mg/l		0.23	0.21	0.23	0.26	0.29	0.27
	Total Nitrogen	mg/l		9.7	9.5	9.8	10.2	10.8	10.5
<b>III</b>	<b>Biological</b>								
	Primary Productivity	mgCm <sup>-2</sup> d <sup>-1</sup>		56	58	55	52	49	51
	Chlorophyll	mg/m <sup>3</sup>		2.87	2.89	2.85	2.83	2.80	2.83
	Phytoplankton								
	Numerical Abundance	No./ml		280	283	280	278	276	279
	Diversity	-		2.41	2.43	2.41	2.39	2.35	2.37
	Zooplankton								
	Diversity	-		2.55	2.57	2.55	2.53	2.51	2.53



S.No	Parameter	Units	Standard SW-IV	Oct'22	Nov'22	Dec'22	Jan'23	Feb'23	Mar'23
	Biomass	ml/100m <sup>3</sup>		12.7	12.9	12.7	12.5	12.3	12.5
	Coliforms	CFU/100ml		25	21	25	29	21	24
	Feacal Coliforms	CFU/100ml	500/100 ml (MPN)	ND	ND	ND	ND	ND	ND
<b>IV</b>	<b>Heavy Metals</b>								
	Lead	mg/l		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	Cadmium	mg/l		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	Copper	mg/l		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	Zinc	mg/l		0.015	0.013	0.016	0.022	0.026	0.029

Table 2:19: Surface Water Quality Results (Khandaleru Creek)

S.No	Parameter	Units	Standards	Oct'22	Nov'22	Dec'22	Jan'23	Feb'23	Mar'23
<b>I</b>	<b>Physical</b>								
	pH	-	6.5-8.5	7.65	7.72	7.78	7.72	7.79	7.85
	Temperature	°C		26.3	26.1	25.8	26.0	26.4	26.8
	Salinity	ppt		32.0	31.9	32.1	32.3	32.4	32.3
	Density	gm/ml		1.62	1.58	1.62	1.65	1.58	1.61
<b>II</b>	<b>Chemical</b>								
	Potassium	mg/l		270	258	265	279	296	303
	COD	mg/l		13.0	13.4	13.7	13.9	13.7	13.5
	BOD	mg/l		3.2	3.5	3.8	3.6	3.4	3.2
	Oil & Grease	mg/l		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	D.O	mg/l	3.0 mg/l	6.6	6.4	6.2	6.0	6.3	6.1
	Nitrates	mg/l		1.02	1.0	1.05	1.14	1.19	1.15
	Nitrites	mg/l		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Ammonia	mg/l		0.028	0.026	0.030	0.036	0.040	0.036
	Phosphates	mg/l		0.74	0.72	0.75	0.79	0.82	0.78
	Chlorides	mg/l		17725	17672	17782	17896	17974	17905
	Sodium	mg/l		7072	6954	7036	7134	7195	7132
	Sulphates	mg/l		2811	2738	2808	2875	2932	2869
	Silicates	mg/l		1.45	1.42	1.45	1.49	1.52	1.50
	Reactive Silica	mg/l		0.48	0.45	0.48	0.51	0.54	0.51
	Total Phosphorus	mg/l		0.38	0.36	0.39	0.42	0.45	0.43
	Total Nitrogen	mg/l		9.2	9.0	9.3	9.6	10.1	9.95
<b>III</b>	<b>Biological</b>								
	Primary Productivity	mgCm <sup>-2</sup> d <sup>-1</sup>		52	54	51	50	46	48
	Chlorophyll	mg/m <sup>3</sup>		2.38	2.40	2.36	2.34	2.31	2.34
	Phytoplankton								
	Numerical Abundance	No./ml		299	301	297	295	293	295
	Diversity	-		2.74	2.75	2.72	2.70	2.67	2.69
	Zooplankton								
	Diversity	-		2.82	2.84	2.81	2.78	2.75	2.78
	Biomass	ml/100m <sup>3</sup>		13.7	13.8	13.7	13.6	13.3	13.4
	Coliforms	CFU/100ml		18	15	21	25	17	19



S.No	Parameter	Units	Standards	Oct'22	Nov'22	Dec'22	Jan'23	Feb'23	Mar'23
	Feacal Coliforms	CFU/100ml	500/100 ml (MPN)	ND	ND	ND	ND	ND	ND
<b>IV</b>	<b>Heavy Metals</b>								
	Lead		mg/l	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	Cadmium		mg/l	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	Copper		mg/l	0.013	0.010	0.012	0.017	0.022	0.024
	Zinc		mg/l	0.027	0.024	0.026	0.031	0.033	0.035

## 2.15 Noise Monitoring

Noise monitoring is being carried out monthly basis at the following locations viz.

S.No	Monitoring Locations	Environmental Setting	CPCB Standards	
			Day Time	Night Time
1.	Zero Point	Industrial	75	70
2.	Thamminapatnam	Industrial	75	70
3.	CVR Building	Industrial	75	70
4.	Gopalapuram	Residential	55	40
5.	Chalivendram	Residential	55	45
6.	Krishnapatnam	Residential	55	45
7.	Krishnapatnam Village near Light House	Residential	55	45

The noise monitoring values for the period October 2022 to March 2023 are given in **Table 2:20** and **Table 2:21**.

**Table 2:20: Noise Monitoring Results (October 2022-March 2023)**

Month	Units	Sampling Locations							
		Zero Point		Thamminapatnam		CVR Building		Gopalapuram	
		Day Time	Night Time	Day Time	Night Time	Day Time	Night Time	Day Time	Night Time
October 2022	dB(A)	63.9	54.1	57.3	46.5	56.1	47.2	51.9	40.2
November 2022	dB(A)	62.3	53.1	56.9	45.7	55.7	46.5	50.3	39.5
December 2022	dB(A)	61.2	52.4	55.8	44.6	54.5	45.3	49.1	38.2
January 2023	dB(A)	63.4	54.1	57.2	46.3	56.1	47.5	50.8	39.7
February 2023	dB(A)	62.1	52.7	55.4	45.2	54.7	46.3	48.9	38.5
March 2023	dB(A)	63.1	53.8	56.3	46.7	53.1	44.5	47.6	39.4



**Table 2:21: Noise Monitoring Results (October 2022-March 2023)**

Month	Units	Sampling Locations					
		Chalivendram		Krishnapatnam		Krishnapatnam Village near Light House	
		Day Time	Night Time	Day Time	Night Time	Day Time	Night Time
October 2022	dB(A)	52.3	39.5	53.2	40.7	51.3	41.2
November 2022	dB(A)	51.4	38.6	52.6	39.4	50.7	40.3
December 2022	dB(A)	50.3	37.5	51.4	38.7	49.5	39.1
January 2023	dB(A)	51.6	38.9	52.3	40.4	50.9	41.2
February 2023	dB(A)	50.3	37.8	51.2	39.1	49.6	40.3
March 2023	dB(A)	51.3	38.1	52.8	40.5	49.6	40.3

The reports are being submitted to SPCB on monthly basis & on Half-yearly basis to MoEF& CC. Acknowledgment copy of half yearly compliance report submitted to MoEF&CC and APPCB is given as **Annexure H**.

**Observations:**

- As per the monthly monitoring data from NABL accredited lab PM10 was recorded high 65.1 at zero point, PM2.5 24.5 at Krishnapatnam Village near Light House, SO<sub>2</sub>, NO<sub>2</sub> are below 20 in all the locations.
- As per the monthly monitoring data from CAAQM Monthly Averages for the period from October-2022 to March 2023 PM 10 was recorded high 97 at Station - 1 – CVR Amenities Complex, PM 2.5 was recorded high at 56 at CVR Amenities Complex
- Monthly Ambient air quality monitoring carried out from the period October 2022 to March 2023 are within the National Ambient Air Quality Standards (NAAQS) standards µg/m<sup>3</sup>.
- Highest Day, Night Time noise was recorded was 63.9 dB(A) & 54.1 at Zero Point
- The noise monitoring values for the period October 2022 to March 2023 are within the CPCB Standards
- Predominant Wind Direction was NW during the months of Oct 2022, Nov 2022, Dec 2022 and ENE from Jan 2023, Feb 2023 & Mar 2023
- Water consumption is within the approved limit
- Marine surface water quality monitoring Results are within the approved limit of Coastal water standards class IV waters

**2.16 Maintenance of Storm drains**

AKPL is maintaining the storm water drains periodically and before monsoon season by removing the sludge accumulated to prevent possible flooding of the surrounding areas.





## 2.17 Weather Station

AKPL Installed One Weather Station within the Port premises to know the weather forecast. Maximum and Minimum values of each month recorded in the Continuous Weather Monitoring station is shown in **Table 2:22**.



Figure 2:10 Continuous Weather Monitoring station at AKPL

**Table 2:22 Weather Stations data**

Month	Temp (°C)			Relative Humidity (%)			Rainfall (mm)		Mean Wind Speed (km/h)	Predominant Wind Direction
	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.		
Oct 2022	33.4	23.1	27.0	95	40	81.8	11.8	0	5.0	NW
Nov 2022	30.4	22.9	26.5	94	68	85.7	20.2	0	5.6	NW
Dec 2023	29.4	21.2	25.9	93	61	85.0	25.8	0	5.5	NW
Jan 2023	28.1	20.1	24.9	92	57	80.0	0	0	4.3	ENE
Feb 2023	29.8	21.1	25.5	91	50	80.9	0	0	5.3	ESE
Mar 2023	30.8	21.7	27.1	92	47	82.8	0	0	7.6	ENE

## 2.18 Promotion of Environment & Sustainability awareness

### 2.18.1 Green Belt Development

As on 31st March 2023, AKPL (Krishnapatnam Port) has successfully developed 194.5 hectares of greenbelt within its premises since the port's inception. The development of the greenbelt has been carried out in phases I and II, resulting in a total area of 191.5 hectares that has been developed and maintained within the port premises. In line with the expansion plans for phase III of Krishnapatnam Port, an additional 3 hectares of greenbelt has been established, contributing to the proposed 120 hectares of greenbelt for this phase in addition to the existing 191.5 Ha.

Throughout the establishment and operation of the port, the port authorities have undertaken extensive plantation efforts, totalling over 4 million plants, both within and around the port premises. This initiative includes the distribution of saplings to various stakeholders.

AKPL takes pride in maintaining its own nursery, where saplings are propagated for the annual plantation drive. Since the beginning of the port's operations, the AKPL nursery has consistently maintained a stock of 100,000 to 500,000 saplings. Between April 2022 and January 2023, a total of 102,604 saplings were planted. Additionally, AKPL has successfully propagated 547,840 seedlings in its in-house nursery, which are scheduled for planting during the fiscal year 2023-2024.





Figure 2:11 Block plantation & Avenue Plantation in AKPL



Coastal Plantation in March 2023

Coastal Plantation in March 2006

Figure 2:12 Costal 100 m width plantation by AKPL





### Nursery Development at AKPL



Figure 2:13: Nursery Development at AKPL



## 2.18.2 Mangrove Conservation

Existing mangrove areas in the AKPL are being protected and conserved with suitable barricading, erection of display boards and ensuring the tidal flow. As a part of Phase I EC compliance, and area of 9 acres (3.64 ha) of mangroves are being conserved in the port areas since its inception.

In addition to the above, mangrove plantation in an area of 50 Ha was taken up by AKPL by 2016 as a part of the Phase II development and EC compliance. During Phase III development, MoEF&CC suggested to conserve 7.128 ha of mangroves which include Phase 1 protected area of 3.64 ha. AKPL will comply to this suggestion.

For the current year 2022-23, Rs. 4.95 lakhs is budgeted towards mangrove conservation.



Figure 2:14 Mangrove protection of 3.64 ha (9 acres) at AKPL



**Proper drainage near Mangrove area of 50 Ha. developed by AKPL**

AKPL has undertaken plantation of mangroves in the upstream and downstream of the creek by adopting fish-bone technique. All the major seven mangrove species were recorded in this creek with a dominance of *Avicennia marina*.



**Figure 2:15 Mangrove species recorded at AKPL.**

### 2.18.3 Health Awareness Camps

AKPL has conducted Health Awareness Camps which includes:

- Blood donation camps
- Eye check up camps
- Malaria controlling program
- Health hazard prevention measures
- Programs for employee health awareness
- Water Purification- Reverse Osmosis Process

**Total Health** – Adani Foundation in collaboration with Apollo Foundation Total Health invoked Total Health Programme in all 8 CSR Community villages in Muthukuru, SPSR Nellore District and Chillakuru, Tirupati District. Technical assistance is provided by Apollo Foundation Total Health. One mega and Four General Health Screening Camps were conducted during 2022-23 and 64 suspected Carcinoma cases were identified from 2447 community women screened (Age Group 25 – 55 Years) and ensured them for follow up medical management in Indian Red Cross Society Cancer Hospital.



**2.18.4 Programmes/Activities:**

AKPL has conducted various awareness programmes on “Global Recycling Day” i.e on 18.03.2023 within the port premises. The Solid Waste Management team of Environment division of AKPL gave awareness on different recycling methods.



**Village Sanitation Program:**

Adani Foundation is supporting Sanitation Program in all 8 community villages to enable to provide safe health environment to the community families. Foundation is carrying out Village Sanitation with 136 community workers to keep these community villages free from poor sanitation and keep these areas clean and neat. Totally 17960 community families are benefitted by means of this program and maintaining good health.





**Village Sanitation Program**



**Bleach Cleaning Activity Programme**



**Seminar on Waste Segregation and Recycling Facilities to the AKPL HR and Finance team**



**Awareness Programme on Waste Segregation and Recycling Facilities to Cleaning Staff**

AKPL celebrated “**National Pollution Prevention Day**” on 2 Dec 2022. They have organized a massive plantation drive and invited Mr. Chakradhar Babu - IAS - District Collector of Nellore as Chief guest along with Mr. Rajashekar, Environment Engineer - APPCB. A total of 1000 no's sapling plantation is completed near industrial road in AKPL. A total of 200 employees participated in the event.







No Pollution Prevention Day (December 2, 2022)

## 2.19 Safety Mock Drill / Emergency Exercise

- Organizing periodical mock drills to draw the attention of the employees and to create the awareness of safety issues.
- Organizing periodical fire & safety trainings as a part of preparedness to face the challenges.
- Conducting workshops/seminars by top management involving all the employees & stakeholders to create the awareness of safety issues and preventive measures. Mock drill was conducted on dated 16-04-2023 on Oil spill during bunkering is given in **Annexure I**.





**Awareness on Safety Mock Drill**





## 2.20 Vigilance & Taskforce:

AKPL is operating an Integrated Security Control Room (ISCR) for close observation of all incoming & outgoing trucks phase wise viz., Loading, weighing of loaded trucks, tarpaulin coverage, washing of trucks at tyre washing facility, final weighing, and entrance & exit gate of the port.

- AKPL is following a strict vigilance on the fitness of the trucks at entrance gate only before allowing the truck for loading of cargo and rejecting trucks which are not possessing the statutory records/permits and meeting the fitness standards.
- AKPL ensures that valid vehicle fitness certificates and pollution certificates in front of the vehicle is displayed. It will be made compulsories for all vehicles to display the stickers and the same will be monitored regularly.



- AKPL constituted a dedicated taskforce team comprising with Safety, Security & Environment Departments to verify the dusty cargo vehicle movement & to monitor proper covering of Truck / Wagons with tarpaulin, spillage of materials and overloaded trucks etc. During the verification, if any violation observed, fine will be imposed.

## 2.21 CSR Activities

- 500 houses built with roads and green belt zones
- 27 schools run in 4 Mandals
- Skill Building & Development Centers
- Hostel facilities | Old age homes | Places of worship
- Hospitals | Medical camps
- RO Plants set up for 24/7 Drinking Water facility
- Training Academies with university affiliated programs and certifications
- Women Empowerment Programs
- All inclusive residential International School for the marginalised providing world class education.





Table 2:23 Budget for CSR Activities for the Year 2022-23

S.No.	Activities	Budget F.Y.2022-23 in Lakhs	
		Capex	Opex
1.	Education	-	106.98
2.	Community Health	4.85	425.82
3.	Sustainable Livelihood Development	-	91.63
4.	Community Infrastructure Development	-	65.04
5.	Previous Liabilities	-	190.00
6.	Administration	3.25	47.19
<b>Total</b>		<b>8.10</b>	<b>926.67</b>

## 2.22 Innovative Technology & Practices

AKPL has created a state of the art, first of its kind and a world class **“Fully Automated Fertilizer Handling System”**. The salient features of this system are as follows:

- Mobile Bagging Units`
- Palletization
- Elevated Conveyors
- Neem Coating





**Fully Automated Handling System**

## 2.23 Awards & appreciations

AKPL stands in first place in infrastructure sector. It received CII-SR Award for best EHS practice. AKPL received 4 star rating for EHS management from Confederation of Indian Industry (CII). AKPL has been awarded as **“Winner of Greentech India International Award”** for EHS bestpractices during the year 2023.

There is a list of accolade achieved by AKPL which are as follows:

- Environment Health & Safety (EHS) CII “3 star rating "Award 2014.
- Best Management Award
- Award for India's Best Port at the 2nd Markenomy Award -2015
- Award for CSR at the 7<sup>th</sup> south east India cargo & Logistics award 2015
- Award for Non Major Port of the Year at the 7<sup>th</sup> south east India cargo & Logistics award 2015
- Award for Port / Terminal Operator of the year-Health, Safety & environment at 6<sup>th</sup> MALA 2015
- Award for Indian Maritime Businessman of the Year at the Gateway award
- Award for Private Port of The Year at the Gateway Award
- Golden Peacock Environment Management Award - 2015
- Greentech India International Award-2023.



Ref.: EHS 2023/AwdDecl/16

02<sup>nd</sup> January 2023

**Shri G. J. Rao**  
**Managing Director & CEO**  
**Adani Krishnapatnam Port Limited**

Dear Sir,

***Congratulations.***

It gives us immense pleasure to intimate that **M/s. Adani Krishnapatnam Port Ltd.** has been selected as **Winner** under **EHS Best Practices Category** for **Greentech Intl. EHS Award 2023**. The most Prestigious award will be presented on the **19<sup>th</sup> January 2023** at **Vivanta by Taj, Panaji Goa**.

We have invited following dignitaries to present the most prestigious **Greentech Intl. EHS Awards 2023**:

Shri P.S. Sreedharan Pillai  
Governor of Goa

Dr. Pramod Sawant  
Chief Minister of Goa

Shri Nilesh Cabral  
Minister of Environment and Climate Change

Smt. Jennifer Monserrate  
Minister of Revenue, Labour & Employment

Shri Nilkanth Halarnkar  
Minister of Factories and Boilers

Shri Mahesh Patil  
Chairman of Goa Pollution Control Board

We cordially invite you to inform us name and contact details of One person who will join the award presentation to receive the award and participate in the EHS Summit at **at Vivanta by Taj, Panaji Goa**.

Please nominate some concerned officials as Delegates to join the Summit and Awards presentation program to learn, interact and network with the Speakers and Participants, which will help them to improve their professional knowledge.

We are attaching a brochure of the event and the Nomination Form for your consideration and nomination of participants. Kindly note that pre-registration with participation fee payment are a must. The last date for nominations is **5<sup>th</sup> January 2023**.

Sincerely,

  
K. Sharan  
Chairman & CEO

Encl.: Brochure, Participation Form



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Website : www.greentechevents.com

Greentech Foundation Charitable Trust Regn. No. DEL - GR 22467





**Greentech Award received on January 2023, by AKPL Team(Dr.D Jyothi –VP-Environment, Mr.G Venugopal Reddy, Associate GM-EHS)**



Environment Health & Safety (EHS) CII "3 star rating" Award 2014



Best Management Award



Award for India's Best Port at the 2nd Markenomy Award - 2015



Award for CSR at the 7<sup>th</sup> south east India cargo & Logistics award 2015



Award for Non Major Port of the Year at the 7<sup>th</sup> south east India cargo & Logistics award 2015



Award for Port / Terminal Operator of the year-Health, Safety & environment at 6<sup>th</sup> MALA 2015



Golden Peacock Environment Management Award - 2015



Award for Indian Maritime Businessman of the Year at the Gateway award



Award for Private Port of The Year at the Gateway award

**Awards received by AKPL**





### 3 Environmental Compliance Monitoring

To verify the air, water, marine and other terrestrial parameters, sampling & monitoring was conducted and the details are given in the below sections:

#### 3.1 Meteorological Data

Meteorological data was collected on hourly basis by installing an auto weather monitoring station at Plant site. The report depicted hereunder represents the data for study period (01.10.2022 to 31.03.2023). The following parameters were recorded.

- Wind speed
- Wind direction
- Temperature
- Relative humidity
- Rainfall

**Minimum And Maximum Values Of Relative Humidity, Temperature And Rainfall During Study Period (01.10.2022 to 31.03.2023).**

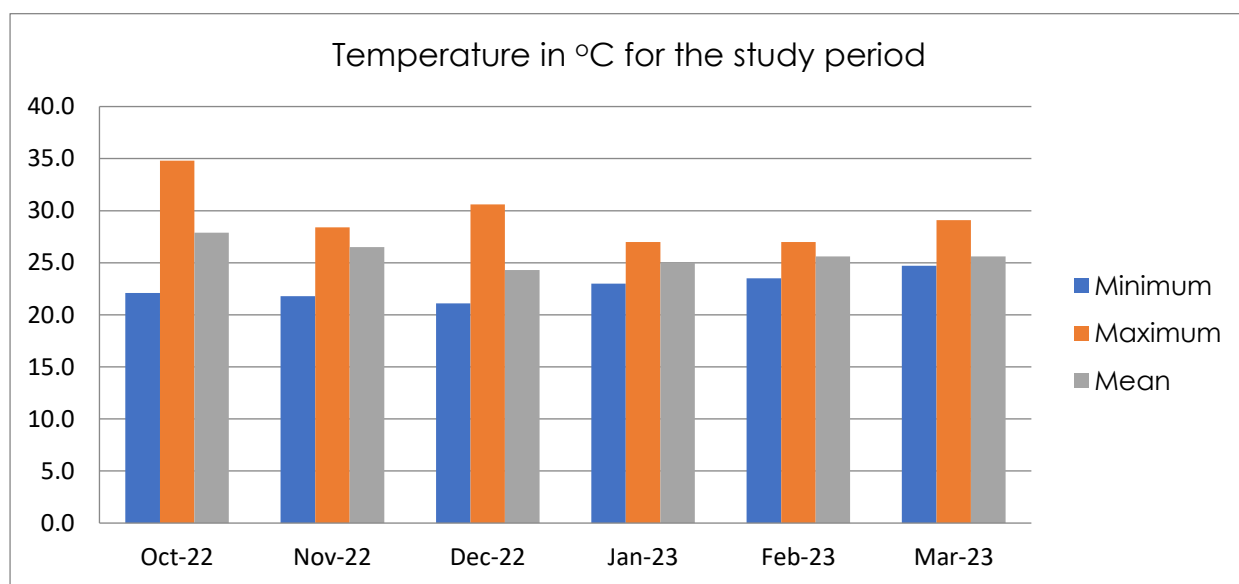
Temperature in °C	Oct'22	Nov'22	Dec'22	Jan'23	Feb'23	March'23
Minimum	22.1	21.8	21.1	23.0	23.5	24.7
Maximum	34.8	28.4	30.6	27.0	27.0	29.1
Mean	27.9	26.5	24.3	25.0	25.6	25.6

Relative Humidity %	Oct'22	Nov'22	Dec'22	Jan'23	Feb'23	March'23
Minimum	31	58	28	53	55	55
Maximum	95	96	90	78	79	87
Mean	68	74	61	67	67	73

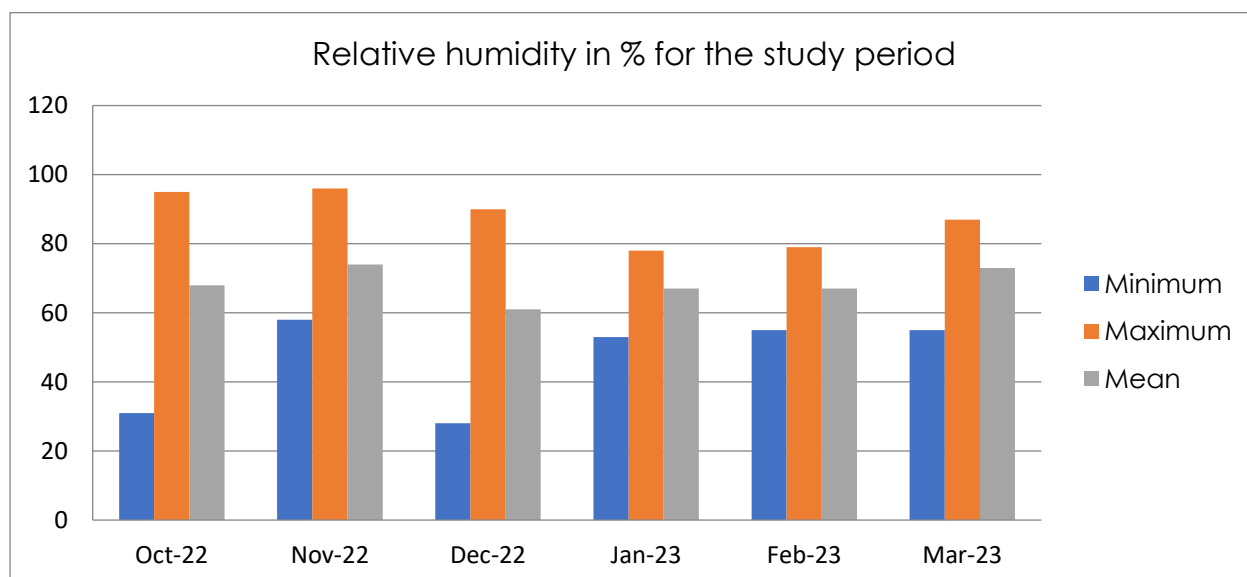


Rainfall in mm	Oct'22	Nov'22	Dec'22	Jan'23	Feb'23	March'23
<b>Minimum</b>	0.1	0.1	0.1	0.1	0.1	0.1
<b>Maximum</b>	4.2	0.7	4	0.3	0.1	0.8
<b>Cumulative</b>	50.6	4.6	41.3	2.9	0.1	5.5

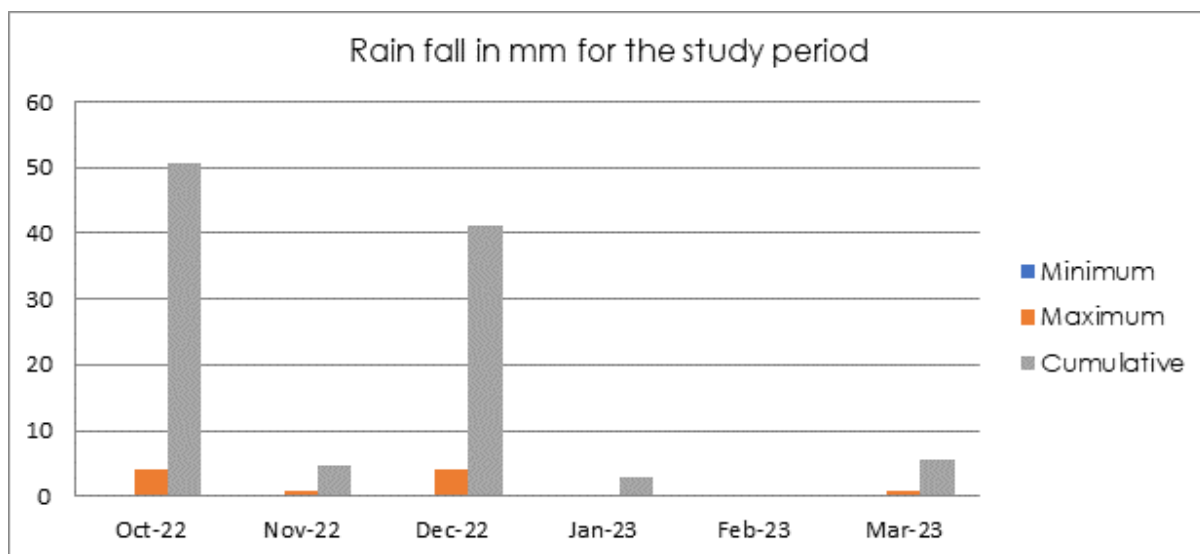
**Graphical interpretation of Minimum and Maximum values of and Temperature.**



**Graphical Interpretation of Minimum and Maximum values of Relative Humidity.**



**Graphical Interpretation of Minimum and Maximum values of Rainfall.**



**Wind Pattern – (Oct'22 – March'23)**

Predominant Wind directions	Distribution in Percentage
ENE	18.1 %
E	11.3%
NE	9.52%
ESE	7.38%



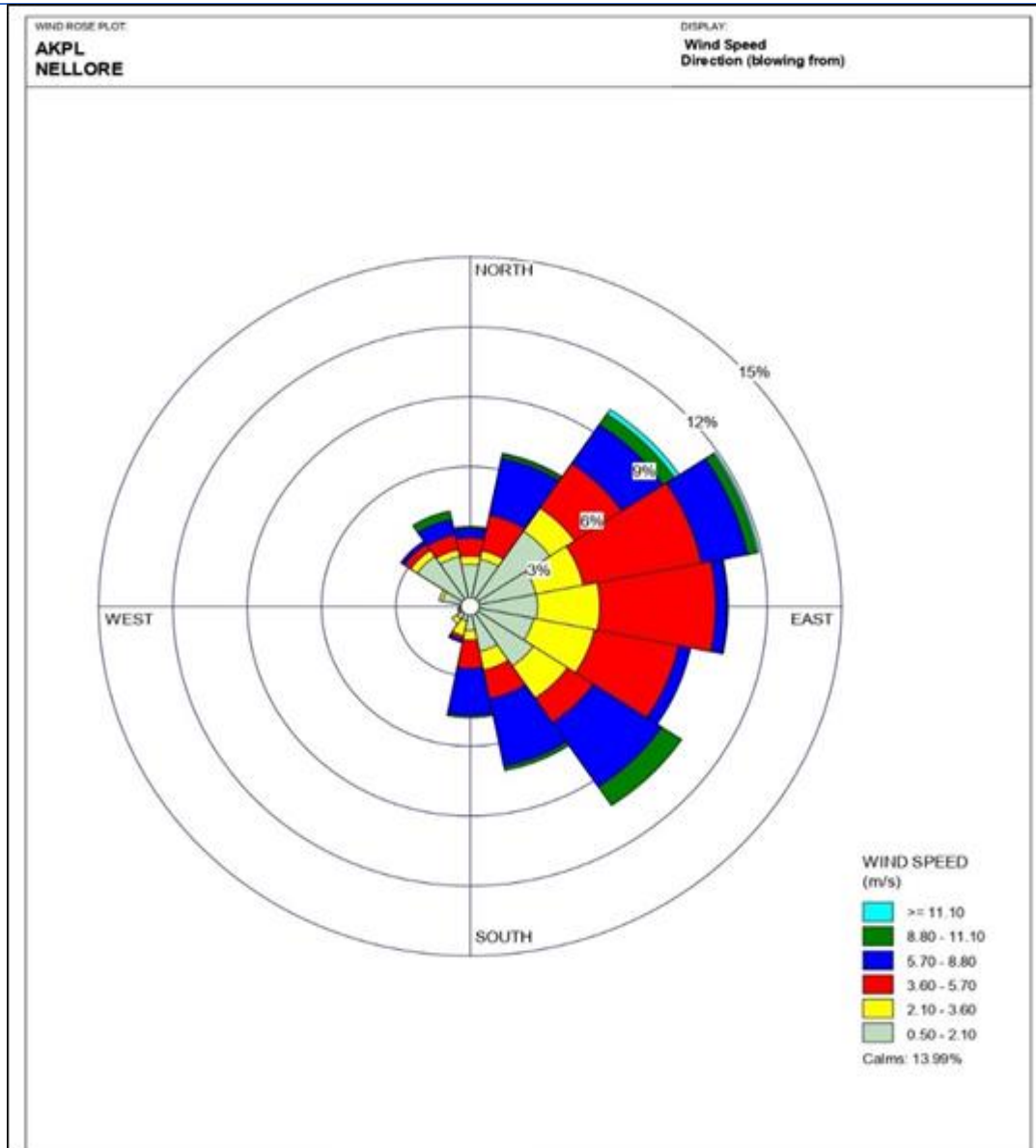


Figure 3:1: Wind rose diagram

### 3.2 Ambient Air Quality

Ambient Air Quality monitoring was conducted at the following locations:

1. Zero Point
2. Thamminapatnam Village
3. CVR Building/Amebities Complex
4. Gopalpuram Village
5. Chalivendram
6. Krishnapatnam
7. Krishnapatnam Village(Near Light house)





**Thamminapatnam Village**



**Amenities Complex**



**Port Main Gate/Zero Point**



**Near New Light house**

**Figure 3:2 Ambient Air Quality in May 2023**

The hourly values for 24 hours monitoring is as below **Table 3:1** and **Table 3:2**.

**Table 3:1: Results of Ambient Air Quality Monitoring (PM<sub>10</sub> and PM<sub>2.5</sub>)**

Date	Time	Zero Point		Thamminapatnam Village		CVR Building	
<b>24HoursAverage</b>		55.7	20.6	56.8	21.1	56.5	20.7
<b>Minimum</b>		47.2	16.8	49.3	18.5	47.2	17.6
<b>Maximum</b>		64.1	23.7	64.1	23.2	64.1	23.6
<b>Standard <math>\mu\text{g}/\text{m}^3</math></b>		<b>100</b>	<b>60</b>	<b>100</b>	<b>60</b>	<b>100</b>	<b>60</b>

**Table 3:2: Results of Ambient Air Quality Monitoring (PM<sub>10</sub> and PM<sub>2.5</sub>)**

Date	Time	Gopalpuram Village		Chalivendram		Krishnapatnam		Near Light House	
<b>24HoursAverage</b>		59.4	20.7	57.1	20.9	58.8	20.5	58.6	20.8
<b>Min.</b>		53.2	16.8	51.1	18.5	51.1	16.8	52.6	17.6
<b>Max.</b>		62.9	23.1	63.1	23.1	62.9	22.5	62.9	23.6
<b>Standard <math>\mu\text{g}/\text{m}^3</math></b>		<b>100</b>	<b>60</b>	<b>100</b>	<b>60</b>	<b>100</b>	<b>60</b>	<b>100</b>	<b>60</b>

### 3.3 Noise Levels

Noise monitoring was conducted on May 21, 2023 at the following locations for 24 hours covering day and night noise levels.

1. Zero Point
2. Thamminapatnam
3. CVR Building



4. Gopalapuram
5. Chalivendram
6. Krishnapatnam
7. Krishnapatnam Village near Light House





**Table 3:3: Noise Monitoring Results**

Month	Units	Sampling Locations							
		Zero Point		Thamminapatnam		CVR Building		Gopalpuram	
		Day Time	Night Time	Day Time	Night Time	Day Time	Night Time	Day Time	Night Time
May 2023	dB(A)	60.5	50.3	56.6	39.1	52.8	50.1	49.9	46.3

**Table 3:4: Noise Monitoring Results**

Month	Units	Sampling Locations					
		Chalivendram		Krishnapatnam		Krishnapatnam Village near Light House	
		Day Time	Night Time	Day Time	Night Time	Day Time	Night Time
May 22 2023	dB(A)	50.9	39.7	53.4	39.0	52.5	39.9

### 3.4 Groundwater Quality

The following are the groundwater sampling locations:

1. Port Site
2. Southern side of Port
3. Gopalpuram Village
4. Krishnapatnam Village





**Figure 3:3 Ground water monitoring in May 2023**

The Analytical results of the groundwater samples are given in **Table 3:5**.

**Table 3:5: Results of Groundwater Quality (One time Sampling)**

S. No.	Parameter	Unit	PortSite (Bore Well)	Krishnapatnam Village	South Side of The Port	Gopalpuram Village	IS:10500-2012 Specification
1.	pH	--	7.0	7.1	7.15	7.2	6.5 – 8.5
2	Electrical Conductivity	µmhos	1450	850	1350	850	-
3	TDS	mg/l	875	468	845	525	500
4	Total Alkalinity as CaCO <sub>3</sub>	mg/l	294	280	260	320	200
5	Chlorides as Cl <sup>-</sup>	mg/l	375	185	265	175	250
6	Sodium	mg/l	150	79.5	151	75	-
7	Potassium	mg/l	41	15.2	31	19	-
8	Fluorides as F <sup>-</sup>	mg/l	0.59	0.46	0.68	0.35	1.0
9	Nitrates as NO <sub>3</sub> <sup>-</sup>	mg/l	6.95	6.12	5.21	5.42	45
10	Cyanides as CN	mg/l	<0.01	<0.01	<0.01	<0.01	0.05
11	Total Hardness as CaCO <sub>3</sub>	mg/l	180	140	158	147	200
12	Salinity	ppt	0.089	0.042	0.072	0.039	-
13	Sulphates as SO <sub>4</sub> <sup>-2</sup>	mg/l	116	68.2	73.2	81.2	200



14	COD	mg/l	<10.0	<10.0	<10.0	<10.0	-
15	Mercuryas Hg	mg/l	< 0.001	< 0.001	< 0.001	< 0.001	0.001
16	CadmiumasCd	mg/l	< 0.001	< 0.001	< 0.001	< 0.001	0.003
17	ArsenicAs	mg/l	<0.01	<0.01	<0.01	<0.01	0.01
18	Selenium	mg/l	<0.05	<0.05	<0.05	<0.05	-
19	IronasFe	mg/l	0.08	0.09	0.11	0.06	0.3
20	Lead as Pb	mg/l	<0.01	<0.01	<0.01	<0.01	0.01
21	Zinc as Zn	mg/l	0.11	0.06	0.08	0.12	5.0
22	Chromium as Cr <sup>6+</sup>	mg/l	<0.01	<0.01	<0.01	<0.01	0.05
23	Total Coliforms	CFU/ml	Not Detected	BDR	BDR	BDR	BDR
24	Fecal Coliforms	CFU/ml	Not Detected	BDR	BDR	BDR	BDR

Beyond Detectable Range = BDR

### 3.5 Soil Quality

Two Sampling locations are selected to assess the existing soil characteristics and soil profile in and around the port area representing various land use conditions.

1. Storage area towards west Buckingham Canal
2. Storage Area at Port



**Storage area towards west Buckingham Canal**



**Storage Area at Port**



**Table 3:6: Results of Soil Quality (One Time Sampling)**

S. NO.	Parameter	Unit	Storage Area towards Buckingham Canal	Storage Area at Port
1.	pH(1:5)	--	7.36	7.45
2.	EC(1:5)	µmhos	515	656
3.	Texture			
	a. Sand	%	67.8	72.6
	b. Silt	%	13.0	13.3
	c. Clay	%	18.2	13.1
4	Available Nitrogen	kg/ha	232	248
5	Available Phosphorus	kg/ha	14	19
6	Available Potassium	kg/ha	514	520
7	Exchangeable Sodium	mg/kg	178	201
8	Exchangeable Calcium	mg/kg	115	143
9	Exchangeable Magnesium	mg/kg	33	41
10	SAR (SAR)	-	1.6	1.5
11	Water Soluble Chlorides	mg/kg	146	156
12	Organic Carbon	%	0.45	0.43
13	Lead	mg/kg	7.5	5.8
14	Cadmium	mg/kg	0.15	0.11
15	Copper	mg/kg	6.75	7.4
16	Zinc	mg/kg	6.9	7.2

### 3.6 Stack Emission Monitoring

Sampling of Flue gas emissions of DG Sets was carried out. Samples of 10 DG sets were collected and analysed. The results of stack emission monitoring are given in **Table 3:7** and **Table 3:8**.

**Table 3:7: Results of Stack Emission Monitoring (One time Sampling)**

S.No	Description	Unit	Result					
			1	2	3	4	5	
1.	DiameteroftheStack	mts	0.16	0.16	0.16	0.16	0.16	
2.	C/sAreaofStack	sq.mt	0.02	0.02	0.02	0.02	0.02	
3.	PitotCoefficient	-	0.87	0.87	0.87	0.87	0.87	
4.	Sp:gravityofFluid	-	1.0	1.0	1.0	1.0	1.0	
5.	Temperature@DGM	0C	30	31	33	34	34	
6.	Stack temperature	0C	164	168	157	163	135	
7.	NozzleDiameter	mm	10	10	10	10	10	
8.	ExitVelocity	m/sec	11.2	15.3	13.8	14.2	11.9	
9.	Gas Quantity	m <sup>3</sup> /hr	806	1101	993	1022	856	
10.	DurationofSampling	minutes	30	30	30	30	30	
11.	Fuel used	Diesel						
12.	Emission rate							



S.No	Description	Unit	Result				
			1	2	3	4	5
	a. Particulate Matter (PM)	g/kw-hr	0.16	0.22	0.17	0.20	0.15
	b. Oxides of Nitrogen (NOx)	g/kw-hr	1.40	1.46	1.39	1.49	1.63
	c. Carbon Monoxide (CO)	g/kw-hr	0.43	0.48	0.79	0.85	0.64
	d. Hydrocarbons (HC)	g/kw-hr	0.14	0.19	0.18	0.19	0.14

**Table 3:8: Results of Stack Emission Monitoring (One time Sampling)**

S.No	Description	Unit	Result					
			6	7	8	9	10	
13.	DiameteroftheStack	mts	0.16	0.16	0.16	0.16	0.16	
14.	C/sAreaofStack	sq.mt	0.02	0.02	0.02	0.02	0.02	
15.	PitotCoefficient	-	0.87	0.87	0.87	0.87	0.87	
16.	Sp:gravityofFluid	-	1.0	1.0	1.0	1.0	1.0	
17.	Temperature@DGM	0C	33	32	30	31	30	
18.	Stack temperature	0C	131	124	120	136	123	
19.	NozzleDiameter	mm	10	10	10	10	10	
20.	ExitVelocity	m/sec	12.5	11.6	10.2	11.4	10.5	
21.	Gas Quantity	m <sup>3</sup> /hr	900	835	734	1055	950	
22.	DurationofSampling	minutes	30	30	30	30	30	
23.	Fuel used	Diesel						
24.	Emission rate							
	a. Particulate Matter (PM)	g/kw-hr	0.13	0.11	0.10	0.14	0.12	
	b. Oxides of Nitrogen (NOx)	g/kw-hr	1.70	1.57	1.31	1.46	1.52	
	c. Carbon Monoxide (CO)	g/kw-hr	0.73	0.68	0.53	0.64	0.45	
	d. Hydrocarbons (HC)	g/kw-hr	0.21	0.14	0.12	0.11	0.09	

### 3.7 STP Sampling and Analysis

STP samples were collected from 500 KLD and 40 KLD STPs present within port premises. The analytical results of the STP samples are given in **Table 3:9** and **Table 3:10**.



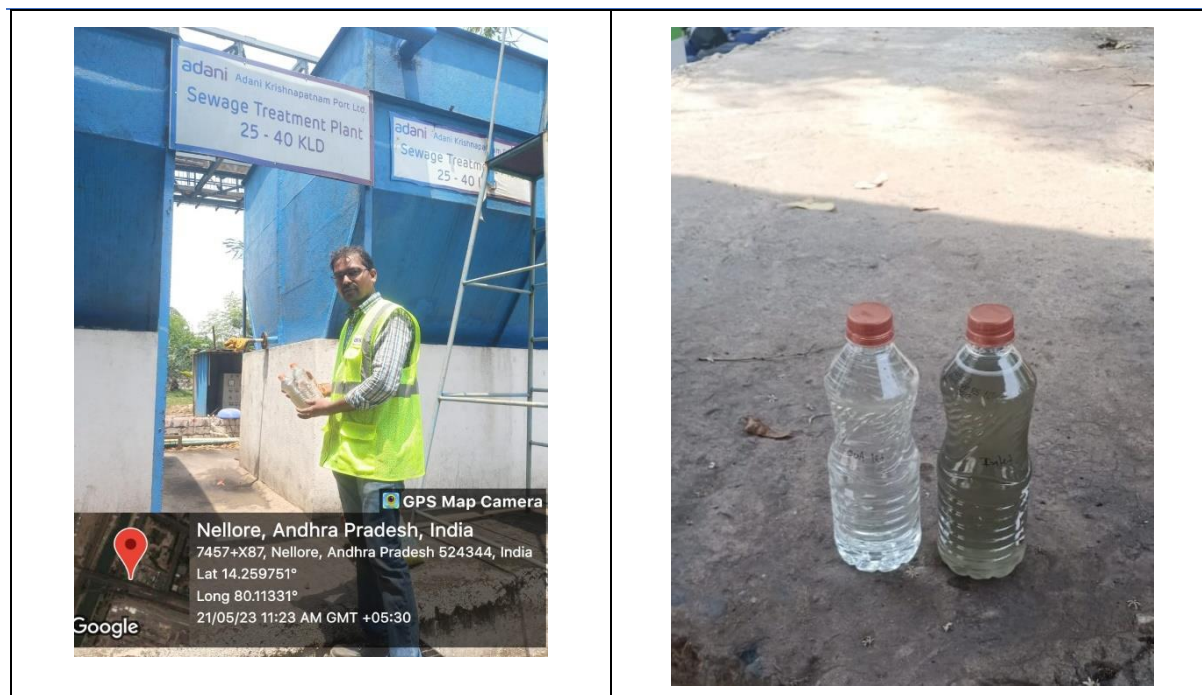


Table 3:9: Results of 500KLD STP sampling analysis

S. No.	Parameters	Outlet Standard	Unit	Result	
				Inlet	Outlet
1.	pH	5.0 - 9.0	H+Concen	7.15	7.32
2.	TotalSuspendedSolids	100	mg/l	110	12.0
3.	TotalDissolvedSolids	2100	mg/l	1815	1552
4.	Oil&Grease	10	mg/l	4.0	<1.0
5.	COD	250	mg/l	300	70.8
6.	BOD	30	mg/l	112	20.0

Table 3:10: Results of 40KLD STP sampling analysis

S. No.	Parameters	Outlet Standard	Unit	Result	
				Inlet	Outlet
1.	pH	5.0-9.0	H+Concen	7.31	7.53
2.	TotalSuspendedSolids	100	mg/l	94	5.0
3.	TotalDissolvedSolids	2100	mg/l	1658	1502
4.	Oil&Grease	10	mg/l	102	8.0
5.	COD	250	mg/l	248	50.4
6.	BOD	30	mg/l	104	16.0

### 3.8 Marine Monitoring

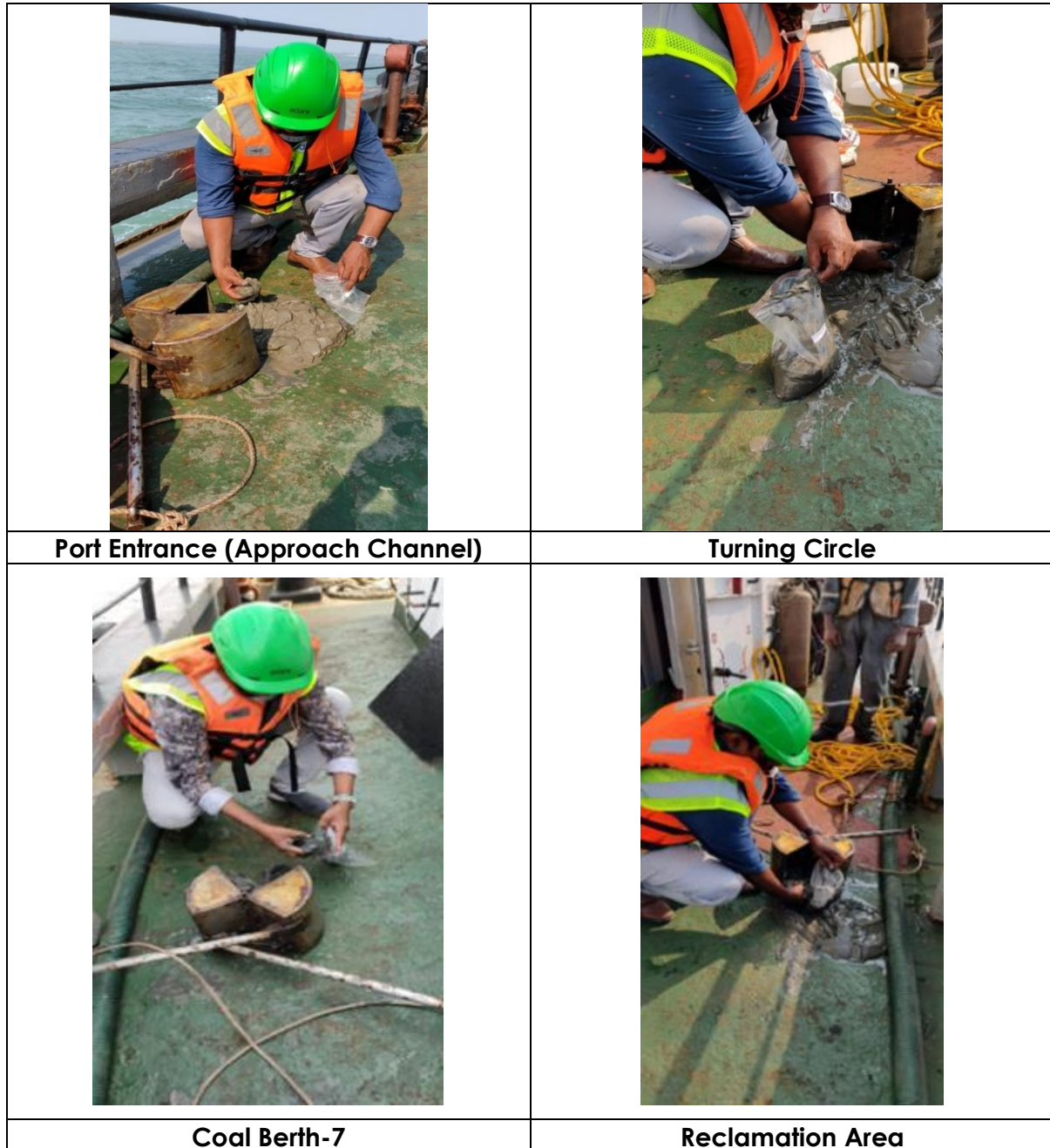
The marine water and sediment quality monitoring is being carried out at the following locations:

1. Port Entrance (Approach Channel)



2. Turning Circle
3. Coal Berth
4. Reclamation Area

Photographs of marine water and sediment monitoring conducted in May 2023 are shown in **Figure 3:4** and **Figure 3:5**.



**Figure 3:4 Photographs of Sediment Collection in May 2023**

	
<p><b>Port Entrance (Approach Channel)</b></p>	<p><b>Turning Circle</b></p>
	
<p><b>Coal Berth-7</b></p>	<p><b>Reclamation Area</b></p>

**Figure 3:5: Photographs of Marine Water Collection in May 2023**

The results of the marine water and sediment monitoring conducted in May 2023 for were shown in **Table 3:11** to **Table 3:14**.

**Marine Water Quality Monitoring Results:**

**Table 3:11 Physical & Chemical results of Marine Water Quality for Station 1 & 2**





S. No	Parameter	Unit	Results	
			1. Port Entrance (Approach Channel)	2. Turning Circle
<b>Physical</b>				
1	Temperature	°C	37	36.8
2	pH	H+ conc	8.18	8.22
3	Salinity	PSU	35	35
4	Density	g/m <sup>3</sup>	1.02	1
53	Turbidity	NTU	14	12
6	Total Suspended Solids	mg/l	20	20
7	Total Dissolved Solids	mg/l	35840	44268
<b>Chemical</b>				
1	Dissolved Oxygen	mg/l	4	4.2
2	Biological Oxygen Demand	mg/l	1.8	1.6
3	Oil & Grease	mg/l	0.04	0.02
4	Sulphate	mg/l	1026	1018
5	Phosphate	mg/l	0.38	0.36
6	Nitrate	mg/l	12	10
7	Nitrite	mg/l	0.028	0.024
8	Chloride	mg/l	21436	20640
9	Potassium	mg/l	584	594
10	COD	mg/l	11.6	14.533
11	Ammonia	mg/l	0.36	0.34
12	Sodium	mg/l	10436	10436
13	Silica	mg/l	24.4	24
14	Reactive Silica	mg/l	2.6	2.6
15	Total Phosphorus	mg/l	0.18	0.14
16	Total Nitrogen	mg/l	0.24	0.22
<b>Heavy metals</b>				
1	Lead	ppm	Nil	Nil
2	Cadmium	ppm	Nil	Nil
3	Copper	ppm	0.02	0.02
4	Zinc	ppm	0.04	0.04



**Table 3:12 Physical & Chemical results of Marine Water Quality for Station 3&4**

S. No	Parameter	Unit	Results	
			3.Coal Berth	4.Reclamation Area
<b>Physical</b>				
1	Temperature	°C	37.2	37.0
2	pH	H+ conc	8.24	8.12
3	Salinity	PSU	34.8	36
4	Density	g/m <sup>3</sup>	1.03	1.04
5	Turbidity	NTU	12	12
6	Total Suspended Solids	mg/l	24	24
7	Total Dissolved Solids	mg/l	34816	35040
<b>Chemical</b>				
1	Dissolved Oxygen	mg/l	3.8	4.2
2	Biological Oxygen Demand		1.4	1.8
		mg/l	0.08	
3	Oil & Grease	mg/l	1206	0.06
4	Sulphate	mg/l	0.34	1018
5	Phosphate	mg/l	16	0.38
6	Nitrate	mg/l	0.024	10
7	Nitrite	mg/l	20860	0.024
8	Chloride	mg/l	568	22636
9	Potassium	mg/l	325	342
10	COD	mg/l	13.5	14.2
11	Ammonia	mg/l	0.16	0.38
12	Sodium	mg/l	8075	8425
13	Silica	mg/l	2.4	22.4
14	Reactive Silica	mg/l	0.16	2.4
15	Total Phosphorus	mg/l	0.20	0.18
16	Total Nitrogen	mg/l	3.8	0.22
<b>Heavy metals</b>				
1	Lead	ppm	Nil	Nil
2	Cadmium	ppm	Nil	Nil
3	Copper	ppm	0.02	0.02
4	Zinc	ppm	0.02	0.04

**Table 3:13 Biological results of Marine Water Quality for Station 1 & 2**

S. No	Parameters	Unit	1.Approach Channel	2.Turning Circle
1	Phytoplankton Count	No. /L	10000	12000
2	Zooplankton Count	No./m <sup>3</sup>	800	1000
3	Chlorophyll a	mg/m <sup>3</sup>	3	3.4
4	Chlorophyll b	mg/m <sup>3</sup>	2.8	2.6
5	Primary Productivity	gC/m <sup>2</sup>	3	3
6	Biomass	mg/m <sup>2</sup>	2.4	2.2
7	Coli forms	Cfu/100ml	8	6
8	Fecal coliforms	Cfu/100ml	12	10

S.No	Species	Total Species count in 1L	
		1.Approach Channel	2.Turning Circle
A.	<b>Phytoplankton Species</b>		
	<i>Prorocentrummicans</i>	30	48
	<i>Amphora lineolata</i>	16	20
	<i>Cymbella marina</i>	42	34
	<i>Bacteriastrumdelicatulum</i>	26	30
	<i>Thalassionemanitzschioides</i>	24	42
	<i>Chaetocerosdydymus</i>	14	18
	<i>Skeletonemacostatum</i>	10	42
	<i>Thalassiothrixlongissima</i>	8	10
	<i>Cymbella marina</i>	12	6
B.	<b>Zooplankton Species</b>		
	<i>Foraminifera</i>	54	38
	<i>Chaetognatha</i>	22	22
	<i>Amphipoda</i>	36	24
	<i>Cladocera</i>	26	26
	<i>Eggs of fish &amp; larvae</i>	2	4

**Table 3:14 Biological results of Marine Water Quality for Station 3&4**

S. No	Parameters	Unit	3.Coal Berth	4.Reclamation Area
1	Phytoplankton Count	No. /L	14000	10000
2	Zooplankton Count	No./m <sup>3</sup>	1000	800
3	Chlorophyll a	mg/m <sup>3</sup>	3.2	3.2



4	Chlorophyll b	mg/m <sup>3</sup>	2.8	2.8
5	Primary Productivity	gC/m <sup>2</sup>	3.4	3.0
6	Biomass	mg/m <sup>2</sup>	2.6	2.8
7	Coli forms	Cfu/100ml	08	08
8	Fecal coliforms	Cfu/100ml	16	18

S.No	Species	Total Species count in 1L	
		3.Coal Berth	4.Reclamation Area
A.	<b>Phytoplankton Species</b>		
	<i>Prorocentrummicans</i>	56	34
	<i>Amphora lineolata</i>	28	16
	<i>Cymbella marina</i>	30	58
	<i>Bacteriastrumdelicatulum</i>	26	26
	<i>Thalassionemanitzschioides</i>	34	16
	<i>Chaetocerosdydymus</i>	14	14
	<i>Skeletonemacostatum</i>	42	28
	<i>Thalassiothrixlongissima</i>	14	08
	<i>Cymbella marina</i>	06	14
B.	<b>Zooplankton Species</b>		
	<i>Foraminifera</i>	46	34
	<i>Chaetognatha</i>	22	22
	<i>Amphipoda</i>	30	26
	<i>Cladocera</i>	26	14
	<i>Eggs of fish &amp; larvae</i>	10	02



### 3.9 Surface Water Monitoring

Surface water quality is carried out at two locations i.e

1. Buckingham Canal
2. Khandaleru Creek

Photographs of surface monitoring conducted in May 2023 was shown in **Figure 3:6**



**Figure 3:6 Surface water collection**

The results of the surface water monitoring conducted in May 2023 for were shown in **Table 3:15** and **Table 3:16**.

**Table 3:15: Physical & Chemical Results of Surface Water**

S. No	Parameter	Unit	Results	
			Buckingham Canal	Khandaleru Creek
<b>Physical</b>				
1	Temperature	°C	37.2	36.4
2	pH	H+ conc	8.14	8.10
3	Salinity	PSU	34	32
4	Density	g/m <sup>3</sup>	1.04	1.01
5	Turbidity	NTU	24	46
6	Total Suspended Solids	mg/l	46	54
7	Total Dissolved Solids	mg/l	44638	36236
<b>Chemical</b>				
1	Dissolved Oxygen	mg/l	3.4	3.6
2	Biological Oxygen Demand		1.2	1.4
		mg/l		
3	Oil & Grease	mg/l	0.04	0.04



S. No	Parameter	Unit	Results	
			Buckingham Canal	Khandaleru Creek
4	Sulphate	mg/l	994	986
5	Phosphate	mg/l	0.34	0.32
6	Nitrate	mg/l	14	12
7	Nitrite	mg/l	0.028	0.024
8	Chloride	mg/l	20426	19426
9	Potassium	mg/l	568	580
10	COD	mg/l	14.6	13.6
11	Ammonia	mg/l	0.32	0.36
12	Sodium	mg/l	9436	10434
13	Silica	mg/l	24.4	18.4
14	Reactive Silica	mg/l	2.8	2.0
15	Total Phosphorus	mg/l	0.16	0.18
16	Total Nitrogen	mg/l	0.24	0.22
<b>Heavy metals</b>				
1	Lead	ppm	Nil	Nil
2	Cadmium	ppm	Nil	Nil
3	Copper	ppm	0.02	0.02
4	Zinc	ppm	0.04	0.04

Table 3:16 Biological Results of Surface Water

S. No	Parameters	Unit	Buckingham Canal	Khandaleru Creek
1	Phytoplankton Count	No. /L	10000	12000
2	Zooplankton Count	No./m <sup>3</sup>	1200	1000
3	Chlorophyll a	mg/m <sup>3</sup>	3.4	3.4
4	Chlorophyll b	mg/m <sup>3</sup>	2.8	2.6
5	Primary Productivity	gC/m <sup>2</sup>	3.0	3
6	Biomass	mg/m <sup>2</sup>	2.6	2.2
7	Coli forms	Cfu/100ml	08	6
8	Fecal coliforms	Cfu/100ml	12	10

S.No	Species	Total Species count in 1L	
		Buckingham Canal	Khandaleru Creek
A.	<b>Phytoplankton Species</b>		
	<i>Prorocentrummicans</i>	36	32
	<i>Amphora lineolata</i>	16	24
	<i>Cymbella marina</i>	34	30



S.No	Species	Total Species count in 1L	
		Buckingham Canal	Khandaleru Creek
	<i>Bacteriastrumdelicatulum</i>	30	26
	<i>Thalassionemanitzschioides</i>	42	48
	<i>Chaetocerosdydymus</i>	24	14
	<i>Skeletonemacostatum</i>	36	32
	<i>Thalassiothrixlongissima</i>	04	08
	<i>Cymbella marina</i>	10	22
B.	<b>Zooplankton Species</b>		
	<i>Foraminifera</i>	46	54
	<i>Chaetognatha</i>	22	22
	<i>Amphipoda</i>	28	30
	<i>Cladocera</i>	26	26
	<i>Eggs of fish &amp; larvae</i>	06	04



## 4 Compliance Status

### 4.1 Compliance Reports of AKPL of Phase-1 Development

#### 4.1.1 Environmental & CRZ Clearance

The phase I development of Krishnapatnam Port has obtained Environmental and CRZ Clearance vide MoEF EC Order No.10-22/2005-IA-III dated 26.07.2006. Various conditions are stipulated by MoEF in the EC order. The compliance to the MoEF&CC conditions is tabulated in the **Table 4:1**.

**Table 4:1: Compliance status of MoEF EC conditions (Phase-1)**

S.No	MoEF Stipulations	Compliance status as on 30.09.2022
<b>(A) Specific Conditions</b>		
1.	All the conditions stipulated by Andhra Pradesh State Pollution Control Board in their letter Order No. APPCB/VJA/NLR/633/HO/2004/9/46 7, dated 25.05.2004 should be strictly implemented.	This condition is noted by AKPL, and it is being complied with all the given conditions stipulated in the order. Periodical compliance reports of the same are regularly submitted to Andhra Pradesh Pollution Control Board. Acknowledgement copy of the compliance report submitted to APPCB is mentioned as <b>Annexure L</b> .
2.	Detailed plan for protection of the 9 acres of the mangroves should be provided.	<b>This condition is complied.</b> The said 9 acres of Mangrove area situated in the salt lands are protected and following measures are ensured: a) Display boards have been erected to protect this mangrove area. b) Tidal exchange to the 9 acres mangrove area is ensured by constructing a pipe culvert. c) The mangrove growth is stable without any disturbance due to port activity.
3.	The fisherman and salt pan workers should be rehabilitated as per the Rules of Government of Andhra Pradesh.	<b>This condition is Complied.</b> Resettlement and Rehabilitation (R&R) of fishing villages was carried out by Government of Andhra Pradesh (GoAP) as per government norms.
4.	Adequate shore protection measures, including construction of revetments/rip-raps, should be taken up based on the scientific studies. The action plan for implementing the shore protection measures should be submitted to this Ministry within 6 months from the date of receipt of this letter.	<b>This condition is Complied.</b> Hydro dynamic studies were conducted by M/s. HR Wallingford, UK. Shoreline monitoring & Marine biodiversity studies are being carried out regularly for shore protection. a) However, as recommended in report dated Oct 2007, 7 Km of coastline both North & South of the port entrance has been monitored through M/s. Indian National Centre for Ocean Information





S.No	MoEF Stipulations	Compliance status as on 30.09.2022
		<p>Services (INCOIS), Hyderabad using satellite imagery.</p> <p>b) From the INCOIS Report for the period October 2008 to January 2010, the coastline is found to be stable. Long time Shoreline stability study conducted by NIOT, Chennai in 2017-18, 2019. The coastline is found to be stable and "cause negligible impacts on the environment".</p>
5.	Green belt area should be developed along the project and budget earmarked.	<p><b>This condition is complied.</b></p> <p>AKPL (Krishnapatnam Port) has successfully developed 194.5 hectares of greenbelt within its premises since the port's inception. The development of the greenbelt has been carried out in phases I and II, resulting in a total area of 191.5 hectares that has been developed and maintained within the port premises. In line with the expansion plans for phase III of Krishnapatnam Port, an additional 3 hectares of greenbelt has been established, contributing to the proposed 120 hectares of greenbelt for this phase in addition to the existing 191.5 Ha. Developed block plantation along with along port boundary, 100 m width costal plantation, plantation roads and, around coal yards and avenue, median plantations all along the internal road networks. stackyards.</p> <p>A budget of Rs.1.41 Cr was spent on greenbelt maintenance for the year 2022-23.</p>
6.	For rail and road connectivity of the project, separate application should be submitted to this Ministry.	<p><b>This condition is complied.</b></p> <ul style="list-style-type: none"> <li>• 4 lane Road connectivity of 23 kms (widening work of 6 lanes under progress) from the NH-16 to the Krishnapatnam Port and same is developed by GoAP.</li> <li>• 20 km long electrified double line rail connectivity from the National Rail Grid to Krishnapatnam Port is formed by Rail Vikas Nigam Limited (RVNL) joint venture with GoAP, National Mineral Development Corporation (NMDC).</li> </ul> <p>Above road/rail connectivity is developed after obtaining necessary approvals from relevant statutory authorities.</p>



S.No	MoEF Stipulations	Compliance status as on 30.09.2022
7.	The Bay is reported to be calm for most of the days of the year. Even on the day of the visit, having a deep depression in South-West Bay of Bengal, the basin was calm, though the Bay experienced high waves. Hence, dredging operation in the estuary should not have any adverse impact on the existing mangroves blocks.	<b>This condition is complied.</b> Dredging was carried out in phases manner ensuring no disturbance to the existing mangroves blocks. Mangrove mapping studies were carried by NIOT, Chennai in the year 2017-18,2019 and found that no adverse impact observed on the existing mangroves. Studies were also conducted by NCSCM recently in May 2022, 2023 and found the condition is complied.
8.	During the rough weather, resulting in high flood tides, dredging operation in the estuary should be stopped.	This condition is complied. No dredging activity is planned during high flood. NO dredging is carried out during rough weather conditions.
9.	Regarding the location of stock yard in the salt pan area to be acquired, the proponent should not take up any developmental works in the mangrove area and should ensure that no destruction of mangroves takes place.	Agreed by AKPL and complied. Currently there are no stock yards operating at salt pan areas. Salt pan lands are yet to be transferred on leased by GoAP. Developmental works are being regulated and ensured that no destruction of mangroves takes place.
10.	A disaster management plan covering emergency evacuation mechanism etc., to deal with natural disaster events should be prepared and furnished to the Ministry.	<b>This condition is complied.</b> Disaster Management Plan covering emergency evacuation mechanisms to deal with natural disaster events is in place and it is regularly being updated time to time.  The last update was on June 2021 and submitted to RO, MoEF&CC along with six monthly compliance report.
11.	The company must take up and earmark adequate funds for the socio-economic development and for welfare measures in the area including drinking water supply, vocational training, and fishery	<b>Being complied.</b> As part of Corporate Social Responsibility (CSR), socio economic development schemes and welfare measures in the form of development of roads, Ddrains, drinking water supply by providing tankers and overhead tanks, sanitation and public health, roads and street lighting in the R&R Colonies are being taken up by AKPL. For the financial year 2022-23 Budget of 926.67 lakhs were spent on CSR activities.
12.	The fishing activities by the fishermen living in the settlement along the creek should not be hindered and a mechanism may be evolved for the movement of fishing boats vis-a-vis shipping activities.	<b>This condition is complied.</b> Mechanism for movement of fishing boats vis-à-vis shipping was evolved keeping in mind the safety, security, ISPS and customs requirements and is being followed to ensure no hinderance to fishermen.



S.No	MoEF Stipulations	Compliance status as on 30.09.2022
13.	The Relocation of the fishermen and local communities in the area should be done strictly in accordance with the norms prescribed by the State Government. The relocated communities should be provided with all facilities including health care, education, sanitation and livelihood.	<b>This condition is complied.</b> GoAP Rehabilitated the Fishermen and Local Communities. Krishnapatnam Port provided infrastructure facilities under CSR activities at the Rehabilitation Colony in the form of development of Roads, Drains, drinking water supply, supply of cooking gas, housing, educational assistance, student hostels, old age homes, financial aid, imparting vocational trainings, women empowerment and public health, Malaria Control measures, Medical and Health camps in R&R colony covering 4 locations Andal Nagar, Mathura Nagar, Ramalingapuram & Simhadri Nagar.
14.	The company should take up green belt program in the project area including an ecological park and the plan may be submitted to the Ministry within one year.	<b>This condition is complied.</b> AKPL (Krishnapatnam Port) has successfully developed 194.5 hectares of greenbelt within its premises since the port's inception. The development of the greenbelt has been carried out in phases I and II, resulting in a total area of 191.5 hectares that has been developed and maintained within the port premises. In line with the expansion plans for phase III of Krishnapatnam Port, an additional 3 hectares of greenbelt has been established, contributing to the proposed 120 hectares of greenbelt for this phase in addition to the existing 191.5 Ha. Developed progressively along port boundary, around coal yards, of avenue & median plantations. Ecological Park with native were developed.
15.	The company may suitably modify the alignment of channel entrance including its width, turning circle, taking into consideration the wave traversal, its intensity etc., to facilitate smoother navigation of ships.	<b>This condition is complied.</b> The channel alignment for well-ordered ship navigation is designed based on navigation simulation studies dated March 2009 by M/s. HR Wallingford, UK. Review of channel was taken up based on this condition and ensured the alignment of channel entrance is all safe for smooth navigation of ships.
16.	The breakwater alignment and its design should be further modified based on relevant model studies, borehole data etc., keeping in view the tranquility condition required for	<b>This condition is complied.</b> The alignment and design of breakwaters are based on geotechnical investigations, geotechnical stability analysis, Numerical model studies undertaken by M/s. HR Wallingford, UK.



S.No	MoEF Stipulations	Compliance status as on 30.09.2022
		Based on this condition to have good tranquility condition, 3D model studies of tranquility conducted at Lanka Hydraulic Laboratories, Sri Lanka and Physical model studies of breakwaters at IIT Chennai were carried out.
17.	The height of dumping in the dumping site should be restricted to 30 cm against 90 cm proposed.	<b>This condition is complied.</b> Bathymetry of dumping site is being monitored periodically to avoid build up. Last Bathymetry of dumping location carried out on 28.03.2021 and negligible deposition observed which is much below 30cm of initial bathymetry.
18.	The project proponent will not undertake any destruction of mangroves during construction and operation of the project.	<b>This condition is complied.</b> Existing mangrove areas are being protected and conserved with suitable barricading, erection of display boards and ensuring the tidal flow. The construction of Phase-I development was completed on 01.09.2009 and commercial operations started on 20.03.2009. No mangrove destruction was carried out.  Mangrove mapping studies were carried by NIOT, Chennai in the year 2017-18,2019 and found that no adverse impact observed on the existing mangroves. Studies were also conducted by NCSCM recently in May 2022, 2023 and found the condition is complied.
19.	Sewage arising in the port area should be disposed off through septic tank – soak pit system or should be treated along with the industrial effluents to conform to the standards stipulated by Andhra Pradesh Pollution Control Board and should be utilized/ re-cycled for gardening, plantation and irrigation.	<b>This condition is complied</b> 540 KLD of Sewage Treatment Plants (STP) were installed for treatment of sewage generated in the port. Treated wastewater from STP is being utilized for the green belt within port premises. Septic tank and soak pit systems are being followed at offices and isolated buildings which are far from STPs.
20.	Adequate plantation should be carried out along the roads of the Port premises and a green belt should be developed.	<b>This condition is complied.</b> AKPL (Krishnapatnam Port) has successfully developed 194.5 hectares of greenbelt within its premises since the port's inception. The development of the greenbelt has been carried out in phases I and II, resulting in a total area of 191.5 hectares that has been developed and maintained within the port premises. In line with the expansion



S.No	MoEF Stipulations	Compliance status as on 30.09.2022
		plans for phase III of Krishnapatnam Port, an additional 3 hectares of greenbelt has been established, contributing to the proposed 120 hectares of greenbelt for this phase in addition to the existing 191.5 Ha. Developed progressively along port boundary, coastal plantation, mangrove plantation, Dense plantation around coal yards, avenue & median plantations all along the road networks. .
21.	Project proponent should prepare and regularly update the Disaster Management Plan from time to time.	<p><b>This condition is complied</b> Disaster Management Plan covering emergency evacuation mechanisms to deal with natural disaster events is in place and it is regularly being updated time to time.</p> <p>The last update was on June 2021 and submitted to RO, MoEF&amp;CC along with six monthly compliance report Disaster Management Plan is regularly being updated time to time. .</p>
22.	Fire Fighting arrangements are examined to the new proposal.	<p><b>This condition is complied</b> a) Port has developed dedicated fire-fighting system with required equipment and trained professionals. b) Developed Fire contingency plan and implementing the same. c) Port Tugs are also having firefighting equipment</p>
23.	There should be no withdrawal of ground water in CRZ area, for this project. The proponent should ensure that as a result of the proposed constructions, ingress of saline water into ground water does not take place. Piezometers should be installed for regular monitoring for this purpose at appropriate locations on the project site.	<p><b>This condition is complied</b> There is no withdrawal of ground water. The water requirement is being met from Nakkala kalava &amp; Muthukur reservoir. 1 Piezometer (Automatic water level monitoring system including temperature monitoring) installed at port and regular monitoring being carried out with NABL Accredited Laboratory.</p>
24.	The project should not be commissioned till the requisite water supply and electricity to the project are provided by the PWD/Electricity Department.	<p><b>This condition is complied</b> Required necessary permissions like water supply and electricity supply are obtained from concern departments. a) Electrical power has been provided by Andhra Pradesh Transport Corporation (APTRANSCO).</p>



S.No	MoEF Stipulations	Compliance status as on 30.09.2022
		<p>b) GoAP ordered to release 1 MLD (Million Liters per day) water to KPCL from Muthukur Reservoir.</p> <p>c) As permitted by GoAP, water from 'Nakkalakalava' 4 MLD is being utilized for dust suppression &amp; fire-fighting needs. Agreement on Water supply between Krishnapatnam port and Irrigation &amp; CAD department dated July 28 2010 is attached as <b>Annexure E</b>.</p>
25.	Specific arrangements for rainwater harvesting should be made in the project design and the rainwater so harvested should be optimally utilized. Details in this regard should be furnished to this Ministry's Regional Office at Bangalore within 3 months.	<b>This condition is complied.</b> 12 no. of Rainwater harvesting ponds developed at various locations in Port premises.
26.	The facilities to be constructed in the CRZ area as part of this project should be strictly in conformity with the provisions of the CRZ Notification, 1991 as amended subsequently.	<b>Agreed by AKPL and Being Complied.</b> Only permissible activities as per the CRZ Notification were planned in the CRZ area.
27.	Green buffer zone should be provided all around the project area in consultation with local forest department and the report submitted to this Ministry's Regional Office at Bangalore.	This condition is complied. AKPL (Krishnapatnam Port) has successfully developed 194.5 hectares of greenbelt within its premises since the port's inception. The development of the greenbelt has been carried out in phases I and II, resulting in a total area of 191.5 hectares that has been developed and maintained within the port premises. In line with the expansion plans for phase III of Krishnapatnam Port, an additional 3 hectares of greenbelt has been established, contributing to the proposed 120 hectares of greenbelt for this phase in addition to the existing 191.5 Ha. Developed along port boundary, around coal yards, avenue & median plantations in consultation with local forest department
28.	No product other than those permissible in the Coastal Regulation Zone Notification, 1991 should be stored in the Coastal Regulation Zone area.	<b>Agreed by AKPL and Being complied.</b> Only permissible activities as per the CRZ Notification were planned in the CRZ area.
<b>(B) General Conditions</b>		



S.No	MoEF Stipulations	Compliance status as on 30.09.2022												
1.	Construction of the proposed structures should be undertaken meticulously conforming to the existing Central/local rules and regulations including Coastal Regulation Zone Notification 1991 & its amendments. All the construction designs / drawings relating to the proposed construction activities must have approvals of the concerned State Government Departments / Agencies	<b>This condition is complied</b> The Port Authorities informed that all construction designs / drawings related to construction activity are approved by State government of A.P & regulations including Coastal Regulation Zone Notification 1991 & its amendments and all the activities proposed is completed.												
2.	Adequate provisions for infrastructure facilities such as water supply, fuel, sanitation etc., should be ensured for construction workers during the construction phase of the project so as to avoid felling of trees/mangroves and pollution of water and the surroundings.	<b>Being complied</b> Adequate provisions including water supply, fuel and sanitation were ensured for workers at the time of construction. The construction of Phase-I development was completed on 01.09.2009 and commercial operations started on 20.03.2009.												
3.	The project authorities must take necessary arrangements for disposal of solid wastes and for the treatment of effluents by providing a proper waste water treatment plant outside the CRZ area. The quality of treated effluents, solid wastes and noise level etc., must conform to the standards laid down by the competent authorities including the Central / State Pollution Control Board and the Union Ministry of Environment and Forests under the Environment (Protection) Act, 1986, whichever are more stringent.	<p><b>Being Complied.</b></p> <p>a) Solid wastes are being collected, segregated and disposed as under:</p> <table border="1"> <thead> <tr> <th>S.No</th> <th>Material</th> <th>Method of Disposal</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Biodegradable waste</td> <td>Canteen waste: Composting &amp; used as manure/sand to pig-farms</td> </tr> <tr> <td>2</td> <td>Non-Biodegradable waste</td> <td>Disposal to appropriate recyclers</td> </tr> <tr> <td>3</td> <td>Used Oils/Used Batteries</td> <td>Batteries are procured on buy back basis and Used oil is being disposed to approved vendors of APPCB</td> </tr> </tbody> </table> <p>b) 540 KLD STP's are commissioned and is located outside the CRZ area.</p> <p>c) Appointed an NABL accredited agency to carry-out noise monitoring and STP inlet and</p>	S.No	Material	Method of Disposal	1	Biodegradable waste	Canteen waste: Composting & used as manure/sand to pig-farms	2	Non-Biodegradable waste	Disposal to appropriate recyclers	3	Used Oils/Used Batteries	Batteries are procured on buy back basis and Used oil is being disposed to approved vendors of APPCB
S.No	Material	Method of Disposal												
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S.No	MoEF Stipulations	Compliance status as on 30.09.2022
		<p>outlet sample analysis and submitting the report to to SPCB on monthly basis &amp; on Half-yearly basis to MoEF &amp; CC.</p> <p>d) The reports for the period from October 2022 to March 2023 are furnished in Chapter – 2 under EMP &amp; Sustainability Activities – Page No.2.40 to 2.43.</p> <p>e) Conducted Day &amp; Night Noise Monitoring on XX.05.2023 at following locations:            -Zero Point            -Thamminapatnam            -CVR Building            -Gopalapuram            -Chalivendram            -Krishnapatnam            -Krishnapatnam Village near Light House</p> <p>f) The monitored data is presented in chapter 3.</p> <p>g) Treated effluent sample conformed to APPCB norms and is recycled for Green Belt development.</p>
4.	<p>The proponents should provide for a regular monitoring mechanism so as to ensure that the treated effluents conform to the prescribed standards. The records of analysis reports must be properly maintained and made available for inspection to the concerned State / Central officials during their visits.</p>	<p><b>Being complied</b></p> <p>a)Port established 540 KLD capacity of STPs and sampling and analysis as a part of compliance monitoring is being carried out through an agency accredited by NABL and approved by MoEF&amp;CC. Results of monitoring conform to norms and periodical Monitoring Reports are being submitted to APPCB regularly.</p> <p>b) Records of analysis reports are properly maintained and are being made available for inspection to the APPCB and MoEF&amp;CC during their visits.</p>
5.	<p>In order to carry out the environmental monitoring during the operational phase of the project, the project authorities should provide an environmental laboratory well equipped with standard equipment and facilities and qualified manpower to carry out the testing of various environmental parameters.</p>	<p><b>Being complied</b></p> <p>AKPL appointed Laboratory to conduct Environmental Monitoring which is accredited to NABL and approved by MoEF&amp;CC.</p> <p>Environmental monitoring parameters on terrestrial as well as marine water quality and submitting the report to RO, A.P. Pollution Control Board on monthly basis and MoEF&amp;CC on half-yearly basis.</p>





S.No	MoEF Stipulations	Compliance status as on 30.09.2022
		<p>The monitoring details for the period from October 2022 to March 2023 are furnished in Chapter – 2, under EMP &amp; Sustainability Activities Page 2.44 to 2.72</p> <p>The Environmental Monitoring (Marine &amp; Terrestrial) was carried out on 20.05.2023 at Port premises. The results are furnished in Chapter – 3. As per the results, the parameters are confirming with the stipulated standards.</p> <p>Under the supervision of the Chief Executive Officer (CEO) of the port, Environmental cell with qualified personnel and environmental laboratory are established.</p>
6.	The sand dunes and mangroves, if any, on the site should not be disturbed in any way.	<p><b>Agreed by AKPL and Being complied.</b> Existing mangrove areas are being protected and conserved with suitable barricading, erection of display boards and ensuring the tidal flow. The construction of Phase-I development was completed on 01.09.2009 and commercial operations started on 20.03.2009.</p> <p>Mangrove mapping studies were carried by NIOT, Chennai in the year 2017-18,2019 and found that no adverse impact observed on the existing mangroves. Studies were also conducted by NCSCM recently in May 2022, 2023 and found the condition is complied. . No disturbance is caused to mangroves.</p>
7.	A copy of the clearance letter will be marked to the concerned Panchayat/local NGO, if any, from whom any suggestion/representation has been received while processing the proposal.	<p><b>This condition is complied.</b> Copies of Environmental Clearance letters were submitted to Sarpanch, Krishnapatnam Grama Panchayat, Nellore on 10th August, 2006 and to President, Nellore District Mechanized Fishing Boat Operators Association on 10th August, 2006.</p>
8.	The Andhra Pradesh Pollution Control Board should display a copy of the clearance letter at the Regional Office, District Industries Centre and Collector's Office/Tehsildar's Office for 30 days.	<p><b>This condition is complied.</b> Copies of Environmental Clearance letters were submitted to APPCB. This condition was complied.</p>
9.	The funds earmarked for environment protection measures should be	Being Complied



S.No	MoEF Stipulations	Compliance status as on 30.09.2022
	maintained, in a separate account and there should be no diversion of these funds for any other purpose. A year-wise expenditure on environmental safeguards should be reported to this Ministry's Regional Office at Bangalore and the State Pollution Control Board.	The Port authorities informed that the environmental monitoring and protection measures were included in the Contractor's scope at the construction stage of the project. During the Operations stage, the Funds & expenditure earmarked for environment protection measures are being reported in Form – V Environmental Statement and submitting the same to MoEF& CC, and APPCB Latest submission is on 30.09.2022 for the period 2021-2022. Copy of the Environmental Statement is given as <b>Annexure J.</b>
10.	Full support should be extended to the officers of this Ministry's Regional Office at Bangalore and the officers of the Central and State Pollution Control Boards by the project proponents during their inspection for monitoring purposes, by furnishing full details and action plans including the action taken reports in respect of mitigative measures and other environmental protection activities.	<b>Being Complied</b>  <b>complied.</b> Compliance reports are being submitted to RO, MoEF&CC.
11.	In case of deviation or alteration in the project including the implementing agency, a fresh reference should be made to this Ministry for modification in the clearance conditions or imposition of new ones for ensuring environmental protection.	<b>Agreed by AKPL</b>
12.	The Ministry reserves the right to revoke this clearance, if any of the conditions stipulated are not complied with to the satisfaction of this Ministry.	<b>Agreed by AKPL</b>
13.	The Ministry or any other competent authority may stipulate any other additional conditions subsequently, if deemed necessary, for environmental protection, which should be complied with.	<b>Agreed by AKPL</b>
14.	The project proponent should advertise in at least two local newspapers widely circulated in the region around the project, one of which should be in the vernacular language of the locality concerned, informing that the project has been	<b>This condition is complied.</b> Advertisement was published in Local Newspaper namely Andhra Jyothi dated 11.08.2006. A copy of the advertisement was submitted to the Regional Office, Bangalore of MoEF vide our Letter No.KP/MOEF/346 dated 23.08.2007.



S.No	MoEF Stipulations	Compliance status as on 30.09.2022
	<p>accorded environmental clearance and copies of clearance letters are available with the State Pollution Control Board and may also be seen at Website of the Ministry of Environment &amp; Forests at <a href="http://www.envforin.in">http://www.envforin.in</a>.The advertisement should be made within 7 days from the date of issue of the clearance letter and a copy of the same should be forwarded to the Regional Office of this Ministry at Bangalore.</p>	
15.	<p>The project proponents should inform the Regional Office at Bangalore 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.</p>	<p><b>This condition is complied.</b>            Details were furnished to the MoEF&amp;CC, Regional Office, Bangalore, vide our letter no. KP/MOEF/60 dated 16th Feb, 2007.            Financial Closure: 16.10.2006            Approval of the Project by GoAP: 17.09.2004 Start of Land Development June, 2006</p>
16.	<p>The above mentioned stipulations will be enforced among others under the Water (Prevention and Control of Pollution) Act 1974, the Air (Prevention and Control of Pollution) Act, 1981, the Environment (protection) Act, 1986, the Hazardous Chemicals (Manufacture, Storage and Import) Rules, 1989, the Coastal Regulation Zone Notification, 1991 and its subsequent amendments and the Public Liability Insurance Act, 1991 and the Rules made there under from time to time. The project proponents should also ensure that the proposal complies with the provisions of the approved Coastal Zone Management Plan of Andhra Pradesh State and the Supreme Court's order dated 18<sup>th</sup> April, 1996 in the Writ Petition No.664 of 1993 to the extent the same are applicable to this proposal.</p>	<p><b>Agreed by AKPL and being complied.</b>            All mentioned stipulations enforced under Air (Prevention and Control of Pollution) Act, 1981, the Environment (protection) Act, 1986, the Hazardous Chemicals (Manufacture, Storage and Import) Rules, 1989, the Coastal Regulation Zone Notification, 1991 and its subsequent amendments and the Public Liability Insurance Act, 1991 and the Rules have been complied with true spirit.</p>



## 4.2 Compliance Reports of AKPL of Phase-II Development

### 4.2.1 Environmental & CRZ Clearance

The phase II development of Krishnapatnam Port has obtained Environmental and CRZ Clearance vide MoEF&CC EC Order No.11-62/2009-IA-III dated 13.11.2009. Various conditions are stipulated by MoEF&CC in the EC order. The compliance to the conditions is tabulated in the Table 4:2.

**Table 4:2: Compliance status of MoEF EC conditions (Phase- II)**

S.No	MoEF Stipulations	Compliance
<b>Specific Conditions</b>		
1.	All the conditions as stipulated by the Forests & Environment Department, Govt. of Andhra Pradesh vide letter No.2286/CZMA/2009; dated 11.05.2009 shall be strictly complied.	<b>Agreed by AKPL and Being complied.</b> The APCZMA recommended the project for CRZ clearance and all conditions stipulated are being complied by AKPL. ,
2.	All the details / information submitted by the project proponent vide letter No.KP/MOEF/PH-II/174, dated 17.08.2009 shall be strictly complied. The details are as follows: i.Southern Boundary of proposed dredge disposal area of Phase-II shall be moved towards North to coincide with Northern Boundary of Phase-I dredge disposal area. ii.Impact of bridges & conveyor across creeks to be re-examined to avoid impact on mangroves. iii.To engage INCOIS or other reputed organization to monitor coastal behavior for a longer period. v.Runoff from Coal Stock piles shall be collected in dump ponds and recycled for dust suppression and fire protection.	<b>Complied.</b> i. Southern Boundary of proposed dredge disposal area of Phase-II has been moved towards North to coincide with Northern Boundary of Phase-I dredge disposal area. ii. Belt Conveyors and Road Bridge crossings have no impact on Mangroves. Railway Bridge Location is reworked to avoid disturbance to mangroves. iii. M/s. Indian National Centre for Ocean Information Services (INCOIS) was engaged for coastal monitoring. As per their Report for 2008-10, the port development has not impacted the coast. Runoff from coal storage yards is routed through peripheral drains, collection pits and guard (Dump) ponds with facility to recycle the water for dust suppression. iv. NIOT, Chennai also conducted studies in the year 2017-18,2019 and found that no adverse impact observed. v. Long time Shoreline stability study conducted by NIOT, Chennai in the year 2017-18 and same continuing in year 2022-23. the coastline is found to be stable
3.	The hydro-dynamic studies shall be undertaken to ascertain the impact to the shoreline in the stretch and ecologically sensitive areas and the report shall be submitted to the Ministry.	<b>Complied.</b> a. The hydro-dynamic studies to ascertain the impact of port development on the shoreline in the stretch have been carried out through M/s.HR Wallingford, UK. No



S.No	MoEF Stipulations	Compliance
		<p>long-term impact is noticed due to minimal net drift along the coast at Krishnapatnam Port.</p> <p>b. However, as recommended in their report dated October 2007, 7 Km of coast line both North and South of the port entrance is monitored through M/s. Indian National Centre for Ocean Information Services (INCOIS), Hyderabad using satellite imagery.</p> <p>c. From the INCOIS report for the period October 2008 to January 2010, the coastline is found to be stable. Long time Shoreline stability study conducted by NIOT, Chennai in the year 2017-18 and same continuing in year 2022-23. the coastline is found to be stable.</p>
4.	Ministry has taken a decision that the plantation of mangroves shall be undertaken on an area of 50 ha. as the Phase-II of the project spreads over 800 ha.	<p><b>This condition is complied.</b></p> <ol style="list-style-type: none"> <li>1. Mangrove's development in 50 Ha. is undertaken in the port.</li> <li>2. For the current year 2022-23, Rs. 4.95 lakhs is budgeted towards mangrove conservation.</li> </ol>
5.	Six monthly monitoring shall be carried out and a comparative analysis shall be made to examine for any mitigative measures required.	<p><b>Being complied.</b></p> <p>The Six-monthly Environmental Monitoring Report of AAQ, Noise, Marine and ground water, Marine Sediment and Soil is being carried out by NABL and MoEF&amp;CC accredited agency and a detailed comparative analysis were prepared and are being submitted in half yearly compliance reports. Findings shows all values are within limits and ensured mitigative measures are being implemented. Reports are being submitted to Ministry and APPCB and enclosed as <b>Annexure H.</b></p>
6.	The temperature, salinity and tidal inflow shall be monitored weekly.	<p><b>Being complied.</b></p> <p>Monitoring is being carried out on weekly basis with a NABL accredited consultant and same is being reported. The last six months monitoring data is given in the section 2.14 of this report.</p>
7.	The greenbelt of 100 m. width shall be developed around the coal stack yard as per the request in the public hearing.	<p><b>Being Complied</b></p> <p>During Public Hearing it was requested to develop 100 m width of green belt along boundary.</p> <p>Port authorities requested MoEF&amp;CC vide ltr. No.: KP/MOEF/113 dt. 29<sup>th</sup> August 2012 to modify this condition suitably. 100 m width Green belt along the port boundary,</p>



S.No	MoEF Stipulations	Compliance
		coastal area and 20 m wide green belt around coal stack yards is developed as requested during public hearing.
8.	Impact on the drawl of the water from the Kandaleru Creek shall be regularly monitored and report submitted to the Ministry.	<b>This condition is complied</b> Water is not drawn from Kandaleru Creek, and quality of water is being monitored and reported during monthly and half yearly compliance monitoring report in all compliance reports
9.	Continuous monitoring on disposal of dredged material shall be put in place for both pre and post monsoon periods.	<b>Being complied</b> Bathymetry of the disposal area of dredged material i.e., the dumping grounds is being monitored periodically for both pre and post monsoon periods.
10.	No construction work other than those permitted in Coastal Regulation Zone Notification shall be carried out in Coastal Regulation Zone area.	<b>Agreed by AKPL and Being complied.</b> Only permitted construction works in CRZ area were carried out at site.  The Port Authorities informed that all construction activities are as per regulations including Coastal Regulation Zone Notification 1991 & its amendments and all the activities proposed is completed.
11.	Oil spills if any shall be properly collected and disposed as per the Rules.	<b>Agreed by AKPL and Being complied</b> Oil Spills are being managed as per the approved Oil Spill Contingency Plan. AKPL have procured Oil Boom, Skimmer and chemicals to contain any oil spill in case of any accidental spills occurs. Staff is trained to cater to Tier-I Oil spills. As per Disaster Management Plan, Indian Coast Guard will be alerted to Coordinate. Latest OPR drill was conducted at the port on 16-04-2023
12.	The approach channel shall be properly demarcated with lighted buoys for safe navigation and adequate traffic control guidelines shall be framed. The fishermen shall be suitably educated and informed about the traffic guidelines.	<b>This condition is complied.</b> The approach channel is marked with lighted buoys for safe navigation.  Adequate traffic control guidelines were framed, and copy was submitted to the Fisheries Department to suitably inform fishermen.
13.	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.	<b>This condition is complied.</b> Environmental Cell has been set-up under the supervision of the CEO. Environmental review meetings are being held regularly for effective implementation of stipulated safeguards. i. Accreditation to International Management Systems ii. Adani Krishnapatnam Port is accredited to and complying with



S.No	MoEF Stipulations	Compliance
		<p>the following international management Systems:</p> <ol style="list-style-type: none"> <li>a. ISO 14001 Environmental Management System</li> <li>b. ISO 9001 Quality Management System</li> <li>c. ISO 45001 OH &amp; Safety Management</li> <li>d. ISO 28000 Specification for Security Management System for the Supply Chain.</li> <li>e. ISO 27001 Information Security Management System</li> <li>f. CII certified Adani Krishnapatnam Port as Single use plastic free Port.</li> </ol> <p>iii. Following environmental protection measures are being implemented in the port:</p> <p><b><u>To Improve AAQ:</u></b></p> <ul style="list-style-type: none"> <li>• Installation and operation of Mechanical Dust Suppression System (MDSS) with 248 nos of sprinklers at coal stacking and wagon loading areas.</li> <li>• Deployed 12 no's of Truck mounted water sprinklers for roads and transit areas.</li> <li>• Deployed 2 nos. of Vacuum Road sweeping machines and 6 Hydraulic broom sweeping machines</li> <li>• Deployed 5 nos. of heavy duty Atomized Sprayers</li> <li>• Deploying Hoppers for unloading</li> <li>• Mechanized coal handling at 2 berths within the land so far transferred on lease by GoAP. Conveyor covering with hood.</li> <li>• Developed paved roads and resorted to mechanical sweeping of roads.</li> <li>• Tarpaulin Covering of Railway wagons coal transport vehicles destined outside the port.</li> <li>• Developed wind shield/screen and warehouses of 12 m height on west part of (Fast Track Process) FTP-1 and North side towards Krishnapatnam village in coal yards.</li> <li>• 191.5 Ha. of Greenbelt has been developed along port boundary, around coal yards and avenue &amp; median plantations.</li> <li>• Developed firefighting contingency plan, procured necessary fire tenders</li> </ul>



S.No	MoEF Stipulations	Compliance
		<p>and other equipment and deployed trained personnel.</p> <ul style="list-style-type: none"> <li>Monitoring AAQ at 7 locations through NABL accredited &amp; MoEF approved agency. Commissioned 3 no's CAAQM Equipment in the port &amp; linked to APPCB website</li> </ul> <p><b><u>To Improve Water Quality:</u></b></p> <ul style="list-style-type: none"> <li>Developed, collections pits, &amp; guard ponds for coal storage yards runoff drains and provision of superannuated water for recycling for dust suppression.</li> <li>Developed truck tire washing facility opposite MMD store with oil separator and settlement pits and provision for recycling for dust suppression.</li> <li>Developed 540 KLD STP and treated water is recycled for dust suppression and green belt development.</li> <li>Monitoring of Marine water quality, Marine sediment quality, Surface Water Quality and ground water quality at regular intervals through NABL accredited &amp; MoEF approved agency.</li> </ul> <p><b><u>To Improve Oil Spillage Control:</u></b></p> <ul style="list-style-type: none"> <li>Developed Oil Spill Contingency plan for Tier-I spills, procured necessary equipment and chemicals and deployed trained personnel.</li> <li>Trainings and periodical mock drills are being organized for the work force</li> <li>Developed on-site emergency plan duly reviewed by former DGFASLI and submitted to District administration for integrating with Off-Site Emergency plan.</li> </ul> <p><b><u>To improve occupational Health:</u></b></p> <ul style="list-style-type: none"> <li>Personal Protection Equipment (PPEs) are provided to all the workers and ensuring that all the work force uses the same regularly</li> <li>Periodical health checkups at the port dispensary are ensured for workers engaged in coal handling.</li> </ul>
14.	No destruction of mangrove is permitted. The project proponent shall take up mangrove plantation / green belt in the project area, wherever possible. Adequate budget shall be provided in the Environment Management Plan for such mangrove development.	<p><b>Agreed by AKPL and Being complied.</b></p> <p>Developed mangroves afforestation of 50 Ha within the Port area suggested by GoAP. For the current year 2022-23 Rs. 4.95 lakh is budgeted towards Mangrove Protection.</p>
15.	The funds earmarked for environment management plan shall be included in the	<p><b>This condition is complied.</b></p> <p>An amount of Rs. 6.39 Crores has been utilized for Environment management for</p>





S.No	MoEF Stipulations	Compliance												
	budget and this shall not be diverted for any other purposes.	2021-22 and budget for 2022-23 Rs. 4.72 Crores was spent.												
16.	There shall be no withdrawal of groundwater in Coastal Regulation Zone area, for this project. In case any groundwater is proposed to be withdrawn from outside the CRZ area, specific prior permission from the concerned State / Central Groundwater Board shall be obtained in this regard.	<b>This condition is complied.</b> No groundwater is being drawn at CRZ area.												
17.	The Hazardous waste generated shall be properly collected and handled as per the provisions of Hazardous Waste (Management, Handling and Transboundary Movement) Rules, 2008.	<b>Being complied.</b> Hazardous waste like used oils / grease and batteries are being collected and handled as per the provisions of Hazardous Waste (Management, Handling and Trans boundary Movement) Rules, 2016 and their amendments.												
18.	The wastewater generated from the activity shall be collected, treated and reused properly.	<b>This condition is complied.</b> 540 KLD of Sewage Treatment Plants (STP) were installed for treatment of sewage generated in the port. Treated wastewater from STP is being reused for the green belt within port premises.												
19.	Sewage Treatment facility should be provided in accordance with the CRZ Notification.	<b>This condition is complied.</b> 540 KLD STP's are developed outside CRZ areas and in accordance with CRZ notification.												
20.	No solid waste will be disposed of in the Coastal Regulation Zone area. The solid waste shall be properly collected, segregated and disposed as per the provision of Solid Waste (Management and Handling) Rules, 2000.	<b>Agreed by AKPL and Being complied.</b> Solid wastes are being collected, Segregated and disposed as per the Solid Waste (Management and Handling) Rules, 2016 and their amendment. Disposal method for various materials are as follows; <table border="1"> <thead> <tr> <th>S. No.</th> <th>Material</th> <th>Method of Disposal</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Biodegradable waste</td> <td>Green belt waste Composting, used as manure and kitchen waste Send to Pig Farms.</td> </tr> <tr> <td>2</td> <td>Non-Biodegradable waste</td> <td>Disposal to approved recyclers</td> </tr> <tr> <td>3</td> <td>Used Oils/Used Batteries</td> <td>Disposal to approved recyclers</td> </tr> </tbody> </table>	S. No.	Material	Method of Disposal	1	Biodegradable waste	Green belt waste Composting, used as manure and kitchen waste Send to Pig Farms.	2	Non-Biodegradable waste	Disposal to approved recyclers	3	Used Oils/Used Batteries	Disposal to approved recyclers
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3	Used Oils/Used Batteries	Disposal to approved recyclers												



S.No	MoEF Stipulations	Compliance
21.	Installation and operation of DG set if any shall comply with the guidelines of CPCB.	<b>Being complied.</b> Diesel Generator Sets being used are in the range of 100 KVA to 500 KVA only as back up for emergency lighting & safety during power breakdowns and these DG sets comply with the guidelines of Central Pollution Control Board (CPCB).
22.	There shall be no reclamation / dredging of areas.	<b>This condition is complied.</b> This condition is deleted vide communication from MoEF&CC vide letter no. F. No. 11-62/2009-IA.III Dated: 2 <sup>nd</sup> March, 2010.
23.	Air quality including the VOC shall be monitored regularly as per the guidelines of CPCB reported.	<b>Not Applicable</b> a. This condition pertaining to VOC monitoring is deleted vide communication from MoEF&CC vide letter F. No. 11-62/2009-IA.III Dated: 2 <sup>nd</sup> March, 2010. b. Air quality monitoring is regularly being carried out at 7 locations through an agency accredited by NABL and approved by MoEF& CC. Results of monitoring comply with the norms. Periodical Monitoring Reports are being submitted regularly to APPCB.
24.	The project proponent shall undertake green belt development.	<b>This condition is complied.</b> Greenbelt has been developed progressively in the port i.e., 100 m wide greenbelt along periphery and 20 m around coal and iron ore stackyards, total greenbelt developed by end of Phase- I & II is 191.5 Ha.
25.	Necessary clearances from all the concerned agencies shall be obtained before initiating the project.	<b>Being complied.</b> Clearances from the concerned agencies like Krishnapatnam Village Panchayat, Fishing Boat Operators Association, Nellore; NOC from Revenue Department for dispensing HSD, Rail Transport Clearance from Ministry of Railways, Customs Clearance for handling of Cargo, Appointment of Krishnapatnam Port as Conservator from GoAP etc., have already been obtained as part of Phase-I development. Further, clearances from the following statutory authorities have also been obtained. NSPC, ISPS, Coast Guards and NHO.
26.	Project proponent shall install necessary oil spill mitigation measures in the shipyard. The details of the facilities provided shall be informed to this Ministry within 3 months from the date of receipt of this letter.	<b>Being complied.</b> a. Oil Spill Contingency Response Plan is in place to cater to Tier-I spills. In pursuance, we have provided the following facilities. i. Spill response equipment and chemicals to handle Tier-1 Oil Spills ii. Shoreline cleaning equipment



S.No	MoEF Stipulations	Compliance
		<p>iii. A team of well-trained professionals to handle Oil Spill Contingencies / emergencies with the coordination of Indian Coast Guard.</p> <p>b. Details were furnished to the MoEF&amp;CC Regional Office, Bangalore, vide our letter no. KP/MoEF/PH-II/20 dated 2<sup>nd</sup>February, 2010</p>
27.	No hazardous chemicals shall be stored in the Coastal Regulation Zone area.	<b>Agreed by AKPL and being complied.</b> No hazardous chemicals are being stored in CRZ area.
28.	The project shall not be commissioned till the requisite water supply and electricity to the project are provided by the PWD / Electricity Department.	<b>This condition is complied.</b> Electrical power is being provided by APTRANSCO
29.	Specific arrangements for rainwater harvesting shall be made in the project design and the rainwater so harvested shall be optimally utilized.	<b>This condition is complied.</b> Rainwater harvesting pits are developed near buildings. For the general area, rainwater harvesting ponds are also developed at suitable locations.
30.	The facilities to be constructed in the CRZ area as part of this project shall be strictly in conformity with the provisions of the CRZ Notification, 1991 and its amendment. The facilities such as office building and residential buildings which do not require waterfront and foreshore facilities shall not be constructed within the Coastal Regulation Zone area.	<b>Agreed by AKPL</b> The Port Authorities informed that all construction activities are as per regulations including Coastal Regulation Zone Notification 1991 & its amendments and all the activities proposed is completed.
<b>General Conditions</b>		
i.	Adequate provision for infrastructure facilities including water supply, fuel and sanitation must be ensured for construction workers during the construction phase of the project to avoid any damage to the environment	<b>This condition is complied.</b> Adequate provisions including water supply, and sanitation are ensured for construction workers at the time of Construction phase. It is completed.
ii.	Appropriate measures must be taken while undertaking digging activities to avoid any likely degradation of water quality.	<b>This condition is complied.</b> Adequate measures are being taken while digging to avoid degradation of water quality.
iii.	Borrow sites for each quarry sites for road construction material and dump sites must be identified keeping in view the following:	<b>Agreed by AKPL and Being complied.</b>
	a. No excavation or dumping on private property is carried out without written consent of the owner.	No excavation or dumping on private property was carried out.
	b. No excavation or dumping shall be allowed on wetlands, forest areas or other ecologically valuable or sensitive locations.	This condition is complied.



S.No	MoEF Stipulations	Compliance
	c. Excavation work shall be done in close consultation with the Soil Conservation and Watershed Development Agencies working in the area, and	This condition is complied
	d. Construction spoils including bituminous material and other hazardous materials must not be allowed to contaminate water courses and the dump sites for such materials must be secured so that they shall not leach into the groundwater.	<b>This condition is complied.</b> Care is being taken not to contaminate water courses and Ground water. No construction spills and hazardous materials are allowed into nearby water bodies are allowed during the construction.
iv.	The construction material shall be obtained only from approved quarries. In case new quarries are to be opened, specific approvals from the competent authority shall be obtained in this regard.	<b>This condition is complied.</b> Construction material used by contractors at AKPL is from approved quarries. Royalty receipts are being submitted by contractors.
v.	Adequate precautions shall be taken during transportation of the construction material so that it does not affect the environment adversely.	<b>This condition is complied.</b> Adequate precautions were taken during transportation of construction materials.
vi.	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 and other environmental protection activities.	<b>This condition is complied</b>
vii.	Ministry of Environment & Forests or any other competent authority may stipulate any additional conditions or modify the existing ones, if in the interest of environment and the same shall be complied with.	<b>Agreed by AKPL</b>
viii.	The Ministry reserves the right to revoke this clearance if any of the conditions stipulated are not complied with the satisfaction of the Ministry.	<b>Agreed by AKPL</b>
ix.	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.	<b>Agreed by AKPL</b>
x.	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.	<b>This condition is complied.</b> These details were furnished to the MoEF&CC Regional Office, Bangalore, vide our letter no. KP/MoEF/PH-II/20 dated 2nd February, 2010. Financial Closure: 17.03.2009. Approval of the Project by GoAP: 04.08.2009 Start of land development work: 11.08.2009
xi.	Andhra Pradesh Pollution Control Board shall display a copy of the Clearance letter at the Regional Office, District Industries Centre and	<b>This condition is complied.</b> Copy of Environmental Clearance submitted to APPCB for display at Regional



S.No	MoEF Stipulations	Compliance
	Collector's Office / Tehsildar's Office for 30 days.	Office, District Industries Centre and Collector's Office / Tehsildar's Office.
	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.	<b>Agreed by AKPL</b>
	All other statutory clearances such as the approvals for storage of diesel from Chief Controller of, 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.	<b>This condition is complied.</b> Statutory clearances are obtained for storage of Diesel from Chief Controller of Explosives (CCE), Fire Department, Civil Aviation Department, and Forest Conservation Act.
	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 Clearance and copies of clearance letters are available with the Andhra Pradesh State Pollution Control Board and may also be seen on the website of the Ministry of Environment and Forests at <a href="http://www.envfor.nic.in">http://www.envfor.nic.in</a> 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.	<b>This condition is complied.</b> Advertisement was given in Two Local Newspapers namely Deccan Chronicle dated 22.11.2009 and Andhra Jyothi dated 22.11.2009. A copy of the advertisement was sent to Regional Office, Bangalore of MoEF vide our Letter No.KP/MOEF/PH.II/08 dated 18.01.2009.
	Environmental 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.	<b>Agreed by AKPL</b>
	Any appeal against this Environmental Clearance shall lie with the National Environment Appellate Authority, if preferred, within a period of 30 days as prescribed under Section 11 of the National Environment Appellate Act, 1997.	<b>Agreed by AKPL</b>
	A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zilla Parisad / Municipal Corporation, Urban Local Body and the Local NGO, if any, from whom suggestions /representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the Company by the proponent.	<b>This condition is complied.</b> Port authorities has sent copy of clearance to to concerned Panchayat, Zilla Parisad / Municipal Corporation, Urban Local Body and the Local NGO .



S.No	MoEF Stipulations	Compliance
	The proponent shall upload the status of compliance of the stipulated EC conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MoEF, the respective Zonal Office of CPCB and the SPCB. The criteria pollutant level namely; SPM, RSPM, SO <sub>2</sub> , NO <sub>x</sub> (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the project shall be monitored and displayed at a convenient location near the main gate of the Company in the public domain.	<p><b>This condition is complied.</b></p> <p>a. Periodic monitoring of various parameters is being carried out by an agency accredited by NABL and approved by MoEF&amp;CC. The results of monitoring comply with the norms. Results of periodic monitoring are being regularly submitted to statutory authorities.</p> <p>b. EMP as per the EIA report is being implemented.</p> <p>c. Environmental Information is being displayed on the port website.</p> <p>d. Six monthly Environmental Monitoring Reports are being submitted to Ministry and APPCB.</p> <p>e. Ambient Air Quality Parameters are being displayed at the main office.</p>
	The project proponent shall also submit six monthly reports on the status of compliance of the stipulated EC conditions including results of monitored data (both in hard copies as well as by e-mail) to the respective Regional Office of MoEF, the respective Zonal Office of CPCB and the SPCB.	<p><b>Being complied</b></p> <p>Acknowledgment copy of the previously submitted compliance report is given as <b>Annexure H.</b></p>
	The environmental statement for each financial year ending 31 <sup>st</sup> March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the Company along with the status of compliance of EC conditions and shall also be sent to the respective Regional Offices of MoEF by e-mail.	<p><b>Being complied.</b></p> <p>Report for the previous year (FY 2021-22) was submitted to the APPCB vide letter No. AKPL/ APPCB/EHS/077/2022-2023, dated 26.09.2022.</p>
<b>Specific Conditions vide MoEF&amp;CC order F.No. 11-62/2009-IA.III (Pt) dated 16.03.2016</b>		
	Construction activity shall be carried out strictly according to the provision of CRZ notification, 2011. No construction work other than those permitted in coastal Regulation Zone Notification shall be carried out in Coastal regulation Zone area.	<p><b>Agreed by AKPL and Being complied.</b></p> <p>No construction works other than that permitted in Coastal Regulation Zone Notification is being carried out in CRZ Area.</p>
	All the recommendations and conditions specified by AP Coastal Zone Management Authority (APCZMA) vide letter o.3160/Env/CZMA/2014 dated 14.08.2014 shall be complied with.	<p><b>Agreed by AKPL and being complied</b></p>



## 4.3 Compliance Reports of AKPL of Phase-III Development

### 4.3.1 Environmental & CRZ Clearance

The phase III development of Krishnapatnam Port has obtained Environmental Clearance vide MoEF EC Order No.10-08/2016-IA-III dated 11.01.2021. Various conditions are stipulated by MoEF&CC in the EC order. The compliance to the MoEF&CC conditions is tabulated in the Table 4:3.

**Table 4:3: Compliance status of Environmental and CRZ Clearance conditions (Phase-III)**

S.No	MoEF&CC Stipulations	Compliance status
	<b>Special Conditions</b>	
i.	The Environmental and CRZ Clearance to the project is primarily under provisions of EIA Notification, 2006 and CRZ Notification, 2011. It does not amount to approvals/consent/permissions etc., required to be obtained under any other Act/Rule/regulation. The Project Proponent is under obligation to obtain approvals / clearances under any other Acts/ Regulations or Statutes as applicable to the project.	<b>Agreed by AKPL</b>
ii.	The project proponent shall abide by all the commitments and recommendations made in the Form-II, EIA and EMP report, submissions made during Public Hearing and also that have been made during their presentation to EAC.	<b>Being complied</b> All the recommendations and commitments made in the Environment Management Plan of the Environmental Impact Assessment report, Form II, Public hearing and EAC presentations will be implemented.
iii.	Construction activity shall be carried out strictly according to the provisions of the CRZ Notification, 2011. No construction works other than those permitted in Coastal Regulation Zone Notification shall be carried out in Coastal Regulation Zone area.	<b>Agreed by AKPL and Being complied</b> All the construction works are being carried out according to the provisions of CRZ Notification, 2011. Only permitted activities in CRZ area are being carried out.
iv.	All the recommendations and conditions specified by the Andhra Pradesh Coastal Zone Management Authority (APCZMA) vide letter 202/CRZ/IND/201930 dated	<b>Agreed by AKPL and Being complied</b>



	21.05.2020 shall be complied with.	
v.	The Project proponent shall ensure that no creeks or rivers are blocked due to any activities at the project site and free flow of water is maintained. Creek water monitoring program shall be implemented during the construction phase	<b>Agreed by AKPL and Being complied</b> <b>No creek or rivers are blocked</b> Creek water monitoring will be carried out during the construction phase to ensure the free flow of water.
vi.	Development of green belt by native species with consultation with state forest department shall be ensured.	<b>Being complied</b> AKPL (Krishnapatnam Port) has successfully developed 194.5 hectares of greenbelt within its premises since the port's inception. The development of the greenbelt has been carried out in phases I and II, resulting in a total area of 191.5 hectares that has been developed and maintained within the port premises. In line with the expansion plans for phase III of Krishnapatnam Port, an additional 3 hectares of greenbelt has been established, contributing to the proposed 120 hectares of greenbelt for this phase in addition to the existing 191.5 Ha.Greenbelt developed in the Port so far majority of native species, all the saplings for the greenbelt development is being developed in-house in the nursery by collecting seeds, stem cutting etc., and purchased from the district forest department.
vii.	The proposed expansion entails 60 million cum of dredging in soft soil. As proposed, the PP shall utilize 26 million cu m of dredged sand for reclamation of low lying areas of port, stock pile 2 million cu m on the coast north of north breakwater for long term coastal protection as recommended by NIOT and disposal of balance 32 million cu m of dredged spoil in the identified dredge disposal area of 56 Km2 beyond (-) 20 m contour. The impact of dredging on the marine environment should be monitored and necessary measures shall be taken on priority basis if any adverse impact is observed. NIOT will oversee the work as scientific body and continue to monitor its impact/benefits for at least 5 years post project	<b>Agreed by AKPL and no adverse impacts are observed.</b> APPCB issued Consent for Establishment (CFE) vide their order No. 633/APPCB/CFE/RO-NLR/HO/2010 dated 25.02.2021. The impact of dredging activities will be monitored by NIOT for 5 years post completion of the project.





	completion. Necessary financial assistance to be provided by project proponent to NIOT. The report of the same to be submitted to regional office of MoEFCC by project proponent.	
viii.	Marine ecological monitoring and its mitigation measures for protection of phytoplankton, zooplanktons, macrobenthos, estuaries, sea-grass, algae, sea weeds, Crustaceans, Fishes, coral reefs and mangroves etc. as given in the EIA-EMP Report shall be complied with in letter and spirit with the help of reputed organization or individuals of national repute having knowledge in the said subject. Necessary financial assistance to be provided by project proponent.	<b>Being complied.</b> Periodical Environmental monitoring is being carried out at Adani Krishnapatnam Port by NABL accredited Laboratory which includes Biological parameters Primary productivity, Chlorophyll, Phytoplankton, Zooplankton in marine water, Benthos communities (Macro benthos, Epifauna, infauna) in Marine sediment. The report of the Environmental monitoring is being submitted to the APPCB regularly. In addition, NCSCM is engaged in annual Environmental Monitoring once in four years to carry out monitoring of various parameters covering, Land, Air quality, Noise, Water, Marine, Marine sediment and mangroves.
ix.	Continuous online monitoring of air and water covering the total area shall be carried out and the compliance report of the same shall be submitted along with the 6 monthly compliance reports to the regional office of MoEF&CC.	<b>Being complied.</b> 03 Nos. Continuous Ambient Air quality monitoring stations have been installed and all are connected to APPCB which are covered in three corners of the port periphery i.e., Gopalapuram, Thamminapatnam and Krishnapatnam.
x.	The actions shall be in accordance with proposed landscape planning concepts to minimize major landscape changes. The change in land use pattern shall be limited to the proposed port limits and be carried out in such a way as to ensure proper drainage by providing surface drainage systems including storm water network.	<b>Being complied</b> All the developmental activities will be as per the Phase-III layout and proper surface drainage system along with storm water network shall be provided to ensure proper drainage in the project area.
xi.	Suitable preventive measures be taken to trap spillage of fuel / engine oil and lubricants from the construction site. Measures should be taken to contain, control and recover the accidental spills of fuel during cargo handling.	<b>Being complied</b> Port has existing Tier-I oil spill response equipment to combat any oil spill and coordinate with Indian Coast Guard to contain, control, and recover the accidental spills of fuel during cargo handling.
xii.	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 the RO, MoEF & CC	<b>This condition is complied</b> Environmental Monitoring Plan prepared in matrix format for the Phase-III expansion and will be implemented at site



	along with half yearly compliance report.	
xiii.	The company shall draw up and implement Corporate Social Responsibility Plan as per the Company's Act of 2013.	<b>This condition is complied</b> Krishnapatnam Port implemented Corporate Social Responsibility over the years by providing facilities for Education, Skill development and employment, Health & welfare, Community development, women empowerment etc., Krishnapatnam Port will augment the existing CSR activities for the proposed
xiv.	As per the Ministry's Office Memorandum F. No. 22-65/2017-IA.III dated 30th September, 2020, the project proponent shall abide by all the commitments made by them to address the concerns raised during the public consultation. The project proponent shall initiate the activities proposed by them, based on the commitment made in the public hearing, and incorporate in the Environmental Management Plan and submit to the Ministry. All other activities including pollution control, environmental protection and conservation, R&R, wildlife and forest conservation/protection measures including the NPV, Compensatory Afforestation etc., either proposed by the project proponent based on the social impact assessment and R&R action plan carried out during the preparation of EIA report or prescribed by EAC, shall also be implemented and become part of EMP.	<b>This condition is complied</b> Public hearing for Phase-III expansion was waived as it is being developed in the existing land area of 6800 Ac. All the commitments made in the public hearing for Phase-II during 2009 are being complied. All the activities proposed in the Environment Management Plan for Phase-III along with the existing EMP including Pollution control measures, Environmental protection and conservation, R&R, Wildlife and forest conservation/protection measures including the NPV, Compensatory Afforestation, if any., as prescribed shall be implemented.
i.	Construction activity shall be carried out strictly according to the provisions of CRZ Notification, 2011 and the State Coastal Zone Management Plan as drawn up by the State Government. No construction work other than those permitted in Coastal Regulation Zone Notification shall be carried out in Coastal Regulation Zone area. A certificate of adequacy of available power from the agency supplying power to the project along with the load	<b>Being complied</b> Only permitted construction works in CRZ area are being carried out as per the provisions of CRZ Notification, 2011.  As per the Concession Agreement, GoAP shall provide power supply from the nearest substation as per the request of the company.



	allowed for the project should be obtained.	
	All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Coast Guard, Civil Aviation Department shall be obtained, as applicable by project proponents from the respective competent authorities.	<b>Being complied.</b> Krishnapatnam Port has obtained license from Chief Controller of Explosives to store petroleum class A & B as a retail outlet inside the Port which is valid up to 31.12.2024.
<b>Air Quality Monitoring and Preservation</b>		
i.	The project proponent shall install system to carryout Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM10 and PM2.5 in reference to PM emission, and SO2 and Nox in reference to SO2 and Nox emissions) within and outside the project area at least at four locations covering upwind and downwind directions.	<p>Being complied.</p> <p>Environmental Monitoring is being carried out by NABL accredited laboratory. Ambient Air Quality for the entire Port area and outside the port area at 7 locations is being monitored covering upwind and downwind directions.</p> <p>The Port has established &amp; operating 3 No. of Continuous Ambient Air Quality Monitoring stations at the below mentioned located as suggested by APCB within the Port premises to monitor the parameters viz., PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, NO, NO<sub>2</sub>, CO and the data is being uploaded to APPCB website.</p> <ul style="list-style-type: none"> <li>a. CVR Amenities Complex</li> <li>b. Thamminapatnam Village</li> <li>c. Krishnapatnam Village</li> </ul> <p>The monthly averages for the period from October 2022 to March 2023 are furnished in chapter – 2.11 &amp; 2.12 – 2.12.</p>
ii.	Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed emission standards.	<b>Being complied.</b> In the Port operation area, Port has deployed mechanical road sweeping machines for roads, 248 nos. of sprinklers system, 5 nos. of atomizers and 12 nos. mobile water tankers for coal storage yards for dust suppression measures, wind screen towards Krishnapatnam village & Godown with 12 m height to act as dust barrier towards Chalivendram village. All the existing measures shall be augmented as per the requirement and implementation of new technologies to control air pollution shall be explored for dust control in the Port.
iii.	Shrouding shall be carried out in the work site enclosing the dock/proposed facility area. This will act as dust curtain as well	<b>Being complied.</b> Shrouding shall be used in the work site to enclose and act as dust curtain.



	achieving zero dust discharge from the site. These curtain or shroud will be immensely effective in restricting disturbance from wind in affecting the dry dock operations, preventing waste dispersion, improving working conditions through provision of shade for the workers.	Wind screens are erected in the Port to minimize the dust spread to the nearby village. Greenbelt has been developed behind the wind screen which will act as buffer.  Covered the operational area with rows of plantation which are acting as wind barricades.  Ensuring water sprinkling on haul roads .
iv.	Dust collectors shall be deployed in all areas where blasting (surface cleaning) and painting operations are to be carried out, supplemented by stacks for effective dispersion.	<b>This condition is complied.</b> No blasting is anticipated in the project.
v.	The Vessels shall comply the emission norms prescribed from time to time.	<b>Agreed by AKPL</b> All the vessels calling at Krishnapatnam Port shall be verified to comply with the MARPOL regulations as prescribed from time to time.
vi.	Diesel power generating sets proposed as source of backup power should be of enclosed type and conform to rules made under the Environment (Protection) Act, 1986. The height of stack of DG sets should be equal to the height needed for the combined capacity of all proposed DG sets. Use of low Sulphur diesel. The location of the DG sets may be decided with in consultation with State Pollution Control Board.	<b>Being complied</b> All the DG sets shall be provided with acoustic enclosures and conforms to the rules made under the Environment (Protection) Act, 1986 like DG height, Fuel using low sulphur diesel and regular monitoring on stack emission check as per the prescribed CPCB norms
vii.	A detailed traffic management and traffic decongestion plan shall be drawn up to ensure that the current level of service of the roads within a 05 kms radius of the project is maintained and improved upon after the implementation of the project. This plan should be based on cumulative impact of all development and increased habitation being carried out or proposed to be carried out by the project or other agencies in this 05 Kms radius of the site in different scenarios of space and time and the traffic management plan shall be duly validated and certified by the	<b>Being complied</b> FP project management is appointed for complying the condition to study and prepare a traffic management and decongestion plan.



	State Urban Development department and the P.W.D./ competent authority for road augmentation and shall also have their consent to the implementation of components of the plan which involve the participation of these departments.	
<b>Water quality monitoring and preservation:</b>		
i.	The Project proponent shall ensure that no creeks or rivers are blocked due to any activities at the project site and free flow of water is maintained.	<b>Being complied</b> <b>No creeks or rivers blocked in the port premises</b> Creek water monitoring shall be implemented during the construction phase on/near the creek to ensure the free flow of water.
ii.	Appropriate measures must be taken while undertaking digging activities to avoid any likely degradation of water quality. Silt curtains shall be used to contain the spreading of suspended sediment during dredging within the dredging area.	<b>Being complied</b> Appropriate measures taken while undertaking digging activities to avoid any likely degradation of water quality. Dredging is planned in phased manner and Silt curtains shall be used to contain the spreading of suspended sediment during dredging within the dredging area.
iii.	No ships docking at the proposed project site will discharge its on-board waste water untreated into the estuary/ channel. All such wastewater load will be diverted to the proposed Effluent Treatment Plant of the project site.	<b>Being complied</b> No ships are allowed to discharge on board wastewater. However, Port collects garbage, oil waste, sludge etc., through Port reception facility from the Vessel and dispose through authorized recyclers.
iv.	Measures should be taken to contain, control and recover the accidental spills of fuel and cargo handle.	<b>Being complied.</b> Port has existing Tier-I oil spill response equipment to combat any oil spill supported by Indian Coast Guard to contain, control and recover the oil spill.
v.	The project proponents will draw up and implement a plan for the management of temperature differences between intake waters and discharge waters.	<b>Being complied</b> Not applicable, as there is no intake and outfall proposed in the project.
vi.	Spillage of fuel / engine oil and lubricants from the construction site are a source of organic pollution which impacts marine life. This shall be prevented by suitable precautions and also by providing necessary mechanisms to trap the spillage.	<b>Being complied</b> <ul style="list-style-type: none"> <li>Port is equipped with Tier-I, oil spill response equipment to combat spillage of oil, supported by Indian Coast Guard.</li> <li>Oil Spills, if any at construction area, shall be managed as per the Oil Spill Contingency Plan. We have Procured Oil Boom, Skimmer and chemicals.</li> </ul>



		<ul style="list-style-type: none"> <li>• Trainings and periodical mock drills are being organized for the work force at workplace. As per Disaster Management Plan, Indian Coast Guard will be alerted and Coordinate.</li> </ul>
vii.	Total fresh water use shall not exceed the proposed requirement as provided in the project details. Prior permission from competent authority shall be obtained for use of fresh water.	<b>This condition is complied</b> Port has necessary approvals to withdraw 4MLD of water from Nakalakalva Irrigation drain and 1 MLD from Muthukur tank, which will meet the total water requirement of the Port.
viii.	Sewage Treatment Plant shall be provided to treat the wastewater generated from the project. Treated water shall be reused for horticulture, flushing, backwash, HVAC purposes and dust suppression.	<b>Being complied</b> Sewage Treatment Plants of 540_KLD capacity are provided. The treated effluent from the STP is being used for greenbelt development and dust suppression.
ix.	A certificate from the competent authority for discharging treated effluent/ untreated effluents into the Public sewer/ disposal/drainage systems along with the final disposal point should be obtained.	<b>This condition is complied</b> The treated domestic water is being utilized for greenbelt development and dust suppression.
x.	No diversion of the natural course of the river shall be made without prior permission from the Ministry of Water resources.	<b>Agreed by AKPL and Being complied</b> The project does not involve any diversion of the natural course of the river.
xi.	All the erosion control measures shall be taken at water front facilities. Earth protection work shall be carried out to avoid erosion of soil from the shoreline/boundary line from the land area into the marine water body.	<b>Being complied</b> Port shall stockpile 2 Million Cu.m of dredged material as erosion control measure at the shore, north of north breakwater as recommended by NIOT.
<b>Noise Monitoring and prevention</b>		
i.	Noise level survey shall be carried as per the prescribed guidelines and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.	<b>Being complied</b> AKPL engaged NABL accredited Environmental monitoring agency to monitor Noise quality and the values are well within the limits of CPCB standard. The monthly analysis reports are being submitted to APPCB, Regional office and half yearly report along with six monthly compliance reports to Regional Office, MoEF&CC and APPCB.  The reports for the period from October 2022 to March 2023 are furnished in Chapter – 2 under EMP & Sustainability Activities –



		<p>Section 2.15, page no.2.73. 2.15</p> <p>Conducted Day &amp; Night Noise Monitoring on 21.05.2023 at the following locations.</p> <ol style="list-style-type: none"> <li>1. Zero Point</li> <li>2. Thamminapatnam</li> <li>3. CVR Building</li> <li>4. Gopalapuram</li> <li>5. Chalivendram</li> <li>6. Krishnapatnam</li> <li>7. Krishnapatnam Village near Light House</li> </ol> <p>The details are furnished in Chapter – 3.3, page No. 3.8 and the results are confirming with the stipulated limits</p>
ii.	Noise from vehicles, power machinery and equipment on-site should not exceed the prescribed limit. Equipment should be regularly serviced. Attention should also be given to muffler maintenance and enclosure of noisy equipment.	<p><b>Being complied</b></p> <p>Noise levels are regularly being monitored and they comply to standards at construction site. All the DG sets are provided with acoustic enclosures and all other equipment &amp; machineries are given periodic maintenance.</p>
iii.	Acoustic enclosures for DG sets, noise barriers for ground-run bays, ear plugs for operating personnel shall be implemented as mitigation measures for noise impact due to ground sources.	<p><b>Being complied</b></p> <p>All the DG sets proposed in Phase-III are provided with acoustic enclosures and all other equipment &amp; machineries are conducting periodic maintenance. Ear plugs will be provided along with PPE to all the workmen working in noise generating area.</p>
iv.	The ambient noise levels should conform to the standards prescribed under E(P)A Rules, 1986 viz. 75 dB(A) during day time and 70 dB(A) during night time.	<p><b>Being complied.</b></p> <p>AKPL engaged NABL accredited Environmental monitoring agency to monitor Noise quality and the values are well within the limit of CPCB standard.</p> <p>The noise levels are being monitored at 7 locations.</p>
<b>Energy Conservation measures</b>		
i.	Provide solar power generation on roof tops of buildings, for solar light system for all common areas, street lights parking around project area and maintain the same regularly;	<p><b>Being complied</b></p> <p>During planning stage of the building constructions, possibilities for provision of roof top solar power systems shall be explored.</p>
ii.	Provide LED lights in their offices and port areas.	<p><b>Being complied</b></p> <p>All the office buildings and other operation buildings are provided with LED lights,</p>
<b>Waste Management</b>		
i.	Dredged material shall be disposed safely in the designated areas.	<p><b>Being complied .</b></p>



		Dredged material shall be used for reclamation of low lying areas and the remaining material shall be disposed off in the designated disposal site beyond - 20m contour identified by NIOT,
ii.	Shoreline should not be disturbed due to dumping. Periodical study on shore line changes shall be conducted and mitigation carried out, if necessary. The details shall be submitted along with the six monthly monitoring reports.	<b>Being complied</b> We have appointed NIOT for shoreline monitoring vide (SO no 5702007591)
iii.	Necessary arrangements for the treatment of the effluents and solid wastes must be made and it must be ensured that they conform to the standards laid down by the competent authorities including the Central or State Pollution Control Board and under the Environment (Protection) Act, 1986.	<b>Being complied</b> Port have 540 KLD STP's to treat waste water from domestic usage, the treated effluent conforms to the standards laid by CPCB and the solid waste generated in the Port is collected, segregated, stored and disposed as per the Solid Waste Management Rules, 2016 and Environment (Protection) Act, 1986.
iv.	The solid wastes shall be managed and disposed as per the norms of the Solid Waste Management Rules, 2016.	<b>Being complied.</b> Solid waste generated in the Port and in the construction site is collected, segregated, stored and disposed as per the Solid Waste Management Rules, 2016 and Environment (Protection) Act, 1986.
v.	Any wastes from construction and demolition activities related thereto shall be managed so as to strictly conform to the Construction and Demolition Waste Management Rules, 2016.	<b>Being complied.</b> Construction waste shall be used for levelling and site development works, no demolition works, all the waste generated from Construction and Demolition works will conform to the Construction and Demolition Waste Management Rules, 2016.
vi.	A certificate from the competent authority handling municipal solid wastes should be obtained, indicating the existing civic capacities of handling and their adequacy to cater to the M.S.W. generated from project.	<b>Being complied</b>
vii.	Used CFLs and TFLs should be properly collected and disposed off/sent for recycling as per the prevailing guidelines/ rules of the regulatory authority to avoid mercury contamination.	<b>Being complied</b> Port replaced all the CFLs and TFLs with LED lights. Used CFLs and TFLs if any, will be disposed off for recycling as per the E-Waste rules 2016 and their Amendment to avoid any contamination.
viii.	Oil spill contingency plan shall be prepared and part of DMP to	<b>Being complied</b>





	tackle emergencies. The equipment and recovery of oil from a spill would be assessed. Guidelines given in MARPOL and Shipping Acts for oil spill management would be followed. Mechanism for integration of terminals oil contingency plan with the overall area contingency plan under the co- ordination of Coast should be covered.	Port has existing Oil Spill Contingency Plan in place for the existing and proposed project. Port has Tier-I Oil Spill response equipment for recovery of oil spill in coordination with ICG, Krishnapatnam and follows the guidelines given in MARPOL and Shipping Acts.
<b>Greenbelt</b>		
i.	Green belt shall be developed in area as provided in project details with a native tree species in accordance with CPCB guidelines.	<b>Being complied</b> A total of 191.5 Ha. greenbelt has been developed so far in the Port as part of Phase-I & II development with native species. In Phase-III, it is proposed to develop 120 Ha. Out of this 3 ha is developed.
ii.	Top soil shall be separately stored and used in the development of green belt.	<b>Being complied.</b> We are using cocopit, red soil and vermi compost for enriching the top soil.
<b>Marine Ecology</b>		
i.	The dredging schedule shall be so planned that the turbidity developed is dispersed soon enough to prevent any stress on the fish population.	<b>Being complied</b> Dredging is planned in phased manner so that the turbidity developed will get dispersed preventing stress on fish population. Marine monitoring studies are conducting with NABL Accredited Laboratory for control of dredging impact.
ii.	While carrying out dredging, an independent monitoring shall be carried out through a Government Agency/Institute to assess the impact and necessary measures shall be taken on priority basis if any adverse impact is observed.	<b>Being complied</b> Dredging works for construction of liquid jetty at the lee side of the North breakwater has been started after obtaining CFE from APPCB vide their letter dated 25.02.2021. Marine monitoring studies are conducting with NABL Accredited Laboratory for control of dredging impact.
iii.	A detailed marine biodiversity management plan shall be prepared through the NIO or any other institute of repute on marine, brackish water authority. The report shall be based on a study of the impact of the project activities on the intertidal biotopes, corals and coral communities, molluscs, sea grasses, sea weeds, sub- tidal habitats, fishes, other marine and aquatic micro, macro and mega flora and fauna including benthos, plankton, turtles, birds	<b>Being complied</b> We have appointed Sugandhi Devadason Marine Research Institute for preparing detailed Biodiversity management plan (SO no 5702007267)



	etc. as also the productivity. The data collection and impact assessment shall be as per standards survey methods and include underwater photography.	
iv.	Marine ecology shall be monitored regularly also in terms of sea weeds, sea grasses, mudflats, sand dunes, fisheries, echinoderms, shrimps, turtles, corals, coastal vegetation, mangroves and other marine biodiversity components including all micro, macro and mega floral and faunal components of marine biodiversity.	Being complied  Monitoring of Marine water quality, Marine sediment quality, Surface Water Quality and ground water quality at regular intervals with NABL Laboratory.
v.	The project proponent shall ensure that water traffic does not impact the aquatic wildlife sanctuaries that fall along the stretch of the river.	<b>Agreed by AKPL</b> There are no aquatic wildlife sanctuaries in the vicinity of the Port. However, it is ensured that the water traffic does not impact the marine ecosystem for port operations.
<b>Public hearing and human health issues</b>		
i.	The work space shall be maintained as per international standards for occupational health and safety with provision of fresh air respirators, blowers, and fans to prevent any accumulation and inhalation of undesirable levels of pollutants including VOCs.	<b>Being complied.</b> International standard for Occupational health and safety will be maintained in the work space to prevent any undesirable environmental pollutants.
ii.	Workers shall be strictly enforced to wear personal protective equipment's like dust mask, ear muffs or ear plugs, whenever and wherever necessary/required. Special visco-elastic gloves will be used by labour exposed to hazards from vibration.	<b>Being complied.</b> Adani Krishnapatnam Port strictly enforcing all the workers, employees, stakeholders to wear PPEs at operational areas.
iii.	Safety training shall be given to all workers specific to their work area and every worker and employee will be engaged in fire hazard awareness training and mock drills which will be conducted regularly. All standard safety and occupational hazard measures shall be implemented and monitored by the concerned officials to prevent	<b>Being complied.</b> All the employees, workers & contractors are given daily toolbox talks, monthly review meetings with employees engaged in various activities of the Port. Port implemented and monitoring all standard safety and occupational hazard measures to prevent untoward incidents.



	the occurrence of untoward incidents/ accidents.	
iv.	Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.	<b>Being complied.</b> Port has developed Emergency Preparedness Plan and Disaster Management Plan for the existing facilities. For Phase-III, Emergency Preparedness Plan and DMP will be prepared and implemented as per the proposed facilities.
v.	Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.	<b>Being complied.</b> Temporary housing structures provided to construction workers with necessary infrastructure and medical health care.
vi.	Occupational health surveillance of the workers shall be done on a regular basis.	<b>Being complied</b>
<b>Environmental Responsibility</b>		
i.	The company shall have a well laid down environmental policy duly approved by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest /wildlife norms/ conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.	<b>Being complied, Policy attached- Annexure - M</b>  The Project Proponent is implementing all the statutory regulations / directions prescribed and submitting the compliance reports periodically to the concerned monitoring department's viz., MoEF&CC, CPCP & SPCB.
ii.	A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly report to the head of the organization.	<b>Being complied.</b> Adani Krishnapatnam Port has formed Environment Cell Headed by the AGM, Environment & ESG, Assistant Manager Environment, Senior Officer Environment,



		<p>Environment Engineer followed by Senior Officer Horticulture), and other supporting staff at port level.</p> <p>The environment cell is overseen by Functional Head, Vice President, and Environment Head at Head quarter.</p>
iii.	<p>Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report.</p>	<b>Being complied</b>
iv.	<p>Self-environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.</p>	<p><b>Being complied</b></p> <p>The annual self-environmental audit was conducted on May 9th and 10th, 2023, by the Group Environment Head and an Associate Manager from the Corporate Headquarters at AKPL site. A comprehensive and thorough audit was performed for both the office and the site. The Vice President of Environment, along with the AGM Environment and their entire team, actively participated in the audit.</p>
<b>Miscellaneous</b>		
i.	<p>The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.</p>	<p><b>This condition is complied.</b></p> <p>Advertisement was published in District Newspapers namely "Vartha" in local language &amp; "The New Indian Express" in English language dated 21.01.2021.</p>



ii.	The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.	<b>This condition is complied.</b> A copy of the Environmental clearance is submitted to the District Collector vide our letter dated 03.02.2021 and local panchayats vide letter dated 01.02.2021.
iii.	The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.	Being complied
iv.	The project proponent shall submit six- monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.	<b>Complied</b> <b>This condition is complied.</b> The status of compliance of the stipulated Environment Clearance conditions along with six monthly monitoring report uploaded up on submission of the same to the Regional office, MoEF&CC, Vijayawada and APPCB given as <b>Annexure H.</b>
v.	The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.	<b>Being complied.</b> Report for the previous year (FY 2021-22) was submitted to the APPCB vide letter No. AKPL/ APPCB/EHS/077/2022-2023, dated 26.09.2022.
vi.	The criteria pollutant levels namely; PM2.5, PM10, SO2, NOx (ambient levels) or critical sectoral parameters, indicated for the project shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.	<b>Being complied.</b> Inline to requirement of sign board is placed at the main gate of the company. Regularly sign board is being updated with details of effluent discharge quality, air emission levels and CFO order no. & its validity of CFO.
vii.	The project proponent 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, commencing the land development work and start of	<b>This condition is complied.</b> Obtained CFE for Phase-III expansion vide their letter no. 633/APPCB/CFE/RO- NLR/HO/2010 dated 25.02.2021.  The Port authorities informed that they are yet to start implementation of cargo enhancement project.



	production operation by the project.	
viii.	The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.	<b>Agreed by AKPL</b>  The Port authorities informed that the condition is complied with.
ix.	The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.	<b>Being Complied.</b> All the recommendations by the EAC committee, and in the EIA/EMP report shall be implemented and abide with.
x.	No further expansion or modifications in the port area shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).	<b>Agreed by AKPL and Being complied.</b> No expansion or modifications will not take place without prior approval from concerned authority.
xi.	Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.	<b>Agreed by AKPL</b>
xii.	The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.	<b>Agreed by AKPL</b>
xiii.	The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.	<b>Agreed by AKPL</b>
xiv.	The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.	<b>Agreed by AKPL</b>
xv.	The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of	<b>Agreed by AKPL</b>



	Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.	
<b>APCZMA – NOC vide letter no.202/CRZ/IND/2019-30 dated 21.05.2020</b>		
<b>Part A- Specific Conditions</b>		
i.	The project proponent shall comply with all the conditions stipulated in the Environment & CRZ clearances, CFEs, CFOs issued to M/s. KPCL Phase-I and Phase-II projects in this Phase-III project also	<b>Agreed by AKPL and being complied.</b> Krishnapatnam Port strictly complied all the conditions stipulated in the EC, CFE & CFO of both Phase-I & II projects and same will continue to comply the same for the Phase-III expansion project also.
ii.	The proposed constructions shall conform to the norms prescribed in CRZ notification issued by the Ministry of Environment and Forests, Government of India as per S. No. 19E, dated 06.01.2011.	<b>Agreed by AKPL</b> All the construction activities will be carried out as per the CRZ notification, 2011 and its amendment.
iii.	No activity on ground shall be undertaken without obtaining Environmental clearance from Ministry of Environment and Forests, Government of India as per S. No. 19(E), dated 06.01.2011.	<b>Agreed by AKPL.</b> MoEF&CC granted Environmental & CRZ clearance vide their letter no. 10- 18/2016-IA.III dated 11.01.2021. Obtained CFE from APPCB for Phase-III expansion vide their letter no. 633/APPCB/CFE/RO- NLR/HO/2010 dated - 25.02.2021. Dredging works, laying pipelines, infrastructure and construction of Liquid jetty (L4) initiated after CFE obtained at the Lee side of the North breakwater.
iv.	Continuous monitoring of circulation of seawater shall be carried out every six month by engaging reputed agencies like NIOT. The port shall undertake the study of multi sensor, multi date data to study the sedimentation studies in the inner harbour channel in addition to the in-house studies undertaken as part of regular monitoring of sedimentation in the harbour channel. The	<b>Being complied</b> Conducting Monitoring of Marine water quality, Marine sediment quality, Surface Water Quality and ground water quality with NABL laboratory.



	monthly reports shall be submitted to APPCB.	
v.	Study on marine biodiversity by engaging a reputed organization/ university having a proven expertise in the relevant field shall be taken up. Similar monitoring mechanism shall be developed for monitoring terrestrial part to determine the impacts.	<b>Being Complied</b> Inline to implement the EMP, studies of Marine biodiversity AKPL regularly conducting Monitoring of Marine water quality, Marine sediment quality, Surface Water Quality and ground water quality with NABL laboratory. We have appointed SDMRI for preparing detailed Biodiversity management plan (SO no 5702007267)
vi.	The Port authorities shall continue to nourish the beaches located on the north side of the North breakwaters within the port limits, which are vulnerable to sea erosion during the monsoon season and also during cyclone.	<b>Being complied</b> After obtained the CFE from APPCB AKPL started Dredging works and construction of liquid jetty at the lee side of the North breakwater. Beach nourishment at north side of the North breakwaters be carried out to control the sea erosion.
vii.	The Port shall also undertake the scientific studies by engaging reputed agencies like National Institute of Ocean Technology (NIOT) and Indian Institute of Technology, Chennai to study the feasibility of constructing submerged breakwaters to protect the beach road from seasonal erosion and also during cyclones.	<b>Being Complied</b> We appointed NIOT for preparing the feasibility report (SO no 5702007591)
viii.	The applicant shall ensure that continuous monitoring systems of all likely affected parameters including air/fish/flora/fauna/water quality/waste water discharges/solid waste disposal/construction material disposal etc., are installed and reports shared with the National Institute of Oceanography (NIO) on continuous basis and a monthly report submitted to the APPCB by the NIO, all through construction period and at least for one year after commencement of operations.	<b>Noted and this condition is being complied.</b> We have submitted our letter AKPL/APCZMA/2022-23/069 dated 09.09.2022 stating port has engaged NABL accredited, and MoEF&CC approved Environmental monitoring laboratory to monitor Environmental parameters: Air quality (NAAQM parameters), Noise quality, Water, Marine water, Marine sediment, ground water,soil, STP water quality and DG set emission quality and the analysis reports are submitted to APPCB.
ix.	A team of APPCB scientists and environmental engineers shall be kept continuously informed and apprised of the project by the applicant, so that environmental	<b>Agreed by AKPL and Being Complied</b>





	mitigation measures are adopted on a continuous basis.	
x.	The project proponent while executing this project shall not disturb any of the ecologically sensitive areas like mangroves, sand heaps sand dunes etc.	<b>Agreed by AKPL</b> No destruction of Ecologically sensitive areas like mangroves are carried out during construction activities.
xi.	No construction shall be taken in the No Development Zone. However, if any permitted activity is to be taken up, the proponent may apply to the competent authority separately. Permanent structures shall be avoided in this zone.	<b>Agreed by AKPL</b> All the construction work shall be carried out in the notified port limit. The Port activities are restricted within CRZ Notification 2011.
xii.	Priority to be given to the maintenance of storm water drains from the surrounding area to prevent possible flooding of the surrounding areas.	<b>Being Complied</b> Proper storm water drain system are constructed and well maintained to prevent flooding.
xiii.	Mechanization of Port operations shall be taken up to improve the air quality in the bowl area. SPM and RSPM levels to be maintained within the standards stipulated by the APPCB/CPCB.	<b>Being Complied</b> AKPL regularly conducting Ambient air quality with NABL laboratory and Mechanized port operation is proposed in the Phase-III expansion.
xiv.	Raising and maintenance of greenbelt within and outside the port area to be taken up on priority and necessary assistance shall be extended to the local agencies involved in the implementation of afforestation programme.	<b>Agreed by AKPL</b> Shoreline plantation with native species in 100m width at boundary of casuarina trees are carried out in acres.
xv.	The project proponent shall submit the half yearly compliance reports of CRZ clearance duly audited by the accredited consultants on the degree of compliance by the project proponent during and after construction of the project.	<b>Being Complied</b> Submission letters of the half yearly compliance report is given as <b>Annexure H</b> .
xvi.	Dredged material shall be utilized for nourishment of beaches.	<b>Being Complied</b>
xvii.	Full cooperation shall be extended to all inspecting authorities/organizations such as APPCB, MoEF&CC, CPCB and local Environment Protection Organizations.	<b>Agreed by AKPL and being complied</b>



xviii.	A team of APPCB scientists and environmental engineers shall be kept continuously informed and apprised of the project by the applicant, so that environmental mitigation measures are adopted on a continuous basis.	<b>Agreed by AKPL and being complied</b>  AKPL is continuously contacting with APPCB on support, expertise, and inspection etc.,
xix.	The project activity shall be carried out strictly as per the provisions of CRZ Notification, 2011, and shall not affect the coastal ecology of the area including flora and fauna.	<b>Agreed by AKPL</b> All the construction activities shall be carried out as per the CRZ notification, 2011 without affecting the coastal ecology of the area.
xx.	The project proponent shall ensure that there is no destruction of mangroves during the construction as well as the operation phase of the project.	<b>Agreed by AKPL</b> No mangroves will be destructed in Phase-III expansion works both during construction and operation phase.
xxi.	There shall be no dressing or alteration of the sand dunes and natural features, including landscape changes for beautification, recreation and other such purpose.	<b>Agreed by AKPL</b>
xxii.	All conditions/ recommendations stipulated by other statutory authorities shall strictly be complied with, as may be applicable.	<b>Agreed by AKPL</b>
xxiii.	The project proponent shall obtain all necessary clearances/permissions from the concerned authorities as applicable.	<b>Agreed by AKPL and Being Complied</b> Obtained Petroleum Explosive License from PESO for construction and handling of liquid cargo dated 18.01.2021.
xxiv.	'Consent for Establishment' and CFO as may be applicable, shall be obtained from State Pollution Control Board under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.	<b>Being Complied</b> Obtained CFE for Phase-III expansion vide their letter no. 633/APPCB/CFE/RO- NLR/HO/2010 dated 25.02.2021.
xxv.	All waste (liquid and solid) arising from the proposed development will be disposed of as per the norms prescribed by State Pollution Control Board. There shall not be any disposal of untreated effluent into the sea/coastal water bodies.	<b>Being complied</b> All the solid waste generated from the construction area being collected, segregated and disposed as per the Solid Waste Management Rules, 2016.



xxvi.	No permanent labour camp, machinery and material storage shall be allowed in CRZ area.	<b>Agreed by AKPL</b> Temporary shelter provide for construction labours and material storage at non CRZ area,
xxvii.	There shall no groundwater withdrawal within CRZ without prior approval of the State Groundwater Authority.	<b>Agreed by AKPL</b> Port is not withdrawing groundwater in the CRZ area.
xxviii.	Disposal of muck during construction phase should not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.	<b>Agreed by AKPL</b> Dredging works for construction of liquid jetty at the lee side of the North breakwater has been done. The dredged material used for reclamation of low lying land and beach nourishment at north of north breakwater as shoreline protection.
<b>Part B - General Conditions</b>		
	A copy of the clearance letter shall also be displayed on the website of the AP Pollution Control Board. The clearance letter shall also be displayed at the AP Pollution Control Board Regional Office, District Industries centre and District Collector office/ Mandal Revenue Office for 30 days.	<b>This condition is Complied.</b> A copy of the Environmental clearance is submitted to the Environmental Engineer, APPCB Regional office vide our letter dated 12.01.2021, the District Collector vide our letter dated 03.02.2021 and local panchayats vide letter dated 01.02.2021.
	The funds earmarked for environmental protection measures shall be kept in separate account and shall not be diverted for other purpose. Year wise expenditure shall be reported to the Andhra Pradesh Coastal Zone Management Authority (APCZMA) and AP Pollution control Board Regional office.	<b>Being Complied</b>
	Concealing factual data by the project proponent, any officer behalf of the project proponent and consultants hired by the project proponent or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986.	<b>Agreed by AKPL</b>



	The above stipulations would be enforced among others under the provisions of the 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, the EIA Notification, 2006 and the CRZ Notification, 2011.	<b>Agreed by AKPL</b>
	Full co-operation shall be extended to the officials from the APCZMA, APPCB and Regional office of MoEF&CC, during monitoring of implementation of environmental safeguards stipulated. It shall be ensured that documents/data sought pertinent is made available to the monitoring team. A complete set of all the documents submitted to APCZMA shall be forwarded to the AP Pollution Control Board Regional office.	<b>Agreed by AKPL and Being Complied</b>
	In the case of any change(s) in the scope of the project, the project would require a fresh appraisal by the APCZMA.	<b>Agreed by AKPL</b>
	The APCZMA reserves the right to add additional safeguard measures subsequently, if found necessary, and to take action including revoking of the environment clearance under the provisions of the Environmental (Protection) Act, 1986, to ensure effective implementation of the suggested safeguard measures in a time bound and satisfactory manner.	<b>Agreed by AKPL</b>
	All other statutory clearances shall be obtained, as applicable by project proponents from the respective competent authorities.	<b>Agreed by AKPL</b>
	The project proponent should advertise in at least two local Newspapers widely circulated in the region, one of which shall be in the vernacular language	<b>This condition is Complied</b> Advertisement was published in District Newspapers namely "Vartha" & "The New Indian Express" dated 21.01.2021 is given as <b>Annexure K.</b>



	<p>informing that the project has been accorded CRZ clearance and copies of clearance letters are available with the AP Pollution Control Board and may also be seen on the website of APCZMA. The advertisement should be made within seven days from the date of receipt of the clearance letter and a copy of the same should be forwarded to the AP Pollution Control Board Regional office.</p>	
	<p>This clearance is subject to any order passed by any Hon'ble Courts, as may be applicable to this project.</p>	<p><b>Agreed by AKPL</b></p>
	<p>A copy of the clearance letter shall be sent by the proponent to concern panchayat, Zilla Parisad/Municipal corporation, Urban Local Body and the Local NGO, if any, from whom suggestions/representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the company by the proponent.</p>	<p><b>This condition is Complied.</b> A copy of the Environmental clearance is submitted to the Environmental Engineer, APPCB Regional office vide our letter dated 12.01.2021, the District Collector vide our letter dated 03.02.2021 and local panchayats vide letter dated 01.02.2021. The Environment &amp; CRZ clearance letter is displayed in the Port website.</p>
	<p>The proponent shall upload the status of compliance of the stipulated conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the AP Pollution Control Board Regional office and, the concerned District Collector and the APPCB.</p>	<p><b>Being Complied</b> The status of compliance of the stipulated Environment Clearance conditions along with six monthly monitoring report will be uploaded in the website of the company up on submission of the same to the Regional office, MoEF&amp;CC, Vijayawada, APPCB, Regional office.</p>
	<p>The environmental statement for each financial year ending 31st March in Form- V as is mandated to be submitted by the project proponent to the Andhra Pradesh Pollution Control Board as prescribed under the Environmental (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 AP Pollution</p>	<p><b>Being Complied.</b> Report for the previous year (FY 2021-22) was submitted to the APPCB vide letter No. AKPL/ APPCB/EHS/077/2022-2023, dated 26.09.2022.</p>



Control Board regional office, APCZMA and APPCB by email.
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### 4.3.2 Consent for Establishment (CFE)

APPCB has issued CFE order vide No. 633/APPCB/CFE/RO-NLR/HO/2010/390 dated 25.02.2021 for phase III development of Krishnapatnam Port with some conditions under Schedule A and Schedule B. The compliance to these conditions is given in **Table 4:4**.

**Table 4:4: Compliance status of CFE conditions (Phase- III)**

S. No	CFE Conditions	Compliance Status																				
1.	The proponent shall obtain Consents for Operation (CFO) from APPCB, as required Under Sec.25/26 of the Water (P&C of P) Act, 1974 and under sec. 21/22 of the Air (P&C of P) Act, 1981, before commencement of the activity.	<b>Noted.</b> The Port shall obtain Consent For Operation (CFO) before commencement of the activity.																				
2.	Compensation is to be paid for any environmental damage caused by it, as fixed by the Collector and District Magistrate as civil liability.	<b>Noted.</b>																				
3.	The rules and regulations notified by Ministry of Law and Justice, GOI, regarding the Public Liability Insurance Act, 1991 shall be followed.	<b>Noted with the condition.</b>																				
4.	<p><b>Water:</b> The source of water is Muthukur Reservoir of 1000 KLD and 4 MLD of water from Nakkala kalava irrigation drain. The maximum permitted water consumption after proposed expansion is as following:</p> <table border="1"> <thead> <tr> <th>S.No</th> <th>Purpose</th> <th>Qty as per CFO(Phase I &amp; II) (KLD)</th> <th>Proposed in Expansion under Phase III (KLD)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Dust Suppression &amp; Other Utilities</td> <td>1600</td> <td>1700</td> </tr> <tr> <td>2</td> <td>Gardening</td> <td>300</td> <td>200</td> </tr> <tr> <td>3</td> <td>Domestic</td> <td>600</td> <td>600</td> </tr> <tr> <td></td> <td><b>Total</b></td> <td><b>2500</b></td> <td><b>2500</b></td> </tr> </tbody> </table> <p>Separate meters with necessary pipeline shall be provided for assessing the quantity of water used for each of the purposes viz., Dust suppression, Domestic purposes, Washing and servicing, development of greenery.</p>	S.No	Purpose	Qty as per CFO(Phase I & II) (KLD)	Proposed in Expansion under Phase III (KLD)	1	Dust Suppression & Other Utilities	1600	1700	2	Gardening	300	200	3	Domestic	600	600		<b>Total</b>	<b>2500</b>	<b>2500</b>	<p><b>Noted.</b> AKPL has already laid pipeline from Nakalakaalva drain to Port along with pumping system having separate water flow meter to measure the quantity of water being pumped from the drain. The water is being used for dust suppression, fire fighting etc. Separate meters with necessary pipeline will be provided</p>
S.No	Purpose	Qty as per CFO(Phase I & II) (KLD)	Proposed in Expansion under Phase III (KLD)																			
1	Dust Suppression & Other Utilities	1600	1700																			
2	Gardening	300	200																			
3	Domestic	600	600																			
	<b>Total</b>	<b>2500</b>	<b>2500</b>																			
5.	<p><b>Wastewater Generation</b></p> <table border="1"> <thead> <tr> <th>S.No</th> <th>Purpose</th> <th>Qty as per CFO(Phase I &amp; II) (KLD)</th> <th>Proposed in Expansion under</th> <th>Total after Expansion (KLD)</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	S.No	Purpose	Qty as per CFO(Phase I & II) (KLD)	Proposed in Expansion under	Total after Expansion (KLD)						As per EC condition, treatment facilities will be provided for Phase III development.										
S.No	Purpose	Qty as per CFO(Phase I & II) (KLD)	Proposed in Expansion under	Total after Expansion (KLD)																		



			Phase III (KLD)	
1	Other Utilities	-	240	240
2	Domestic	300	450	750
	<b>Total</b>	<b>300</b>	<b>690</b>	<b>990</b>

<b>Treatment &amp; Disposal (As per EC order)</b>			
Source of Effluent	Treatment	Mode of Final Disposal	
Domestic	Sewage Treatment Plant of capacity of 700 KLD consisting of Sewage collection Sump, Fluidized Bed Bio Reactor, Secondary clarifier, Clarifier Water Tank, Dual Media Filter, treated water tank, Sludge drying beds etc.	Treated domestic effluents shall be utilized for Green belt development and dust suppression	
Utilities	Effluent Treatment Plant of 300 KLD capacity consisting of Neutralization tank, Equalization tank, Oil Grease trap, flash mixing tank, clariflocculator, aeration tank, secondary clarifier, holding tank, pressure sand filter, activated carbon filter, sludge drying beds etc. for treating effluents	Treated effluent shall be reused for green belt and for dust suppression	



6.	The effluent / sewage shall be treated to the on land for irrigation standards, as stipulated under Schedule VI of Environment (Protection) Rules, 1986, notified by Ministry of Environment and Forests, Government of India vide G.S.R.422 (E), dt.19.05.1993 and its amendments thereof. The treated wastewater shall be used for development of greenery, dust suppression, re-used for various purposes within the premises.	<p><b>Noted.</b> AKPL currently operating 540 KLD STP's treating the wastewater generated and the treated waste water is used for greenbelt. Additional capacities shall be provided as per requirement.</p>																		
7.	<p><b>Air:</b> The Air pollution Control equipment shall be installed along with the commissioning of the activity and shall comply with the following for controlling air pollution:</p> <table border="1"> <thead> <tr> <th>S.No</th> <th>Details of Stack</th> <th>Stack 01</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Attached to</td> <td>DG Sets</td> </tr> <tr> <td>2.</td> <td>Capacity of D.G. set</td> <td>5 x 2000 KVA, 1 x 1000 KVA, 2 x 750 KVA, 5x 500 KVA, 3 x 320 KVA, 3 x 250 KVA, 3 x 160 KVA, 10 x 125 KVA, 10 x 82.5 KVA, 3 x 380 KVA</td> </tr> <tr> <td></td> <td>Fuel</td> <td><b>Diesel</b></td> </tr> <tr> <td>3.</td> <td>Stack height above the ground</td> <td>This condition has been amended vide CFE order No: 633/APPCB/CFE/RONL/2010 dated 06.04.2021 The Port shall provide stack heights for the DG sets based on the following formula. <math>H=h+0.2\sqrt{KVA}</math> Where H= Total height of the stack in meters, h= Height of the building in meters</td> </tr> <tr> <td>4.</td> <td>Details of air pollution control equipment</td> <td>Acoustic enclosures with silencers</td> </tr> </tbody> </table>	S.No	Details of Stack	Stack 01	1.	Attached to	DG Sets	2.	Capacity of D.G. set	5 x 2000 KVA, 1 x 1000 KVA, 2 x 750 KVA, 5x 500 KVA, 3 x 320 KVA, 3 x 250 KVA, 3 x 160 KVA, 10 x 125 KVA, 10 x 82.5 KVA, 3 x 380 KVA		Fuel	<b>Diesel</b>	3.	Stack height above the ground	This condition has been amended vide CFE order No: 633/APPCB/CFE/RONL/2010 dated 06.04.2021 The Port shall provide stack heights for the DG sets based on the following formula. $H=h+0.2\sqrt{KVA}$ Where H= Total height of the stack in meters, h= Height of the building in meters	4.	Details of air pollution control equipment	Acoustic enclosures with silencers	<p><b>Noted.</b> DG sets are proposed as power back up in case of power failure. All the DG sets are installed as per CPCB guidelines and complying to the emission standards.</p>
S.No	Details of Stack	Stack 01																		
1.	Attached to	DG Sets																		
2.	Capacity of D.G. set	5 x 2000 KVA, 1 x 1000 KVA, 2 x 750 KVA, 5x 500 KVA, 3 x 320 KVA, 3 x 250 KVA, 3 x 160 KVA, 10 x 125 KVA, 10 x 82.5 KVA, 3 x 380 KVA																		
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8.	<p>The proponent shall comply with the following for controlling fugitive emissions:</p> <ul style="list-style-type: none"> <li>• Vehicle movement shall be minimized / eliminated by implementing mechanical operation.</li> <li>• All the vehicles involved in transportation of cargo shall be covered with tarpaulin.</li> <li>• Vehicles shall be managed to avoid traffic congestion and shall provide empty dusting vehicle washings / dry cleaning system to clean all out going cargo vehicles.</li> <li>• Based on traffic density/vehicular movements anticipated from the port, parking facilities shall be provided.</li> </ul>	<p><b>Noted.</b></p> <ul style="list-style-type: none"> <li>• Mechanized loading and unloading of cargo shall be implemented to avoid emission from vehicle movement.</li> <li>• All the loaded trucks and wagons shall be covered with tarpaulins.</li> <li>• Port shall provide wheel washing facility at the entrance of the</li> </ul>																		





				<p>dusty cargo storage area.</p> <ul style="list-style-type: none"> <li>• Vehicles involved in transportation of cargo will be covered with tarpaulin.</li> <li>• Port has adequate truck parking bays and shall provide additional parking bays/areas during expansion.</li> </ul>																															
9.	<p>All the transfer points, loading / unloading points and conveyer systems shall be housed completely with leak proof arrangements.</p> <p>Adequate dust suppression and containment measures shall be implemented for effective control of fugitive emissions.</p>			<p><b>Noted.</b></p> <p>All the existing transfer tower points have been covered using GI sheets with openings as required for access and sprinklers have been installed for dust suppression. The same shall be implemented for the Phase-III expansion also.</p>																															
10	<p><b>Hazardous / Solid Waste details:</b></p> <p>The Port Authority shall comply with the following w.r.t disposal of solid waste after expansion:</p> <table border="1"> <thead> <tr> <th>S. No</th> <th>Name of Waste</th> <th>Quantity</th> <th>Mode of Disposal</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Solid waste (degradable)</td> <td>1800 kg/day</td> <td>To</td> </tr> <tr> <td>2.</td> <td>Solid waste (non-degradable)</td> <td>200 kg/day</td> <td>To authorized recyclers</td> </tr> <tr> <td>3.</td> <td>STP Sludge</td> <td>120 kg/day</td> <td>To be used as manure</td> </tr> <tr> <td>4.</td> <td>ETP Sludge</td> <td>50 kg/day</td> <td>To TSDf for secure fill</td> </tr> <tr> <td>5.</td> <td>Oil containing cargo residue washing water and sludge</td> <td>250 KLP A</td> <td>To authorized recyclers/reprocessors/TSDf</td> </tr> <tr> <td>6.</td> <td>Chemical cargo containing residue and sludge</td> <td>100 KLP A</td> <td></td> </tr> <tr> <td>7.</td> <td>Sludge and filters</td> <td>200 TPA</td> <td></td> </tr> </tbody> </table>	S. No	Name of Waste	Quantity	Mode of Disposal	1.	Solid waste (degradable)	1800 kg/day	To	2.	Solid waste (non-degradable)	200 kg/day	To authorized recyclers	3.	STP Sludge	120 kg/day	To be used as manure	4.	ETP Sludge	50 kg/day	To TSDf for secure fill	5.	Oil containing cargo residue washing water and sludge	250 KLP A	To authorized recyclers/reprocessors/TSDf	6.	Chemical cargo containing residue and sludge	100 KLP A		7.	Sludge and filters	200 TPA			<p><b>Noted.</b></p> <p>All the hazardous waste generated by the Port are collected, stored, and disposed to authorized recyclers/re-processors.</p>
S. No	Name of Waste	Quantity	Mode of Disposal																																
1.	Solid waste (degradable)	1800 kg/day	To																																
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		contaminated with oil			
	8.	Ballast water containing oil from ships	250 KLP A		
	9.	Used/ Spent Oil	350 KLP A		
	10.	Wastes/residues containing oil	100 TPA		
	11.	Sludge from treatment of waste water arising out of cleaning/ disposal of barrels/ containers	100 TPA		
	12.	Discarded containers/barrels/liners contaminated with Hazard waste/chemicals	100 TPA		
	13.	Flue gas cleaning residue	10 TPA		
	14.	Chemical waste sludge from water treatment	100 TPA		
	15.	Oil and skimming residues	20 TPA		
11	The following rules and regulations notified by the MOE&F, GOI shall be implemented.			<b>Noted.</b>	The port shall comply with rules and regulations notified by the MOE&F, GOI
	a.	Regulation of Persistent Organic Pollutants Rules, 2018.			
	b.	Hazardous waste and other wastes (Management and Transboundary Movement) Rules, 2016.			
	c.	Plastic Waste Management Rules, 2016.			
	d.	Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989			
	e.	Fly Ash Notification, 2016.			



	f.	Batteries (Management & Handling) Rules, 2010.	
	g.	E-Waste (Management) Rules, 2016.	
	h.	Construction and Demolition waste Management Rules, 2016.	
	i.	Solid Waste Management Rules, 2016.	
	j.	The Public Liability Insurance Act, 1991 and its amendments thereof other conditions.	
12	The Port shall comply with the following conditions as committed during the CFE Committee meeting held on 23.02.2021:		
	M/s. KPCL shall implement Mechanized MDSS systems for effective dust control. Water meters and energy meters shall be installed to record the quantity of water consumed and electricity consumed for MDSS systems.		<b>Noted.</b> Port installed and operating Mechanical Dust Suppression System (MDSS) with 248 Nos. of sprinklers at coal stacking and wagon loading areas. Separate Energy meters are installed to record the electricity consumption for MDSS. AKPL will augment the MDSS as per the requirement during Phase-III expansion of Port.
	M/s. KPCL shall conduct performance evaluation of MDSS systems.		<b>Noted.</b>
	M/s. KPCL shall explore the possibility of usage of Chemical suppressants such as Sodium / Potassium Aluminates, for effectively mitigating the dust emissions during coal / dusty cargo handling.		<b>Noted.</b>
	M/s. KPCL shall restrict the coal stack height to 10 m only. In future, APPCB will examine the increase in stack height of dusting cargo from 10 m to 12 m depending up on the justification submitted by the port.		<b>Noted.</b>
	This condition has been amended vide CFE order No: 633/APPCB/CFE/RO- NLR/HO/2010 dated 06.04.2021 The Govt. of A.P allotted surface water i.e., 1000 KLD from Muthukur Reservoir and 4MLD of water from Nakkalakalva irrigation waste water drain, which is sufficient to meet the total water requirement for port utilization for Phase-III. Further, Nellore Municipal Corporation commissioned one STP of 5 MLD capacity to treat municipal sewage. STPs of capacity 70 MLD are under construction. The Port shall explore possibility of utilization of treated waste water for dust suppression purpose in the Port area. The KPCL shall		<b>Noted.</b>



	not draw the ground water under any circumstances.	
	M/s. KPCL shall allow the effluents / leachate generated from dust suppression / coal handling etc., into sea under any circumstances. The garland drains, settling tanks shall be de-silted regularly for free flow.	<b>Noted.</b> The port shall not allow the run off water from coal storage yards and water from dust suppression to the sea. The run off water shall be diverted to sedimentation pits and water shall be used for green belt, dust suppression.
	Greenbelt of width 100 m shall be developed along the boundary of the port as committed in the public hearing (para no. 5 of EC order dt.11.01.2021) and as stipulated in the CFE order dt.08.05.2010. The greenbelt shall be developed in an area not less than 120 Ha along the Port boundary and around the coal storage areas with native species, as stipulated in EC order dt.11.01.2021. Saline water-resistant saplings shall be planted as Bay-of-Bengal is located in the vicinity.	<b>Noted.</b> AKPL has already developed 191.5Ha. greenbelt as per the statutory requirement (Phase-I&II) with boundary plantation, avenue plantation and coal stockyard plantation. As part of Phase-III, 120 Ha. greenbelt shall be developed along the Port boundary and around coal storage areas with native species, out of this 3 ha is already developed.
	The liquid cargo / chemicals shall be stored in the port area complying with OISD norms. All precautions shall be taken to prevent any chemical accidents. The chemicals stored in the port premises and their capacities shall be informed to the EE, RO: Nellore from time to time.	<b>Noted.</b> The Port shall inform the type of chemicals and their capacities to the Environment Engineer, APPCB Regional office, Nellore up on commissioning of the same after obtaining CFO.
	This condition has been amended vide CFE order No: 633/APPCB/CFE/RO- NLR/HO/2010 dated 06.04.2021 The Port shall implement effective dust suppression measures to meet National Ambient Air Quality standards.	<b>Noted and being complied.</b>
	This condition has been amended vide CFE order No: 633/APPCB/CFE/RO- NLR/HO/2010 dated 06.04.2021 The Port shall maintain and operate 3 nos. of CAAQM stations properly, consistently and transmit the data to the APPCB server, online.	<b>Noted.</b> Port installed and operating 3 nos. CAAQM station towards Gopalapuram village, Thamminapatnam village and Krishnapatnam village, the values are



		connected to the APPCB site.
	The Coal stock yard shall be enclosed suitably to have three layers of green belt of varying height on all the sides.	<b>Noted.</b>
	Dusty cargos shall be handled through mechanized handling equipment for loading & unloading operations.	<b>Noted.</b>
	Closed conveyor belt with water sprinkling arrangement shall be provided for conveying dusty cargos like coal& iron ore.	<b>Noted.</b>
	The ship un-loader for unloading and transfer of material shall be provided with in-situ water sprinkling system to avoid dust nuisance.	<b>Noted.</b>
	Mechanical stackers cum reclaimers for staking transfer and reclamation and conveyors for transfer of materials without manual handling.	<b>Noted.</b>
	Dry fogging system shall be provided at transfer points.	<b>Noted.</b>
	Automatic water sprinkling shall be provided at all dusty cargo stock yards. There shall be interlocking between the CAAQM station values for particulate matter and MDSS.	<b>Noted.</b> Mechanical dust suppression system is already in place in the Port, the same shall be enhanced for the future expansion. Port shall also explore the possibilities of installing automatic water sprinkling system.
	The facility shall maintain standby centrifugal pump with drive motor for uninterrupted dust suppression of the cargo.	<b>Noted.</b>
	The coal & iron ore shall be transported by rail from the stacking area as far as possible. The residual cargo if any shall be transported by road through covered trucks duly complying with the following measures:	<b>Noted.</b> Port is transporting coal to the nearby Power plants through closed conveyors, and to the steel plants and cement plants the coal is being transferred through rail with tarpaulin covers, only a small quantity of coal is being transferred through truck covered with tarpaulins.
	i. Traffic congestion shall be avoided.	<b>Noted.</b>
	ii. Automated mechanical water sprinkling shall be provided on roads and at dusty cargo storage areas, for suppression of dust.	<b>Noted.</b>
	iii. All the vehicles involved in transportation of cargo during the break downs shall be covered with tarpaulin and also ensure to manage	<b>Noted.</b>



	vehicles	
	iv. The truck movement shall be through a dedicated road meant for truck movement located and avoid movement of trucks closer to residential areas.	<b>Noted.</b> Port has dedicated 4 lane road connecting NH-16 for truck movement.
	v. The trucks shall be fully covered with tarpaulin while plying with cargo on the roads.	<b>Noted.</b>
	vi. All cargo vehicles moving out from the port shall be passed through vehicle wheel wash area.	<b>Noted.</b> Port shall install adequate number of wheel washing facility for the trucks moving out of the Port.
	The port shall provide oil spill containment facilities around the SBM.	<b>Noted.</b> Port is equipped with Tier-1 Oil spill response equipment, after completion of SBM works oil spill contain facility shall be provided.
	The port shall take necessary environmental protection measures for the dump yard of the dredged material.	<b>Noted.</b> Dump yard bed level will be within 0.3m level variation and dumping will be carried out in a manner it shall spread evenly within the designated dumping area.
1.	The industry shall comply with all the conditions stipulated in the EC order dt. 11.01.2021 issued by MoEF&CC, Gol, New Delhi.	<b>Noted.</b>
2.	Fire detection and fire fighting facilities with adequate water storage facility shall be provided in fire prone area in consultation with competent authorities.	<b>Noted.</b> AKPL has adequate fire fighting facilities with water storage facility for the entire Port area. For Phase-III expansion, Port shall enhance the fire fighting facility as required.
3.	Onsite & offsite Disaster Management plan shall be prepared to meet any eventuality in case of any accident. Mock drills shall be conducted atleast twice a year and modifications required if any shall be incorporated in Disaster Management Plan and shall submit to Board.	<b>Noted.</b> Onsite emergency plan has been prepared and submitted to District Collector for incorporating with Offsite emergency plan of District magistrate.
4.	The Port Authorities shall prepare a safety report and carry out an independent safety audit report of the respective industrial activities including chemical storages / isolated storages by an expert not associated with such industrial activity as required under Rule 10 of MSIHC Rules, 1989 and get it approved by the Factories Dept., and submit the compliance along with copy of the safety report, safety	<b>Noted.</b>



	audit report and safety certificate at concerned Regional Office, APPCB.	
5.	The Port Authorities shall submit a copy of the NOC issued by the Andhra Pradesh State Disaster Response and Fire Service Dept., (APSDRFSD) at concerned Regional Office, APPCB.	<b>Noted.</b>
6.	The Port Authorities shall submit risk assessment report covering worst scenario clearly describing impact within the industry premises and outside the industry premises and emergency response system.	<b>Noted.</b>
7.	The Port Authorities shall obtain prior permission from MoEF&CC, GoI and APPCB for any changes in the cargo type / capacity.	<b>Noted.</b>
8.	DO levels in the sea water at the dredging area shall be monitored at regular interval and the dredging time shall be suitably regulated to prevent depletion of DO levels in the sea water.	<b>Noted.</b> Monitoring shall be carried out in the dredging area at regular interval during dredging activity.
9.	The industry shall submit compliance to the conditions stipulated in the EC and CFE orders to the concerned Regional Officer of APPCB every six months and shall upload the same at APPCB website viz., <a href="https://pcb.ap.gov.in/UI/Submission_Compliance_of_EC_CFE_CFO_Direction.aspx">https://pcb.ap.gov.in/UI/Submission_Compliance_of_EC_CFE_CFO_Direction.aspx</a> .	<b>Noted.</b>
10	Concealing the factual data or submission of false information/ fabricated data and failure to comply with any of the conditions mentioned in this order may result in withdrawal of this order and attract action under the provisions of relevant pollution control Acts.	<b>Noted.</b>
11	Notwithstanding anything contained in this conditional letter or consent, the Board hereby reserves its right and power Under Sec. 27(2) of Water (Prevention and Control of Pollution) Act, 1974 and Under Sec.21(4) of Air (Prevention and Control of Pollution) Act, 1981 to revoke the order, to review any or all the conditions imposed herein and to make such modifications as deemed fit and stipulate any additional conditions.	<b>Noted.</b>
12	Any person aggrieved by an order made by the State Board under Section 25, Section 26, Section 27 of Water Act, 1974 or Section 21 of Air Act, 1981 may within thirty days from the date on which the order is communicated to him, prefer an appeal as per Andhra Pradesh Water Rules, 1976 and Air Rules,1982, to such authority (hereinafter referred to as the Appellate Authority) constituted under Section 28 of Water (Prevention and Control of Pollution) Act, 1974 and Section 31 of the Air (Prevention and Control of Pollution) Act, 1981.	<b>Noted.</b>



## 4.4 Consent For Operation (CFO)

APPCB has issued CFO order vide No. APPCB/VJA/NLR/11344/CFO/HO/2019 11/11/2022 for development of Krishnapatnam Port with some conditions under Schedule A, Schedule B and Schedule C. Thereafter, CFO was amended and renewed. The compliance to all these conditions is given in **Table 4:5**.

**Table 4:5: Compliance status of CFO conditions**

S.No	CFO Conditions	Compliance Status
<b>Schedule A</b>		
1.	Any up-set condition in any industrial plant / activity of the industry, which result in, increased effluent / emission discharge and/ or violation of standards stipulated in this order shall be informed to this Board, under intimation to the Collector and District Magistrate and take immediate action to bring down the discharge / emission below the limits.	<b>Noted.</b>
2.	The port should carryout analysis of wastewater discharges or emissions through chimneys for the parameters mentioned in this order on quarterly basis and submit to the Board.	<b>Noted and being complied.</b> Periodical Monitoring including STP outlet quality and emissions through DG set are being carried out at Port and reports being submitted to statutory authorities regularly. Six Monthly Environmental Monitoring Report April 2022, to September 2022 is attached.
3.	All the rules & regulations notified by Ministry of Law and Justice, Government of India regarding Public Liability Insurance Act, 1991 should be followed as applicable.	<b>Noted.</b>
4.	Notwithstanding anything contained in this consent order, the Board hereby reserves the right and powers to review / revoke any and/or all the conditions imposed herein above and to make such variations as deemed fit for the purpose of the Acts by the Board.	<b>Noted.</b>
5.	The industry shall ensure that there shall not be any change in the process technology, source & composition of raw materials and scope of working without prior approval from the Board.	<b>Noted.</b>
6.	The applicant shall submit Environment statement in Form V before 30th September every year as per Rule No.14 of E (P) Rules, 1986 & amendments thereof.	<b>Complied.</b> Environmental Statement in Form – V is being submitting annually. Form-V Environment Statement for the FY 2021-2022 is submitted on 29.09.2022.
7.	The applicant should make applications through Online for renewal of Consent (under Water and Air Acts) and Authorization under HWM Rules at least 120 days before the date of expiry of this order,	<b>Noted and complied.</b> CFO renewed by the APPCB vide order No.APCB/VJA/NLR/11344/CFO/HO/20 19 dated 11.11.2022 is valid up to 31st August 2027.





S.No	CFO Conditions	Compliance Status
	along with prescribed fee under Water and Air Acts and detailed compliance of CFO conditions for obtaining Consent & HW Authorization of the Board.	
8.	The port should immediately submit the revised application for consent to this Board in the event of any change in the raw material used, processes employed, quantity of trade effluents & quantity of emissions. Any change in the management shall be informed to the Board. The person authorized should not let out the premises / lend / sell / transfer their industrial premises without obtaining prior permission of the State Pollution Control Board.	<b>Noted and complied</b>
9.	Any person aggrieved by an order made by the State Board under Section 25, Section 26, Section 27 of Water Act, 1974 or Section 21 of Air Act, 1981 may within thirty days from the date on which the order is communicated to him, prefer an appeal as per Andhra Pradesh Water Rules, 1976 and Air Rules 1982, to Appellate authority constituted under Section 28 of the Water(Prevention and Control of Pollution) Act, 1974 and Section 31 of the Air(Prevention and Control of Pollution) Act, 1981.	<b>Noted</b>
10.	The conditions stipulated are without prejudice to the rights and contentions of this Board in any Hon'ble court of law.	<b>Noted</b>
11.	The port shall be liable to pay Environmental Compensation / Other Environmental Taxes, if any environmental damage caused to the surroundings, as fixed by the Collector & District Magistrate or any other competent authority as per the Rules in vogue.	<b>Noted</b>
12.	The port may explore the possibility of tapping the solar energy for their energy requirements.	<b>Noted</b>
13.	The port should educate the workers and nearby public of possible accidents and remedial measures.	<b>Noted</b>
<b>Schedule B</b>		
1.	The Port shall complete mechanizing of Berth no 6 by 31 <sup>st</sup> March, 2023	<b>Noted.</b> Mechanization of berth no 6 is completed and linking of all existing conveyors in process
2.	The port shall complete the mechanization of Berth no 5 within 24	<b>Noted</b>



S.No	CFO Conditions	Compliance Status															
	months from the date when the coal handled at berth no 5 is adequate to handle through mechanization system. Till the mechanization is completed, the port shall do sprinkling along with MDSS to control dust pollution due to handling of coal																
3.	The Port shall maintain the existing greenbelt of 100m width along the periphery. Further, development of 100 m green belt at other expansion areas shall be taken up at the time of expansion of the port facility and shall be completed within 3 years.	<b>Noted</b>															
4.	The port shall develop the 20 m width greenbelt along the existing coal stock yards as per EC & CFO conditions within a time period of 2 years	<b>Noted and being complied</b>															
5.	The port shall maintain storm water drains and improvement of the storm water drains in new areas shall be taken up along with the expansion of the port.	<b>Noted and being complied</b>															
<b>Water</b>																	
6.	<p>The source of water is Muthukur Reservoir 1000 KLD and 4 MLD of water from Nakkala kalava irrigation drain. The maximum permitted water consumption after proposed expansion is as following:</p> <table border="1"> <thead> <tr> <th>S.No</th> <th>Purpose</th> <th>Quantity (KLD)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Dust suppressions &amp; Miscellaneous (Fire protection services)</td> <td>1950</td> </tr> <tr> <td>2</td> <td>Gardening</td> <td>400</td> </tr> <tr> <td>3</td> <td>Domestic</td> <td>650</td> </tr> <tr> <td colspan="2"><b>Total</b></td> <td><b>3000</b></td> </tr> </tbody> </table> <p>Separate meters with necessary pipe-line shall be maintained for assessing the quantity of water used for each of the purposes mentioned above.</p>	S.No	Purpose	Quantity (KLD)	1	Dust suppressions & Miscellaneous (Fire protection services)	1950	2	Gardening	400	3	Domestic	650	<b>Total</b>		<b>3000</b>	<b>Noted and being complied</b>
S.No	Purpose	Quantity (KLD)															
1	Dust suppressions & Miscellaneous (Fire protection services)	1950															
2	Gardening	400															
3	Domestic	650															
<b>Total</b>		<b>3000</b>															
7.	<p>The port shall comply the following effluent discharged standards based on the disposal points permitted:</p> <table border="1"> <thead> <tr> <th>S.No</th> <th>Parameter</th> <th>Concentration</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>pH</td> <td>5.5-9.0</td> </tr> <tr> <td>2</td> <td>Total Suspended Solids (TSS)</td> <td>&lt;100 mg/l</td> </tr> </tbody> </table>	S.No	Parameter	Concentration	1	pH	5.5-9.0	2	Total Suspended Solids (TSS)	<100 mg/l	<b>Complied.</b> The port complies to the standards as prescribed in the consent order and CPCB norms Environmental Monitoring Report April 2022, to September 2022 is attached.						
S.No	Parameter	Concentration															
1	pH	5.5-9.0															
2	Total Suspended Solids (TSS)	<100 mg/l															



S.No	CFO Conditions		Compliance Status
	3	Oil and Grease	10 mg/l
	4	Biochemical Oxygen demand(BOD)	30 mg/l
	5	Fecal Coliform (FC) (Most Probable Number per 100 Milliliter, MPN/100ml)	<1000 MPN/100 ml
	<b>Total</b>		<b>3000</b>
<b>Air</b>			
8.	<p>The port shall comply with emission limits for DG sets of capacity upto 800 KW as per the Notification G.S.R.520 (E), dated 01.07.2003 under the Environment (Protection) Amendment Rules, 2003 and G.S.R.448(E), dated 12.07.2004 under the Environment (Protection) Second Amendment Rules, 2004. In case of DG sets of capacity more than 800 KW shall comply with emission limits as per the Notification G.S.R.489 (E), dated 09.07.2002 at serial no.96, under the Environment (Protection) Act, 1986.</p>		<b>Complied</b>
9.	<p>The port shall comply with ambient air quality standards of PM10 (Particulate Matter size less than 10µm) - 100 µg/ m<sup>3</sup>; PM2.5 (Particulate Matter size less than 2.5 µm) - 60 µg/ m<sup>3</sup>; SO<sub>2</sub> - 80 µg/ m<sup>3</sup>; NO<sub>x</sub> - 80 µg/m<sup>3</sup>, outside the factory premises at the periphery of the industry.</p> <p>Standards for other parameters as mentioned in the National Ambient Air Quality Standards CPCB Notification No.B-29016/20/90/PCI-I, dated 18.11.2009.</p> <p>Noise Levels: Day time (6 AM to 10 PM) - 75 dB (A) Night time (10 PM to 6 AM) - 70 dB (A)</p>		<p><b>Complied</b></p> <p>AAQ and Ambient Noise levels are being monitored through an agency accredited by NABL and approved by MoEF&amp;CC at the following 7 Locations along the periphery of the port:</p> <ul style="list-style-type: none"> <li>• Zero Point</li> <li>• Thamminapatnam</li> <li>• CVR Building</li> <li>• Gopalapuram</li> <li>• Chalivendram</li> <li>• Krishnapatnam</li> <li>• Krishnapatnam Village near Light House</li> </ul> <p>The results comply with the NAAQ standards. Periodic Monitoring reports are being submitted to APPCB regularly.</p>



S.No	CFO Conditions	Compliance Status
		The AAQ and ambient noise monitoring results during April 2022 to September 2022 are presented in the Six-Monthly Environmental Monitoring Report enclosed.
10.	The Port shall take all measures including latest available technologies to comply with above ambient air quality standards	<p><b>Complied.</b></p> <p>Krishnapatnam Port is undertaking considerable number of measures for emission control. Significant among them are as follows:</p> <ol style="list-style-type: none"> <li>a. Installation and operation of Mechanical Dust Suppression System (MDSS with 248 Nos. of sprinklers at coal stacking and wagon loading areas.</li> <li>b. 12 Nos. of Truck mounted sprinklers for roads and transit areas.</li> <li>c. 8 Nos. of heavy duty Atomized Sprayers</li> <li>d. Deploying Hoppers for cargo unloading.</li> <li>e. Mechanized coal handling at 2 berths within the land so far transferred on lease by GoAP. Conveyors are designed with covering hood.</li> <li>f. Developed paved roads and deployed road sweeping machines.</li> <li>g. Covering of coal transport vehicles destined beyond port and wagons with Tarpaulins.</li> <li>h. Trucks carrying coal for inter carting are doused with water spray.</li> <li>i. Developed wind breaking shield on western side of FTP 1 coal storage yard. Construction of wind shield at two more locations is completed.</li> <li>j. So far in an area of more than 191.5 Ha of Green belt has been developed along port boundary, around coal yards, avenue &amp; median plantations.</li> <li>k. Monitoring of AAQ at 7 locations through NABL accredited &amp; MoEF&amp;CC approved agency.</li> <li>l. Commissioned 3 Nos. CAAQM equipment &amp; linked to APPCB website.</li> </ol>



S.No	CFO Conditions	Compliance Status
		We are committed to implement measures as required to ensure compliance of AAQ norms.
11.	The Port shall not increase the capacity beyond the permitted capacity mentioned in this order, without obtaining CFE & CFO of the Board.	<b>Noted and being complied</b>
12.	Coal stack heights in all coal yards shall not be more than 12mts.	<b>Noted and being complied</b>
13.	The port shall ensure required wetness all the time on the surface of stockpiles to avoid the dust emissions from the stock piles.	<b>Noted and being complied</b>
14.	The port shall install sufficient number of CAAQM stations in between the villages and the port area. The stations shall be located at the periphery of the villages to monitor all the parameters given in the consent order.	<b>Complied.</b> Commissioned 3 Nos. of CAAQM Stations at the periphery of Gopalapuram, Thamminapatnam and Krishnapatnam Villages and the same is linked to APPCB website.
15.	The port shall maintain properly the three CAAQM stations provided and shall be connected to APPCB website	<b>Noted and being complied</b>
16.	Unloading of iron ore from the railway wagons house should be carried out with wagon tippers only, in case, handling of iron ore is more than 6 MTPA. As and when iron ore handling is to be done intermittently, it should be handled with water sprinkling system at high pressure with swiveling type nozzles operated regularly to cover entire stockpile. Nozzles shall be operated along stockpile at regular intervals to cover stockpile height and width.	<b>Noted.</b> Iron ore handling is intermittently taking place. Mechanization of iron ore handling shall be resorted to once exports exceed 6 MTPA. Dust suppression measure by means of regular water sprinklers is being followed.



S.No	CFO Conditions	Compliance Status
17.	The port shall take adequate air pollution control measures with respect to the enhanced dusty materials handling capacities.	<b>Noted and complied</b>
18.	The port shall stock all the dusty materials with in the designated storage yards only.	<b>Noted and complied</b>
19.	The port activities are concentrating in north quay by construction of 12th Berth, hence the stocking of dusty materials shall not be extended towards the residential areas around the port area.	<b>Noted and complied</b>
20.	The dusty materials transporting vehicles shall be closed in all respects/ covered with tarpaulin for controlling fugitive emissions.	<b>Noted and complied</b>
21.	The port shall provide wheel washing facility near the dusty cargo stocking area, to the freighted vehicles going outside the port.	<b>Noted and complied</b>
22.	The port shall inform the modifications made in port infrastructure developments to the MoEF&CC and to the Board time to time.	<b>Noted and complied</b>
23.	The port shall obtain EC for any change of scope of the project and shall restrict the port activities as permitted vide EC Orders Dt.26.07.2006 for Phase - I, 13.11.2009 for Phase - II & Phase-III (Expansion) 11.01.2021.	<b>Noted and complied</b>
24.	The port shall continuously operate the 3 CAAQM stations installed in between villages and port area to monitor all the parameters given in the consent order and upload the data continuously to the APPCB / CPCB websites.	<b>Noted and complied</b>
<b>General</b>		
25.	The MDSS system shall be in operation wherever the stock of any bulk material (Dusty cargo) is piled in a way to ensure wetness on the surface of stock piles.	<b>Noted and complied</b>
26.	As regards to deviation in location of facilities such as stock piles and other	<b>Noted</b>



S.No	CFO Conditions	Compliance Status
	facilities, from the originally envisaged plan, amendments for the EC and CFE have to be obtained immediately.	
27.	The port shall maintain the existing green belt with adequate width and density and in vacant places	<b>Complied.</b> As required entire Greenbelt area of 191.5 Ha has been developed along port boundary, around coal yards, avenue & median plantations.
28.	The port shall use road sweeping machines to clean all port internal roads regularly.	<b>Complied.</b>
29.	The port shall ensure that the trucks transporting cargos to outside the port shall be covered with tarpaulin to avoid fugitive emissions / spillages.	<b>Complied.</b>
30.	All conveyor belts and other transfer points shall be covered with GI sheets to mitigate fugitive emissions generated during conveying of dusty cargos.	<b>Complied.</b> Transfer tower points have been covered using GI sheets with openings as required for access and sprinklers have been installed for dust suppression. Fixing hoods to the conveyor is completed.
31.	The port shall maintain water sprinklers for effective control of fugitive emissions generated during handling of cargo and increased volume of vehicular traffic.	<b>Complied.</b>
32.	The port shall maintain Mechanical Dust Suppression System (MDSS) for stock yards, dusty cargo berths and conveyor belts.	<b>Complied.</b>
33.	The port shall develop and maintain 100 m width greenbelt along the periphery & 20 m width around coal stack yards as per EC/CFE condition	<b>Complied.</b> a. AKPL (Krishnapatnam Port) has successfully developed 194.5 hectares of greenbelt within its premises since the port's inception. The development of the greenbelt has been carried out in phases I and II, resulting in a total area of 191.5 hectares that has been developed and maintained within the port premises. In line with the expansion plans for phase III of Krishnapatnam Port, an additional 3 hectares of greenbelt has been established, contributing to the proposed 120 hectares of greenbelt for this phase in addition to the existing 191.5 Ha. b. Developed along port boundary, around coal yards and block



S.No	CFO Conditions	Compliance Status
		<p>plantation, avenue &amp; median plantations.</p> <p>c. Causalities replacement of existing plantation areas also in progress</p> <p>d. Upon transfer of salt land by GoAP, Green belt development along boundary near Krishnapatnam and Gopalapuram villages will be undertaken on priority.</p> <p>e. Near Chalivendra village due to site limitation green belt has been developed both along the boundary and also on opposite side along the road, pending transfer of forest lands.</p>
34.	The port shall maintain empty dusty cargo vehicles washing system to clean dusty cargo empty vehicles.	<b>Noted and complied</b>
35.	The port shall record the energy consumption for the energy meters provided for Sewage Treatment Plant (STP), pump houses to water sprinklers / dust suppression measures and Air Pollution Control Equipments (APCE)	<b>Noted and complied</b>
36.	The port shall not allow any hazardous wastes through the port other than waste oil from DG Set, Waste oil from Ship, Wastes / residues containing oil from ships, used oil generated in the Port without prior permission of Board and shall comply with EC conditions.	<b>Noted and complied</b>
37.	The port shall not store any hazardous waste within the premises a per the time frame mentioned in HWM Rules.	<b>Noted and complied</b>
38.	In case a leaky container of hazardous cargo is found, a separate permission of the Board may be obtained after establishing the quality and the type of waste for disposal	<b>Noted</b>
39.	All types of the fertilizers should be stored in the closed warehouses only. The Port should ensure that there should not be any open storage of urea or any other fertilizer materials. There shall not be any effluent generation	<b>Noted and complied</b>
40.	The port shall store fuel oils used for construction equipment, vessels and vehicles in a well-designed manner and	<b>Noted and complied</b>





S.No	CFO Conditions	Compliance Status
	protect them against fire hazards by construction of compound wall to prevent access to unauthorized elements. The surface run off from storage area shall pass through oil water separator before being discharged.	
41.	The port shall provide fire detection and firefighting facilities with adequate water storage in fire prone areas in consultation with Directorate of firefighting.	<b>Noted and complied</b>
42.	<p>The port shall comply latest technologies for controlling fugitive emissions including the following:</p> <ol style="list-style-type: none"> <li>1. Fully mechanized handling equipment for loading and unloading operations</li> <li>2. Closed conveyor belt with water sprinkling arrangement for suppression of dust while conveying dusty cargoes like coal, iron ore etc.</li> <li>3. Specially designed iron ore ship loader with necessary precautions to reduce drop height of iron ore into the ship.</li> <li>4. Mechanical water sprinkling shall be provided on roads and at dusty cargo storage areas for suppression of dust.</li> </ol>	<p><b>Complied</b></p> <p>Coal ship unloaders and conveyer systems are provided at three berths. Water sprinkler system has been providing in ship unloaders and conveyer system for dust suppression. GI sheet covering has been provided for all transfer towers and Conveyor. Iron ore handling is intermittently taking place. Mechanization of iron ore handling shall be resorted to once exports exceed 6 MTPA. Dust suppression measure by means of regular water sprinklers is being followed.</p> <p>248 Nos mechanized sprinklers are being operated in coal storage yards and 10 Nos mobile tankers and 3 Nos heavy duty atomizer sprayers are being deployed.</p>
43.	The port shall maintain adequate number of ground water monitoring location on scientific basis and the same shall be monitored every six months.	<p><b>Complied.</b></p> <p>Ground water monitoring is being carried out at 4 locations envisaged in the EMP and six-monthly reports are being regularly submitted to APPCB.</p>
44.	The port shall construct the storm water drains to avoid the contamination of runoff with other effluents.	<p><b>Complied.</b></p> <p>Adequate storm water drains are provided in operational areas.</p>
45.	The port shall regularly clean the drains to avoid siltation.	<p><b>Complied.</b> Drains are cleaned regularly to avoid siltation</p>
46.	The port shall monitor compliance through Environment Management Cell with qualifies and trained staff	<b>Complied</b>
47.	The port shall maintain onsite emergency action plan after carrying out risk analysis and HAZOP studies.	<p><b>Complied.</b></p> <p>a) Onsite emergency plan has been prepared and submitted to District Collector for incorporating with Offsite emergency plan of District magistrate</p>



S.No	CFO Conditions	Compliance Status
		HIRA (Hazard Identification and Risk Assessment) has been done for all operations in the port.
48.	The port shall comply with the conditions of CFE order dated 08.05.2010, 22.02.2018 and 25.2.2021.	<b>Complied</b>
49.	The port shall submit monthly monitoring reports to RO: Nellore	<b>Complied.</b> Monthly monitoring reports are being submitted to APPCB Nellore regularly.
50.	The port shall comply with standards and directions issued by APPCB / CPCB / MoEF&CC as and when notifications are issued from time to time.	<b>Noted</b> All directions issued by APPCB are being scrupulously followed.
51.	The port shall install digital display boards at publicly visible places at the main gate indicating the products manufactured Vs permitted quantities, Treated effluent concentrations Vs discharge standards, Stack emission & AAQ concentrations Vs standards, hazardous waste generation, disposed, stock Vs permitted quantities and validity of CFO; and exhibit the CFO order at a prominent place in the factory premises, as per Hon'ble Supreme Court order	<b>Noted and being complied.</b> Publicly visible board is placed and updated regularly. Setting up of digital display board is in process
52.	The port shall submit Half yearly compliance reports to all the stipulated conditions in Environmental Clearance (EC), Consent for Establishment (CFE) and Consent for Operation (CFO) through website i.e., <a href="https://pcb.ap.gov.in">https://pcb.ap.gov.in</a> by 1 <sup>st</sup> of January and 1st July of every year. The first half yearly compliance reports shall be furnished by the industry and second half yearly compliance reports shall be the audited through MoEF&CC recognized and National Accreditation Board for Laboratory Testing (NABL) accredited third party.	<b>Being Complied</b> Last compliance report submitted on 30.06.2022
<b>Special Conditions</b>		
53.	The port shall possess valid NOC issued by the Andhra Pradesh State Disaster Response and Fire Service Dept., (APSDRFSD) and submit a copy at concerned Regional Office, APPCB.	<b>Complied</b>
54.	The port shall prepare a safety report and carry out an independent safety audit report of the respective industrial activities including chemical storages / isolated storages by an expert not associated with such industrial activity as required under Rule 10 of MSIHC Rules, 1989 and get it	<b>Complied</b>



S.No	CFO Conditions	Compliance Status
	approved by the Factories Dept., and submit the compliance along with copy of the safety report, safety audit report and safety certificate at concerned Regional Office, APPCB.	
55.	The port shall extend training to the working personnel for the prevention of accidents and necessary antidotes to ensure safety, as per the MSIHC Rules, 1989	<b>Complied</b>
56.	The port shall carryout calibration of safety equipment and leak detection systems at regular intervals and shall certify the same with the Factories Department. That certified copy shall be submitted to the APPCB, Regional Office.	<b>Complied</b>
57.	The port shall install fluorescent Wind Vane at the highest point in the industry premises.	<b>Complied</b>
58.	The port shall submit Risk analysis and risk assessment covering worst scenario clearly describing impact within the industry premises and outside the industry premises and emergency response system.	<b>Complied</b>
59.	The port shall submit the copy of the safety audit report and On-Site / Off Site Emergency Plans as applicable after being certified by the Factories Department to the APPCB, Regional Office from time to time, if the storage quantity of hazardous chemicals is equal to or, in excess of the threshold quantities specified in schedule 2 & 3 of MSIHC Rules, 1989	<b>Complied</b>
<b>Schedule C</b>		
1.	The authorized person shall comply with the provisions of the Environment (Protection) Act, 1986, and the rules made there under.	<b>Noted</b>
2.	The authorization or its renewal shall be produced for inspection at the request of an officer authorized by the State Pollution Control Board.	<b>Noted and complied</b>
3.	The person authorized shall not rent, lend, sell, transfer, or otherwise transport the Hazardous and other wastes except what is permitted through this authorization.	<b>Noted</b>
4.	Any unauthorized change in personnel, equipment or working conditions as mentioned in the application by the person authorized shall constitute a breach of his authorization	<b>Noted</b>
5.	The person authorized shall implement Emergency Response Procedure (ERP) for which this authorization is being granted considering all site-specific possible	<b>Noted</b>



S.No	CFO Conditions	Compliance Status
	scenarios such as spillages, leakages, fire etc. and their possible impacts and also carry out mock drill in this regard at regular interval of time;	
6.	The person authorized shall comply with the provisions outlined in the Central Pollution Control Board guidelines on "Implementing Liabilities for Environmental Damages due to Handling and Disposal of Hazardous Waste and Penalty".	<b>Noted</b>
7.	It is the duty of the authorized person to take prior permission of the State Pollution Control Board to close the facility.	<b>Noted</b>
8.	An application for the renewal of an authorization shall be made as laid down under these Rules.	<b>Noted</b>
9.	Any other conditions for compliance as per the Guidelines issued by the Ministry of Environment, Forest and Climate Change or Central Pollution Control Board from time to time.	<b>Noted</b>
<b>Specific Conditions</b>		
10.	The port shall comply with the provisions of HWM Rules, 2016 in terms of interstate transport of Hazardous Waste and manifest document prescribed Under Rule 18 and 19 of the HWM Rules, 2016.	<b>Complied</b>
11.	The port shall not store hazardous waste for more than 90 days as per the Hazardous and Other Wastes (Management & Transboundary Movement) Rules, 2016.	<b>Being complied</b>
12.	The port shall store Used / Waste Oil and Used Lead Acid Batteries in a secured way in their premises till its disposal to the manufacturers / dealers on buyback basis.	<b>Being complied</b>
13.	The industry shall transport the hazardous waste to cement industries only through vehicle fitted with GPS tracking system.	<b>Being complied</b>
14.	The industry shall maintain 7 copy manifest system for transportation of waste generated and a copy shall be submitted to concern Regional Office of APPCB. The driver who transports Hazardous Waste should be well acquainted about the procedure to be followed in case of an emergency during transit. The transporter should carry a Transport Emergency (TREM) Card	<b>Complied.</b> Waste oil generating from the port is being disposed through APEMC Portal authorized vendors.
15.	The industry shall maintain proper records for Hazardous and Other Wastes stated in Authorization in Form-3 i.e., quantity of Incinerable waste, land disposal waste,	<b>Being complied</b>



S.No	CFO Conditions	Compliance Status
	recyclable waste etc., and file annual returns in Form-4 as per Rule 20 (2) of the Hazardous and Other Wastes (Management & Transboundary Movement) Rules, 2016.	



## 5 Conclusion Remarks

Upon verification of AKPL's records, data provided, site conditions, operation procedure, consent conditions, implementation of environment & sustainability, dust suppression measures and as per the Water, Air, Marine & Terrestrial monitoring values, it is to certify that AKPL is complying with the following:

1. AKPL is currently operating 12 cargo berths and one liquid jetty.
2. AKPL is having valid consent of A.P. Pollution Control Board up to 31.08.2027 and the cargo handled for the FY 2022-23 is within the limits of the consented volume.
3. Majority of Port operations (80%) are carried out through mechanized cargo handling equipment so as to avoid cargo spillage and dust emissions during the cargo handling activities.
4. Provided hooded conveyer system for transportation of bulk dusty cargo.
5. Liquid cargo is being handled with utmost care and safety conforming PESO and other applicable rules.
6. AKPL is withdrawing water from Muthukur Reservoir and from NakkalaKaluva irrigation drain. Government of Andhra Pradesh (GoAP) has allocated 1 MLD of potable water from the Muthukur reservoir and Irrigation Department of Andhra Pradesh has allocated 4 MLD of water from the nearby NakkalaKalava irrigation drain.
7. AKPL is currently operating two sewage treatment plants to cater the needs of sewage water treatment which are:
  - a. 40 KLD capacity STP
  - b. 500 KLD capacity STP
  - c. These are located outside CRZ area. The treated water is being used for green belt development within port premises.
8. The facility installed 3 No. of CAAQM stations as advised APPCB to measure the parameters PM 10, PM 2.5, SO<sub>2</sub>, NO, NO<sub>2</sub>, CO and data connected to APPCB website. The values are within the prescribed standards.
9. MDSS system for dust suppression system is developed.
10. AKPL has installed and operating 250 gun sprinklers which have throw range of up to 50 M, as dust suppression systems in dusty cargo storage yards and railway sidings.
11. For cleaning of dry roads, 6 no's vacuum sweeping machines are deployed. Cleaning of Warehouses and container yards 4 no's single brush ride on vacuum sweeping machines. AKPL have procured 13 atomizers as innovative technology in dust suppression system. KPCL is the only port using atomizers whereas other ports using conventional sprinkling system.
12. As part of sustainable development activities, using these special devices ensure to prevent the dust pollution and to ensure the pollution parameters are within the permissible limits stipulated by statutory departments.
13. Mangrove development of 50 ha is being taken up within port premises and additionally 7.128 ha of mangroves are proposed to conserved out of which 3.64 ha (9 acres) are being conserved.
14. As on 31st March 2023, AKPL (Krishnapatnam Port) has successfully developed 194.5 hectares of greenbelt within its premises since the port's inception. The



development of the greenbelt has been carried out in phases I and II, resulting in a total area of 191.5 hectares that has been developed and maintained within the port premises. In line with the expansion plans for phase III of Krishnapatnam Port, an additional 3 hectares of greenbelt has been established, contributing to the proposed 120 hectares of greenbelt for this phase in addition to the existing 191.5 Ha.

15. AKPL appointed NABL and MoEF&CC accredited agency to carry-out monitoring parameters of terrestrial as well as marine water quality and submitting the report to A.P. Pollution Control Board on monthly basis (**Annexure L**). The values are found to be within the prescribed standards.
16. Analyses reports of marine water and sediment quality showed that all the parameters were within normal value. The parameters like DO, BOD, COD, Ammonia, Organic loads, etc., are within the prescribed limits. The results indicate no major changes in water and sediment component by port activities.
17. Maintaining/ cleaning the storm water drain periodically by removing the settled sludge to avoid contamination in surrounding water bodies.
18. Provided Settling ponds at yards for collection of yards runoff and the supernatant water is being used for dust suppression.
19. Imposed ban on usage of single use plastic and consumption of tobacco products within the Port premises.
20. AKPL has established a continuous weather monitoring system in the port premises.
21. AKPL has implemented many green initiatives as part of sustainability development and improved greenery across the Port.
22. AKPL completed planting around 3.2 million plants and also own nursery which has 20, 00,000 saplings.
23. Operating an Occupational Health Centre (OHC) to provide First Aid facility is developed.
24. Submitting all the monthly, half-yearly and annual compliance reports viz., Form – 1 – Water Consumption, Form – 3, Form – 4 Hazardous Waste, Form – 5 Annual Environment Statement, MoEF & CC Half yearly compliance reports within the stipulated date.
25. Complying with all the conditions & directions issued by the statutory departments.
26. Conducting seminars/workshops/programmes/competitions & rallies on Environment & Sustainability among the employees & associates as a part of promoting awareness.
27. Organizing periodical mock drills, fire & safety trainings workshops/seminars involving all the employees & stakeholders to create the awareness of safety issues and preventive measures.
28. Undertaking corporate social responsibility programmes in the surrounding communities
29. All the activities are closely monitored through an Integrated Security Control Room (ISCR)
30. AKPL achieved following awards:
  - a. Environment Health & Safety (EHS) CII "3 star rating "Award 2014.
  - b. Best Management Award
  - c. Award for India's Best Port at the 2<sup>nd</sup> Markenomy Award -2015
  - d. Award for CSR at the 7<sup>th</sup> south east India cargo & Logistics award 2015



- e. Award for Non Major Port of the Year at the 7th south east India cargo & Logistics award 2015
- f. Award for Port / Terminal Operator of the year-Health, Safety & environment at 6th MALA 2015
- g. Award for Indian Maritime Businessman of the Year at the Gateway award
- h. Award for Private Port of The Year at the Gateway Award
- i. Golden Peacock Environment Management Award - 2015
- j. Greentech India International Award-2023.

M/s. Sai Laboratories Private Limited

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Hyderabad-500029.

Mobile:9052668881/9052668882

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<http://www.frics.in/>



**Submitting to:**

Ministry of Environment, Forest & Climate Change, New Delhi

A.P. Pollution Control Board, Regional Office, SPSR Nellore.





**Annexure A:  
Environmental and CRZ (Phase I, II &  
III) Clearances**

**No.10-22/2005-IA-III**  
Government of India  
Ministry of Environment and Forests  
(IA-III Division)

Paryavaran Bhavan,  
C.G.O. Complex, Lodi Road,  
New Delhi-110003

Dated the 26<sup>th</sup> July, 2006

**Sub: Development of Krishnapatnam Port near Nellore, Andhra Pradesh by M/s Krishnapatnam Port Company Limited – Environmental Clearance –regarding.**

\*\*\*\*\*

Reference is invited to the letters No.2103/SADA/2005, dated 16.9.2005 and dated 22.9.2005 from Environment, Forests, Science and Technology Department, Government of Andhra Pradesh regarding the subject mentioned. Further letters No.Nil, dated 26.9.2005, 14.11.2005, dated 28.11.2005 and dated 20.3.2006 from M/s Krishnapatnam Port Company Limited have also been considered. The Andhra Pradesh Pollution Control Board has accorded NOC for the project vide their Order No.APPCB/VJA/NLR/633/HO/2004/9/467, dated 25.5.2004.

The proposal is for development of deep-water port. The proposed Krishnapatnam Deep Water Port is located at latitude 14°15'10"N and longitude 80°08'5"E in R. Sy. Nos.417-426, 433-433/2, 545 and 546 of Krishnapatnam village, Muthukuru Mandal, Nellore District on the East Coast. The area of the proposed Port is 669.5 acres. The existing minor port is located on the northern bank of Khandaleru rivulet. The area is classified Coastal Regulation Zone-III and the inter-tidal zone falling in between High Tide Line and Low Tide Line is categorized as Coastal Regulation Zone-I(ii).

Approach channel in Phase-I proposed is 160 m wide. In phase-I a turning circle of 450 m diameter and 14.95 m depth will be provided for safe maneuvering of design vessel. The stockpile area will be provided for the storage of about 1.2 million tones of iron ore. In addition, stockpile area will be provided for storage of about 0.5 million tonnes of coal. The total capital dredged material in the harbour basin and approach channel in Phase-I is 14 million m<sup>3</sup>. Of the total dredged material about 6 million m<sup>3</sup> will be used for reclamation. The remaining capital dredged material from the harbour basin and the entire capital dredged material from the approach channel will be disposed offshore in the designated disposal ground. The annual maintenance dredging will be about 1 million m<sup>3</sup>. The dredged canal is about 14 km with -14 mts. The disposal site for dredged material has been identified which will be 14 km from the site and the depth of the disposal is 20 mts. No major fishing activities are there. The salt pans are not in the inter-tidal areas. Construction of 2 breakwaters are also involved, south breakwater of 0.95 km and North breakwater of 1.20 km. No forest area or eco-sensitive areas are involved in the project.

Andhra Pradesh State Coastal Zone Management Authority recommended the project in its meeting held on 16.6.2005.

Accordingly, environmental clearance from Coastal Regulation Zone Notification, 1991, as amended from time to time, is hereby accorded for the phase I of the project subject to effective implementation of the following conditions:-

**(A) Specific Conditions:**

- (i) All the conditions stipulated by Andhra Pradesh State Pollution Control Board in their letter Order No.APPCB/VJA/NLR/633/HO/2004/9/467, dated 25.5.2004 should be strictly implemented.
- (ii) Detailed plan for protection of the 9 acres of the mangroves should be provided.
- (iii) The fishermen and salt pan workers should be rehabilitated as per the Rules of Government of Andhra Pradesh.

- (iv) Adequate shore protection measures, including construction of revetments/rip-raps, should be taken up based on the scientific studies. The action plan for implementing the shore protection measures should be submitted to this Ministry within 6 months from the date of receipt of this letter.
- (v) Green belt area should be developed along the project and budget earmarked.
- (vi) For rail and road connectivity of the project, separate application should be submitted to this Ministry.
- (vii) The Bay is reported to be calm for most of the days of the year. Even on the day of the visit, having a deep depression in the South-West Bay of Bengal, the basin was calm, though the Bay experienced high waves. Hence, dredging operation in the estuary should not have any adverse impact on the existing mangroves blocks.
- (viii) During the rough weather, resulting in high flood tides, dredging operation in the estuary should be stopped.
- (ix) Regarding the location of stock yard in the salt pan area to be acquired, the proponent should not take up any developmental works in the mangrove area and should ensure that no destruction of mangroves should takes place.
- (x) A disaster management plan covering emergency evacuation mechanisms etc., to deal with natural disaster events should be prepared and furnished to the Ministry.
- (xi) The company must take up and earmark adequate funds for the socio-economic development and for welfare measures in the area including drinking water supply, vocational training, fishery related development programmes (like cold storages).
- (xii) The fishing activities by the fishermen living in the settlement along the creek should not be hindered and a mechanism may be evolved for the movement of fishing boats *vis-a-vis* shipping activities.
- (xiii) The Relocation of the fishermen and local communities in the area should be done strictly in accordance with the norms prescribed by the State Government. The relocated communities should be provided with all facilities including health care, education, sanitation and livelihood.
- (xiv) The company should take up green belt programme in the project area including an ecological park and the plan may be submitted to the Ministry within one year.
- (xv) The company may suitably modify the alignment of channel entrance including its width, turning circle, taking into consideration the wave traversal, its intensity etc. to facilitate smoother navigation of ships.
- (xvi) The breakwater alignment and its design should be further modified based on relevant model studies, bore hole data etc. keeping in view the tranquility condition required for berthing and maneuvering of ships and subsequent cargo handling operations.
- (xvii) The height of dumping in the dumping site should be restricted to 30 cm as against 90 cm proposed.
- (xviii) The project proponent will not undertake any destruction of mangroves during construction and operation of the project.
- (xix) Sewage arising in the port area should be disposed off through septic tank – soak pit system or should be treated alongwith the industrial effluents to conform to the standards stipulated by Andhra Pradesh Pollution Control Board and should be utilized/re-cycled for gardening, plantation and irrigation.
- (xx) Adequate plantation should be carried out along the roads of the Port premises and a green belt should be developed.
- (xxi) Project proponent should prepare and regularly update the Disaster Management Plan from time to time.
- (xxii) Fire Fighting arrangements are examined to the new proposal.

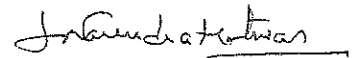
- (xxiii) There should be no withdrawal of ground water in CRZ area, for this project. The proponent should ensure that as a result of the proposed constructions, ingress of saline water into ground water does not take place. Piezometers should be installed for regular monitoring for this purpose at appropriate locations on the project site.
- (xxiv) The project should not be commissioned till the requisite water supply and electricity to the project are provided by the PWD/Electricity Department.
- (xxv) Specific arrangements for rainwater harvesting should be made in the project design and the rain water so harvested should be optimally utilized. Details in this regard should be furnished to this Ministry's Regional Office at Bangalore within 3 months.
- (xxvi) The facilities to be constructed in the CRZ area as part of this project should be strictly in conformity with the provisions of the CRZ Notification, 1991 as amended subsequently.
- (xxvii) Green buffer zone should be provided all around the project area in consultation with local forest department and the report submitted to this Ministry's Regional Office at Bangalore.
- (xxviii) No product other than those permissible in the Coastal Regulation Zone Notification, 1991 should be stored in the Coastal Regulation Zone area.

#### **B. General Conditions:**

- (i) Construction of the proposed structures should be undertaken meticulously conforming to the existing Central/local rules and regulations including Coastal Regulation Zone Notification 1991 & its amendments. All the construction designs / drawings relating to the proposed construction activities must have approvals of the concerned State Government Departments / Agencies.
- (ii) Adequate provisions for infrastructure facilities such as water supply, fuel, sanitation etc. should be ensured for construction workers during the construction phase of the project so as to avoid felling of trees/mangroves and pollution of water and the surroundings.
- (iii) The project authorities must make necessary arrangements for disposal of solid wastes and for the treatment of effluents by providing a proper wastewater treatment plant outside the CRZ area. The quality of treated effluents, solid wastes and noise level etc. must conform to the standards laid down by the competent authorities including the Central/State Pollution Control Board and the Union Ministry of Environment and Forests under the Environment (Protection) Act, 1986, whichever are more stringent.
- (iv) The proponents should provide for a regular monitoring mechanism so as to ensure that the treated effluents conform to the prescribed standards. The records of analysis reports must be properly maintained and made available for inspection to the concerned State/Central officials during their visits.
- (v) In order to carry out the environmental monitoring during the operational phase of the project, the project authorities should provide an environmental laboratory well equipped with standard equipment and facilities and qualified manpower to carry out the testing of various environmental parameters.
- (vi) The sand dunes and mangroves, if any, on the site should not be disturbed in any way.
- (vii) A copy of the clearance letter will be marked to the concerned Panchayat/local NGO, if any, from whom any suggestion/representation has been received while processing the proposal.
- (viii) The Andhra Pradesh Pollution Control Board should display a copy of the clearance letter at the Regional Office, District Industries Centre and Collector's Office/Tehsildar's Office for 30 days.
- (ix) The funds earmarked for environment protection measures should be maintained, in a separate account and there should be no diversion of these funds for any other purpose. A year-wise expenditure on environmental safeguards should be reported to this Ministry's Regional Office at Bangalore and the State Pollution Control Board.

- (x) Full support should be extended to the officers of this Ministry's Regional Office at Bangalore and the officers of the Central and State Pollution Control Boards by the project proponents during their inspection for monitoring purposes, by furnishing full details and action plans including the action taken reports in respect of mitigative measures and other environmental protection activities.
- (xi) In case of deviation or alteration in the project including the implementing agency, a fresh reference should be made to this Ministry for modification in the clearance conditions or imposition of new ones for ensuring environmental protection.
- (xii) This Ministry reserves the right to revoke this clearance, if any of the conditions stipulated are not complied with to the satisfaction of this Ministry.
- (xiii) This Ministry or any other competent authority may stipulate any other additional conditions subsequently, if deemed necessary, for environmental protection, which should be complied with.
- (xiv) The project proponent should advertise in at least two local newspapers widely circulated in the region around the project, one of which should be in the vernacular language of the locality concerned, informing that the project has been accorded environmental clearance and copies of clearance letters are available with the State Pollution Control Board and may also be seen at Website of the Ministry of Environment & Forests at <http://www.envfor.nic.in>. The advertisement should be made within 7 days from the date of issue of the clearance letter and a copy of the same should be forwarded to the Regional Office of this Ministry at Bangalore.
- (xv) The Project proponents should inform the Regional Office at Bangalore 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.

The above mentioned stipulations will be enforced among others under the <sup>①</sup>Water (Prevention and Control of Pollution) Act, 1974, the <sup>②</sup>Air (Prevention and Control of Pollution) Act, 1981, the <sup>③</sup>Environment (protection) Act, 1986, the <sup>④</sup>Hazardous Chemicals (Manufacture, Storage and Import) Rules, 1989, the <sup>⑤</sup>Coastal Regulation Zone Notification, 1991 and its subsequent amendments and the <sup>⑥</sup>Public Liability Insurance Act, 1991 and the Rules made thereunder from time to time. The project proponents should also ensure that the proposal complies with the provisions of the approved Coastal Zone Management Plan of Andhra Pradesh State and the Supreme Court's order dated 18<sup>th</sup> April, 1996 in the Writ Petition No.664 of 1993 to the extent the same are applicable to this proposal.

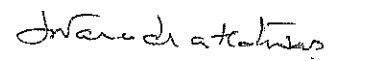
  
(Dr. N. H. Hosabettu)  
Director

To

**Principal Secretary,**  
Government of Andhra Pradesh,  
Environment, Forests, Science and Technology Department,  
Secretariat, Hyderabad – 500022

Copy to:

1. The Chief Conservator of Forests, Ministry of Environment & Forests, Kendriya Sadan, 4<sup>th</sup> Floor, E&F Wings, 17<sup>th</sup> Main Road, 1<sup>st</sup> Block Koramangala, Bangalore – 560034.
2. The Chairman, Central Pollution Control Board, Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, Delhi – 110032.
3. The Chairman, Andhra Pradesh State Pollution Control Board, 2<sup>nd</sup> Floor, Maitrivanam, HUDA Complex, S.R.Nagar, Hyderabad - 38.
4. M/s Krishnapatnam Port Company Limited, 1259, Lakshmi Toweres, Road No.36, Jubilee Hills, Hyderabad - 500033.
5. DIG (SU), Regional Office Cell, Ministry of Environment & Forests, New Delhi.
6. Guard File.
7. Monitoring Cell.
8. Direct (EI), Ministry of Environment & Forests, New Delhi.

  
(Dr. N. H. Hosabettu)  
Director

**F.No. 11-62/2009-IA.III**  
**Government of India**  
**Ministry of Environment & Forests**  
**(IA Division)**

**Paryavaran Bhawan,**  
**CGO Complex, Lodhi Road,**  
**New Delhi - 110 003.**

Dated: 13<sup>th</sup> November, 2009.

To  
M/s. Krishnapatnam Port Company Ltd.,  
1259, Lakshmi Towers,  
Road No.36, Jubilee Hills,  
Hyderabad - 500 033.

**Subject: Environmental and CRZ clearance for the development of Krishnapatnam Port in Phase-II at Krishnapatnam, Sri Potti Sriramulu Nellore District, Andhra Pradesh by M/s. Krishnapatnam Port Company Ltd. - Reg.**

\*\*\*

This has reference to your application No: KP/MoEF/PH-II/113, dated 06.05.2009 and subsequent letters dated 13.05.2009 seeking prior Environmental and CRZ Clearance for the above project under the EIA Notification - 2006 and Coastal Regulation Zone (CRZ) Notification, 1991. The proposal has been appraised as per prescribed procedure in the light of provisions under the EIA Notification - 2006 and Coastal Regulation Zone Notification, 1991 on the basis of the mandatory documents enclosed with the application viz., the Questionnaire, EIA, EMP and the additional clarifications furnished in response to the observations of the Expert Appraisal Committee constituted by the competent authority in its meetings held on 20<sup>th</sup> - 22<sup>nd</sup> July, 2009 and 27<sup>th</sup> - 28<sup>th</sup> August, 2009.

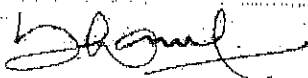
2. It is interalia, noted that the proposal involves the development of existing all weather, deep water, multipurpose port in Phase-II at Krishnapatnam with an investment of Rs.6000 Crores. The Environmental Clearance for the phase-I was issued vide letter No.10-22/2005-IA-III, dated 26-07-2006. The Krishnapatnam deep water Port is located at Latitude 14° 15' 10" N and Longitude 80° 08' 5" E on East Coast. The facilities created so far are located on the northern bank of Khandaleru creek. The existing port covers an area of 440 Ha and consists of three operating berths of 850 m length. The berthing facilities developed so far include one Iron Ore Berth of 262 m, one Coal Berth of 338 m and one General Cargo Berth of 250 m to accommodate Panamax vessels of 60,000 DWT to handle 18million tones of iron ore, 6million tones of iron ore, 4 million tones of general cargo. The length of approach channel is 8.50 km with uniform width of 160 m and draft of (-) 14.40 m. The length of entrance channel of 1.50 km with uniform width of 160 m and draft of (-) 13.80 m. The diameter of the turning basin is 450 m



with a depth of (-) 13.80 m. The port is provided with two break waters and the length of North Breakwater is 606 m extending from the shore upto (-) 2.50 m contour depth, the length of South Breakwater is 1607 m extending from the shore upto (-) 5.0 m contour depth. KPCL has undertaken further studies on tranquility of harbor basin as a result of which the alignment of the channel has been changed to 84.50° N against 105° N.

3. The Phase-II development activities spread over an area of 800 Ha. It include the extension of North Breakwater to 1312 m to a depth of (-) 5.5 m and South Breakwater to 1624 m to a depth of (-) 5.8 m for better tranquility inside the basin. The Phase-II development includes construction of 4 dedicated coal berths on North and one on South with a capacity to handle about 39 MTPA, one Container berth on North and 5 container berths on South to handle 3.30 million TEU. In addition, 2 General Cargo Berths on North of 5.0 MTPA capacity for handling heterogeneous solid cargo and one POL berth for handling 0.3 MTPA of liquid cargo using flexible hoses. The new construction includes additional dredging at berths from (-) 13.2 m CD to (-) 15.0 / (-) 18.0 m CD to accommodate bulk cargo vessels. The depth of the approach channel will be increased from (-) 14.40 m CD to (+) 21.0 m CD and Turning Circle will be increased from (-) 13.80 m CD to (-) 20.50 m CD. The total additional dredging required for berths, deepening of inner and outer channels and turning circle will be about 52.0 million cum. Out of which 9.0 million cum will be utilized for reclamation purpose. The balance dredge material of about 43.0 million cum will be disposed beyond (-) 20.0 m depth in designated offshore disposal site as determined by the National Institute of Ocean Technology (NIOT) for phase -I by suitably extending the phase-I dumping grounds to 5 km x 7 km for Phase-II disposal after duly conforming by additional mathematical model studies. Fugitive dust modeling studies for coal handling and storage areas were carried out using the Industrial Source Complex, Short Term (ISCST3) dispersion model which reveals that the resultant ground level concentrations are found to be well within the National Ambient Air Quality Standards (NAAQS).

4. As per the National Institute of Oceanography (NIO), the proposed development activities fall within the 500 m. of CRZ area to the open sea and 200 m in the case of Khandaleru creek Buckingham Canal. The coastal stretch on the northern side near the breakwaters is covered by sand and Casuarina trees. The existing mangroves adjacent to the Buckingham Canal are protected as stipulated in the Environmental Clearance accorded on 26-07-2006. There are no ecologically sensitive areas in the vicinity of Port. The Indian National Centre for Ocean Information Services (INCOIS) carried out the study on Shoreline Changes due to construction of the port facilities. The study results show that there is no significant permanent change in the shoreline except slight erosion on the northern side and small deposition on the southern side of breakwaters. The monitoring is being continued to



obtain more data to decide on the nature of stability measures that maybe called for over a longer period.

5. The project falls under activity 7(e) "Port and Harbours" of EIA Notification 2006 and also attracts CRZ Notification 1991. The construction and expansion of Ports and Harbours along with infrastructural facilities including operational construction activities are permitted as per para 2 (viii) of the Notification. The proposed development activities fall within 500 m CRZ area to the open sea and 100 m. in the case of Kandaleru creek Buckingham Canal. The area of proposed port is classified as creek as per the CRZ landuse land cover map of the area and falls under CRZ-III and the inter tidal zone is falling in between HTL and LTL is categorized as CRZ I (ii). The costal stretch on the northern side near the back waters is covered by sand and casuarina trees. The Government of Andhra Pradesh has forwarded the proposal for the issue of CRZ Clearance vide letter No.2286/CZMA/2009, dated 11.05.2009. For the Phase-II development of port, TOR was issued on 4<sup>th</sup> April, 2008 and public hearing was held on 20.02.2009.

4. The Expert Appraisal Committee, after due consideration of the relevant documents submitted by the project proponent and additional clarifications furnished in response to its observations, have recommended for the grant of Environmental and CRZ Clearance for the project. Accordingly, the Ministry hereby accord necessary Environmental and CRZ Clearance for the above project as per the provisions of EIA Notification - 2006 and CRZ Notification, 1991 and its subsequent amendments, subject to strict compliance of the terms and conditions as follows:

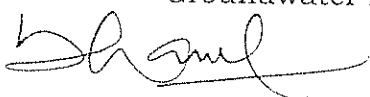
**5. Specific Conditions:**

- (i) All the conditions as stipulated by the Forests & Environment Department, Govt. of Andhra Pradesh vide letter No. 2286/CZMA/2009, dated 11.05.2009 shall be strictly complied.
- (ii) All the details/information submitted by the project proponent vide letter No. KP/MOEF/PH-II/174, dated 17.08.2009 shall be strictly complied.
- (iii) The hydro-dynamic studies shall be undertaken to ascertain the impact to the shoreline in the stretch and ecologically sensitive areas and the report shall be submitted to the Ministry.
- (iv) Ministry has taken a decision that the plantation of mangroves shall be undertaken on an area of 50 ha., as the phase-II of the project spreads over 800 ha.





- (v) Six monthly monitoring shall be carried out and a comparative analysis shall be made to examine for any mitigative measures required.
- (vi) The temperature, salinity and tidal inflow shall be monitored weekly.
- (vii) The greenbelt of 100 m. width shall be developed around the coal stack yard as per the request in the public hearing.
- (viii) Impact on the drawal of the water from the Kandaleru creek shall be regularly monitored and report submitted to the Ministry.
- (ix) Continuous monitoring on disposal of dredged material shall be put in place for both pre and post monsoon periods.
- (x) No construction work other than those permitted in Coastal Regulation Zone Notification shall be carried out in Coastal Regulation Zone area.
- (xi) Oil spills if any shall be properly collected and disposed as per the Rules.
- (xii) The approach channel shall be properly demarcated with lighted buoys for safe navigation and adequate traffic control guidelines shall be framed. The fishermen shall be suitably educated and informed about the traffic guidelines.
- (xiii) 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.
- (xiv) No destruction of mangrove is permitted. The project proponent shall take up mangrove plantation/green belt in the project area, wherever possible. Adequate budget shall be provided in the Environment Management Plan for such mangrove development.
- (xv) The funds earmarked for environment management plan shall be included in the budget and this shall not be diverted for any other purposes.
- (xvi) There shall be no withdrawal of groundwater in Coastal Regulation Zone area, for this project. In case any ground water is proposed to be withdrawn from outside the CRZ area, specific prior permission from the concerned State / Central Groundwater Board shall be obtained in this regard.



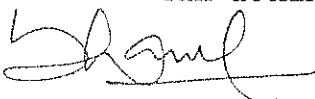
- (xvii) The Hazardous waste generated shall be properly collected and handled as per the provisions of Hazardous Waste (Management, Handling and Transboundary Movement) Rules, 2008.
- (xviii) The waste water generated from the activity shall be collected, treated and reused properly.
- (xix) Sewage Treatment facility should be provided in accordance with the CRZ Notification.
- (xx) No solid waste will be disposed of in the Coastal Regulation Zone area. The solid waste shall be properly collected, segregated and disposed as per the provision of Solid Waste (Management and Handling) Rules, 2000.
- (xxi) Installation and operation of DG set if any shall comply with the guidelines of CPCB.
- (xxii) There shall be no reclamation / dredging of areas.
- (xxiii) Air quality including the VOC shall be monitored regularly as per the guidelines of CPCB and reported.
- (xxiv) The project proponent shall undertake green belt development.
- (xxv) Necessary clearances from all the concerned agencies shall be obtained before initiating the project.
- (xxvi) Project proponent shall install necessary oil spill mitigation measures in the shipyard. The details of the facilities provided shall be informed to this Ministry within 3 months from the date of receipt of this letter.
- (xxvii) No hazardous chemicals shall be stored in the Coastal Regulation Zone area.
- (xxviii) The project shall not be commissioned till the requisite water supply and electricity to the project are provided by the PWD/ Electricity Department.
- (xxix) Specific arrangements for rainwater harvesting shall be made in the project design and the rain water so harvested shall be optimally utilized.
- (xxx) The facilities to be constructed in the CRZ area as part of this project shall be strictly in conformity with the provisions of the CRZ Notification, 1991 and its amendment. The facilities such



as office building and residential buildings which do not require water front and foreshore facilities shall not be constructed within the Coastal Regulation Zone area.

**6. General Conditions:**

- (i) Adequate provision for infrastructure facilities including water supply, fuel and sanitation must be ensured for construction workers during the construction phase of the project to avoid any damage to the environment.
- (ii) Appropriate measures must be taken while undertaking digging activities to avoid any likely degradation of water quality.
- (iii) Borrow sites for each quarry sites for road construction material and dump sites must be identified keeping in view the following:
  - (a) No excavation or dumping on private property is carried out without written consent of the owner.
  - (b) No excavation or dumping shall be allowed on wetlands, forest areas or other ecologically valuable or sensitive locations.
  - (c) Excavation work shall be done in close consultation with the Soil Conservation and Watershed Development Agencies working in the area, and
  - (d) Construction spoils including bituminous material and other hazardous materials must not be allowed to contaminate water courses and the dump sites for such materials must be secured so that they shall not leach into the ground water.
- (iv) The construction material shall be obtained only from approved quarries. In case new quarries are to be opened, specific approvals from the competent authority shall be obtained in this regard.
- (v) Adequate precautions shall be taken during transportation of the construction material so that it does not affect the environment adversely.
- (vi) 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



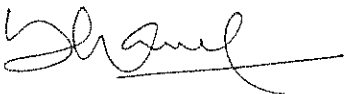
respect of mitigation measures and other environmental protection activities.

- (vii) 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.
- (viii) The Ministry reserves the right to revoke this clearance if any of the conditions stipulated are not complied with the satisfaction of the Ministry.
- (ix) 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.
- (x) 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.
- (xi) Andhra Pradesh 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.

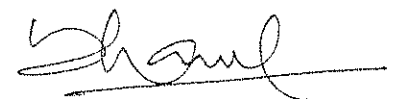
7. These stipulations would be enforced among others under the provisions of Water (Prevention and Control of Pollution) Act 1974, the Air (Prevention and Control of Pollution) Act 1981, the Environment (Protection) Act, 1986, the Public Liability (Insurance) Act, 1991 and EIA Notification 1994, including the amendments and rules made thereafter.

8. 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.

9. 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 Clearance and copies of clearance letters are available with the Andhra Pradesh 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.



10. Environmental 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.
11. Any appeal against this Environmental Clearance shall lie with the National Environment Appellate Authority, if preferred, within a period of 30 days as prescribed under Section 11 of the National Environment Appellate Act, 1997.
12. A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zilla Parishad/Municipal Corporation, Urban Local Body and the Local NGO, if any, from whom suggestions/representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the company by the proponent.
13. The proponent shall upload the status of compliance of the stipulated EC conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MoEF, the respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; SPM, RSPM, SO<sub>2</sub>, NO<sub>x</sub> (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the project shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.
14. The project proponent shall also submit six monthly reports on the status of compliance of the stipulated EC conditions including results of monitored data (both in hard copies as well as by e-mail) to the respective Regional Office of MoEF, the respective Zonal Office of CPCB and the SPCB.
15. The environmental statement for each financial year ending 31<sup>st</sup> March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of EC conditions and shall also be sent to the respective Regional Offices of MoEF by e-mail.




(Bharat Bhushan)  
Director (IA-III)

13.11.2008

Copy to:

- (1) The Special Chief Secretary, Department of Environment, Forests, Science and Technology, Government of Andhra Pradesh, Secretariat, Hyderabad.
- (2) The Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi - 110 032.
- (3) The Chairman, Andhra Pradesh Coastal Zone Management Authority and Environment, Forests Science and Technology, Government of Andhra Pradesh, Hyderabad.
- (4) The Member Secretary, Andhra Pradesh Pollution Control Board, Hyderabad.
- (5) The CCF, Regional Office, Ministry of Environment & Forests(SZ), Kendriya Sadan, IVth floor, E&F wings, 17<sup>th</sup> Main Road, Koramangala II Block, Bangalore - 560 034.
- (6) IA - Division, Monitoring Cell, MOEF, New Delhi - 110 003.
- (7) Guard file.

  
**(Bharat Bhushan)**  
**Director (IA-III)**

**F. No. 11-62/2009-IA.III**  
**Government of India**  
**Ministry of Environment & Forests**  
**(IA.III Division)**

**Room No. 534,**  
**Paryavaran Bhawan,**  
**CGO Complex, Lodhi Road,**  
**New Delhi-110003.**

**Dated: 2 March 2010**

**CORRIGENDUM**

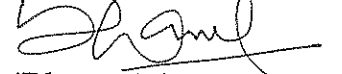
**Subject: Environmental and CRZ clearance for Phase II Development of Krishnapatnam Port at Krishnapatnam, Sri Potti Sriramulu Nellore District, Andhra Pradesh by M/s. Krishnapatnam Port Company Ltd - Reg.**

Sir,

This has reference to your letter No. KP/MoEF/PH-II/12 dated 19.01.2010 regarding change of the conditions. In this context, attention is invited to this Ministry's letter of even no. dt. 13.11.2009. The condition No. (xxii) be deleted and in condition (xxiii), the reference VOC be deleted.

The all other terms and conditions clearance letter of even no. dated 13.11.2009 remain unchanged.

**Yours faithfully,**

  
**(Bharat Bhushan)**  
**Director (IA)**

Copy to:

1. The Principal Secretary, Director (Environment), Forests & Environment Department, Government of Gujrat, Block No. 14, 8<sup>th</sup> floor, Sachiyalaya, Gandhinagar - 382 010.
2. The Chairman, CPCB, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi - 32.
3. The Chairman, Andhra Pradesh State Coastal Zone management Authority & Additional Secretary, Government of Andhra Pradesh, Environment and Forests Science and technology Department, Secretariat, Hyderabad - 500 022
4. The Member Secretary, Andhra Pradesh Pollution Control Borad, Hyderabad.
5. The Chief Conservator of Forests, Ministry of Environment and Forests, Regional Office, Western Region, Kendriya Paryavaran Bhavan, Link Road No. 3, Ravishankar Nagar, Bhopal - 462016 (M.P.).
6. Guard File.
7. Monitoring Cell.

/  
**(Bharat Bhushan)**  
**Director (IA)**

F. No. 11-62/2009- IA III (Pt)  
**Government of India**  
Ministry of Environment, Forest and Climate Change  
(I.A. Division)

Indira Paryavaran Bhawan  
Aliganj, Jorbagh Road,  
New Delhi -110003

Dated 16<sup>th</sup> March, 2016

To,

The Director and CEO  
M/s Krishnapatnam Port Company Ltd.,  
P.O. Bag No. 1, Krishnapatnam Village,  
Muttukuru Mandal, SPSR,  
District Nellore, Andhra Pradesh.

**E-mail : info@krishnapatnamport; Fax No.: 40-23337789;**

**Subject :** Development of Krishnapatnam Port Phase-II at Krishnapatnam, PottiSriramulu Nellore Dist, Andhra Pradesh by M/s Krishnapatnam Port Company Ltd. - **Amendment in the Environmental and CRZ Clearance reg.**

**Ref.:** (i) Ministry's letter no 11-62/2009- IA III dated 13<sup>th</sup> November, 2015 and 18<sup>th</sup> August, 2015.  
(ii) Your online proposal no. IA/AP/MIS/566/2009 dated 3<sup>rd</sup> December, 2015.

Sir,

This has reference to the above mentioned project proposal. It is noted that Ministry of Environment & Forest (MoEF), Government of India (GoI) accorded Environmental and CRZ clearance (EC) for Phase I and Phase II development of the Krishnapatnam Port during 2006 & 2009 respectively. The clearances cater in all to 17 berths with handling capacity of 72.3 MTPA of various cargoes and 3.3 MT PA of Container cargo in a designated area of Ha.1240 (Ac.3064). In terms of the Concession Agreement, GoAP are to provide entire land for the development of the Krishnapatnam Port on a lease basis. GoAP has approved the Master Plan for the development of Krishnapatnam Port covering an area of 2752 ha. (Ac.6800) during October, 2007. Out of the above, only 82% of the designated land for Phase-I & phase-II of the port development could be leased by GoAP till date. The balance area is yet to be handed over due to local issues which need time to resolve. About 70% of the planned infrastructure has so far been developed leaving the project incomplete. Meanwhile GoAP have been able to make available some other areas out of the area earmarked for total Master Plan development. It has been informed by the PP that to optimally operate the existing port infrastructure developed at a considerable cost optimally, it has become essential to incorporate the following minor modification:-

- i) Re-designate the project area by utilising lands to the same extent of area leased by GoAP within the approved port boundary.
- ii) Ancillary construction works to facilities cargo handling viz., construction of railway lines with bridges and road flyovers, edible oil pipelines and helipad.





2.0 It is proposed to make up the short fall of 226 ha (558 Ac) of designated land on account of delay in making available Salt lands and GoAP lands from out of the land made available by GoAP within the approved Master Plan Port boundary and effect minor modifications in the layout of related infrastructure as under:

**Project infrastructure proposed to be shifted to the land requested for redesignation in order to complete the approved phase – II development of Krishnapatnam port.**

Sl No	Item	From	To	Details
1	Cargo Storage Area –A1	a) 14°15'45.77" N; 80°06'39.49"E b) 14°15'51.57" N; 80°06'41.36"E c) 14°16'28.49" N; 80°06'19.28"E d) 14°16'17.69" N; 80°06'02.57"E	a) 14°15'28.32" N; 80°05'38.08"E b) 14°16'13.94" N; 80°05'18.20"E c) 14°16'15.64" N; 80°05'30.49"E d) 14°15'33.94" N; 80°05'48.45"E	AC.128.50
2	Cargo Storage Area –A2	a) 14°16'40.29" N; 80°08'14.53"E b) 14°17'01.72" N; 80°08'25.25"E c) 14°17'13.21" N; 80°08'03.21"E d) 14°16'51.00" N; 80°07'51.13"E	a) 14°16'01.21" N; 80°07'49.24"E b) 14°16'01.34" N; 80°08'03.47"E c) 14°16'42.60" N; 80°08'12.15"E d) 14°16'44.68" N; 80°07'57.41"E	Ac.141.50
3	One Number of Berth	a) 14°15'44.78" N; 80°07'48.81"E b) 14°15'44.78" N; 80°07'47.98"E c) 14°15'28.51" N; 80°07'47.92"E d) 14°15'25.51" N; 80°07'48.75"E	a) 14°15'16.23" N; 80°06'29.37"E b) 14°15'15.47" N; 80°06'29.05"E c) 14°15'21.61" N; 80°06'13.60"E d) 14°15'22.37" N; 80°06'213.92"E	Shifting of the Northern berth towards west
4	Road cum Railway bridge – One number 135 M long	Additional Requirement	Location: 14°17'19" N; 80°07'47"E	To form a Merry-Go-Round system as per the directions of South Central Railway.
5	Railway Bridges (parallel to existing Road Bridges) . Three Nos . 300RM	Additional Requirement	Locations . 14°15'19" N; 80°06'05"E . 14°14'28" N; 80°06'30"E . 14°14'24" N; 80°06'44"E	To form essential rail way connectivity to the South Port area.

	. 340RM .120RM			
6	Edible Oil pipelines Two nos each 10.50 KM Long from Berth # N2Upto the Port's entrance at . 14°15'48.49" N; 80°04'12.85"E	To avoid spillage of cargo and avoid vehicular movement to improve environment	Locations: Marked as P1 & P2 in the drawing attached as Appendix No. 7 (copy enclosed) Submitted along with Justification for Amendments under the cover of KPCL Ltr. No. KP/MOEF/250, Dt. 14/12/2015	To Transport Edible oil from berth refinery located close to the port's boundary.
7	Road Flyovers on existing railway lines		Locations Marked as F1, F2 & F3 in the drawing attached as Appendix No. 7 (Copy Enclosed)	Required for efficient cargo evacuation

### **3. Mode of Transportation**

#### **A. Coal**

- a. Conveyors directly to the power plant (Approx. 70%)
- b. By Railway wagons covered with tarpaulins to external destinations (Approx. 15%)
- c. By Road through covered trucks (Approx. 15%)

#### **B. Fertilizer**

- a. Handled / Bagged in covered warehouses (100%)
- b. By Railway wagons (Approx. 75%)
- c. By Road through trucks duly covered (Approx. 15%)

#### **C. General cargo (Granite, Limestone, Food grains etc.,)**

- a. By Railway wagons (Approx. 60%)
- b. By Road through trucks duly covered (Approx. 40%)

#### **D. Edible Oil**

- a. By pipe Line directly to the refineries (100%)

### **4. Brief Details of existing facilities**

- A. No of Berthing structures completed
- B. Road, Railway line, Conveyor, Pipelines and Drainage system
- C. Operational, administrative, control and functional buildings
- D. Dust suppression measures

- 9 (Nine)

-

- a. 248 nos. mechanically operated sprinklers for cargo storage areas
  - b. Transfer housed with dust suppression systems installed
  - c. Conveyor with hood covering
  - d. 25 nos. truck mounted sprinklers
  - e. 4 nos. heavy duty atomizers
- E. Full- fledged fire fighting equipment along with trained personnel
  - F. Oil spill contingency plan with requisite equipment, trained personal as well as a tie up with Coast Guard.
  - G. Disaster management plan and tie up with the District administration.
  - H. On site as well as Offsite emergency contingency plans
  - I. Development of over Ha. 200 of green belt along the port boundary and around coal stock yards besides avenues plantation

**5. NOC of APCZMA and Recommendation of GoAP**

- A. APCZMA have issued No Objection Certificate (NoC) for the shifting of Cargo Areas 1 & 2 and shifting of the Northern Berthing structure vide letter No. 7401/ CZMA/ 2012, dt 2-2-2013.
- B. GoAP have recommended the same vide their letter No. C. No. 7401/ CZMA/2012 Dt. 17/05/2013 addressed to MoEF.
- C. APCZMA have issued NoC for the construction of a Rail cum Road Bridge for the proposed Merry-Go-Round on the north port and three railway bridges on the railway line connecting the south port and three road flyover on railway lines, vide letter No. 3160/ ENV/ CZMA/ 2014 dt 14-8-2014.
- D. GoAP recommended the same vide their letter no. C. No. 3160/ Env/ CZMA/ 2014Dt. 05/09/2014 addressed to MoEF.

**6. List of Survey Numbers:**

List of survey numbers of the land to be re-designated (Ac. 558) is submitted.

**7. PP has confirmed that :**

- A. the project profile approved in the EC granted namely, extent of Designated Area, Number of Berths, Cargo Mix, Extent of cargo storage areas, Port Cargo handling capacity etc., shall remain unchanged.
- B. No disturbance would be caused to ecologically sensitive areas like Mangroves. They are protecting the existing mangroves and developed 50 ha mangroves as directed in the EC
- C. No Litigation is pending against the port in any court of law.

8. The proposal was considered by the Reconstituted Expert Appraisal Committee (Infrastructure -2) in its 1<sup>st</sup> meeting held during 21<sup>st</sup> – 22<sup>nd</sup> December, 2015. The Committee noted that public hearing of existing EC was held on 29.02.2009. Therefore, the Committee exempted the preparation of EIA /EMP report and public hearing as per 7 (ii) of EIA Notification, 2006. After detailed deliberation the Committee recommended the amendment with following additional specific conditions:

↑  



- i) Construction activity shall be carried out strictly according to the provisions of CRZ Notification, 2011. No construction work other than those permitted in Coastal Regulation Zone Notification shall be carried out in Coastal Regulation Zone area.
- ii) All the recommendations and conditions specified by AP Coastal Zone Management Authority (APCZMA) vide letter no. 3160/Env/CZMA/2014 dated 14.08.2014 shall be complied with.
- iii) Automatic /online monitoring system (24 x 7 monitoring devices) for air pollution as well as water pollution in respect of flow measurement and relevant pollutants in the treatment system to be installed. The data to be made available to the respective SPCB and in the Company's website.
- iv) All the recommendations mentioned in the rapid risk assessment report, disaster management plan and safety guidelines shall be implemented.

9.0 The Ministry accepts the recommendation of the Expert Appraisal Committee (Infrastructure-2) for amendment in the existing environmental and CRZ clearance subject to compliance of specific conditions and general conditions.

10.0 All other conditions will remain unchanged.


11.0 In future, in case of change in the scope of the project, the company shall obtain fresh environmental clearance.

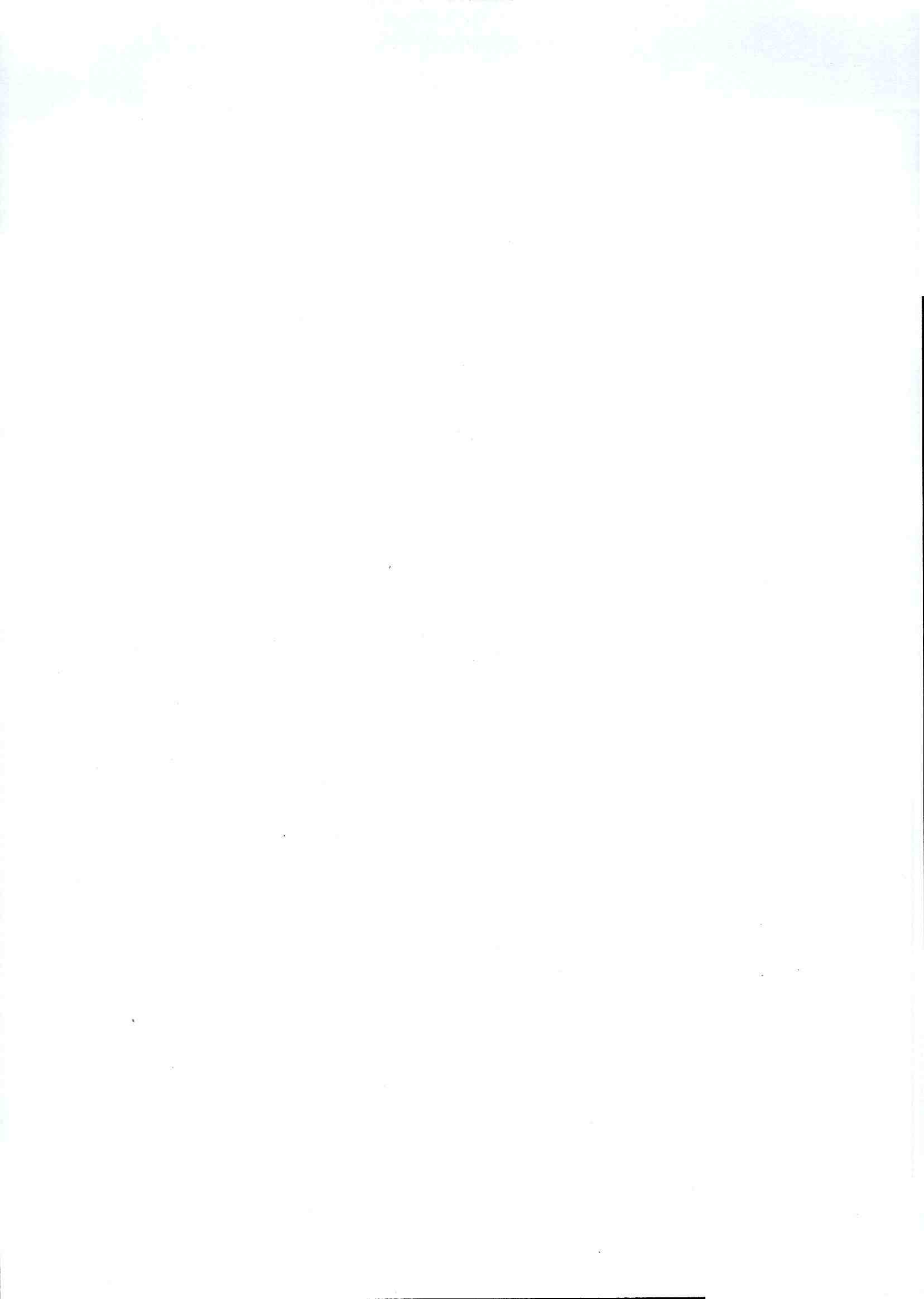
12.0 This issues with the prior approval of the Competent Authority.

  
(A N Singh)  
Scientist 'D'

**Copy to:-**

1. The Principal Secretary, Department of Environment, Forest, Science & Technology, Government of Andhra Pradesh, Hyderabad, A.P.
2. The Chief Conservator of Forests, Regional Office (Southern Zone, Bangalore)KendriyaSadana, 4th Floor, E&F Wing, II Block Koramangala, Bangalore-560034.
3. The Chairman, Central Pollution Control Board Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, New Delhi - 110 032.
4. The Chairman, Andhra Pradesh Pollution Control Board, Paryavaran Bhawan, A-III, Industrial Estate, Sanath Nagar, Hyderabad - A.P.
5. Monitoring Cell, Ministry of Environment, Forest & Climate Change, Indira ParyavaranBhawan, Aliganj, Jorbagh Road, New Delhi -110003, New Delhi.
6. Guard File/Monitoring File/Record File.

  
(A N Singh)  
Scientist 'D'



F. No. 11-62/2009-IA-III  
Government of India  
Ministry of Environment, Forest and Climate Change  
(IA.III Section)

Indira Paryavaran Bhawan,  
Jor Bagh Road, New Delhi - 3

Date: 16<sup>th</sup> April, 2018

To,

**The Director and Chief Executive Officer**  
M/s Krishnapatnam Port Company Ltd.  
P.O. Bag No. 1, Krishnapatnam Village,  
Muttukuru Mandal, SPSR,  
District Nellore (Andhra Pradesh)

**Subject: Development of Krishnapatnam Port Phase-II at Krishnapatnam, Sri Potti Sriramulu, District Nellore (Andhra Pradesh) by M/s Krishnapatnam Port Company Limited - Extension of validity of Environmental and CRZ Clearance - reg.**

Sir,

This has reference to your online proposal No. IA/AP/MIS/566/2009 dated 28<sup>th</sup> July, 2017, submitted to this Ministry for grant of extension of validity of Environmental and CRZ Clearance granted vide letter No. 11-62/2009-IA-III dated 13.11.2009 and subsequent extension of validity of EC&CRZ vide letter of even No. dated 18.08.2015, in terms of the provisions of the Environment Impact Assessment (EIA) Notification, 2006 under the Environment (Protection) Act, 1986 and CRZ Notification, 2011.

2. The proposal for grant of extension of validity of Environmental and CRZ Clearance granted for 'Development of Krishnapatnam Port Phase-II' at Krishnapatnam, Sri Potti Sriramulu, District Nellore (Andhra Pradesh) by M/s Krishnapatnam Port Company Limited, was considered by the Expert Appraisal Committee (Infra-2) in its meetings held on 21-24 August, 2017.

3. The EAC in its 21<sup>st</sup> meeting held in 21-24 August, 2017 has recommended the project for grant of extension of the validity of EC&CRZ clearance issued vide letter dated 13.11.2009 and subsequent amendment vide letter dated 18.08.2015 for a further period of two years. As per recommendations of the EAC, the Ministry of Environment, Forest and Climate Change hereby extend the validity of Environmental and CRZ Clearance up to 12.11.2019.

4. All other conditions stipulated in the Environmental and CRZ Clearance granted vide letter No. 11-62/2009-IA-III dated 13.11.2009 and subsequent extension of validity of EC&CRZ vide letter of even No. dated 18.08.2015, shall remain unchanged.

5. This issues with the approval of the Competent Authority.



**(Kushal Vashist)**  
**Director**

**Copy to:**

- (i) The Secretary (Environment), Environment and Forest Department, Government of Andhra Pradesh.

- (ii) The Chairman, Central Pollution Control Board, Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, Delhi – 32.
- (iii) The Addl. Principal Chief Conservator of Forests (Central), Ministry of Environment, Forests and Climate Change, 1<sup>st</sup> and II<sup>nd</sup> Floor, Handloom Export Promotion Council, 34, Cathedral Garden Road, Nungambakkam, Chennai-34.
- (iv) The Chairman, Andhra Pradesh Pollution Control Board Paryavaran Bhavan, A-III, Industrial Estate, Sanath Nagar Hyderabad, Andhra Pradesh. (Email [eevss@pcb.ap.gov.in](mailto:eevss@pcb.ap.gov.in).)
- (v) The Member Secretary, Andhra Pradesh Costal Zonal management Authority, Environment Forest Science and Technology Department, Hyderabad, Andhra Pradesh.
- (vi) Guard File, Monitoring File.



**(Kushal Vashist)**  
**Director**

**File No.: 10-18/2016-IA.III**  
**Proposal No. IA/AP/MIS/566/2009**  
Government of India  
Ministry of Environment, Forest and Climate Change  
(Impact Assessment Division)

Indira Paryavaran Bhawan,  
Jor Bagh Road, Ali Ganj  
New Delhi – 110 003

**Dated: 11<sup>th</sup> January, 2021**

To

**The Director and Chief Executive Officer**

M/s Krishnapatnam Port Company Ltd  
1st Floor, 48-9-17, Dwarakanagar,  
Visakhapatnam – 530 016, Andhra Pradesh

**Subject: Expansion of Krishnapatnam Port (Phase III) at SPSR Nellore District, Andhra Pradesh by M/s Krishnapatnam Port Company Ltd - Environmental and CRZ Clearance.**

Sir,

This has reference to your online proposal to this Ministry on 05<sup>th</sup> June 2020 regarding Environmental and CRZ Clearance for Expansion of Krishnapatnam Port (Phase III) at SPSR Nellore District, Andhra Pradesh by M/s Krishnapatnam Port Company Ltd.

2. Krishnapatnam Port located at 14°15'10" N Latitude and 80°08'05" E Longitude in Sri Potti Sri Ramulu (SPSR) Nellore District, AP is developed by Krishnapatnam Port Company Ltd (KPCL) as an all-weather, deep water, multi-purpose port. The Phase I & II developments of Krishnapatnam Port comprising of 12 berths out of 17 approved berths with required marine infrastructure were developed in a designated land area of Ha.1240 (Ac. 3064) to cater to 68 MTPA of various types of cargo plus 2.0 MTEUsPA of container traffic. To cater to future traffic needs, KPCL has proposed to take up Phase III expansion of the port.

3. The proposed phase-III project comprising of 16 Berths including 3 jetties for liquid cargo and 3 SBM's in deep waters within Port Limits to cater 150.2 MTPA of various types of cargo plus 1.1 MTEUsPA of container cargo. The proposed expansion entail 60 million cu m of dredging in soft soil, utilize 26 million cu m of dredged sand for reclamation of low lying areas of port, stock pile 2 million cu m on the coast north of north breakwater for long term coastal protection as recommended by NIOT and disposal of balance 32 million cu m of dredged spoil in the identified dredge disposal area of 56 Km<sup>2</sup> beyond (-) 20 m contour. In view of the severe floods that have occurred in the Nellore region during 2015, in order to improve the discharge through Kandaleru Creek the GoAP also suggested cutting through the Islands in the Creek. The Masterplan development as well as the proposed Phase-III expansion of Krishnapatnam Port envisaged training the meanders of the Kandaleru Creek by forming a straight cut across the sand bar existing in the Kandaleru Creek within the port limits and develop the west dock with berths on both sides of the straight cut and reclaim the erstwhile meanders of the creek.

4. The proposed proposal fall under 7(e), Category A as per EIA notification 2006. The overall cost of the project is Rs. 907000 Lakhs. The Term of Reference (ToR) was issued *vide*



letter No. 10-18/2016-IA.III dated 4<sup>th</sup> May 2016. Amendment in TOR was done vide Letter No. of even number dated 24<sup>th</sup> November 2017. Further amendment in TOR was done vide Letter No. of even number dated 27<sup>th</sup> August 2018. Public hearing was exempted as per the ToR amendment vide Letter No.10-18/2016-IA-III dated 24<sup>th</sup> November 2017. However, it was recommended that the Project Proponent shall address the compliance of the recommendations made in the Public Hearing 2009 and submit the same as separate document attached to EIA report.

5. As per the commitments made during the public hearing 100 m green belt has been developed along the boundary of the port. Further as desired by APPCB, 191.5 Ha of green belt has been developed. Dedicated 4 lane port road connectivity has been developed to NH-16 by GoAP. Further, as requested by local public, Krishnapatnam Port is undertaking environmental protection measures to combat air pollution. Total no of village population working directly and indirectly in the port and port based industries are 10,500. Further KPCL has adopted 33 surrounding villages and is carrying out necessary developmental activities.

6. Total area of the proposed project is 1094 Ha (Ac.2703). The project does not involve any land acquisition and R&R as the proposed project activities will be developed within the exiting designated Krishnapatnam port facility. There is no diversion of forest land. The patches of mangroves around 7.128 Ha of area is falling in proposed Phase-III development area will be protected. There is no Eco-Sensitive Zone (ESZ)/Protected Areas such as National Parks, Sanctuaries and Tiger Reserves etc., within the 10 km radius of the project area.

7. The proposed project site is located in the coastal area and attracts CRZ Notification, 2011. The CRZ Area details of the proposed project activities as per the revised layout of the Phase-III expansion of KPCL has been provided by Institute of Remote Sensing, Anna University, which is an authorized agency for CRZ map preparation. The layout superimposed on CRZ map was done at 1:4000 scales. The proposed project was appraised by the Andhra Pradesh Coastal Zone Management Authority (APCZMA) and the recommendation was obtained vide Letter No. 202/CRZ/IND/201930 dated 21.05.2020.

8. The project site is located on the east coast alongside Bay of Bengal. The Kandaleru Creek and Upputeru creeks, Buckingham canal passes through the project site. The other surface water bodies in the study area include irrigation drains from agricultural fields, Sarvepalli reservoir and Govindapalli reservoir. The ephemeral drains inside the project site will not be disturbed and culverts CED 1 and CED 2 are proposed to be provided for the road and rail bridges over the drains without affecting their flow. The mangroves inside the Phase-III developmental area will be conserved and pipelines from the nearby drain are provided for tidal exchange. The Kandaleru Creek will be straightened to develop the west dock. NIOT has studied the impacts of creek rerouting and it was found that there is only slight change in the water level and no impact on flushing and tidal exchange due to the proposed development.

9. The existing port facility has a water supply of 5 MLD which includes 1 MLD of water from Muthukur Reservoir provided by Government of Andhra Pradesh and 4 MLD of water from Nakkala Kalava irrigation drain provided by Irrigation Department of Andhra Pradesh. The present Port facility (Phase-I and Phase-II developments) utilizes 2.5 MLD of water and the water requirement for the proposed Phase-III development is estimated to be 2.5 MLD. No groundwater will be extracted/utilized for the proposed project.

10. The port is proposed to install a Sewage Treatment Plant (STP) of capacity 700 KLD to treat the sewage and an Effluent Treatment Plant (ETP) of 300 KLD capacities to treat the



wastewater from the Port. The treated wastewater will be utilized for greenbelt and dust suppression systems. Greenbelt is proposed in an area of 120 Ha along the Port boundary and around the coal storage areas with native species.

11. Benefits of the project: The proposed development would generate large scale direct and indirect employment for the local people in both the skilled and unskilled worker class. Further there would be an improvement to the local infrastructures in the vicinity of the port through CSR. About 6200 people will get employment during construction and operation phase. The proposed development will help in handling the increased cargo demand due to industrialization. This will contribute towards the growth in economy of the region and the nation. The increased revenue due to proposed development would contribute to the exchequer i.e., Central Government departments like Customs & Excise, Railways, Commercial Taxes and Income Tax. This will eventually contribute towards the State Government of Andhra Pradesh by way of share of revenue and lease rentals.

12. The project proponent along with the EIA consultant M/s Cholamandalam MS Risk Services Limited, Chennai made a presentation through Video Conferencing during 249<sup>th</sup> EAC meeting held on 14<sup>th</sup> December 2020. The EAC based on the information submitted and clarifications provided by the project proponent and detailed discussions held on all the issues, recommended the project for grant of environmental and CRZ clearance with stipulated specific conditions along with other Standard EC Conditions as specified by the Ministry vide OM dated 4<sup>th</sup> January, 2019 for the said project/activity.

13. The Ministry of Environment, Forest and Climate Change has considered the proposal based on the recommendations of the Expert Appraisal Committee (Infrastructure, CRZ and other Miscellaneous projects) and hereby decided to grant Environmental and CRZ Clearance for the "Expansion of Krishnapatnam Port (Phase III) at SPSR Nellore District, Andhra Pradesh by M/s Krishnapatnam Port Company Ltd." under the EIA Notification, 2006 as amended and CRZ Notification 2011, subject to strict compliance of the following specific conditions, in addition to all standard conditions applicable for such projects.

- (i) The Environmental and CRZ Clearance to the project is primarily under provisions of EIA Notification, 2006 and CRZ Notification, 2011. It does not tantamount to approvals/consent/permissions etc required to be obtained under any other Act/Rule/regulation. The Project Proponent is under obligation to obtain approvals /clearances under any other Acts/ Regulations or Statutes as applicable to the project.
- (ii) The project proponent shall abide by all the commitments and recommendations made in the Form-II, EIA and EMP report, submissions made during Public Hearing and also that have been made during their presentation to EAC.
- (iii) Construction activity shall be carried out strictly according to the provisions of the CRZ Notification, 2011. No construction works other than those permitted in Coastal Regulation Zone Notification shall be carried out in Coastal Regulation Zone area.
- (iv) All the recommendations and conditions specified by the Andhra Pradesh Coastal Zone Management Authority (APCZMA) vide letter 202/CRZ/IND/201930 dated 21.05.2020 shall be complied with.

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- (v) The Project proponent shall ensure that no creeks or rivers are blocked due to any activities at the project site and free flow of water is maintained. Creek water monitoring program shall be implemented during the construction phase
- (vi) Development of green belt by native species with consultation with state forest department shall be ensured.
- (vii) The proposed expansion entail 60 million cu m of dredging in soft soil. As proposed, the PP shall utilize 26 million cu m of dredged sand for reclamation of low lying areas of port, stock pile 2 million cu m on the coast north of north breakwater for long term coastal protection as recommended by NIOT and disposal of balance 32 million cu m of dredged spoil in the identified dredge disposal area of 56 Km<sup>2</sup> beyond (-) 20 m contour. The impact of dredging on the marine environment should be monitored and necessary measures shall be taken on priority basis if any adverse impact is observed. NIOT will oversee the work as scientific body and continue to monitor its impact/benefits for at least 5 years post project completion. Necessary financial assistance to be provided by project proponent to NIOT. The report of the same to be submitted to regional office of MoEFCC by project proponent.
- (viii) Marine ecological monitoring and its mitigation measures for protection of phytoplankton, zooplanktons, macrobenthos, estuaries, sea-grass, algae, sea weeds, Crustaceans, Fishes, coral reefs and mangroves etc. as given in the EIA-EMP Report shall be complied with in letter and spirit with the help of reputed organization or individuals of national repute having knowledge in the said subject. Necessary financial assistance to be provided by project proponent
- (ix) Continuous online monitoring of air and water covering the total area shall be carried out and the compliance report of the same shall be submitted along with the 6 monthly compliance reports to the regional office of MoEF&CC.
- (x) The actions shall be in accordance with proposed landscape planning concepts to minimise major landscape changes. The change in land use pattern shall be limited to the proposed port limits and be carried out in such a way as to ensure proper drainage by providing surface drainage systems including storm water network.
- (xi) Suitable preventive measures be taken to trap spillage of fuel / engine oil and lubricants from the construction site. Measures should be taken to contain, control and recover the accidental spills of fuel during cargo handling.
- (xii) 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 the RO, MoEF&CC along with half yearly compliance report.
- (xiii) The company shall draw up and implement Corporate Social Responsibility Plan as per the Company's Act of 2013.
- (xiv) As per the Ministry's Office Memorandum F. No. 22-65/2017-IA.III dated 30<sup>th</sup> September, 2020, the project proponent shall abide by all the commitments made by them to address the concerns raised during the public consultation. The project proponent shall initiate the activities proposed by them, based on the commitment made

in the public hearing, and incorporate in the Environmental Management Plan and submit to the Ministry. All other activities including pollution control, environmental protection and conservation, R&R, wildlife and forest conservation/protection measures including the NPV, Compensatory Aforestation etc, either proposed by the project proponent based on the social impact assessment and R&R action plan carried out during the preparation of EIA report or prescribed by EAC, shall also be implemented and become part of EMP.

## **B. STANDARD CONDITIONS:**

### **I. Statutory compliance:**

- (i) Construction activity shall be carried out strictly according to the provisions of CRZ Notification, 2011 and the State Coastal Zone Management Plan as drawn up by the State Government. No construction work other than those permitted in Coastal Regulation Zone Notification shall be carried out in Coastal Regulation Zone area.
- (ii) A certificate of adequacy of available power from the agency supplying power to the project along with the load allowed for the project should be obtained.
- (iii) All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Coast Guard, Civil Aviation Department shall be obtained, as applicable by project proponents from the respective competent authorities.

### **II. Air quality monitoring and preservation:**

- (i) The project proponent shall install system to carryout Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM<sub>10</sub> and PM<sub>2.5</sub> in reference to PM emission, and SO<sub>2</sub> and NO<sub>x</sub> in reference to SO<sub>2</sub> and NO<sub>x</sub> emissions) within and outside the project area at least at four locations covering upwind and downwind directions.
- (ii) Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed emission standards.
- (iii) Shrouding shall be carried out in the work site enclosing the dock/proposed facility area. This will act as dust curtain as well achieving zero dust discharge from the site. These curtain or shroud will be immensely effective in restricting disturbance from wind in affecting the dry dock operations, preventing waste dispersion, improving working conditions through provision of shade for the workers.
- (iv) Dust collectors shall be deployed in all areas where blasting (surface cleaning) and painting operations are to be carried out, supplemented by stacks for effective dispersion.
- (v) The Vessels shall comply the emission norms prescribed from time to time.
- (vi) Diesel power generating sets proposed as source of backup power should be of enclosed type and conform to rules made under the Environment (Protection) Act, 1986. The height of stack of DG sets should be equal to the height needed for the combined capacity of all proposed DG sets. Use of low sulphur diesel. The location of the DG sets may be decided with in consultation with State Pollution Control Board.

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- (vii) A detailed traffic management and traffic decongestion plan shall be drawn up to ensure that the current level of service of the roads within a 05 kms radius of the project is maintained and improved upon after the implementation of the project. This plan should be based on cumulative impact of all development and increased habitation being carried out or proposed to be carried out by the project or other agencies in this 05 Kms radius of the site in different scenarios of space and time and the traffic management plan shall be duly validated and certified by the State Urban Development department and the P.W.D./ competent authority for road augmentation and shall also have their consent to the implementation of components of the plan which involve the participation of these departments.

### **III. Water quality monitoring and preservation:**

- (i) The Project proponent shall ensure that no creeks or rivers are blocked due to any activities at the project site and free flow of water is maintained.
- (ii) Appropriate measures must be taken while undertaking digging activities to avoid any likely degradation of water quality. Silt curtains shall be used to contain the spreading of suspended sediment during dredging within the dredging area.
- (iii) No ships docking at the proposed project site will discharge its on-board waste water untreated in to the estuary/ channel. All such wastewater load will be diverted to the proposed Effluent Treatment Plant of the project site.
- (iv) Measures should be taken to contain, control and recover the accidental spills of fuel and cargo handle.
- (v) The project proponents will draw up and implement a plan for the management of temperature differences between intake waters and discharge waters.
- (vi) Spillage of fuel / engine oil and lubricants from the construction site are a source of organic pollution which impacts marine life. This shall be prevented by suitable precautions and also by providing necessary mechanisms to trap the spillage.
- (vii) Total fresh water use shall not exceed the proposed requirement as provided in the project details. Prior permission from competent authority shall be obtained for use of fresh water.
- (viii) Sewage Treatment Plant shall be provided to treat the wastewater generated from the project. Treated water shall be reused for horticulture, flushing, backwash, HVAC purposes and dust suppression.
- (ix) A certificate from the competent authority for discharging treated effluent/ untreated effluents into the Public sewer/ disposal/drainage systems along with the final disposal point should be obtained.
- (x) No diversion of the natural course of the river shall be made without prior permission from the Ministry of Water resources.
- (xi) All the erosion control measures shall be taken at water front facilities. Earth protection work shall be carried out to avoid erosion of soil from the shoreline/boundary line from the land area into the marine water body.



#### **IV. Noise monitoring and prevention:**

- (i) Noise level survey shall be carried as per the prescribed guidelines and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.
- (ii) Noise from vehicles, power machinery and equipment on-site should not exceed the prescribed limit. Equipment should be regularly serviced. Attention should also be given to muffler maintenance and enclosure of noisy equipments.
- (iii) Acoustic enclosures for DG sets, noise barriers for ground-run bays, ear plugs for operating personnel shall be implemented as mitigation measures for noise impact due to ground sources.
- (iv) The ambient noise levels should conform to the standards prescribed under E(P)A Rules, 1986 viz. 75 dB(A) during day time and 70 dB(A) during night time.

#### **V. Energy Conservation measures:**

- (i) Provide solar power generation on roof tops of buildings, for solar light system for all common areas, street lights, parking around project area and maintain the same regularly;
- (ii) Provide LED lights in their offices and port areas.

#### **VI. Waste management:**

- (i) Dredged material shall be disposed safely in the designated areas.
- (ii) Shoreline should not be disturbed due to dumping. Periodical study on shore line changes shall be conducted and mitigation carried out, if necessary. The details shall be submitted along with the six monthly monitoring reports.
- (iii) Necessary arrangements for the treatment of the effluents and solid wastes must be made and it must be ensured that they conform to the standards laid down by the competent authorities including the Central or State Pollution Control Board and under the Environment (Protection) Act, 1986.
- (iv) The solid wastes shall be managed and disposed as per the norms of the Solid Waste Management Rules, 2016.
- (v) Any wastes from construction and demolition activities related thereto shall be managed so as to strictly conform to the Construction and Demolition Waste Management Rules, 2016.
- (vi) A certificate from the competent authority handling municipal solid wastes should be obtained, indicating the existing civic capacities of handling and their adequacy to cater to the M.S.W. generated from project.
- (vii) Used CFLs and TFLs should be properly collected and disposed off/sent for recycling as per the prevailing guidelines/ rules of the regulatory authority to avoid mercury contamination.
- (viii) Oil spill contingency plan shall be prepared and part of DMP to tackle emergencies. The equipment and recovery of oil from a spill would be assessed. Guidelines given in MARPOL and Shipping Acts for oil spill management would be followed. Mechanism



for integration of terminals oil contingency plan with the overall area contingency plan under the co-ordination of Coast should be covered.

#### **VII. Green Belt:**

- (i) Green belt shall be developed in area as provided in project details with a native tree species in accordance with CPCB guidelines.
- (ii) Top soil shall be separately stored and used in the development of green belt.

#### **VIII. Marine Ecology:**

- (i) The dredging schedule shall be so planned that the turbidity developed is dispersed soon enough to prevent any stress on the fish population.
- (ii) While carrying out dredging, an independent monitoring shall be carried out through a Government Agency/Institute to assess the impact and necessary measures shall be taken on priority basis if any adverse impact is observed.
- (iii) A detailed marine biodiversity management plan shall be prepared through the NIO or any other institute of repute on marine, brackish water and fresh water ecology and biodiversity and submitted to and implemented to the satisfaction of the State Biodiversity Board and the CRZ authority. The report shall be based on a study of the impact of the project activities on the intertidal biotopes, corals and coral communities, molluscs, sea grasses, sea weeds, sub-tidal habitats, fishes, other marine and aquatic micro, macro and mega flora and fauna including benthos, plankton, turtles, birds etc. as also the productivity. The data collection and impact assessment shall be as per standards survey methods and include underwater photography.
- (iv) Marine ecology shall be monitored regularly also in terms of sea weeds, sea grasses, mudflats, sand dunes, fisheries, echinoderms, shrimps, turtles, corals, coastal vegetation, mangroves and other marine biodiversity components including all micro, macro and mega floral and faunal components of marine biodiversity.
- (v) The project proponent shall ensure that water traffic does not impact the aquatic wildlife sanctuaries that fall along the stretch of the river.

#### **IX. Public hearing and human health issues:**

- (i) The work space shall be maintained as per international standards for occupational health and safety with provision of fresh air respirators, blowers, and fans to prevent any accumulation and inhalation of undesirable levels of pollutants including VOCs.
- (ii) Workers shall be strictly enforced to wear personal protective equipments like dust mask, ear muffs or ear plugs, whenever and wherever necessary/ required. Special visco-elastic gloves will be used by labour exposed to hazards from vibration.
- (iii) Safety training shall be given to all workers specific to their work area and every worker and employee will be engaged in fire hazard awareness training and mock drills which will be conducted regularly. All standard safety and occupational hazard measures shall be implemented and monitored by the concerned officials to prevent the occurrence of untoward incidents/ accidents.
- (iv) Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.



- (v) Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- (vi) Occupational health surveillance of the workers shall be done on a regular basis.

#### **X. Environment Responsibility:**

- (i) The company shall have a well laid down environmental policy duly approved by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest /wildlife norms/ conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.
- (ii) A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly report to the head of the organization.
- (iii) Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report.
- (iv) Self environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.

#### **XI. Miscellaneous:**

- (i) The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.
- (ii) The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
- (iii) The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
- (iv) The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
- (v) The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the

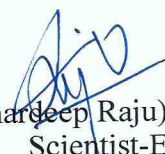




Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.

- (vi) The criteria pollutant levels namely; PM<sub>2.5</sub>, PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub> (ambient levels) or critical sectoral parameters, indicated for the project shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.
- (vii) The project proponent 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, commencing the land development work and start of production operation by the project.
- (viii) The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
- (ix) The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.
- (x) No further expansion or modifications in the port area shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).
- (xi) Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
- (xii) The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- (xiii) The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
- (xiv) The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.
- (xv) The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.
- (xvi) Any appeal against this EC 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.

19. This issues with the approval of the Competent Authority.

  
(Amardeep Raju)  
Scientist-E

Copy to:

1. The Principal Secretary, Department of Forests & Environment and Chairman, APCZMA, Govt. of Andhra Pradesh, A.P. Secretariat, Velagapudi, Amaravathi, A.P.

2. The Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi – 32
3. The Member Secretary, AP Pollution Control Board, Chalamalavari Street, Kasturibaipet, Vijayawada – 520 010.
4. The APCCF (C), Tulja Guda Complex, building, M.J. Market, Hyderabad, (Andhra Pradesh) – 500001
5. Monitoring Cell, MoEF&CC, Indira Paryavaran Bhavan, New Delhi.
6. Guard File/Record File
7. Notice Board.

  
(Amardeep Raju)  
Scientist-E

**F. No. 10-22/2005-IA.III**  
**Proposal No. IA/AP/NCP/217932/2021**  
Government of India  
Ministry of Environment, Forest and Climate Change  
(IA-III Section)

Indira Paryavaran Bhawan  
Jor Bagh Road, Aliganj,  
New Delhi – 110003  
**E-mail: ad.raju@nic.in**  
**Tel: 011-24695296**

Dated: 8<sup>th</sup> February, 2022

To

**Capt Unmesh Abhayankar,**  
**Authorized Signatory**  
**M/s Adani Krishnapatnam Port Limited**  
**PO Bag No. 1, Muthukur Mandal,**  
**SPSR Nellore District-524 344, AP**

**Subject: Name change from “Krishnapatnam Port Company Limited” to “Adani Krishnapatnam Port Limited” for Development of Krishnapatnam Port (Phase-I) at SPSR Nellore District, Andhra Pradesh in Environment Clearance – Name change in EC granted by MoEF vide F. No. 10-22/2005-IA.III, dated 26.07.2006 –Reg.**

Sir,

This has reference to your letter No. ‘Nil’, dated 30<sup>th</sup> June, 2021 regarding the transfer (Name change in EC granted by MoEF vide F. No. 10-22/2005-IA.III, dated 26.07.2006) of Environmental Clearance from M/s Krishnapatnam Port Company Limited” to “Adani Krishnapatnam Port Limited” for the project mentioned above.

2.0 It has been noted that the project mentioned above was accorded environmental clearance by the Ministry vide letter of even number dated 26<sup>th</sup> July, 2006. Ministry has examined your application regarding the name change/transfer of EC and noted that the name of M/s Krishnapatnam Port Company Limited has been changed to M/s Adani Krishnapatnam Port Limited as per Certificate of Incorporation pursuant to change of name by the office of the Registrar of Companies, Vijayawada, Andhra Pradesh, dated 19<sup>th</sup> January, 2021.

3.0 No Objection Certificate/Affidavit dated 18<sup>th</sup> June, 2021 from M/s Adani Krishnapatnam Port Limited in a non-judicial stamp paper for name change/transfer of environmental clearance letter dated 26<sup>th</sup> July, 2006 from M/s Krishnapatnam Port Company Limited” to “Adani Krishnapatnam Port Limited has been received. In addition, the undertaking mentioning that M/s Adani Krishnapatnam Port Limited shall abide all the conditions mentioned in the Environmental Clearance granted vide letter of even number dated 26<sup>th</sup> July, 2006 in favour of Krishnapatnam Port Company Limited.



4.0 In view of the above, it has been decided by the Ministry to change the name/transfer of the Environment Clearance accorded to M/s Krishnapatnam Port Company Limited vide letter of even number dated 26<sup>th</sup> July, 2006, in the name of M/s Adani Krishnapatnam Port Limited.

5.0 You are requested to obtain 'Consent to Establish' and 'Consent to Operate' from the State Pollution Control Board concerned in the name of M/s Adani Krishnapatnam Port Limited.

6.0 M/s Adani Krishnapatnam Port Limited shall comply with all the specific and general conditions stipulated in the environmental clearance of even no. dated 26<sup>th</sup> July, 2006. All other conditions stipulated in the environmental clearance letter shall remain the same.

7.0 In case, there is a change in the scope of the project, fresh environmental clearance shall be obtained.

This issues with the approval of the Competent Authority.



**(Amardeep Raju)**  
**Scientist-E**

**Copy to:**

1. The Principal Secretary, Department of Forests & Environment and Chairman, APCZMA, Govt. of Andhra Pradesh, A.P. Secretariat, Velagapudi, Amaravathi, A.P.
2. The Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi – 32
3. The Member Secretary, AP Pollution Control Board, Chalamalavari Street, Kasturibaipet, Vijayawada – 520 010.
4. The APCCF (C), Tulja Guda Complex, building, M.J. Market, Hyderabad, (Andhra Pradesh) – 500001
5. Monitoring Cell, MoEF&CC, Indira Paryavaran Bhavan, New Delhi.
6. Guard File/Record File
7. Notice Board.



**(Amardeep Raju)**  
**Scientist 'E'**

**F. No. 11-62/2009-IA.III**  
**Proposal No. IA/AP/NCP/217781/2021**  
Government of India  
Ministry of Environment, Forest and Climate Change  
(IA-III Section)

Indira Paryavaran Bhawan  
Jor Bagh Road, Aliganj,  
New Delhi – 110003  
**E-mail: ad.raju@nic.in**  
**Tel: 011-24695296**

Dated: 8<sup>th</sup> February, 2022

To

**Capt Umesh Abhayankar,**  
**Authorized Signatory**  
**M/s Adani Krishnapatnam Port Limited**  
**PO Bag No. 1, Muthukur Mandal,**  
**SPSR Nellore District-524 344, AP**

**Subject: Name change from “Krishnapatnam Port Company Limited” to “Adani Krishnapatnam Port Limited” for Development of Krishnapatnam Port (Phase-II Expansion) at SPSR Nellore District, Andhra Pradesh, in EC & CRZ Clearance granted by MoEF vide F. No. 10-62/2009-IA.III, dated 13.11.2009 –Reg.**

Sir,

This has reference to your on line proposal No. IA/AP/NCP/217781/2021, dated 02<sup>nd</sup> July, 2021 regarding the name change in EC & CRZ Clearance granted by MoEF vide F. No. 11-62/2009-IA.III, dated 13.11.2009 from M/s Krishnapatnam Port Company Limited (KPCL)” to “Adani Krishnapatnam Port Limited (AKPL)” for the project mentioned above.

2.0 It has been noted that the project mentioned above was accorded environmental clearance by the Ministry vide letter of even number dated 13<sup>th</sup> November, 2009. Ministry has examined your application regarding the name change/transfer of EC & CRZ Clearance and noted that the name of M/s Krishnapatnam Port Company Limited has been changed to M/s Adani Krishnapatnam Port Limited as per Certificate of Incorporation pursuant to change of name by the office of the Registrar of Companies, Vijayawada, Andhra Pradesh, dated 19<sup>th</sup> January, 2021.

3.0 No Objection Certificate/Affidavit dated 18<sup>th</sup> June, 2021 from M/s Adani Krishnapatnam Port Limited in a non-judicial stamp paper for name change/transfer of environmental & CRZ clearance letter dated 13<sup>th</sup> November, 2009 from M/s Krishnapatnam Port Company Limited” to “Adani Krishnapatnam Port Limited has been received. In addition, the undertaking mentioning that M/s Adani Krishnapatnam Port Limited shall abide all the conditions mentioned in the Environmental Clearance granted vide letter of even number dated 13<sup>th</sup> November, 2009 in favour of Krishnapatnam Port Company Limited.

*Proposal No. IA/AP/NCP/217781/2021*



4.0 In view of the above, it has been decided by the Ministry to change the name/transfer of the Environment & CRZ clearance accorded to M/s Krishnapatnam Port Company Limited vide letter of even number dated 13<sup>th</sup> November, 2009, in the name of M/s Adani Krishnapatnam Port Limited.

5.0 You are requested to obtain 'Consent to Establish' and 'Consent to Operate' from the State Pollution Control Board concerned in the name of M/s Adani Krishnapatnam Port Limited.

6.0 M/s Adani Krishnapatnam Port Limited shall comply with all the specific and general conditions stipulated in the environmental clearance of even no. dated 13<sup>th</sup> November, 2009. All other conditions stipulated in the environmental clearance letter shall remain the same.

7.0 In case, there is a change in the scope of the project, fresh environmental clearance shall be obtained.

This issues with the approval of the Competent Authority.



**(Amardeep Raju)**  
**Scientist-E**

**Copy to:**

1. The Principal Secretary, Department of Forests & Environment and Chairman, APCZMA, Govt. of Andhra Pradesh, A.P. Secretariat, Velagapudi, Amaravathi, A.P.
2. The Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi – 32
3. The Member Secretary, AP Pollution Control Board, Chalamalavari Street, Kasturibaipet, Vijayawada – 520 010.
4. The APCCF (C), Tulja Guda Complex, building, M.J. Market, Hyderabad, (Andhra Pradesh) – 500001
5. Monitoring Cell, MoEF&CC, Indira Paryavaran Bhavan, New Delhi.
6. Guard File/Record File
7. Notice Board.



**(Amardeep Raju)**  
**Scientist 'E'**

**F. No. 10-18/2016-IA.III**  
Government of India  
Ministry of Environment, Forest and Climate Change  
(IA-III Section)

Indira Paryavaran Bhawan  
Jor Bagh Road, Aliganj, New Delhi – 110003  
**E-mail: ad.raju@nic.in**  
**Tel: 011-24695296**

Dated: 10<sup>th</sup> March, 2021

To

**M/s Adani Krishnapatnam Port Ltd.**  
(Formerly Krishnapatnam Port Company Ltd.)  
1st Floor, 48-9-17, Dwarakanagar,  
**Visakhapatnam** - 530 016 (Andhra Pradesh)

**Subject: Expansion of Krishnapatnam Port (Phase III) at SPSR Nellore District, Andhra Pradesh by M/s Krishnapatnam Port Company Ltd. – Transfer of Environmental and CRZ Clearance - regarding.**

Sir,

This has reference to your letter No. nil dated 16<sup>th</sup> February, 2021 regarding transfer of Environmental and CRZ Clearance from M/s Krishnapatnam Port Company Limited to M/s Adani Krishnapatnam Port Limited for the project mentioned above.

2.0 It has been noted that the project mentioned above was accorded Environmental and CRZ Clearance by the Ministry vide letter of even number dated 11<sup>th</sup> January, 2021 for expansion of Krishnapatnam Port (Phase III) at SPSR Nellore District, Andhra Pradesh by M/s Krishnapatnam Port Company Ltd. Ministry has examined your application regarding transfer of Environmental and CRZ Clearance and noted that the Registrar of Companies, Vijayawada vide Certificate dated 19<sup>th</sup> January, 2021 has approved for transfer for name Krishnapatnam Port Company Limited to Adani Krishnapatnam Port Limited.

3.0 An affidavit from Adani Krishnapatnam Port Limited., in a non-judicial stamp paper has been received mentioning that Adani Krishnapatnam Port Limited shall comply with all the conditions mentioned in the Environment and CRZ Clearance letter issued by the Ministry vide letter of even number dated 11<sup>th</sup> January, 2021

4.0 In view of the above, it has been decided by the Ministry to transfer the Environmental and CRZ Clearance accorded to M/s Krishnapatnam Port Company Limited vide letter of even number dated 11<sup>th</sup> January, 2021 in the name of M/s Adani Krishnapatnam Port Limited.


5.0 M/s Adani Krishnapatnam Port Limited shall comply with the specific and general conditions stipulated in the Environmental and CRZ Clearance of even no. dated 11<sup>th</sup> January, 2021.



6.0 You are requested to obtain 'Consent to Establish' and 'Consent to Operate' from the State Pollution Control Board concerned in the name of M/s Adani Krishnnapatnam Port Limited.


7.0 In case, there is a change in the scope of the project, fresh environmental and CRZ clearance shall be obtained.

This issues with the approval of the Competent Authority.

  
(Amardeep Raju)  
Scientist 'E'

**Copy to:**

1. The Principal Secretary, Department of Forests & Environment and Chairman APCZMA, Govt. of Andhra Pradesh, A.P. Secretariat, Velagapudi, Amravati, A.P.
2. The Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi - 32
3. The Member Secretary, AP Pollution Control Board, Chalamalavari Street, Kasturibaipet, Vijayawada - 520 010
4. The APCCF (C), Tulja Guda Complex, Building, M.J. Market, Hyderabad (Andhra Pradesh) - 500 001
5. Monitoring Cell, MoEF&CC

  
(Amardeep Raju)  
Scientist 'E'



**Annexure B :**  
**Consent for Establishment (CFE)**  
**obtained by AKPL**



**ANDHRA PRADESH POLLUTION CONTROL BOARD**  
**2<sup>nd</sup> FLOOR, MAITRIVANAM, HUDA COMPLEX,**  
**S.R. NAGAR, HYDERABAD – 38**

Phone: 23734043, 23732132  
Fax: 040 – 23733261  
Grams : Kalushya Nivarana  
Website :www.apspcb.org  
E-mail: apspcb@hd2.dot.net.in

**REGISTERED POST WITH ACK DUE**

**CONSENT ORDER FOR ESTABLISHMENT**

**Order No.APCB/VJA/NLR/633/HO/2004/9**

467

**Dt.25.05.2004**

Sub: PCB – CFE – M/s. Krishnapatnam Port Company Ltd., Nellore District. -  
Consent for Establishment of the Board under Sec.25 of water (P&C of P) Act,  
1974 and under Sec.21 of Air (P&C of P) Act 1981 – Issued – Reg.

Ref: 1) Your application dt.17.3.2004 along with EIA reports.  
2) R.O's inspection report dt. 22.3.2004.  
3) Your lr.dt. 1.4.2004 & 6.5.2004

1. In the reference <sup>1<sup>st</sup></sup> cited, an application was submitted to the Board seeking Consent for Establishment (CFE) proposed to develop the existing Minor Port as a modern and deep water port to handle the Cargo with an investment of Rs.900.0 crores as mentioned below:

Sl. No.	Type of Cargo	Quantity
1	Coal	6 million tons/annum ( Coal - 20,000 to 30,000 TPD)
2	Iron Ore	18 Million tons/ annum ( 60,000 to 80,000 TPD)
3	Fertilisers, Food grains, Sugar, Cement & Cement clinker, barites, feldspar, edible oils.	4 million tons/annum
	<b>Total</b>	<b>28.0 Million Tons/annum</b>
	<b>No.of Berths proposed to be established</b>	<b>2 Nos.</b>

2. As per the application, the above activity is to be located at Sy.No.417 - 426, <sup>433</sup>433-433/2, 545 & 546, Krishnapatnam (V), Muthukur (M), Nellore District in an area of 669.5 acres.
3. The above site was inspected by the Environmental Engineer, Regional office, Nellore, A.P Pollution Control Board on 19.3.2004 and found that the site is surrounded by

**North** : Vacant lands  
**South** : Khandaleru River followed by vacant lands & Midderevu  
**East** : Bay of Bengal  
**West** : Vacant lands followed by Khandaleru River.

4. The Board, after careful scrutiny of the application and verification report of Regional Officer, hereby issues CONSENT FOR ESTABLISHMENT to your unit / activity Under Section 25 of Water (Prevention & Control of Pollution) Act 1974 and Section 21 of Air (Prevention & Control of Pollution) Act, 1981 and the rules made there under. This order is issued to undertake the activity as mentioned at para(1) only.
5. This Consent Order now issued is subject to the conditions mentioned in Schedule 'A' and Schedule 'B'.

6. This order is issued from pollution control point of view only. Zoning and other regulations are not considered.

Encl: Schedule 'A'  
Schedule 'B'

  
MEMBER SECRETARY

✓  
To  
M/s. Krishnapatnam Port Company Ltd.,  
NATCO House,  
Road No.2, Banjara Hills,  
Hyderabad - 500 033

- Copy to: 1. The JCEE, Z.O., Vijayawada for information and necessary action.  
2. The E.E., R.O., Nellore for information and necessary action.

## SCHEDULE - A

1. There shall not be any perceptible odour outside the industry's premises.
2. Environmental Statement in form - V as per the provisions under Rule-14 of E (P) Act, 1996 and its amendments there of shall be submitted by 30<sup>th</sup> September of every year and this should also form a part of their annual report.
3. Progress on implementation of the project shall be reported to Board Office, Zonal Office and Regional Office, A.P. Pollution Control Board regularly.
4. Suitable automatic flow measuring devices and monitoring equipments shall be installed at appropriate points. Separate energy meters shall be provided for ETP and Air pollution Control equipments to record energy consumed.
5. All the rules and regulations notified by Ministry of Environment and Forests, Govt. of India in respect of noise pollution control measures shall be followed to avoid nuisance to public.
6. Consents for operation regularly from APPCB, as required Under Sec.25/26 of the Water (P&C of P) Act, 1974 and under sec. 21/22 of the Air (P&C of P) Act, 1981, for operation of the activity, before starting trial production. The Consent for Operation will be accorded only after ensuring compliance of all the conditions stipulated in this order.
7. Conditions issued by the Board in the consent order scrupulously be complied with and carried out. Legal action will be initiated as per the provisions of the relevant Acts in case of non-compliance of any conditions of the consent order.
8. Notwithstanding anything contained in this conditional letter or consent, the Board hereby reserves its right and power Under Sec.27(2) of Water (Prevention and Control of Pollution) Act, 1974 and Under Sec.21(4) of Air (Prevention and Control of Pollution) Act, 1981 to review any or all the conditions imposed herein and to make such alternation as deemed fit and stipulate any additional conditions for the purpose of the Act by the Board.
9. The consent of the Board shall be exhibited in the factory premises at a conspicuous place for the information of the inspecting officers of different departments.
10. Compensation is to be paid for any environmental damage caused by it, as fixed by the Collector and District Magistrate as civil liability.
11. Appropriate Rain Water Harvesting (RWH) structure (s) shall be established on the available up-stream portion of the plant site. The applicant can approach the State Ground Water Authority, local Municipal / Urban Development Authorities and even private consultants to procure suitable design for these structures. If there is no land available in the industry premises, RWH structures must be raised on the roofs of Administrative Blocks or such buildings where sudden leakages or moisture in the air would not affect the quality of the process or product.

  
MEMBER SECRETARY

## SCHEDULE - B

### I. Construction Phase :

#### 1. Road Development :

- a) Proposed road development in the area, both in the Port area as well as area outside Port limits up to the National Highway. This should include construction of new roads and widening of existing roads the number of traffic lanes proposed on the roads, and their adequacy to accommodate increased traffic density on the roads on account of the construction activity in the Port area and consequential operational and developmental activities in the neighbourhood.
- b) Spaces shall be allotted along the roads and below the roads for infrastructure facilities, such as sewer lines water means, storm water drains, telephone cables, electrical cables, and likely liquid cargo, such as fuel oil pipelines etc. these should be indicated on the road maps and sections to facilitate orderly development of infrastructure avoiding frequent digging of roads, subsequent to development.
- c) Avenue plantation and facilities for sprinkling water to mitigate dust generation on roads shall be planned and provided in the port area.

#### 2. Break Waters, Other marine structures and Railway lines :

- a) stone quarries shall be identified for extraction of stone and ballast for the construction of break waters and railway lines etc and environmental management programme for these quarries is to be drawn up to mitigate dust pollution to avoid water stagnation in the pits formed, resulting in mosquito breeding and for mitigating noise pollution. After completing the work, the quarry area shall be restored providing greenery with proper landscape design.
- b) The vessels and barges and other construction equipment used in the construction of break waters and other marine structures shall ensure that no oil spills, sewage / sullage, solid waste is allowed to be discharged into the sea. Such wastes shall be carefully collected and kept on Board and finally transported to the shore, in the Port area and disposed as follows :
  - i) Oils and other hazardous solid waste shall be disposed duly following Hazardous Waste Rules.
  - ii) Sewage / sullage to be disposed into a well designed septic tank taking into consideration, the quantum of waste generated and the effluent from the septic tank shall be disposed in a well designed absorption trenches, with loose jointed earthen ware pipe surrounded by broken stone.
  - iii) Organic solid waste shall be disposed by land fill.

#### 3. Dredging :

- a) The project involves substantial dredging. The disposal of dredged material for reclamation is a small fraction of the total quantity of dredged material anticipated to be obtained. Moreover dredging may be required during operations phase. This material should be analysed and carefully studied to find the possibilities of its use as a building material along with admixtures such as cement, as may be necessary. For this purpose, a proper institution such as Central Building Research Institute of Rorkee and the National Council for Cement and Building Material of Faridabad, may be approached. From the environmental angle, it is very important

because the contemplated discharge of surplus dredged material into the sea is in no way environmental friendly.

- b) The need for construction of suitable groynes / connected to a bulk heads @ intervals along the beaches projecting into the sea and on to land on beaches likely to be affected by erosion shall be examined and provided wherever necessary. The design of the groynes and bulk-heads shall be based on model studies.

4. **Dust :**

Identify all dust generation sources, during the construction period and provide water sprinkling facility at all such places.

5. **Vehicular emissions :**

On account of increased volume of vehicular traffic in the area vehicular emissions also will increase resulting in deterioration of ambient air quality. This situation has to be evaluated with reasonably accurate estimates of traffic volume on different roads and measures shall be taken to control the emission, to comply with PCB norms. A mobile task force shall be created in co-ordination with the RTA to check the vehicles periodically to ensure that they comply with the emission standards.

6. **Noise and Protection of workman :** All equipment used for the construction activity shall be properly maintained to ensure least generation of noise, and also workers shall be protected with ear muffs. The moving parts of the machines shall be properly oiled & greased to reduce noise generation. The workmen with loose fitting garments shall not be permitted and all workers shall be provided with protective clothing, helmets, protective goggles and appropriate shoes and gloves etc wherever required.

7. **Campus for construction workers :** These shall be provided in the port area. These camps shall have water supply and sanitary facilities and canteen. The liquid waste shall be treated in septic tanks followed by a tile field of absorption trenches properly designed. The canteen waste water shall be treated for removal of oil. The garbage generated shall be disposed by sanitary landfill. Where it is unavoidable to locate a camp, outside the port area prior permission shall be obtained from the local authority. All shelters provided shall be of temporary nature and shall be dismantled after the construction work is completed and the same shall be restored to original state.

8. **Fuel oil storages :** the construction equipment vessels and vehicles used in construction work and for transport of material, require fuel oils. There shall be a storage facility for such fuel oils, well designed, and protected against fire hazards and provided with a compound wall, to prevent access to unauthorised elements. All surface run off from such storage areas shall pass through oil water separator, before it finds access to any storm water drainage course or sea.

9. **Fire fighting facilities :** all fire prone areas during the construction phase shall be provided with fire detection and fire fighting facilities with adequate water storage in consultation with the Directorate of Fire fighting / Regional Offices of the Department.

10. **Green belt :** planting of saplings for green belt proposed shall start during the construction period itself. 1 meter height saplings shall be used for tree plantation. The greenbelt shall be at least 50 meter width. In addition to the general greenbelt around the Port area, separate greenbelts shall be provided for atleast 20 meters width around the Iron ore and coal stock yards.

11. **Malaria control & health facilities :**

- a) blood samples of all imported labour should be checked for Malarial parasite infection and they shall be immediately treated for Malaria. Health centres with proper medical facilities and Doctors shall be provided in the Port area to take care of the Health of the workers and staff, and for immediate medical attention to injured workers without delay.
- b) Malaria control programme and Health facilities shall be continued in the operation phase. Vector control programmes shall be taken up in the operation phase, which should cover larval counts of Anaphous mosquito in all the Saline water bodies created on account of harbour construction. Control of all breeding ground by the use of larvicides in addition to control of adult mosquitoes. The health team should include a trained entomologist.

12. The water requirement submitted by the proponent shall clarify

- a) The quantity of water required for day to day operation of the harbour and quantity required to be supplied to ships for replenishment in accordance with the demand and requirements of staff colony.
- b) Since no local water source is indicated in the harbour area, proponent will have to obtain either through surface source or through ground water. The proponent informed that the GoAP will supply water requirement to the project. The proponent shall submit the agreements made with the Government and availability of surface water from the concerned authorities. For emergency use only, the industry can use ground water, duly obtaining permission from Ground Water Department. The same shall be reported to the Board.

II. **Operation Phase :**

- 1) **Maintenance Dredging :** The project proponent shall prepare a plan of action based on detailed studies.

- 2) **Loading & Unloading Operations of Cargo :**

- a) **Bulk Cargo :**

- i) Handling, loading, unloading of bulk cargo, such as coal, iron ore, fertilizer and dry chemicals generate dust with health and environmental impacts in the neighbourhood. These need to be controlled at planning stage. **Therefore, Mechanical handling Equipment shall be used and the equipment shall be designed to minimise dust generation.**
- ii) proper washing facilities shall be provided for the berth handling cargo, to eliminate contacts between hazardous and non-hazardous cargo.

- 3) **Firefighting Facilities:**

The coal storages should be provided with the sprinklers and yard hydrants to control and manage the incidence of spontaneous ignition of the coal stock piles. All fire prone areas during the construction phase shall be provided with fire detecting and fire fighting facilities.

4) **Cargo Transport to Storage Areas :**

- a) The proposed port will handle cargo which is mostly dust producing. Therefore extra care is needed in handling the cargo especially at the transfer points. The proposal stated in EIA are in broad and generic terms in this regard. It will be desirable that a supplementary report giving specific details of the type of equipment proposed for loading, handling, transport, storage and general handling is submitted for approval of the Board.
- b) **The conveyor belt :** shall be of the totally enclosed type preferably working under negative pressure. All dust generating areas in the cargo transport system shall be identified and facilities for dust mitigation with water sprinkling shall be provided.
- c) **Cargo storage Areas :** Facilities for automatic water sprinkler system and facilities for the drainage's of sprinkler water / rain water shall be provided. The cargo storage areas shall have their own green belt of 20 meters width.
- d) **Loading cargo into wagons and trucks :** Dust suppression measures shall be provided in these areas.

5) **Road System in the Port Area :**

The road system in the Port area shall be built of Bituminous concrete, so that they will be dust proof. The Avenue plantation of two rows shall be provided along the roads on both sides.

6) **Handling of Hazardous Cargo :**

The proponent has informed that there will not be any programme to set up storage facilities for petro products or for any other hazardous materials.

- 7) Fire fighting facilities shall be provided in all berth and coal storages and other fire prone areas. A network of water mains hydrants, water storage tanks, Jockey pump and fire tenders and foam trolleys shall be provided in the Port area to fight any accidental fire.
- 8) Vehicular emissions due to transport of cargo to and from the port : - A task force shall be constituted to check vehicle emissions to , enforce standards in co-ordination with the RTA and maintained on a permanent basis.
- 9) Cleaning facilities at berth : all berths shall have cleaning facilities with water under pressure, to ensure non-contamination of one type of cargo with another type.
- 10) Sewage treatment : A site shall be selected for building a STP for sewage generated in the Port area and sewage after tertiary treatment should be used for washing purposes / flushing sewers, greenbelt development, fire fighting, sprinkling for dust suppression and for industrial use within the Port area, other than domestic use. Treated sewage shall not be disposed off into the sea. The STP shall be provided with a separate green belt.
- 11) Greenbelt around port area : a green belt of 50 mtrs width shall be developed and maintained around the port area.
- 12) A scavenging ship shall be provided in the Harbour to clean up the harbour waters periodically. This ship should be specifically designed to clean up oil spills.



III. Environmental Management & Monitoring Programme :

These programmes shall be both for construction phase and operation phase and should include :

- 1) conservation of beaches and prevention of erosion due to littoral drift under the environmental management programme.
  - 2) Sand movement (quantification) and erosion of beaches caused by littoral drift, during the construction period as well as operation period under the environmental monitoring programme/ (EMP).
  - 3) Pollution parameters in Waste water streams entering the sea in the area.
  - 4) General : The Environmental Manager Programme shall be reviewed from time to time against the back drop of results of Monitoring programme and modified in consultation with the PCB to achieve the desired objectives.
  - 5) They should have a environment management cell with qualified and trained staff as appropriate for the port area.
- IV. Once the port is established, onsite and offsite emergency action plan has to be prepared after carrying out risk analysis and hazop studies.
- V. Master plan : In view of the critical issue of appropriate development of the surrounding area to protect health and environment, it is recommended that the proponent should take up the task of proper master plan for the area with the District authority for areas surrounding the Port, to ensure that no slum development and unauthorised construction occur in the area. The project proponent shall take up with District Authorities about the Krishnapatnam Port development and relevant notifications regarding development control in the region as reported in REIA.
- VI. The population projections in the areas around the Port area are to be worked out and shall takeup with district authorities for preparation of a Master plan and a Land use plan for the area to accommodate the population with all infrastructure facilities like domestic water supply, storm water drainage, sewerage system and STP, road net work, transport facilities, telephone facilities, power supply, lung space and greenbelts and parks, lung spaces, etc. The plan should indicate industrial areas, commercial areas and residential areas recreational zones and shall include educational facilities and medical and health facilities. Conservation programmes shall be taken up for all the water bodies in the area and no room shall be given for slum growth.
- VII. The ambient noise level shall not exceed 75 dB(A) during day time and 70 dB(A) during night time.
- VIII. The following rules and regulations notified by the MOE&F, GOI shall be implemented.
- a) Hazardous waste (Management and Handling), Rules, 1989
  - b) Manufacture, storage and import of hazardous chemicals Rules, 1989.
  - c) Rules for manufacture, use, import, export and storage of Hazardous micro-organisms/genetically engineered organisms or cells, 1989.
- IX. The port shall establish adequate no. of ground water monitoring locations on scientific basis, and the same shall be monitored once in 6 months.
- X. The port shall implement all the environmental measures proposed in the EIA and shall initiate all the studies mentioned in the EIA.

- XI. The port shall take permissions from the Board, before handling any Hazardous chemicals. Because as per the present proposal, the port is not planning to handle any hazardous chemicals.
- XII. The industry shall obtain necessary permission as required under CRZ regulations under E (P) Act, 1986.
- XIII. The various rules and regulation notified under E (P) Act, 1986 by MOE&F, GOI from time to time shall be followed.
- XIV. The rules and regulations notified by Ministry of Law and Justice, GOI, regarding the Public liability insurance Act, 1991 shall be followed.
- XV. This Order is valid for a period of five years from the date of issue.

  
MEMBER SECRETARY

To  
M/s. Krishnapatnam Port Company Ltd.,  
NATCO House,  
Road No.2, Banjara Hills,  
Hyderabad - 500 033

  
7/3



REGD.POST WITH ACK.DUE

CONSENT ORDER FOR ESTABLISHMENT

Order No.633/PCB/CFE/RO-NLR/HO/2010 390

Dt.08.05.2010

Sub: PCB - CFE - M/s. Krishnapatnam Port Co. Ltd., Krishnapatnam (V), Tammenapatnam (V), Narikellapalli (V), Pantapalemn (V), Epuru (V), Muthukur (V), Muthukur (M), SPSR Nellore district - Consent for Establishment (Expansion) of the Board under Sec.25 of Water (P & C of P) Act, 1974 and Under Sec.21 of Air (P&C of P) Act, 1981 - Issued - Reg.

- Ref:
- 1) CFE order No. APPCB/VJA/NLR/633/HO/2004, dt. 25.5.2004.
  - 2) Environmental Clearance and CRZ Clearance dt. 13.11.2009 issued by MOE&F, GOI.
  - 3) Industry's application received on 29.12.2009 & addl.information received on 1.2.2010.
  - 4) R.O's inspection report dt. 15.2.2010
  - 5) Industry's Ir.dt. 6.4.2010
  - 6) CFE Committee meeting held on 8.4.2010.
  - 7) Industry's Ir.dt. 19.4.2010

1. In the reference 3<sup>rd</sup> cited, an application was submitted to the Board seeking Consent for Establishment (CFE) for expansion of Phase-II development of Krishnapatnam Port to handle the cargo as mentioned below, with a project cost of Rs. 6000.0 crores (for expansion)

Sl. No	Existing capacity (Phase -I) (as per the CFE order dt.25.05.2004)		Proposed Expansion (Phase -II)	
	Type of Cargo	Quantity	Type of Cargo	Quantity
1	Coal	6 million tons /annum (Coal - 20000 to 30000 TPD)	Dry Bulk Cargo (Coal)	39 MTPA
2.	Iron Ore	18 Million tons/ annum (60,000 to 80,000 TPD)	Container Cargo	3.30 Million TEUs/year
3	Fertilizers, Food grains, Sugar, Cement & Cement clinker, barites, Feldspar, Edible oils.	4 Million tons/annum	General Cargo	5.0 MTPA
4	-	-	Bulk Liquid Cargo (POL)	0.30 MTPA
	<b>Total</b>	<b>28.0 Million tons/annum</b>	<b>Total</b>	<b>44.3 MTPA &amp; 3.3 Million TEUs/year of container cargo</b>

No. of Berths	2 Nos.	No. of Berths • Coal Berths – 5 Nos. (4 North port & 1 South port) • Container berths – 6 Nos. (1 North side + 5 South side) • General Cargo Berths – 2 Nos • POL berth – 1No.	14 Total length – 4100 m (North port – 2,000 m, South port – 2,100 m)
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The developmental works as part of proposed Phase –II development of the port are as follows :-

- Breakwaters will be extended as follows :
    - North Breakwater – Length : 1312 m, Depth : (-) 5.5 m
    - South Breakwater – Length : 1624 m, Depth : (-) 5.8 m.
  - Dredging of existing approach channel, berths and turning circle for adequate depths
    - Dredging quantity : 52 million cu.m
    - Dredging material to be used for reclamation : 9 million cu.m
    - Dredge material to be disposed at 20m. depth & beyond : 43 million cu.m.
  - Exclusive conveying system of length 12 m for Ultra Mega Power Projects (UMTT), APGENCO Power Plant, Southern side Power Plants.
2. As per the application, the above activity is to be located within the existing port area located at Krishnapatnam (V), Tammenapatnam (V), Narikellapalli (V), Pantapalem (V), Epuru (V), Muthukur (V), Muthukur (M), SPSR Nellore district.
  3. The above site was inspected by the Environmental Engineer, Regional office, Nellore, A.P Pollution Control Board on 9.1.2010 and found that the site is surrounded by
 

**North** : Vacant lands  
**South** : Bay of Bengal  
**East** : Kandaleru Creek  
**West** : Kandaleru Creek
  4. The Board, after careful scrutiny of the application and verification report of Regional Officer, hereby issues CONSENT FOR ESTABLISHMENT for Expansion to your activity Under Section 25 of Water (Prevention & Control of Pollution) Act 1974 and Section 21 of Air (Prevention & Control of Pollution) Act, 1981 and the rules made there under. **This order is issued to the activity as mentioned at para (1) only.**
  5. This Consent Order now issued is subject to the conditions mentioned in Schedule 'A' and Schedule 'B'.

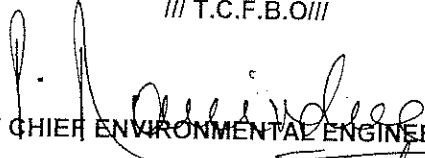
6. This order is issued from pollution control point of view only. Zoning and other regulations are not considered.


Encl: Schedule 'A'  
Schedule 'B'

Sd/-  
MEMBER SECRETARY

✓  
To  
M/s. Krishnapatnam Port Co. Ltd.,  
#1259, Lakshmi Towers,  
Road No.36, Jubilee Hills, Hyderabad – 500 033

/// T.C.F.B.O///

2/5  JOINT CHIEF ENVIRONMENTAL ENGINEER (CFE)

 10/5/10

### SCHEDULE - A

1. Progress on implementation of the project shall be reported to the concerned Regional Office, A.P. Pollution Control Board once in six months.
2. Separate energy meters shall be provided for Effluent Treatment Plant (ETP) and Air pollution Control equipments to record energy consumed.
3. The proponent shall obtain Consents for Operation (CFO) from APPCB, as required Under Sec.25/26 of the Water (P&C of P) Act, 1974 and under sec. 21/22 of the Air (P&C of P) Act, 1981, before commencement of the activity.
4. Notwithstanding anything contained in this conditional letter or consent, the Board hereby reserves its right and power Under Sec.27(2) of Water (Prevention and Control of Pollution) Act, 1974 and Under Sec.21(4) of Air (Prevention and Control of Pollution) Act, 1981 to review any or all the conditions imposed herein and to make such alternation as deemed fit and stipulate any additional conditions by the Board.
5. The consent of the Board shall be exhibited in the factory premises at a conspicuous place for the information of the inspecting officers of different departments.
6. Compensation is to be paid for any environmental damage caused by it, as fixed by the Collector and District Magistrate as civil liability.
7. Floor washing shall be admitted into the effluent collection system only and shall not be allowed to find their way in storm drains or open areas. The industry shall maintain a good housekeeping. All pipe valves, sewers, drains shall be leak proof. Dyke walls shall constructed around storage of chemicals.
8. Rain Water Harvesting (RWH) structure (s) shall be established on the plant site. The proponent shall ensure that effluent shall not enter the Rain Water harvesting structure.
9. The rules and regulations notified by Ministry of Law and Justice, GOI, regarding the Public Liability Insurance Act, 1991 shall be followed.
10. This order is valid for period of 5 years from the date of issue.

### SCHEDULE - B

#### Water:

1. The source of water is Nakkalakuva, Muthukur irrigation tank, De-salination plant Kandaleru Creek (water supply for Fire protection system). The maximum permitted water consumption after expansion is 2000 KLD.

Sl. No	Purpose	Existing (KLD)	After Expansion (KLD)
a)	Dust suppression	950.0	550.0
b)	Domestic	50.0	400.0
c)	Gardening / Irrigation	-	400.0
d)	Miscellaneous (Fire protection services)	-	650.0
	<b>Total</b>	<b>1000.0</b>	<b>2000.0</b>

2. The maximum Waste Water Generation (KLD) shall not exceed the following:

Sl. No	Purpose	Existing (KLD)	After expansion (KLD)
a)	Domestic	40.0	300.0

Treatment & Disposal:

Existing (consented):

Effluent source	Treatment	Disposal
Domestic	STP	Washing / flushing sewers / greenbelt development within port area.

After Expansion:

Effluent source	Treatment	Disposal
1. Washwater from cargo handling areas / berths	Settling pits along the drainage	After settlement of solids, the water shall be used for dust suppression.
* 2. Storm water run off from port area.	Settling pits along the drainage.	After settlement of solids, the water shall be used for dust suppression. Surplus water will be discharged into sea.
3. Oily waste water generated from central canteen.	Oil & Grease tank.	Water shall be used for dust suppression.
4. Domestic	**Sewage Treatment Plant	Treated water shall be used for plantation.

\* Storm water run off from fuel oil storage area shall pass through oil & water separator before joining settling pits.

\*\* STP shall be provided in accordance to CRZ notification.

3. The Effluent Treatment Plant (ETP) and Sewage Treatment Plant (STP) shall be constructed and commissioned along with the commissioning of the activity. All the units of the ETP & STP shall be impervious to prevent ground water pollution.

4. The effluents shall be treated to the on land for irrigation / marine water standards as applicable, stipulated under Environment (Protection) Rules, 1986, notified and published by Ministry of Environment and Forests, Government of India as specified in Schedule VI vide G.S.R.422 (E), dt.19.05.1993 and its amendments thereof, and additional standards / conditions stipulated by APPCB.
5. There should not be any withdrawal of ground water in the CRZ area and ground water monitoring stations shall be provided on scientific basis and reports of the same shall be submitted for every six months.
6. The industry shall prepare oil spill contingency plan as approved by concerned department and shall recover the spill in case of any accidents.
7. The cargo ships shall be prohibited from discharging wastewater / bilge / oil waste in the port area.
8. The impact on the drawl of the water from the Kandaleru Creek shall be regularly monitored and report shall be submitted to the concerned Regional Officer.
9. Separate meters with necessary pipe-line shall be provided for assessing the quantity of water used for each of the purposes mentioned below.
  - a) Industrial cooling, boiler feed.
  - b) Domestic purposes.
  - c) Processing, whereby water gets polluted and pollutants are easily bio-degradable.
  - d) Processing, whereby water gets polluted and the pollutants are not easily bio-degradable.

**Air:**

10. The proponent shall comply with the following for controlling air pollution.

Sl. No	Details of stack	Stack 01
a)	Attached to	D.G. Sets
b)	Capacity	1 x 320 KVA, 1 x 250 KVA, 1x 180 KVA, 1x 160 KVA, 1 x 125 KVA & 1 x 62.5 KVA
c)	Fuel	Diesel
d)	Stack height	As per CPCB norms
e)	Control equipment.	Acoustic enclosures & silencers.

11. The proponent shall comply with the following for controlling fugitive emissions.

- Fully mechanized handling equipment for loading & unloading operations.
- Closed conveyor belt with water sprinkling arrangement for suppression of dust while conveying dusty cargos like coal & iron ore. Specially designed Iron ore ship loader with goose neck chute to reduce drop height of iron ore into the ship.
- All the vehicles involved in transportation of cargo shall be covered with tarpaulin.



- Vehicles shall be managed to avoid traffic congestions and shall provide empty dusting vehicle washings / dry cleaning system to clean all out going cargo vehicles.
  - Based on traffic density/ vehicular movements anticipated from the port, parking facilities will be provided.
  - Automated mechanical water sprinkling shall be provided on roads and at dusty cargo storage areas, for suppression of dust.
12. The industry shall install and commission continuous Ambient air monitoring stations (AAQM) within the plant as per the specifications of CPCB for online monitoring of SO<sub>2</sub>, NO<sub>x</sub>, PM<sub>2.5</sub>, PM<sub>10</sub> with networking to Head office by April,2012 as committed.
  13. Sprinklers / Nozzles shall be provided to control dust emissions at various points/ areas.
    - i. Ship unloader – Fixed cone nozzles shall be placed at receiving hoppers.
    - ii. Belt Transfer Points (in Transfer Towers) – fixed nozzles at regular intervals, shall be mounted on skirt area and provide on discharge hoods of conveyors.
    - iii. Stock yard – Water sprinkling system at high pressure with swiveling type nozzles shall be installed to cover entire stockpile. Nozzles shall be installed along stockpile at regular intervals to cover stockpile height and width. In other areas of stockpiles, two sprinklers at a time shall be operated sequentially to control dust generation due to winds.
    - iv. Rapid loading system – fixed cone nozzles shall be installed, at regular intervals, at discharge point of shuttles conveyor on Rapid loading system.
  14. For Iron ore, a fully mechanized handling system comprising of Ship loader, Covered conveyors, stackers and reclaimers, wagon tippler, etc shall be provided.
  15. Greenbelt shall be developed around the coal and iron ore stockyards to prevent fugitive dust of 100 m width as proposed by the industry.
  16. A sampling port with removable dummy of not less than 15 cm diameter shall be provided in the stack at a distance of 8 times the diameter of the stack from the nearest constraint such as bends etc. A platform with suitable ladder shall be provided below 1 meter of sampling port to accommodate three persons with instruments. A 15 AMP 250 V plug point shall be provided on the platform.
  17. The generator shall be installed in a closed area with a silencer and suitable noise absorption systems. The ambient noise level shall not exceed 75 dB(A) during day time and 70 dB(A) during night time.

**Solid Waste:**

18. The proponent shall comply with the following:

Sl. No.	Solid Waste	Quantity	Method of Disposal
1.	Domestic use	250 kgs./day	After composting, Biodegradable waste is proposed to be used as manure. Non Biodegradable waste will be disposed to approved vendors.
2.	STP sludge	-	To be used as manure.

19. The following rules and regulations notified by the MOE&F, GOI shall be implemented.

- a) Hazardous waste (Management, Handling and Transboundary Movement), Rules, 2008.
- b) Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989.
- c) Coastal Regulatory Zone (CRZ) Notification, 1991.
- d) Municipal Solid Waste (Management & Handling) Rules, 2000 & amendments thereof.

20. The storage facilities of fuel oils shall be made in well designated area where risk is minimum to storage facilities to prevent fire hazard and unauthorized access to unauthorized elements.

21. Fire detection and fire fighting facilities with adequate water storage facility shall be provided in fire prone area in consultation with Directorate of Fire Firefighting.

22. Onsite & offsite Disaster Management plan shall be prepared to meet any eventuality in case of any accident. Mock drills shall be conducted atleast twice a year and modifications required if any shall be incorporated in Disaster Management Plan.

23. In case of any leakage container of hazardous cargo is found, permission shall be obtained from the Board for disposal after establishing type and quantity of the waste.

**Other Conditions:**

24. Green belt of width 100 m shall be developed along the boundary of the industry as committed by the proponent. The greenbelt shall be under taken in an area of 167.5 ha in phase-II. Green belt development shall be started along with the construction activity.

25. The industry shall implement the commitment given in action plan submitted vide Ir.dt. 19.4.2010 with in the scheduled time period and shall submit compliance to the concerned Regional Officer.

26. Dedicated 3 line road shall be layed as proposed by the proponant to avoid conjunction vehicular pollution to the villagers.
27. The hydro-dynamic studies shall be undertaken to ascertain the impact to the shoreline in the stretch and ecologically sensitive areas and the report shall be submitted to the concerned Regional officer.
28. The plantation of mangroves shall be undertaken in an area of 50 ha as the phase-II of the project spreads over 800 ha and existing mangroves shall not be disturbed.
29. The industry shall comply with all the conditions stipulated in the Environmental Clearance and CRZ Clearance issued vide order dt. 13.11.2009 issued by MOE&F, GOI.

Sd/-  
MEMBER SECRETARY

To  
M/s. Krishnapatnam Port Co. Ltd.,  
#1259, Lakshmi Towers,  
Road No.36, Jubilee Hills, Hyderabad – 500 033

/// T.C.F.B.O///

3/5  JOINT CHIEF ENVIRONMENTAL ENGINEER (CFE)

10/5/10



**REGD.POST WITH ACK.DUE**

**Order No.633/PCB/CFE/RO-NLR/HO/2014**

6815

**Dt.14 .03.2014**

Sub: PCB - CFE - **M/s. Krishnapatnam Port Co. Ltd., Krishnapatnam (V), Tammenapatnam (V), Narikellapalli (V), Pantapalem (V), Eperu (V), Muthukur (V), Muthukur (M), SPSR Nellore district** – Consent for Establishment of the Board under Sec.25 of Water (PC&C of Pollution) Act, 1974 and under Sec.21 of Air ( P & C of pollution) Act, 1981 - **Amendment to CFE order** - Issued - Reg.

- Ref: 1) EC Order dt:13.11.2009 for Phase-II Activities  
2) CFE Expansion Order No. 633/PCB/CFE/RO-NLR/HO/2010, dt. 08.05.2010.  
3) EFS & T Department Ir.dt. 02.02.2013 (No Objection Certificate) for lateral shifting of the berth.  
4) Industry's Ir.dt. 18.02.2014.  
5) E.E, R.O., Nellore Ir.dt. 26.02.2014.  
6) CFE Committee meeting held on 28.02.2014.

The Board vide reference 1<sup>st</sup> cited, issued CFE expansion to M/s. Krishnapatnam Port Co. Ltd., for 16 berths (2 berths in Phase - I + 14 berths in Phase - II).

The EFS & T Department vide Ir.dt. 02.02.2013 issued No Objection Certificate for lateral shifting of one of the berths by 500 m towards west. The Government also recommended to MOE&F, GOI for modification of certain conditions including lateral shifting of the berth stipulated in E.C., vide Ir.dt. 17.05.2013.

The industry vide reference 3<sup>rd</sup> cited, requested the Board that they have obtained CFE of the Board for 16 berths (2 berths in Phase - I + 14 berths in Phase - II). Out of these, 9 berths are already completed and 10<sup>th</sup> berth is under construction at a location of 500m towards west from the original location, as approved by the MOE&F, GOI. This shift was found necessary due to site conditions and does not constitute any profile change (no change in sanctioned no.of berths or dredging capacity or capacity of the port or development area etc.).

The E.E. R.O., Nellore vide Ir. dt.26.02.2014 submitted the inspection report.

The issue was placed in the CFE Committee meeting held on 28.02.2014. After detailed discussion, the committee recommended for grant of amendment to CFE for lateral shifting of one berth by 500m towards west, with a condition that the proponent shall obtain amendment to EC order before starting of commercial operations of this berth.

In view of the above, the Board after careful examination of Industry's request, R.O., report and recommendations of the CFE Committee, hereby issues amendment to

CFE order for lateral shifting of one berth by 500 m towards west, with a condition that the proponent shall obtain necessary amendment to the E.C order before starting of commercial operations of this berth, under Sec.25/26 of the Water (Prevention and Control of Pollution) Act, 1974 and under Sec.21 of the Air (Prevention and Control of Pollution) Act, 1981 and amendments thereof, along with additional condition mentioned below:

**Additional Condition:**

Any person aggrieved by an order made by the State Board under Section 25, Section 26, Section 27 of Water Act, 1974 or Section 21 of Air Act, 1981 may within thirty days from the date on which the order is communicated to him, prefer an appeal as per Andhra Pradesh Water Rules, 1976 and Air Rules, 1982, to such authority (hereinafter referred to as the Appellate Authority) constituted under Section 28 of Water (Prevention and Control of Pollution) Act, 1974 and Section 31 of the Air (Prevention and Control of Pollution) Act, 1981.

All other conditions mentioned in the CFE order issued vide reference 1<sup>st</sup> cited remain the same.

Sd/-  
MEMBER SECRETARY

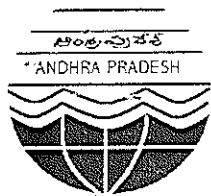
To  
M/s. Krishnapatnam Port Co. Ltd.,  
(Amendment to CFE order),  
H.No. 8-2- 293/82/A/379 & 379/A,  
Ground Floor, Plot No.379, Road No.10,  
Jubilee Hills, Hyderabad – 500 033.

/// T.C.F.B.O///



JOINT CHIEF ENVIRONMENTAL ENGINEER (UH-II)

MA



REGD.POST WITH ACK.DUE

**AMENDMENT TO THE CFE ORDER**

**Order No. 133 /APPCB/CFE/RO-NLR/HO/2015**

**Dt: 02.07.2015**

Sub: APPCB – CFE – M/s. Krishnapatnam Port Company Ltd., Krishnapatnam (V), Muthukur(M), SPSR Nellore District - Amendment to CFE order - Issued - Reg.

- Ref:
1. CFE Order No.APPCB/VJA/NLR/633/HO/204/9-467, dt.25.05.2004.
  2. EC order dt. 26.07.2006 issued by MOE&F, GOI.
  3. EC and CRZ Clearance dt. 13.11.2009 issued by MOE&F, GOI.
  4. CFE Order No. 133/PCB/CFE/RO-NLR/HO/2010-390, dt. 08.05.2010.
  5. CFO Order No.APPCB/VJA/NLR/11344/CFO/HO/2013-5128, dt.30.11.2013.
  6. Industry's Ir. dt. 22.01.2015.
  7. EE, RO, Nellore report dt. 09.02.2015.
  8. CFE Committee meeting held on 04.03.2015.
  9. T.O. Ir. dt.19.03.2015.
  10. Industry's Ir. dt. 29.05.2015 & 03.06.2015.
  11. EE, RO, Nellore report dt. 18.06.2015.
  12. CFE Committee meeting held on 19.06.2015.

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In the reference 1<sup>st</sup> cited, the Board issued CFE to M/s. Krishnapatnam Port Company Ltd., to develop the existing Minor Port as a modern and deep water port to handle the Cargo as following:

Sl. No.	Type of Cargo	Quantity
1	Coal	6 million tons /annum (Coal – 20000 to 30000 TPD)
2.	Iron Ore	18 Million tons/ annum (60,000 to 80,000 TPD)
3	Fertilizers, Food grains, Sugar, Cement & Cement clinker, barites, Feldspar, Edible oils.	4 Million tons/annum
	<b>Total</b>	<b>28.0 Million tons/annum</b>
	No. of Berths	2 Nos.

In the reference 2<sup>nd</sup> cited, M/s. Krishnapatnam Port Company Ltd., obtained EC from the MoE&F, Gol, New Delhi.

In the reference 3<sup>rd</sup> cited, the MoE&F, Gol issued EC and CRZ clearance for Phase-II development. As per the EC, the project consists of three operating berths of 850 m length. Subsequently the Board vide reference 4<sup>th</sup> cited, issued CFE for Phase-II with validity period 5 years i.e., upto 07.05.2015 for the following:

Sl. No	Existing capacity (Phase -1) (as per the CFE order dt.25.05.2004)		Proposed Expansion (Phase -II)	
	Type of Cargo	Quantity	Type of Cargo	Quantity
1	Coal	6 million tons /annum (Coal – 20000 to 30000 TPD)	Dry Bulk Cargo (Coal)	39 MTPA

2.	Iron Ore	18 Million tons/ annum (60,000 to 80,000 TPD)	Container Cargo	3.30 Million TEUs/year
3	Fertilizers, Food grains, Sugar, Cement & Cement clinker, barites, Feldspar, Edible oils.	4 Million tons/annum	General Cargo	5.0 MTPA
4	-	-	Bulk Liquid Cargo (POL)	0.30 MTPA
	<b>Total</b>	<b>28.0 Million tons/annum</b>	<b>Total</b>	<b>44.3 MTPA &amp; 3.3 Million TEUs/year of container cargo</b>
	No. of Berths	2 Nos.	No. of Berths • Coal Berths – 5 Nos. (4 North port & 1 South port) • Container berths – 6 Nos. (1 North side + 5 South side) • General Cargo Berths – 2 Nos • POL berth – 1No.	14  Total length – 4100 m  (North port – 2,000 m, South port – 2,100 m)

In the reference 6<sup>th</sup> cited, the industry had requested to amend the CFE order dt. 25.05.2004 to change number of berths from 2 to 3 on par with the EC order. Further, it is requested to extend the validity of CFE order of Phase – II dt. 08.05.2010 for another five years so as to complete remaining facilities.

The EE, RO: Nellore vide references 7<sup>th</sup> & 11<sup>th</sup> cited, submitted reports in this regard. The issue was placed before the CFE committee in the meetings held on 04.03.2015 & 19.06.2015. The Committee in the meeting held on 19.06.2015 noted the above points and recommended

- a) to amend the CFE dt. 25.05.2004 to change number of berths from 2 to 3, on par with EC order and
- b) to extend the validity of CFE order dt. 08.05.2010 for another five years so as to complete remaining facilities with a condition that the industry has to submit a copy of the order extending the validity of EC within 3 months.

The Board after careful examination of Industry's request, remarks of the Regional Officer and recommendation of CFE Committee, hereby issues **AMENDMENT TO THE CFE ORDER** issued vide references 1<sup>st</sup> and 4<sup>th</sup> cited, under Sec.25 of the Water (Prevention and Control of Pollution) Act, 1974 and under Sec.21 of the Air (Prevention and Control of Pollution) Act, 1981 and amendments thereof as following:

1. The no. of berths in the para No.1 of the CFE orders dt. 25.05.2004 & 08.05.2010 shall be read as 3 instead of 2 and there is no change in total length of the Berths i.e., 850 m.
2. The validity period of the CFE order dt. 08.05.2010 is extended for another 5 years i.e., upto 07.05.2020 with following conditions:
  - a) The port authorities shall submit a copy of the order extending the validity of EC within 3 months.

- b) The port authorities shall submit a map showing operating berths of Phase-I & Phase-II and proposed berths of Phase-II along with the length of each berth.
- c) Display boards showing the berth number shall be provided.
- d) The port authorities shall submit the progress of construction of new berths of Phase-II to the Board regularly.

All other conditions mentioned in the CFE order issued vide reference 1<sup>st</sup> & 4<sup>th</sup> cited remain the same.

Sd/-  
MEMBER SECRETARY

To  
M/s. Krishnapatnam Port Co. Ltd.,  
8-2-293/A/379, Ground floor,  
Plot No. 379, Road No.36,  
Jubilee Hills,  
Hyderabad-500033.

Copy to: 1. The JCEE, Z.O., Vijayawada for information and necessary action.  
2. The E.E., R.O., Nellore for information and necessary action.

// T.C.F.B.O //

  
JOINT CHIEF ENVIRONMENTAL ENGINEER (FAC), UH-I







BY REGD POST WITH ACK DUE

Order No. 633 /APPCB/CFE/RO-NLR/HO/2010

Dt: 10.02.2016

**Sub:** APPCB - CFE - M/s. Krishnapatnam Port Co. Ltd., Krishnapatnam (V), Muthukur (M), SPSR Nellore district – CFE amendment for the change of cargo mix – Issued – Reg.

- Ref:**
1. EC orders dt. 26.07.2006 & 13.11.2009 issued by MoE&F, GoI, New Delhi.
  2. CFE expansion order dt. 08.05.2010.
  3. CFE (amend) order dt. 02.07.2015.
  4. CFE application recd on 01.01.2016.
  5. Regional Officer report dt. 08.01.2016.
  6. CFE Committee meeting held on 30.01.2016.
  7. Lr. dt, 01.02.2016 recd from M/s. KPCL.

1. M/s. Krishnapatnam Port Co. Ltd., (M/s. KPCL) obtained ECs vide reference 1<sup>st</sup> cited, for expansion (Phase – II development) of Krishnapatnam Port to handle the cargo as following:

S.No.	Activity	Phase-I	Phase-II	Total
1	Iron ore	18 Million tones/annum (1 berth)	----	18 Million tones/annum (1 berth)
2	Iron ore	6 Million tones/annum (1 berth)	----	6 Million tones/annum (1 berth)
3	General cargo	4 Million tones/annum (1 berth)	5 Million tones/annum (2 berths)	9 Million tones/ annum (3 berths)
4	Coal	----	39 Million tones/annum (4 berths)	39 Million tones/annum (4 berths)
5	Container berth	----	3.3 Million TEU (6 berths)	3.3 Million TEU (6 berths)
6	POL berth	----	0.3 Million tones/annum (1 berth)	0.3 Million tones/annum (1 berth)
	Total	28 Million tones/annum	44.3 Million tones/annum + 3.3 Million TEU	72.3 Million tones/annum + 3.3 Million TEU

2. The Board issued CFE (exp) vide reference 2<sup>nd</sup> cited for the cargo handling capacities as following:

S. N.	Products / Line of Activity Type of Cargo	Permitted capacity as per CFE order dt. 08.05.2010 after Phase II (Million Tons/Annum)		
		Phase I	Phase II	Total
1.	Coal	6	39	45
2.	Iron Ore	18	-	18
3.	General Cargo (Fertilizers, Food grains, Granite blocks, Bulk liquid cargo etc.).	4	5	9.3
	Bulk liquid cargo	-	0.30	
4.	Container Cargo	-	3.3 MTEU	3.3 MTEU
	<b>Total</b>	<b>28 MTPA</b>	<b>44.3 MTPA + 3.3 Million TEU</b>	<b>72.3 MTPA + 3.3 Million TEU</b>
5.	No. of Berths	2 Nos.	14 Nos. (4100 m)	16 Nos.

3. The Board vide reference 3<sup>rd</sup> cited Issued amendment to CFE order as following:

Sl. No	Existing capacity (Phase -1) (as per the CFE order dt.25.05.2004)		Expansion (Phase -II)	
	Type of Cargo	Quantity	Type of Cargo	Quantity
1	Coal	6 million tons /annum (Coal – 20000 to 30000 TPD)	Dry Bulk Cargo (Coal)	39 MTPA
2.	Iron Ore	18 Million tons/ annum (60,000 to 80,000 TPD)	Container Cargo	3.30 Million TEUs/year
3	Fertilizers, Food grains, Sugar, Cement & Cement clinker, barites, Feldspar, Edible oils.	4 Million tons/annum	General Cargo	5.0 MTPA
4	-	-	Bulk Liquid Cargo (POL)	0.30 MTPA
	<b>Total</b>	<b>28.0 Million tons/annum</b>	<b>Total</b>	<b>44.3 MTPA &amp; 3.3 Million TEUs/year of container cargo</b>
	No. of Berths	3 Nos. Total length 850m.	No. of Berths • Coal Berths – 5 Nos. (4 North port & 1 South port) • Container berths – 6 Nos. (1 North side + 5 South side) • General Cargo Berths – 2 Nos • POL berth – 1No.	17 nos  Total length – 4100 m  (North port – 2,000 m, South port – 2,100 m)

4. M/s. KPCL has submitted an application seeking CFE of the Board to Change the Cargo Handling Capacity due to change in current market and regulatory ban an Iron ore exports. It is proposed to optimize the resources and cater the growing needs of clients in private and Govt. sectors without increase in the overall approved cargo handling capacity as mentioned. The EE, RO: Nellore has submitted a report vide reference 5th cited.
5. In view of the above, the Board after careful examination of Industry's request, remarks of the Regional Officer and recommendations of the CFE Committee, hereby issues **AMENDMENT TO THE CFE ORDER** issued vide reference 2<sup>nd</sup> and 3<sup>rd</sup> cited, for **change of cargo mix without increasing total permitted cargo handling capacity** under Sec.25/26 of the Water (Prevention and Control of Pollution) Act, 1974 and under Sec.21 of the Air (Prevention and Control of Pollution) Act, 1981 and amendments thereof as following:

S.No.	Activity	Phase-I	Phase-II	Total
1	Iron ore	10 Million tones/ annum	----	10 Million tones/annum
2	Coal	12 Million tones/ annum	39 Million tones/ annum	51 Million tones/annum
3	General cargo i.e Fertilizers, good grains, sugar, cement and cement clinker, barites, feldspar, edible oils	4 Million tones/ annum	5.0 Million tones/ annum	9 Million tones/ annum
4	Container cargo	--	3.3 Million TEU	3.3 Million TEU
5	POL berth	2.0 Million tones/ annum	0.3 Million tones/ annum	2.3 Million tones/ annum.
	<b>Total</b>	<b>28.0 Million tones/ annum</b>	<b>44.3 Million tones/ annum + 3.3 Million TEU</b>	<b>72.3 Million tones/ annum + 3.3 Million TEU</b>
6.	No of berths	3 no Total length 850m	14 no Total length – 4100 m  (North port – 2,000 m, South port – 2,100 m)	17 no.

6. M/s. Krishnapatnam Port Company Ltd., shall comply with the following:

- a) The mechanical dust suppression system (sprinklers and fogging) of adequate capacity shall be provided at the coal handling points such as loading and unloading from the ship, stacking and reclaiming processed in the stack yard to control dust generation and air emissions.
  - b) Wind breaking wall / sheets shall be provided all along the Coal / Iron ore stacks yards towards villages viz., Chalivendra, Gopalapuram and Krishnapatnam taking into consideration the meteorological characteristics of the location within 3 months as committed vide Ir.dt. 01.02.2016.
7. The port authorities shall submit a copy of the order issued by the Board to the MoEF&CC, Gol, New Delhi for record.
8. All other conditions stipulated in the CFE orders issued vide references 2<sup>nd</sup> and 3<sup>rd</sup> cited remain the same.

Sd/-  
MEMBER SECRETARY

To  
M/s. Krishnapatnam Port Co., Ltd.,  
8-2-293/A/379, Ground Floor,  
Plot No. 379, Road No. 36,  
Jubilee Hills, Hyderabad-500033.  
Mail id: [sanjayn@necitd.com](mailto:sanjayn@necitd.com), [ceo@krishnapatnamport.com](mailto:ceo@krishnapatnamport.com),

Cc:

1. The JCEE, ZO: Vijayawada for information and necessary action.
2. The EE, RO: Nellore for information and necessary action.

// T.C.F.B.O. //



JOINT CHIEF ENVIRONMENTAL ENGINEER(UH-I)



BY REGD.POST

**AMENDMENT TO THE CFE ORDER**

**Order No. APPCB/VJA/NLR/633/HO/2004/9/46**

**Dt. 04.01.2017**

Sub: APPCB - CFE - M/s. Krishnapatnam Port Company Ltd., Krishnapatnam (V), Muthukur (M), SPSR Nellore District - Amendment to CFE order – Issued – Reg.

- Ref:
1. EC orders dt. 26.07.2006 & 13.11.2009 issued by MoE&F, Gol, New Delhi.
  2. CFE order dt. 25.05.2004.
  3. CFE (expansion) order dt. 08.05.2010.
  4. CFE (amend) order dt. 02.07.2015.
  5. CFE for change of Cargo Mix dt. 10.02.2016.
  6. Representation of the industry recd on 05.11.2016.
  7. Regional Officer report dt. 15.12.2016.
  8. CFE Committee meeting held on 24.12.2016.

In the reference 1<sup>st</sup> cited, M/s. Krishnapatnam Port Company Ltd., had obtained Environmental Clearances from MoE&F, Gol, New Delhi for their Port activities.

The Board had issued CFE to M/s. Krishnapatnam Port Company Ltd., vide reference 2<sup>nd</sup> cited and CFE (expansion) vide reference 3<sup>rd</sup> cited. The Board had issued an amendment to CFE order vide reference 4<sup>th</sup> cited including no. of berths on par with EC order and extension of validity of CFE order. The Board had also issued amendment to CFE order vide reference 5<sup>th</sup> cited for change of Cargo Mix.

In the reference 6<sup>th</sup> cited, the industry has requested to amend some of the conditions stipulated by the Board in the above CFE orders. The EE, RO: Nellore has submitted a report in this regard vide reference 7<sup>th</sup> cited.

The item was placed before the CFE Committee meeting held on 24.12.2016. After detailed discussions, keeping in view the practical problems, the Committee recommended to issue amendments to the conditions stipulated in the CFE orders as requested by the industry.

The Board, after careful scrutiny of the request of the industry, report of Regional Officer and recommendations of the CFE Committee hereby issues **AMENDMENT TO THE CONDITIONS STIPULATED IN THE CONSENT FOR ESTABLISHMENT ORDERS** to your unit Under Section 25 of Water (Prevention & Control of Pollution) Act 1974 and Section 21 of Air (Prevention & Control of Pollution) Act, 1981 and the rules made there under as following:

**The conditions stipulated in the CFE order issued vide reference 2<sup>nd</sup> cited shall be read as following:-**

**SCHEDULE-B ( II- Operational phase)**

S.No.	Existing Condition	Condition after amendment
4 (C)	<b><u>Cargo storage Areas:</u></b> Facilities for <b>automatic</b> water sprinkler system and facilities for the drainage's of sprinkler water / rain water shall be provided. The cargo storage areas shall have their own greenbelt of 20 meters width.	<b><u>Cargo storage Areas:</u></b> Facilities for water sprinkler system and facilities for the drainage's of sprinkler water / rain water shall be provided. The cargo storage areas shall have their own greenbelt of 20 meters width.

IV.	Once the port is established, onsite and offsite emergency action plan has to be prepared after carrying out risk analysis and hazop studies.	Once the port is established, On-site Emergency action plan has to be prepared after carrying out Risk Analysis and Hazop studies.
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- All other conditions of CFE order issued vide reference 2<sup>nd</sup> cited shall remain the same.

The conditions stipulated in the CFE order issued vide reference 3<sup>rd</sup> cited shall be read as following:-

CFE Order No.633/PCB/CFE/RO-NLR/HO/2010-390 Dt.08.05.2010 (Phase – II):

S.No.	Existing Condition	Condition after amendment
	<b>SCHEDULE-A</b>	
2.	Separate energy meters shall be provided for Effluent Treatment Plant (ETP) and Air Pollution Control equipments to record energy consumed.	Separate energy meters shall be provided for "Sewage Treatment Plant" and MDSS pump houses i.e., air pollution control equipment, to record energy consumed.
	<b>SCHEDULE-B : Air:</b>	
11.	The proponent shall comply with the following for controlling fugitive emissions:-	
	➤ Fully mechanized handling equipment for loading & unloading operations.	➤ Fully mechanized handling equipment for loading & unloading operations.
	➤ Closed conveyor belt with water sprinkling arrangement for suppression of dust while conveying dusty cargoes like coal & iron ore. Specially designed Iron Ore ship loader with goose neck chute to reduce drop height of Iron Ore into the ship.	➤ Closed conveyor belt with water sprinkling arrangement for suppression of dust while conveying dusty cargoes like coal, iron ore. Specially designed iron ore ship loader with necessary precautions to reduce drop height of iron ore into the ship.
	➤ All the vehicles involved in transportation of cargo shall be covered with tarpaulin.	➤ All outgoing vehicles involved in transportation of cargo shall be covered with tarpaulin.
	➤ Vehicles shall be managed to avoid traffic congestions and shall provide empty dusting vehicle washings / dry cleaning system to clean all out going cargo vehicles.	➤ Vehicles shall be managed to avoid traffic congestions and shall provide empty dusting vehicle washings / dry cleaning system to clean the cargo vehicles.
	➤ Based on traffic density / vehicular movements anticipated from the port, parking facilities will be provided.	➤ Based on traffic density / vehicular movements anticipated from the port, parking facilities will be provided.
	➤ Automated mechanical water sprinkling shall be provided on roads and at dusty cargo storage areas, for suppression of dust.	➤ Mechanical water sprinkling shall be provided on roads and at dusty cargo storage areas, for suppression of dust.

22.	Onsite & Offsite Disaster Management Plan shall be prepared to meet any eventuality in case of any accident. Mock drills shall be conducted at least twice a year and modifications required if any shall be incorporated in Disaster Management Plan.	Onsite Disaster Management Plan shall be prepared to meet any eventuality in case of any accident. Mock drills shall be conducted at least twice a year and modifications required if any shall be incorporated in Disaster Management Plan.
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- All other conditions mentioned in the order issued vide reference 3<sup>rd</sup> cited remain the same.

Sd/-  
MEMBER SECRETARY

To

M/s. Krishnapatnam Port Company Ltd.,  
Krishnapatnam (V), Muthukur (M),  
SPSR Nellore District.  
ceo@krishnapatnamport.com,  
venke@navayuga.com

-// T.C.F.B.O //-

  
Senior Environmental Engineer (UH-1)



**ANDHRA PRADESH POLLUTION CONTROL BOARD**  
**D.No. 33-26-14 D/2, Near Sunrise Hospital, Pushpa Hotel Centre,**  
**Chalamalavari Street, Kasturibaipet, Vijayawada – 520010.**

Website :www.appcb.ap.nic.in

**Order No. 633 /APPCB/CFE/RO-NLR/HO/2010**

**Dt:22.02.2018**

**Sub:** APPCB - CFE - M/s. Krishnapatnam Port Co. Ltd., Krishnapatnam (V), Muthukur (M), SPSR Nellore district – CFE amendment for Cargo Mix without change in overall Cargo handling capacity – Issued – Reg.

- Ref:**
1. EC orders dt. 26.07.2006 & 13.11.2009 issued by MoE&F, GoI, New Delhi.
  2. CFE expansion order dt. 08.05.2010.
  3. CFE amendment orders dt. 02.07.2015 & 10.02.2016.
  4. CFE application for amendment recd on 30.01.2018.
  5. Regional Officer report dt. 05.02.2018.
  6. CFE Committee meeting held on 07.02.2018.

The Board issued amendment to CFE vide reference 3<sup>rd</sup> cited to M/s. Krishnapatnam Port Co. Ltd., (M/s. KPCL) as following:

S. No.	Type of Cargo	Phase -1	Phase-II	Total of Phase I & II
1	Coal (Million Tons/Annum)	12	39	51
2.	Iron Ore (Million Tons/Annum)	10	-	10
3	Fertilizers, Food grains, Sugar, Cement & Cement clinker, barites, Feldspar, Edible oils. (Million Tons/Annum)	4	5	9
4	Container Cargo	-	3.30 Million TEUs/year	3.30 Million TEUs/year
5	Bulk Liquid Cargo (POL)	2	0.3	2.3
	<b>Total</b>	<b>28</b>	<b>44.3 Million Tons/Annum + 3.3 Million TEU</b>	<b>72.3 Million Tons/Annum + 3.3 Million TEU</b>
6	No. of Berths	3 Nos. (Total length of 850 m)	14 Nos. Total length-4100 m (North Port-2,000 m South Port-2,100 m)	<b>17 Nos.</b>

M/s. Krishnapatnam Port Co. Ltd., vide reference 4<sup>th</sup> cited requested for amendment for change of Cargo mix without change in overall Cargo handling capacity. The EE, RO: Nellore has submitted a report vide reference 5<sup>th</sup> cited.

In view of the above, the Board after careful examination of Industry's request, remarks of the Regional Officer and recommendations of the CFE Committee, hereby issues **AMENDMENT TO THE CFE ORDER issued vide reference 3<sup>rd</sup> cited, for change of cargo mix without increasing the total permitted cargo handling capacity** under Sec.25/26 of the Water (Prevention and Control of Pollution) Act, 1974 and under Sec.21 of the Air (Prevention and Control of Pollution) Act, 1981 and amendments thereof as following:

S N	Quantity as per CFE amendment order dt. 10.02.2016 in Million Tons/Annum				Proposed quantity after change of cargo mix in Phase-1 & II
	Type of Cargo	Phase -1	Phase-II	Total of Phase I & II	
1	Coal (Million Tons/Annum)	12	39	51	51
2.	Iron Ore (Million Tons/Annum)	10	-	10	8
3	Fertilizers, Food grains, Sugar, Cement & Cement clinker, barites, Feldspar, Edible oils. (Million Tons/Annum)	4	5	9	9

4	Container Cargo	-	3.30 Million TEUs/year	3.30 Million TEUs/year	3.30 Million TEUs/year
5	Bulk Liquid Cargo (POL)	2	0.3	2.3	4.3 Million Tons/Annum
	<b>Total</b>	<b>28</b>	<b>44.3 Million Tons/Annum + 3.3 Million TEU</b>	<b>72.3 Million Tons/Annum + 3.3 Million TEU</b>	<b>72.3 Million Tons/Annum Non container cargo + 3.3 Million TEU container cargo</b>
6	No. of Berths	3 Nos. (Total length of 850 m)	14 Nos. Total length-4100 m (North Port-2,000 m South Port-2,100 m)	17 Nos.	17 Nos.

**M/s. Krishnapatnam Port Company Ltd., shall comply with the following:**

1. The port authorities shall submit a copy of the order to the MoEF&CC, Gol, New Delhi for record.
2. All other conditions stipulated in the CFE orders issued vide references 2<sup>nd</sup> and 3<sup>rd</sup> cited remain the same.

**MEMBER SECRETARY**

**To**

**M/s. Krishnapatnam Port Co., Ltd.,  
8-2-293/A/379, Ground Floor,  
Plot No. 379, Road No. 36,  
Jubilee Hills, Hyderabad-500033.  
sanjayn@necltd.com, ceo@krishnapatnamport.com**

**Cc:**

1. The JCEE, ZO: Vijayawada for information and necessary action.
2. The EE, RO: Nellore for information and necessary action.





**ANDHRA PRADESH POLLUTION CONTROL BOARD**  
**D.No. 33-26-14 D/2, Near Sunrise Hospital, Pushpa Hotel Centre,**  
**Chalamalavari Street, Kasturibaipet, Vijayawada – 520010.**

Website: www.pcb.ap.gov.in

**CONSENT ORDER FOR ESTABLISHMENT**

**Order No: 633/APPCB/CFE/RO-NLR/HO/2010**

**Dt. 25.02.2021**

Sub: **APPCB – CFE - M/s. Krishnapatnam Port Co. Ltd., Krishnapatnam (V), Muthukur (M), SPSR Nellore District – Consent for Establishment (CFE) Expansion of the Board under Sec.25 of Water (P & C of P) Act, 1974 and Under Sec.21 of Air (P & C of P) Act, 1981 - Issued - Reg.**

- Ref: 1. CFE order No.633/PCB/CFE/RO-NLR/HO/2010, dt.08.05.2010.  
2. CFE amendment order dt. 22.02.2018 for change of Cargo mix without change in overall cargo handling capacity  
3. EC & CRZ clearance order dt.11.01.2021 accorded for Port development by the MoEF & CC, GOI, under Phase-III.  
4. CFE application received on 27.01.2021 through APOCMS.  
5. R.O's inspection report dt. 12.02.2021.  
6. CFE Committee meetings held on 18.02.2021 & 23.02.2021.  
7. Proponent Ir dt.19.02.2021

1. In the reference 4<sup>th</sup> cited, an application was submitted to the Board seeking Consent for Establishment (CFE) expansion (Phase-III) of the Port for Cargo handling, as mentioned below, with an additional investment of Rs.9070 Cores.

S. No.	Type of Cargo	As per CFE amendment order dt.22.02.2018	As per CFO order dt.29.07.2018 & Amendment order dt.10.02.2020	Proposed expansion under Phase-III	Total after expansion
1.	Coal	51 Million TPA	51 Million TPA	88 Million TPA	139 Million TPA
2.	Iron Ore	8 Million TPA	8 Million TPA	-	8 Million TPA
3.	General Cargo (Fertilizers, granites, Edible Oil and Lube oils, others )	9 Million TPA	9 Million TPA	10.5 Million TPA	19.5 Million TPA
4	Liquid Cargo (POL, LNG, LPG, Chemical products)	4.3 Million TPA (dropped due to expiry of EC validity period)	--	51.7 Million TPA	51.7 Million TPA
5.	Container Cargo	3.3 Million TEUs/ Annum (dropped due to expiry of EC validity period)	2.0 Million TEUs/ Annum	1.1 Million TEUs/ Annum	3.1 MTEUs/ Annum

	<b>Total</b>	<b>72.3 Million TPA + 3.3 Million TEUs/Annum</b>	68.0 Million TPA Non-container cargo + 2.0 Million TEUs/A container cargo	<b>150.2 Million TPA Non-container cargo + 1.1 Million TEUs/Annum Container cargo</b>	<b>218.2 Million TPA Non-container cargo + 3.1 Million TEUs/Annum Container cargo</b>
6.	No. of Berths	17 Berths	12 Berths	16 Berths (including 3 Nos. of handling Liquid cargo) + 3 Single Buoy Moorings (SBM)	28 Berths (including 3 Nos. of handling Liquid cargo) + 3 Single Buoy Moorings (SBM)

The proposed berth requirement of 16 Nos. under Phase –III to handle the envisaged traffic is placed below:-

Type of Cargo	No. of Berths to be developed	Location	Berth * Numbers
Coal	7	North Dock	N9, N10, N11, N13, N14, N15 and N16
General Cargo	4	North West dock	NW4, NW5
		South Quay	S1
		North Dock	N12
Container Cargo	2	West Dock	W1 and W2
Liquid Cargo (LNG / LPG/ POL/ Chemicals)	3	--	L2, L3 & L4
<b>Total excluding SBMs (Liquid Cargos)</b>	<b>16</b>		
Three Single Buoy Moorings SBMs for Liquid Cargos, POL & other products		Geo-Coordinates 1) 14 <sup>0</sup> 14' 00" N 80 <sup>0</sup> 18' 12" E 2) 14 <sup>0</sup> 12' 54" N 80 <sup>0</sup> 19' 06" E 3) 14 <sup>0</sup> 17' 00" N 80 <sup>0</sup> 17' 48" E	

\* The berth numbers shall be indicated on the berths.

- As per the application, the above activity is to be located in the existing premises of **Krishnapatnam (V), Muthukur (M), SPSR Nellore District** in an area of 1094Ha.
- The above site was inspected by Environmental Engineer (FAC) and Asst. Environmental Engineer, Regional Office: Nellore, A.P Pollution Control Board on 02.02.2021 and found that the site is in the Krishnapatnam Port.
- The Board, after careful scrutiny of the application, verification report of Regional Officer and recommendation of the CFE Committee, hereby issues **CONSENT FOR ESTABLISHMENT for EXPANSION** under Section 25 of Water (Prevention & Control of Pollution) Act 1974 and Section 21 of Air (Prevention & Control of Pollution) Act, 1981 and the rules made there under. **This order is issued to the activity as mentioned at para (1) only.**

5. This Consent Order now issued is subject to the conditions mentioned in Annexure.
6. This order is issued from pollution control point of view only. Zoning and other regulations are not considered.
7. **This order is valid for a period of 7 years from the date of issue.**

Encl: Annexure.

**JOINT CHIEF ENVIRONMENTAL ENGINEER (UH-1) (FAC)**

**To**  
**M/s. Krishnapatnam Port Co. Ltd.,(expn)(Phase-III),**  
**Krishnapatnam (V), Muthukur (M),**  
**SPSR Nellore District.**  
environment.akpl@adani.com

**Copy to:** 1. The JCEE, Z.O: Vijayawada for information and necessary action.  
2. The E.E., R.O: Nellore for information and necessary action.

## ANNEXURE

1. The proponent shall obtain Consents for Operation (CFO) from APPCB, as required Under Sec.25/26 of the Water (P&C of P) Act, 1974 and under sec. 21/22 of the Air (P&C of P) Act, 1981, before commencement of the activity.
2. Compensation is to be paid for any environmental damage caused by it, as fixed by the Collector and District Magistrate as civil liability.
3. The rules and regulations notified by Ministry of Law and Justice, GOI, regarding the Public Liability Insurance Act, 1991 shall be followed.

### Water:

4. The source of water is Muthukur Reservoir of 1000 KLD and 4 MLD of water from Nakkala kalava irrigation drain. The maximum permitted water consumption after proposed expansion is as following:

S. No.	Purpose	Qty as per CFO (Phase-1 & 2) (KLD)	Proposed in Expansion under Phase-III (KLD)	Total after expansion (KLD)
1.	Dust suppressions & other utilities	1600.0	1700	3300
2.	Gardening	300.0	200	500
3.	Domestic	600.0	600.0	1200.0
	<b>Total:</b>	<b>2500.0 KLD</b>	<b>2500.0 KLD</b>	<b>5000.0 KLD</b>

Separate meters with necessary pipe-line shall be provided for assessing the quantity of water used for each of the purposes viz., Dust suppression, Domestic purposes, Washing and servicing, development of greenery.

### **5. Waste water generation:**

S. No.	Purpose	Qty as per CFO (Phase-1 & 2) (KLD)	Proposed in Expansion under Phase-III (KLD)	Total after expansion (KLD)
1.	Other Utilities	-	240.0	240.0
2.	Domestic	300.0	450.0	750.0
	<b>Total</b>	<b>300.0 KLD</b>	<b>690.0 KLD</b>	<b>990.0 KLD</b>

### **Treatment & Disposal (As per EC order):**

Source of effluent	Treatment	Mode of final disposal
Domestic	Sewage Treatment Plant of capacity of 700 KLD consisting of Sewage collection Sump, Fluidized Bed Bio Reactor, Secondary clarifier, Clarifier Water Tank, Dual Media Filter, Treated water tank, Sludge drying beds etc.	Treated domestic effluents shall be utilized for Green belt development and dust suppression

Utilities	Effluent Treatment Plant of 300 KLD capacity consisting of Neutralization tank, Equalization tank, Oil Grease trap, flash mixing tank, clariflocculator, aeration tank, secondary clarifier, holding tank, pressure sand filter, activated carbon filter, sludge drying beds etc. for treating effluents	Treated effluent shall be reused for green belt and for dust suppression.
-----------	--	---

6. The effluent / sewage shall be treated to the on land for irrigation standards, as stipulated under Schedule VI of Environment (Protection) Rules, 1986, notified by Ministry of Environment and Forests, Government of India vide G.S.R.422 (E), dt.19.05.1993 and its amendments thereof. The treated waste water shall be used for development of greenery, dust suppression, re-used for various purposes within the premises.

**Air:**

**The Air pollution Control equipment shall be installed along with the commissioning of the activity and shall comply with the following for controlling air pollution:**

S. No.	Details of stack	Stack 01
a)	Attached to	D.G. Sets
b)	Capacity of D.G. set	5 x 2000 KVA, 1 x 1000 KVA, 2 x 750 KVA, 5 x 500 KVA, 3 x 320 KVA, 3 x 250 KVA, 3 x 160 KVA, 10 x 125 KVA, 10 x 82.5 KVA, 3 x 380 KVA
c)	Fuel	Diesel
d)	Stack height above the ground	Individual stacks of height 15 m each proposed
e)	Details of air pollution control equipment	Acoustic enclosures with silencers

7. The proponent shall ensure compliance of the National Ambient Air quality standards notified by MoE & F, Gol vide notification No. GSR 826(E), dated. 16.11.2009 during construction and regular operational phase of the project.
8. The proponent shall comply with the following for controlling fugitive emissions:
- Vehicle movement shall be minimized / eliminated by implementing mechanical operation.
  - All the vehicles involved in transportation of cargo shall be covered with tarpaulin.
  - Vehicles shall be managed to avoid traffic congestion and shall provide empty dusting vehicle washings / dry cleaning system to clean all out going cargo vehicles.
  - Based on traffic density/ vehicular movements anticipated from the port, parking facilities shall be provided.
9. All the transfer points, loading / unloading points and conveyer systems shall be housed completely with leak proof arrangements. Adequate dust suppression and containment measures shall be implemented for effective control of fugitive emissions.

## 10. Hazardous / Solid Waste details:

The Port Authority shall comply with the following w.r.t disposal of solid waste after expansion:

S.No.	Name of Waste	Quantity	Mode of disposal
1	Solid waste (degradable)	1800 kg/day	To reuse as manure for green belt
2	Solid waste (Non-degradable)	200 kg/day	To authorized recyclers
3	STP sludge	120 kg/day	To be used as manure
4	ETP sludge	50 kg/day	To TSDF for secured land fill
5	Oil containing cargo residue washing water and sludge	250 KLPA	To authorized recyclers/reprocessors/ TSDF
6	Chemical containing cargo residue and sludge	100 KLPA	
7	Sludge and filters contaminated with oil	200 TPA	
8	Ballast water containing oil from ships	250 KLPA	
9	Used/ Spent Oil	350 KLPA	
10	Wastes / residues containing oil	100 KLPA	
11	Sludge from treatment of waste water arising out of cleaning/ disposal of barrels/ containers	100 TPA	
12	Discarded containers/ barrels/ liners contaminated with Haz. Waste/ chemicals	100 TPA	
13	Flue gas cleaning residue	10 TPA	
14	Chemical sludge from waste water treatment	100 TPA	
15	Oil and grease skimming residues	20 PA	

11. The following rules and regulations notified by the MOE&F, GOI shall be implemented.
- Regulation of Persistent Organic Pollutants Rules, 2018.
  - Hazardous waste and other wastes (Management and Transboundary Movement) Rules, 2016.
  - Plastic Waste Management Rules, 2016.
  - Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989
  - Fly Ash Notification, 2016.
  - Batteries (Management & Handling) Rules, 2010.
  - E-Waste (Management) Rules, 2016.
  - Construction and Demolition waste Management Rules, 2016.
  - Solid Waste Management Rules, 2016.
  - The Public Liability Insurance Act, 1991 and its amendments thereof.

### **Other Conditions:**

12. The Port shall comply with the following conditions as committed during the CFE Committee meeting held on 23.02.2021:
- M/s. KPCL shall implement Mechanized MDSS systems for effective dust control. Water meters and energy meters shall be installed to record the quantity of water consumed and electricity consumed for MDSS systems.
  - M/s. KPCL shall conduct performance evaluation of MDSS systems.
  - M/s. KPCL shall explore the possibility of usage of Chemical suppressants such as Sodium / Potassium Aluminates, for effectively mitigating the dust emissions during coal / dusty cargo handling.
  - M/s. KPCL shall restrict the coal stack height to 10 m only. In future, APPCB will examine the increase in stack height of dusting cargo from 10 m to 12 m depending up on the justification submitted by the port.
  - M/s. KPCL shall install desalination plants to treat the sea water and use in the port area. This will minimize the fresh water consumption.
  - M/s. KPCL shall allow the effluents / leachate generated from dust suppression / coal handling etc., into sea under any circumstances. The garland drains, settling tanks shall be de-silted regularly for free flow.
  - Greenbelt of width 100 m shall be developed along the boundary of the port as committed in the public hearing (para no. 5 of EC order dt.11.01.2021) and as stipulated in the CFE order dt.08.05.2010. The greenbelt shall be developed in an area not less than 120 Ha along the Port boundary and around the coal storage areas with native species, as stipulated in EC order dt.11.01.2021. Saline water resistant saplings shall be planted as Bay-of-Bengal is located in the vicinity.
  - The liquid cargo / chemicals shall be stored in the port area complying with OISD norms. All precautions shall be taken to prevent any chemical accidents. The chemicals stored in the port premises and their capacities shall be informed to the EE, RO: Nellore from time to time.
  - As per the power point presentation given by the port officials, the values of PM<sub>10</sub> in the month of March, 2020 are ranging from 77.6 to 96.6 µg/m<sup>3</sup> inside the port premises. These values are representing the pollution levels in the Ambient Air due to present handling capacity of cargo in the port. These values are higher than the AAQ standards stipulated by CPCB i.e., 60 µg/m<sup>3</sup>. Hence, the port shall immediately upgrade existing MDSS to suppress dust effectively so as to achieve the standards stipulated by the CPCB.
  - It is observed from the EE,RO: Nellore report that Tamminapatnam, Continuous Ambient Air Quality Monitoring Station (CAAQMS) is not working. It is to be repaired and made functional immediately.
  - The Coal stock yard shall be enclosed suitably to have three layers of green belt of varying height on all the sides.
  - Dusty cargos shall be handled through mechanized handling equipment for loading & unloading operations.

- Closed conveyor belt with water sprinkling arrangement shall be provided for conveying dusty cargos like coal& iron ore.
  - The ship un-loader for unloading and transfer of material shall be provided with in-situ water sprinkling system to avoid dust nuisance.
  - Mechanical stackers cum reclaimers for staking transfer and reclamation and conveyors for transfer of materials without manual handling.
  - Dry fogging system shall be provided at transfer points.
  - Automatic water sprinkling shall be provided at all dusty cargo stock yards. There shall be interlocking between the CAAQM station values for particulate matter and MDSS.
  - The facility shall maintain standby centrifugal pump with drive motor for uninterrupted dust suppression of the cargo.
  - The coal & iron ore shall be transported by rail from the stacking area as far as possible. The residual cargo if any shall be transported by road through covered trucks duly complying with the following measures:
    - i. Traffic congestion shall be avoided.
    - ii. Automated mechanical water sprinkling shall be provided on roads and at dusty cargo storage areas, for suppression of dust.
    - iii. All the vehicles involved in transportation of cargo during the break downs shall be covered with tarpaulin and also ensure to manage vehicles
    - iv. The truck movement shall be through a dedicated road meant for truck movement located and avoid movement of trucks closer to residential areas.
    - v. The trucks shall be fully covered with tarpaulin while plying with cargo on the roads.
    - vi. All cargo vehicles moving out from the port shall be passed through vehicle wheel wash area.
  - The port shall provide oil spill containment facilities around the SBM.
  - The port shall take necessary environmental protection measures for the dump yard of the grudged material.
13. **The industry shall comply with all the conditions stipulated in the EC order dt.11.01.2021 issued by MoEF & CC, GoI, New Delhi under Phase-III.**
14. Fire detection and fire fighting facilities with adequate water storage facility shall be provided in fire prone area in consultation with competent authorities.
15. Onsite & offsite Disaster Management plan shall be prepared to meet any eventuality in case of any accident. Mock drills shall be conducted atleast twice a year and modifications required if any shall be incorporated in Disaster Management Plan and shall submit to Board.
16. **The Port Authorities shall prepare a safety report and carry out an independent safety audit report of the respective industrial activities including chemical storages / isolated storages by an expert not associated with such industrial activity as required under Rule 10 of MSIHC Rules, 1989 and get it approved by the Factories Dept., and submit the compliance along with copy of the safety report, safety audit report and safety certificate at concerned Regional Office, APPCB.**



17. **The Port Authorities shall submit a copy of the NOC issued by the Andhra Pradesh State Disaster Response and Fire Service Dept., (APSDRFSD) at concerned Regional Office, APPCB.**
18. **The Port Authorities shall submit risk assessment report covering worst scenario clearly describing impact within the industry premises and outside the industry premises and emergency response system.**
19. The Port Authorities shall obtain prior permission from MoEF & CC, Gol and APPCB for any changes in the cargo type / capacity.
20. DO levels in the sea water at the dredging area shall be monitored at regular interval and the dredging time shall be suitably regulated to prevent depletion of DO levels in the sea water.
21. **The industry shall submit compliance to the conditions stipulated in the EC and CFE orders to the concerned Regional Officer of APPCB every six months and shall upload the same at APPCB website viz., [https://pcb.ap.gov.in/UI/Submission\\_Compliance\\_of\\_EC\\_CFE\\_CFO\\_Direction.aspx](https://pcb.ap.gov.in/UI/Submission_Compliance_of_EC_CFE_CFO_Direction.aspx).**
22. Concealing the factual data or submission of false information/ fabricated data and failure to comply with any of the conditions mentioned in this order may result in withdrawal of this order and attract action under the provisions of relevant pollution control Acts.
23. Notwithstanding anything contained in this conditional letter or consent, the Board hereby reserves its right and power Under Sec. 27(2) of Water (Prevention and Control of Pollution) Act, 1974 and Under Sec.21(4) of Air (Prevention and Control of Pollution) Act, 1981 to revoke the order, to review any or all the conditions imposed herein and to make such modifications as deemed fit and stipulate any additional conditions.
24. Any person aggrieved by an order made by the State Board under Section 25, Section 26, Section 27 of Water Act, 1974 or Section 21 of Air Act, 1981 may within thirty days from the date on which the order is communicated to him, prefer an appeal as per Andhra Pradesh Water Rules, 1976 and Air Rules,1982, to such authority (hereinafter referred to as the Appellate Authority) constituted under Section 28 of Water (Prevention and Control of Pollution)Act,1974 and Section 31 of the Air (Prevention and Control of Pollution) Act, 1981.

**JOINT CHIEF ENVIRONMENTAL ENGINEER (UH-1)(FAC)**

**To**

**M/s. Krishnapatnam Port Co. Ltd.,  
Krishnapatnam (V), Muthukur (M),  
SPSR Nellore District.  
environment.akpl@adani.com**



**ANDHRA PRADESH POLLUTION CONTROL BOARD**  
**D.No. 33-26-14 D/2, Near Sunrise Hospital, Pushpa Hotel Centre,**  
**Chalamalavari Street, Kasturibaipet, Vijawada – 520010.**

Website :www.pcb.ap.gov.in

**AMENDMENT TO THE CFE ORDER**

**Order No.633/APPCB/CFE/RO-NLR/HO/2010**

**Dt. 06.04.2021**

Sub: **APPCB - CFE - M/s. Krishnapatnam Port Co. Ltd., Krishnapatnam (V), Muthukur (M), SPSR Nellore District for Phase – III - Amendment to the CFE order – Issued – Reg.**

- Ref: 1) CFE Expansion order dt. 25.02.2021.  
2) Port's representation dt. 03.03.2021.  
3) RO report dt.10.03.2021.  
4) CFE Committee meeting held on 18.03.2021.

The Board issued CFE Expansion order, vide reference 1<sup>st</sup> cited, to **M/s.Krishnapatnam Port Co. Ltd., Krishnapatnam (V), Muthukur (M), SPSR Nellore District** for Expansion (**Phase – III**) of the Port for Cargo handling, with an additional investment of Rs.9070 Cores.

The Port vide reference 2<sup>nd</sup> cited, requested for issue of amendment to the CFE Expansion order, in certain points. The RO: Nellore, vide reference 3<sup>rd</sup> cited, submitted report in this regard.

The item was placed before the CFE Committee meeting held on 18.03.2021. The representative of the project proponent attended the meeting through video conference and requested for issue of amendment to the CFE Expansion order.

After detailed discussions, the Committee recommended to issue amendment to CFE order as mentioned in the minutes.

In view of the above, the Board after careful examination of the representation of the Port and recommendations of the CFE Committee, hereby issues **AMENDMENT TO THE CFE ORDER** issued vide reference 1<sup>st</sup> cited, under Sec.25/26 of the Water (Prevention and Control of Pollution) Act, 1974 and under Sec.21 of the Air (Prevention and Control of Pollution) Act, 1981 and amendments thereof as following:

S. No.	Condition	Port's request for Amendment of CFE order	After Amendment
1	<b>Point 1. Table 1- S. No. 4 -</b> Liquid cargo (POL, LNG, LPG, Chemical products)	Liquid cargo (POL, LNG, LPG, Chemical products <b>and Crude Oil</b> )  Hence in Liquid handling products "Crude Oil" may please be added	It shall be read as following : Liquid Cargo (POL, LNG, LPG, Chemical products and Crude oil)

2	<b>Point 1. Table 2 – Liquid Cargo</b> (LNG/LPG/POL/Chemicals)	Liquid cargo (POL, LNG, LPG, Chemical products and <b>Crude Oil</b> )  <b>Hence in Liquid handling products “Crude Oil” may please be added</b>	It shall be read as following : Liquid Cargo (POL, LNG, LPG, Chemical products and Crude oil)
3	<b>Point 1. Table 2 - Three Single Buoy Moorings (SBM)</b> for Liquid cargoes, POL & other products	Three Single Buoy Moorings (SBM) Liquid cargoes, <b>Crude Oil</b> , POL & other products <b>Hence in SBM handling products “Crude Oil” may please be added</b>	It shall be read as following : Three Single Buoy Moorings (SBM) for Liquid cargoes, Crude Oil, POL & other products)
4	<b>Annexure, Point 6. Air section Table - S. No. (d)</b> Individual stacks of height 15m each proposed	Individual stacks of height 15m each proposed <b>for more than 500kVA capacity DG only</b>  <b>Hence the provision for DG set stack 15 m height is for more than 500kVA please to be added</b>	The Port shall provide stack heights for the DG sets based on the following formula. $H=h+0.2\sqrt{KVA}$ Where H = Total Height of the stack in Meters. h= Height of the building in meters.
5	<b>Annexure, Point 10. Hazardous / Solid waste details - S. No. 15</b> Oil and grease skimming residues quantity	Typo error it is 20 TPA, "T" missing  <b>Please add “T”.</b>	Quantity of oil and grease skimming residues shall be read as 20 TPA.
6	<b>Annexure, Other Condition 12 (5):</b> M/s. KPCL shall install desalination plant to treat the sea water and use in the port area. This will minimize the fresh water consumption.	Currently the total water requirement (5000 KLD) of Phase-I & II is 2500 KLD and proposed Phase-III is 2500 KLD getting from Muthukur Reservoir of 1000 KLD and 4 MLD of water from Nakkala kalava irrigation waste water drain viz., for Dust suppression, Domestic purposes, Washing and servicing, development of greenbelt. In future to meet the excess water demand, Desalination plant will be explored.  The complete treated water from STP and ETP are proposed to utilize in Greenbelt Development and Dust suppression within the port. It is around 990 KLD.  As per AP. Govt concession agreement water to be provide by AP Govt and same is providing.  <b>Hence this condition may please be Modified as “Explore the possibility for installation of Desalination plant”.</b>	The following condition shall be stipulated:  The Govt. of A.P allotted surface water i.e. 1000 KLD from Muthukur Reservoir and 4 MLD of water from Nakkala kalava irrigation waste water drain, which is sufficient to meet the total water requirement for port utilization for Phase-III. Further, Nellore Municipal Corporation commissioned one STP of 5 MLD capacity to treat municipal sewage. STPs of capacity 70 MLD are under construction. The port shall explore possibility of utilization of treated waste water for dust suppression purpose in the Port area.  The KPCL shall not draw the ground water under any circumstances.

7	<p><b>Annexure, Other Condition 12 (9):</b> As per the power point presentation given by the port officials, the values of PM<sub>10</sub> in the month of March, 2020 are ranging from 77.6 to 96.6 µg/m<sup>3</sup> inside the port premises. These values are representing the pollution levels in the Ambient Air due to present handling capacity of cargo in the port. These values are higher than the AAQ standards stipulated by CPCB i.e., 60 µg/m<sup>3</sup>. Hence, the port shall immediately upgrade existing MDSS to suppress dust effectively so as to achieve the standards stipulated by the CPCB.</p>	<p>The AAQ values displayed in the presentation are one day values, the higher values observed due to the activity of road construction is the source on that particular period.</p> <p>Regular AAQ monitoring is conducted at 7 locations once in a month (12 samples in a year at each location). PM<sub>10</sub> values varied between 38.2 (Gopalapuram) to 67.2 µg/m<sup>3</sup> (Light House) during the year 2020. The monitoring was conducted by M/s. SV Enviro Labs, NABL &amp; MoEF&amp;CC accredited laboratory enclosed as annexure -1</p> <p>The PM<sub>10</sub> values are observed well within the prescribed CPCB NAAQ standards 100 µg/m<sup>3</sup> for 24hrly.</p> <p><b>Hence this condition may please be modified CPCB standard for 100 µg/m<sup>3</sup></b></p>	<p>The port shall implement effective dust suppression measures to meet National Ambient Air Quality standards.</p>
8	<p><b>Annexure, Other Condition 12 (10):</b> It is observed from the EE, RO: Nellore report that Tamminapatnam, Continuous Ambient Air Quality Monitoring Station (CAAQMS) is not working. It is to be repaired and made functional immediately.</p>	<p>CAAQMs-2 (Continuous Ambient Air Quality Monitoring station) is located at South part of Port boundary near to Thamminapatnam village. CAAQMs-2 is not working from 18<sup>th</sup> Dec, 2020 due to the theft of Monitor (PC) with CPU, Data card &amp; COM port connector from closed &amp; locked room. We have completed the procurement process and the software installation with Glens consultant. It is resolved now. The photographs and Purchase Order for procurement of above missing items given as Annexure - 2</p> <p><b>Hence this condition may please be dropped</b></p>	<p>The port shall maintain and operate 3 nos. of CAAQM stations properly, consistently and transmit the data to the APPCB server, online.</p>
9	<p><b>Annexure-Point 12(21) -</b> The port shall take necessary environmental protection measures for the dump yard of the grugged material.</p>	<p>Typo error word 'grugged' shall be replaced with '<b>dredged</b>'</p>	<p>The word shall be substituted with '<b>dredged</b>'.</p>

- **All other conditions mentioned in the CFE order, issued vide reference 1<sup>st</sup> cited shall remain the same.**

**JOINT CHIEF ENVIRONMENTAL ENGINEER (UH-1) (FAC)**

**To**  
**M/s. Krishnapatnam Port Co. Ltd. (Phase-III) (amend)**  
**Krishnapatnam (V), Muthukur (M),**  
**SPSR Nellore District.**  
[environment.akpl@adani.com](mailto:environment.akpl@adani.com)

**Copy to:** 1. The JCEE, Z.O: Vijayawada for information and necessary action.  
2. The E.E., R.O: Nellore for information and necessary action.

**Annexure C:  
Consent for Operation (CFO) obtained  
by AKPL**



**ANDHRA PRADESH POLLUTION CONTROL BOARD**  
**D.No. 33-26-14 D/2, Near Sunrise Hospital, Pushpa Hotel Centre,**  
**Chalamalavari Street, Kasturibaipet, Vijayawada – 520010.**

Website : [www.appcb.ap.nic.in](http://www.appcb.ap.nic.in)

**Order No.633/APPCB/CFE/RO-NLR/HO/2010**

**Dt.16.07.2021**

**Sub:** APPCB - CFE - **M/s. Krishnapatnam Port Co. Ltd., Krishnapatnam (V), Muthukur (M), SPSR Nellore District – Amendment to CFE order – Change of name - Issued – Reg.**

**Ref:** 1. CFE Expansion order dt.25.02.2021.  
2. Port letter dt.19.03.2021.  
3. RO: Nellore report dt.16.06.2021.  
4. CFE Committee meeting held on 08.07.2021.

M/s. KPCL obtained EC & CRZ clearance order dated 11.01.2021 for Phase –III expansion from the MoEF&CC, GOI for construction of 16 Berths and 3 Single Buoy Moorings (SBM) to handle 150.2 Million TPA various types of non-container Cargo and 1.1 MTEUsPA of container cargo.

The Board had issued Consent for Establishment (CFE) expn. Order, vide reference 1<sup>st</sup> cited, to **M/s.Krishnapatnam Port Co. Ltd., Krishnapatnam (V), Muthukur (M), SPSR Nellore District** duly stipulating certain conditions.

The MoEF&CC, New Delhi vide Ir.dt.10.03.2021 transferred the EC & CRZ clearances issued (vide order dt.11.01.2021) in the name of M/s. Adani Krishnapatnam Port Limited.

M/s. Adani Krishnapatnam Port Limited vide reference 2<sup>nd</sup> cited, requested the Board for change of name from M/s. Krishnapatnam Port Company Limited to M/s. Adani Krishnapatnam Port Limited in the CFE issued by the Board for expansion of Krishnapatnam Port (Phase-III) vide order dated 25.02.2021 and in all the records of APPCB. M/s.Adani Krishnapatnam Port Limited enclosed the MoEF&CC letter date 10.03.2021 & Certificate of incorporation pursuant to change of name dt.19.01.2021 issued by the Ministry of Corporate affairs.

The EE, RO: Nellore has submitted a report, vide reference 3<sup>rd</sup> cited, in this regard.

The issue was placed before the CFE Committee in its meeting held on 08.07.2021. After detailed discussions, the Committee recommended to issue amendment for change of name to the Port as M/s.Adani Krishnapatnam Port Limited.

In view of the above, the Board after careful examination of Port's request, remarks of the Regional Officer and recommendations of the CFE Committee, hereby incorporates the **AMENDMENT TO THE CFE ORDER** issued vide reference 1<sup>st</sup> cited, under Sec.25/26 of the Water (Prevention and Control of Pollution) Act, 1974 and under Sec.21 of the Air (Prevention and Control of Pollution) Act, 1981 and amendments thereof in the records of APPCB as following:

- The name of the industry shall be read as **M/s.Adani Krishnapatnam Port Limited**.
- **All other conditions mentioned in the CFE(expn.) order issued vide reference 1<sup>st</sup> cited remain the same.**

**JOINT CHIEF ENVIRONMENTAL ENGINEER (UH-1) (FAC)**

**To**

**M/s. Adani Krishnapatnam Port Co. Ltd.,  
Krishnapatnam (V), Muthukur (M),  
SPSR Nellore District.  
[environment.akpl@adani.com](mailto:environment.akpl@adani.com)**

**Copy to:** 1. The JCEE, Z.O: Vijayawada for information and necessary action.  
2. The E.E., R.O: Nellore for information and necessary action.





**ANDHRA PRADESH POLLUTION CONTROL BOARD**  
**PARYAVARAN BHAVAN, A-3, INDUSTRIAL ESTATE,**  
**SANATHNAGAR, HYDERABAD - 500 018.**

To: 23557190

P. 1

Phone: 040-23887500  
 Fax: 040-23815631  
 Grams : Kalusya Nivaranam  
 Website : www.appcb.org

**CONSENT & AUTHORISATION ORDER**  
**BY REGISTERED POST WITH ACKNOWLEDGEMENT DUE**

Consent Order No : APPCB/VSP/VJA/NLR/633/GFO/HO/2009-

Date : 08.06.2009

(Consent Order for Existing/New or altered discharge of sewage and/or trade effluents/outlet under Section 25/26 of the Water (Prevention & Control of Pollution) Act, 1974 and amendments thereof, Operation of the plant under section 21 of Air (Prevention & Control of Pollution) Act 1981 and amendments thereof and Authorisation / Renewal of Authorisation under Rule 5 of the Hazardous Wastes (Management & Handling) Rules 1989 & Amendment Rules).

CONSENT is hereby granted under section 25/26 of the Water (Prevention & Control of Pollution) Act, 1974, under section 21 of Air (Prevention & Control of Pollution) Act 1981 and Authorisation under the provisions of HW (M & H) Rules (hereinafter referred to as 'the Acts', 'the Rules') and the rules and orders made thereunder to

**M/s. Krishnapatnam Port Company Ltd.,**  
**Krishnapatnam Village,**  
**Muthukur Mandal,**  
**Nellore District.**

(hereinafter referred to as 'the Applicant') authorizing to operate the industrial plant to discharge the effluents from the outlets and the quantity of Emissions per hour from the chimneys as detailed below.

**i) Out lets for discharge of effluents:**

Outlet No.	Outlet Description	Max Daily Discharge	Point of Disposal
1	Domestic effluents after treatment in STP.	40.0 KLD	Washing purpose / flushing sewers / greenbelt development within the port area.

**ii) HAZARDOUS WASTES WITH RECYCLING OPTION:**

- Number of Authorisation and date of issue - APPCB/VJA/NLR/100/HWM, Dt: 08/06/2009.
- M/s. Krishnapatnam Port Company Ltd., Krishnapatnam Village, Muthukur Mandal, Nellore District, is hereby granted an authorization to operate a facility for collection, reception, storage, treatment, transport and disposal of Hazardous Waste namely.

**• HAZARDOUS WASTES WITH RECYCLING OPTION:**

S.No	Name of the Hazardous waste	Stream	Quantity of Hazardous Waste	Disposal Option
1.	Used Oil / Waste Lubricating Oil	5.1 of schedule - I	1000 Ltrs/annum.	Should be sent to authorised reprocessors/ recyclers.

This consent order is valid for handling various port activities with installed capacities as mentioned below.

S.No	Products	Quantity
1	Coal	6 Million Tons/Annum
2	Iron Ore	(Coal-20,000 TPD to 30,000 TPD) 18 Million Tons/Annum (60,000 TPS to 80,000 TPD)
3	Fertilizers, Food Grains, sugar, Cement & Cement Clinker, Barites, Feldspar, Edible Oils	4 Million Tons/Annum
	Total	28.0 Million Tons/Annum

This order is subject to the provisions of 'the Acts' and the Rules' and orders made thereunder and further subject to the terms and conditions incorporated in the schedule A, B & C enclosed to this order.

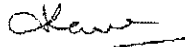
This combined order of consent & Hazardous Waste Authorization should be valid for a period ending with the 31<sup>st</sup> day of October, 2010.

Sd/-  
MEMBER SECRETARY

To

M/s. Krishnapatnam Port Company Ltd.,  
Krishnapatnam Village,  
Muthukur Mandal,  
Nellore District.

// T.C.F.B.O //



For Joint Chief Environmental Engineer (CFO)

## SCHEDULE - A

1. The applicant should make applications for renewal of Consent (under Water and Air Acts) and Authorization under HWM Rules at least 60 days before the date of expiry of this order, along with prescribed fee under Water and Air Acts for obtaining Consent & HW Authorization of the Board.
2. The industry should immediately submit the revised application for consent to this Board in the event of any change in the raw material used, processes employed, quantity of trade effluents & quantity of emissions etc.
3. a) All the fugitive emissions should be controlled with proper measures.  
b) The applicant should also install the equipment such as wind speed recorder, wind direction recorder.
4. The applicant should not change or alter either the quality or the quantity or the rate of the discharge or the route of discharge and should not change or alter either the prescribed quality or the rate of emission without the previous written permission of the Board.
5. The applicant should, not later than 30 days from the date of issue of this consent order, certify in writing to the Board that the applicant has installed or provided for an alternative electric power source sufficient to operate all facilities installed by the applicant, to comply with the terms and conditions of this consent. In absence of alternative electric power source sufficient to operate all facilities installed by the applicant, to comply with the terms and conditions of this consent, production should be stopped.
6. Any up-set condition in any plant/plants of the industry, which result in, increased effluent discharge and/ or violation of standards stipulated in this order or the emission of any Air Pollutant into the environment in excess of the standards laid down by the Board, occurs or is apprehended to occur due to accident, or other unforeseen act or event, the person-in-charge of the premises, from where such discharge / emission occurs or is apprehended to occur should forthwith intimate the fact of such occurrence or the apprehension of such occurrence to this Board, by fax / email under intimation to the Collector and District Magistrate.
7. In case of such episodal discharges / emissions mentioned in item 6 above, the industry should take immediate action to bring down the discharge / emission below the limits prescribed in this order.
8. A good house keeping should be maintained both within the factory and in the premises. All hoods, pipes, valves, sewers and drains should be leak proof. Floor washings should be admitted into the effluent collection system only and should not be allowed to find their way into storm drains or open areas.
9. a) The industry should carryout analysis of waste water discharges or emissions through chimneys, for the parameters mentioned in Schedule - B of this order at regular intervals.  
b) The industry should maintain following records to accessible to the Board, whenever required.
  1. Analysis reports of waste water/ emissions.
  2. Log book for operation of pollution control systems.
  3. Inspection book
10. The applicant should set up THREE Ambient Air Quality Monitoring Stations for continuous recording of relevant critical parameters mentioned in Schedule - B as per the CPCB guidelines and submit monthly reports.
11. Separate power connection with energy meter should be provided for the Pollution Control Equipments and record of power consumption and chemicals consumption for the operation of pollution control equipment should be maintained separately.
12. The applicant should comply with the directives/orders issued by the Board in this order and at all subsequent times without any negligence on his part. The applicant should be liable for such legal action against him as per provisions of the Law/Act in case if non-compliance of any order/directive issued at any time and/or violation of the terms and conditions of this consent order.
13. The applicant should furnish to the visiting officer and / or the Board any information regarding the construction, installation or operation of the effluent treatment system / air pollution control equipment / secured storage area of Hazardous Waste and such other particulars as may be pertinent for preventing and controlling pollution.
14. The industry is liable to pay compensation for any environmental damage caused by it, as fixed by the Collector and District Magistrate as Civil liability.
15. All the rules & regulations notified by Ministry of Environment and Forests, Government of India in respect of management, handling, transportation and storage of hazardous chemicals and wastes should be followed.
16. All the rules & regulations notified by Ministry of Law and Justice, Government of India regarding Public Liability Insurance Act, 1991 should be followed.
17. The occupier should educate the workers and nearby public of possible accidents and remedial measures.
18. For any accident or spillage of hazardous wastes causing damage to the Environment, the occupier or the transporter as the case should be held responsible.

19. In case of closure of industry, the un-used/not consumed raw materials falling under the category of Hazardous Chemicals and mentioned in Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 and Amendment Rules, 2003 should be removed and sold to other units within 90 days from the date of closure to prevent any possibility of occurrence of an accident. In case the above hazardous chemicals have lost their properties originally acquired, then they should be treated, as Hazardous Waste and they should be disposed off only to the agencies authorized by APPCB in a safe manner.
20. The occupier should prepare/update Emergency preparedness plan for safe handling of hazardous waste from time to time and submit the same to APPCB. Emergency preparedness plan must be implemented immediately whenever there is fire, explosion or release of hazardous waste or hazardous waste constituents, which could endanger to human health or environment.
21. Packaging, labeling and transportation of Hazardous Wastes should be in accordance with the provisions of the rules issued by the Central Govt. under the Motor Vehicles Act, 1988 and other guidelines issued from time to time. The packaging and labeling should be based on the composition and hazardous constituent of the waste, however all Hazardous Waste containers should be provided with a general label.
22. The driver who transports Hazardous Waste should be well acquainted about the procedure to be followed in case of an emergency during transit. The transporter should carry a Transport Emergency (TREM) Card (as given in the guidelines for management and handling of hazardous wastes) duly filled by the Hazardous Waste generator.
23. No Hazardous Wastes should be mixed with any other wastes or should be discharged to a common, other internal, external sewerage or other drainage system without prior approval of APPCB.
24. If HDPE bags are used for storing Hazardous Wastes, it should be ensured that they are perfectly sealed mechanically or double hot sealed. If MS/HDPE bags or drums are used for storing Hazardous Wastes, these drums / bags should be ensured that they are perfectly sealed.
25. The person authorised should not rent, lend, sell, transfer their industrial premises without obtaining prior permission of the State Pollution Control Board.
26. Any unauthorised change in personnel, equipment as working condition as mentioned in the application by the person authorized should constitute a breach of his authorisation.
27. The industry should comply with the provisions of Batteries (Management & Handling) Rules, 2001.
28. The industry should put up two sign boards (6x4 ft. each) at publicly visible places at the main gate. The first sign board should provide information on specific conditions of CFO and Hazardous Waste Authorisation. The second sign board should display online data on quantity and nature of hazardous chemicals being used in the plant, as well as water, air emissions and solid waste generated within the factory premises.
29. The applicant should exhibit the Consent & HW Authorisation order of the Board in the factory premises at a prominent place for the information of the inspecting officers of the different departments.
30. Notwithstanding anything contained in this conditional letter or consent, the Board hereby reserves the right and powers under Section 27(2) of the Water (Prevention & Control of Pollution) Act, 1974 and its amendments thereof and under Section 21 of the Air (Prevention & Control of Pollution) Act, 1981 and its amendments thereof to review any and/or all the conditions imposed herein above and to make such variations as deemed fit for the purpose of the Acts by the Board.
31. The authorization issued under Hazardous Waste (Management and Handling) Rules, 1989 and its amendments thereof, should comply with the provision of the Environment (Protection) Act, 1986.

Sd/-  
MEMBER SECRETARY

**SCHEDULE - B**

**Special Conditions**

1. The industry should take steps to reduce water consumption to the extent possible and consumption should NOT exceed the quantities mentioned below:

S. No	Purpose	quantity
1	Dust suppression	950.0 KLD
2	Domestic	50.0 KLD
	<b>Total</b>	<b>1,000.0 KLD</b>

2. The Krishnapatnam Port should file the water Cess returns in Form-I as required under section (5) of Water (Prevention and Control of Pollution) Cess Act, 1977 on or before the 5th of every calendar month, showing the quantity of water consumed in the previous month along with water meter readings. The industry should remit water cess as per the assessment orders as and when issued by Board.
3. The Krishnapatnam Port should comply with ambient air quality standards of TSPM - 200 ug/m<sup>3</sup>; RSPM - 100 ug/m<sup>3</sup>; SO<sub>2</sub> - 80 ug/m<sup>3</sup>; NO<sub>x</sub> - 80 ug/m<sup>3</sup> outside the port premises at the peripheral of the port.

Noise Levels: Day time (6 AM to 10 PM) - 75 dB (A)  
Night time (10 PM to 6 AM) - 70 dB (A).

4. The Krishnapatnam Port should not increase the capacity beyond the permitted capacity mentioned in this order, without obtaining CFE & CFO of the Board.
5. The Krishnapatnam Port should procure road sweeping machines within three months and report the compliance to RO, Nellore, and all port internal roads should be cleaned regularly.
6. The industry should install and commission Continuous Ambient Air Quality Monitoring Station within the plant as per the specifications of CPCB for online monitoring of SPM, RSPM, SO<sub>2</sub> & NO<sub>x</sub> with networking facility to Head Office, APPCB within six months and report the compliance to the R.O, Nellore.
7. The industry should ensure that the trucks transporting cargos from the berth should be covered with tarpaulin to avoid fugitive emissions / spillages.
8. Conveyor belts and other transfer points should be covered with GI sheets to mitigate fugitive emissions.
9. The industry should unload iron ore through wagon tippers only.
10. The Krishnapatnam Port should provide water sprinklers for effective control of fugitive emissions generated during handling of cargo and increased volume of vehicular traffic.
11. The Krishnapatnam Port should follow the directions issued by the Board from time to time.
12. The industry should provide proper automated Mechanical Dust Separation System (MDSS) for all stock yards, dusty cargo berths and conveyor belts.
13. The industry should suspend dusty cargo operations if the wind velocity reaches 20 KMPH and all Mechanical Dust Separation System (MDSS) sprinklers should start immediately.
14. The Krishnapatnam Port should develop 50 mts wide thick green belt along the boundary of the port. In addition to the general greenbelt around port area, separate greenbelts should be provided for atleast 20 mtrs width around the Iron Ore and coal stack yards.
15. The Krishnapatnam Port should not establish any other stock yards other than designated stock yards.
16. The Krishnapatnam Port should provide unit bag filter or Telescopic chute at ship loading points.
17. The Krishnapatnam Port should provide empty dusty cargo vehicle washing / dry cleaning system to clean all outgoing dusty cargo empty vehicles.
18. The Krishnapatnam Port should provide Separate energy meters for Effluent Treatment Plant (ETP) and Air pollution Control equipments to record energy consumed.
19. The Krishnapatnam Port should not allow any hazardous wastes through the port.
20. The Industry should not store any hazardous cargo containers within premises.
21. In case a leaky container of hazardous cargo is found, a separate permission of the Board may be obtained after establishing the quantity and the type of waste for disposal.
22. All types of the fertilizers should be stored in the closed warehouses only. The proponent should ensure that there should not be any open storage of urea or any other fertilizer materials and all urea & fertilizer material handling warehouses should be provided with effluent treatment plants.
23. The industry should submit monthly monitoring reports to R.O, Nellore.
24. The industry should maintain the compliance of CFE order dated. 25.05.2004.
25. The Krishnapatnam Port should store fuel oils used for construction equipment vessels / vehicles in a well designed manner and protect them against fire hazards by construction of compound wall to prevent access to unauthorized elements. The surface run off from storage area should pass through oil water separator before being discharged.
26. The Krishnapatnam Port should provide fire detection and fire fighting facilities with adequate water storage in fire prone areas in consultation with Directorate of fire fighting.
27. The Krishnapatnam Port should maintain the Malaria control programme and Health facilities in the operation phase. Vector control programmes should be taken up in the operational phase. Control of all breeding ground by the use of larvicides in addition to control of adult mosquitoes. The health team should include a trained entomologist.
28. The Krishnapatnam Port should constitute a task force to check the vehicle emissions on permanent basis.
29. The Krishnapatnam Port should establish adequate number of ground water monitoring locations on scientific basis and the same should be monitored every six months.
30. The Krishnapatnam Port should construct the storm water drains to avoid the contamination of run off with other effluents within three months and report the compliance to the R.O, Nellore.

31. The Krishnapatnam Port should construct & commission Sewerage Treatment Plant (STP) for sewage generated in the port area and after treatment should be used for washing purposes / flushing sewers / green belt development etc., and the treated sewage should not be disposed off into the sea.
32. The Krishnapatnam Port should constitute a Environment Management cell with qualified and trained staff.
33. The Krishnapatnam Port should prepare onsite and offsite emergency action plan after carrying out risk analysis and hazop studies.
34. The Krishnapatnam Port should take up the task of proper master plan for areas surrounding the port and ensure that no slum development and unauthorized construction occur in the area
35. The applicant should submit Environment statement in Form V before 30<sup>th</sup> September every year as per Rule No.14 of E (P) Rules, 1986 & amendments.

Sd/-  
MEMBER SECRETARY

**SCHEDULE - C**  
[ see 5(4) ]  
**[ CONDITIONS OF AUTHORISATION FOR OCCUPIER OR OPERATOR HANDLING  
HAZARDOUS WASTES ]**

1. The industry should give top priority for waste minimization and cleaner production practices.
2. The industry should not store hazardous waste for more than 90 days as per the Hazardous Wastes (Management, Handling and Transboundary Movement) Rules, 2008.
3. The industry should dispose the used lead acid batteries to the manufacturer / authorized dealer on buy back basis.
4. The industry should furnish every month the quantities of hazardous waste generated and the mode of disposal. It should also furnish the list of agencies to which the same has been disposed off to the concerned Regional Office.
5. The industry should not dispose spent acids / Waste oils / spent solvents / Non-ferrous metal scrap and Used lead acid batteries to the traders and the same should be disposed to the authorized Reprocessors / Recyclers only. They should verify the authorization of the Board given to the reprocessors / recyclers before disposing their wastes.
6. The industry should store the Hazardous Wastes covered under HWM Rules in a secured way i.e. on a raised platform under a shed in a designated place with sign boards in their premises till its disposal.
7. No Hazardous Wastes should be mixed with any other wastes or should be discharged to a common, other internal, external sewerage or other drainage system without prior approval of APPCB.
8. The industry should maintain 6 copy manifest system for transportation of waste generated and a copy should be submitted to Board Office and concerned Regional Office.
9. The industry should maintain proper records for Hazardous Wastes stated in Authorisation (FORM-III). i.e., quantity of Incinerable waste, land disposal waste recyclable waste etc., and file annual returns in Form-IV as per Rule 9(2) of the Hazardous Waste (Management & Handling) Rules, 1989 as amended to the Board.
10. The industry should submit the condition wise compliance report of the conditions stipulated in Schedule B & C of this order on half yearly basis to the concerned Regional Office and the copy marked to the Board Office, Hyderabad.

Sd/-  
MEMBER SECRETARY

To

M/s. Krishnapatnam Port Company Ltd.,  
Krishnapatnam Village,  
Muthukur Mandal,  
Nellore District.

// T.C.F.B.O //



For Joint Chief Environmental Engineer (CFO)



**CONSENT & AUTHORISATION ORDER**  
**BY REGISTERED POST WITH ACKNOWLEDGEMENT DUE**

**Consent Order No : APPCB/VJA/NLR/633/CFO/HO/2011- 2897**

**Date : 02.02.2011**

(Consent Order for Existing/New or altered discharge of sewage and/or trade effluents/outlet under Section 25/26 of the Water (Prevention & Control of Pollution) Act, 1974 and amendments thereof, Operation of the plant under section 21 of Air (Prevention & Control of Pollution) Act 1981 and amendments thereof and Authorisation / Renewal of Authorisation under Rule 5 of the Hazardous Wastes (Management, Handling & Transboundary, Movement) Rules 2008 & Amendments thereof.

CONSENT is hereby granted under section 25/26 of the Water (Prevention & Control of Pollution) Act, 1974, under section 21 of Air (Prevention & Control of Pollution) Act 1981 and Authorisation under the provisions of HW (MH & TM) Rules (hereinafter referred to as 'the Acts', 'the Rules') and the rules and orders made thereunder to

**M/s. Krishnapatnam Port Company Ltd.,**  
**(Renewal & Expansion),**  
**Krishnapatnam Village,**  
**Muthukur Mandal,**  
**Nellore District – 524 344**  
**E-mail: [customerservice@krishnapatnamport.com](mailto:customerservice@krishnapatnamport.com)**

(hereinafter referred to as 'the Applicant') authorizing to operate the industrial plant to discharge the effluents from the outlets and the quantity of Emissions per hour from the chimneys as detailed below.

**i) Out lets for discharge of effluents:**

Outlet No.	Outlet Description	Max Daily Discharge	Point of Disposal
1	Domestic effluents after treatment in STP.	150.0 KLD	Treated water should be used for plantation.

**ii) Emissions from chimneys:**

S. No	Description of Chimney	Quantity of Emissions in Nm <sup>3</sup> /hr. at peak flow
1.	Stack attached to 1 x 320 KVA + 1x250 KVA + 1x160 KVA + 1 x 180 KVA + 1 x 125 KVA + 1 x 62.5 KVA D.G.Sets	--

**iii) HAZARDOUS WASTE AUTHORISATION (FORM – II) [See Rule 5 (4)]**

- Number of Authorisation and date of issue - APPCB/VJA/NLR/105/HWM Dt: 02/02/2011
- M/s. Krishnapatnam Port Co. Ltd., Krishnapatnam (V), Muthukur (M), SPSR Nellore District., is hereby granted an authorization to operate a facility for collection, reception, storage, treatment, transport and disposal of Hazardous Wastes namely:

**• HAZARDOUS WASTES WITH RECYCLER OPTION:**

S. No.	Name of the Hazardous Waste	Stream	Quantity of Hazardous waste	Disposal Option
1.	Waste oil from D.G. Set	5.1 of Schedule – I	1000 LPA	Authorised Reprocessors/ Recyclers.
2.	Waste oil from ships	5.1 of Schedule – I	2.5 Lakh LPA	Authorised Reprocessors/ Recyclers.

This consent order is valid for handling various port activities with installed capacities as mentioned below.

S.No	Products	Quantity
1	Coal	22 Million Tons/Annum
2	Iron Ore	18 Million Tons/Annum
3	Fertilizers, Food Grains, sugar, Cement & Cement Clinker, Barites, Feldspar, Edible Oils	6.5 Million Tons/Annum (4 MTPA + 2.5 MTPA)
4	Container Cargo	0.3 MTEU
	<b>Total</b>	<b>46.5 Million Tons cargo &amp; 0.3 MTEUsPA</b>

This order is subject to the provisions of 'the Acts' and the Rules' and orders made thereunder and further subject to the terms and conditions incorporated in the schedule A, B & C enclosed to this order.

This combined order of consent & Hazardous Waste Authorization should be valid for a period ending with the 31<sup>st</sup> day of October, 2012.

Sd/  
MEMBER SECRETARY

To

M/s. Krishnapatnam Port Company Ltd.,  
Krishnapatnam Village,  
Muthukur Mandal,  
Nellore District – 524 344

// T.C.F.B.O //

*P. Muna Swamy Reddy*  
Senior Environmental Engineer (CFO)

SCHEDULE – A

All the conditions stipulated in the Schedule – A of the earlier combined CFO & HWA order No : APPCB/VSP/VJA/NLR/633/CFO/HO/2009-582, dated 08.06.2009 remains same. The industry should ensure consistent compliance of each condition of Schedule-A".

SCHEDULE - B

Special Conditions

1. The industry should take steps to reduce water consumption to the extent possible and consumption should NOT exceed the quantities mentioned below:

S. No	Purpose	quantity
1.	Dust suppression	550.0 KLD
2.	Domestic	400.0 KLD
3.	Gardening / Irrigation	400.0 KLD
4.	Miscellaneous (Fire protection services)	650.0 KLD
	<b>Total</b>	<b>2,000.0 KLD</b>

2. The Krishnapatnam Port should file the water Cess returns in Form-I as required under section (5) of Water (Prevention and Control of Pollution) Cess Act, 1977 on or before the 5th of every calendar month, showing the quantity of water consumed in the previous month along with water meter readings. The industry should remit water cess as per the assessment orders as and when issued by Board.
3. The Krishnapatnam Port should comply with ambient air quality standards of PM<sub>10</sub> (Particulate Matter size less than 10µm) - 100 µg/ m<sup>3</sup>; PM<sub>2.5</sub> (Particulate Matter size less than 2.5 µm) - 60 µg/ m<sup>3</sup>; SO<sub>2</sub> - 80 µg/ m<sup>3</sup>; NO<sub>x</sub> - 80 µg/m<sup>3</sup>, NH<sub>3</sub> – 400 µg/m<sup>3</sup> outside the factory premises at the periphery of the port.  
Standards for other parameters as mentioned in the National Ambient Air Quality Standards CPCB Notification No.B-29016/20/90/PCI-I, dated 18.11.2009  
Noise Levels: Day time (6 AM to 10 PM) - 75 dB (A)  
Night time (10 PM to 6 AM) - 70 dB (A).
4. The Krishnapatnam Port should not increase the capacity beyond the permitted capacity mentioned in this order, without obtaining CFE & CFO of the Board.



5. The industry should comply with emission limits for DG sets upto 800 KW as per the Notification G.S.R.520 (E), dated 01.07.2003 under the Environment ( Protection ) Amendment Rules, 2003 and G.S.R.448(E), dated 12.07.2004 under the Environment ( Protection ) Second Amendment Rules, 2004. In case of DG sets more than 800 KW should comply with emission limits as per the Notification G.S.R.489 (E), dated 09.07.2002 at serial no.96, under the Environment ( Protection ) Act, 1986.
6. The Krishnapatnam Port should procure road sweeping machines and report the compliance to RO, SPSR Nellore, and all port internal roads should be cleaned regularly.
7. The industry should install and commission Continuous Ambient Air Quality Monitoring Station within the plant as per the specifications of CPCB for online monitoring of SO<sub>2</sub>, NO<sub>x</sub>, PM<sub>2.5</sub>, PM<sub>10</sub> with networking facility to Head Office, APPCB and report the compliance to the R.O, SPSR Nellore.
8. The industry should ensure that the trucks transporting cargos from the berth should be covered with tarpaulin to avoid fugitive emissions / spillages.
9. Conveyor belts and other transfer points should be covered with GI sheets to mitigate fugitive emissions.
10. The industry should unload iron ore through wagon tippers only.
11. The Krishnapatnam Port should provide water sprinklers for effective control of fugitive emissions generated during handling of cargo and increased volume of vehicular traffic
12. The Krishnapatnam Port should follow the directions issued by the Board from time to time.
13. The industry should provide proper automated Mechanical Dust Separation System (MDSS) for all stock yards, dusty cargo berths and conveyor belts.
14. The industry should suspend dusty cargo operations if the wind velocity reaches 20 KMPH and all Mechanical Dust Separation System (MDSS) sprinklers should start immediately
15. The Krishnapatnam Port should develop 50 mts wide thick green belt along the boundary of the port. In addition to the general greenbelt around port area, separate greenbelts should be provided for atleast 20 mtrs width around the Iron Ore and coal stack yards.
16. The Krishnapatnam Port should not establish any other stock yards other than designated stock yards.
17. The Krishnapatnam Port should provide unit bag filter or Telescopic chute at ship loading points.
18. The Krishnapatnam Port should provide empty dusty cargo vehicle washing / dry cleaning system to clean all outgoing dusty cargo empty vehicles.
19. The Krishnapatnam Port should provide Separate energy meters for Effluent Treatment Plant (ETP) and Air pollution Control equipments to record energy consumed
20. The Krishnapatnam Port should not allow any hazardous wastes through the port.
21. The Industry should not store any hazardous cargo containers within premises.
22. In case a leaky container of hazardous cargo is found, a separate permission of the Board may be obtained after establishing the quantity and the type of waste for disposal.
23. All types of the fertilizers should be stored in the closed warehouses only. The proponent should ensure that there should not be any open storage of urea or any other fertilizer materials and all urea & fertilizer material handling warehouses should be provided with effluent treatment plants
24. The industry should submit monthly monitoring reports to R.O, Nellore.
25. The industry should maintain the compliance of CFE (Expansion) order dated. 08.05.2010
26. The Krishnapatnam Port should store fuel oils used for construction equipment vessels / vehicles in a well designed manner and protect them against fire hazards by construction of compound wall to prevent access to unauthorized elements. The surface run off from storage area should pass through oil water separator before being discharged.
27. The Krishnapatnam Port should provide fire detection and fire fighting facilities with adequate water storage in fire prone areas in consultation with Directorate of fire fighting.
28. The Krishnapatnam Port should maintain the Malaria control programme and Health facilities in the operation phase. Vector control programmes should be taken up in the operational phase. Control of all breeding ground by the use of larvicide's in addition to control of adult mosquitoes. The health team should include a trained entomologist.
29. The Krishnapatnam Port should constitute a task force to check the vehicle emissions on permanent basis.
30. The Krishnapatnam Port should comply with the following for control fugitive emissions:
  - a. Fully mechanized handling equipment for loading and unloading operations.
  - b. Closed conveyor belt with water sprinkling arrangement for suppression of dust while conveying dusty cargos like coal and iron ore. Specially designed iron ore ship loader with goose neck chute to reduce drop height of iron ore into the ship.
  - c. All the vehicles involved in transportation of cargo should be covered with tarpaulin.
  - d. Vehicles should be managed to avoid traffic congestions and should provide empty dusting vehicle washings / dry cleaning system to clean all out going cargo vehicles.
  - e. Based on traffic density / vehicular movements anticipated from the port, parking facilities will be provided.
  - f. Automated mechanical water sprinkling should be provided on roads and at dusty cargo storage areas, for suppression of dust.
31. The Krishnapatnam Port should establish adequate number of ground water monitoring locations on scientific basis and the same should be monitored every six months.
32. The Krishnapatnam Port should construct the storm water drains to avoid the contamination of run off with other effluents within three months and report the compliance to the R.O, Nellore.

33. The Krishnapatnam Port should construct & commission Sewerage Treatment Plant (STP) for sewage generated in the port area and after treatment should be used for washing purposes / flushing sewers / green belt development etc., and the treated sewage should not be disposed off into the sea.
34. The Krishnapatnam Port should constitute a Environment Management cell with qualified and trained staff.
35. The Krishnapatnam Port should prepare onsite and offsite emergency action plan after carrying out risk analysis and hazop studies.
36. The Krishnapatnam Port should take up the task of proper master plan for areas surrounding the port and ensure that no slum development and unauthorized construction occur in the area.
37. The Krishnapatnam Port should comply with the conditions of CFE order No.633/PCB/CFE/RO-NLR/HO/2010, dated 08.05.2010.
38. The applicant should submit Environment statement in Form V before 30<sup>th</sup> September every year as per Rule No.14 of E (P) Rules, 1986 & amendments.

**SCHEDULE - C**  
[see Rule 5(4)]

**[ CONDITIONS OF AUTHORISATION FOR OCCUPIER OR OPERATOR HANDLING  
HAZARDOUS WASTES ]**

1. The industry should give top priority for waste minimization and cleaner production practices.
2. The industry should not store hazardous waste for more than 90 days as per the Hazardous Wastes (Management, Handling and Transboundary Movement) Rules, 2008 and amendments thereof.
3. The industry should store Used / Waste Oil and Used Lead Acid Batteries in a secured way in their premises till its disposal.
4. The industry should not dispose Waste oils to the traders and the same should be disposed to the authorized Reprocessors/ Recyclers.
5. The industry should dispose Used Lead Acid Batteries to the manufacturers / dealers on buyback basis.
6. The industry should not dispose spent solvents / mixed spent solvents to the traders.
7. The industry should take necessary practical steps for prevention of oil spillages and carry over of oil from the premises.
8. The industry should maintain 6 copy manifest system for transportation of waste generated and a copy should be submitted to Board Office and concerned Regional Office.
9. The industry should maintain good house keeping & maintain proper records for Hazardous Wastes stated in Authorisation.
10. The industry should maintain proper records for Hazardous Wastes stated in Authorisation in FORM-3 i.e., quantity of Incinerable waste, land disposal waste, recyclable waste etc., and file annual returns in Form- 4 as per Rule 22(2) of the Hazardous Wastes (Management, Handling & Transboundary Movement) Rules, 2008 and amendments thereof.
11. The industry should dispose of e-waste to the authorised recyclers only.
12. The industry should submit the condition wise compliance report of the conditions stipulated in Schedule A, B & C of this order on half yearly basis to the concerned Regional Office and the copy marked to the Board Office, Hyderabad.

Sd/-  
MEMBER SECRETARY

To

M/s. Krishnapatnam Port Company Ltd.,  
Krishnapatnam Village,  
Muthukur Mandal,  
Nellore District - 524 344

// T.C.F.B.O //

  
Senior Environmental Engineer (CFE)



**RED CATEGORY**  
**RENEWAL OF CONSENT & AUTHORISATION ORDER**  
**BY REGISTERED POST WITH ACKNOWLEDGEMENT DUE**

**Consent Order No : APPCB/VJA/NLR/11344/CFO/HO/2013- 5128** **Date : 30.11.2013**

(Consent Order for Existing/New or altered discharge of sewage and/or trade effluents/outlet under Section 25/26 of the Water (Prevention & Control of Pollution) Act, 1974 and amendments thereof, Operation of the plant under section 21 of Air (Prevention & Control of Pollution) Act 1981 and amendments thereof and Renewal of Authorisation under Rule 5 of the Hazardous Wastes (Management, Handling & Transboundary Movement) Rules, 2008 & Amendments thereof.

CONSENT is hereby granted under section 25/26 of the Water (Prevention & Control of Pollution) Act, 1974, under section 21 of Air (Prevention & Control of Pollution) Act 1981 and Authorisation under the provisions of HW (MH & TM) Rules, 2008 (hereinafter referred to as 'the Acts', 'the Rules') and the rules and orders made thereunder to:

**M/s. Krishnapatnam Port Company Ltd.,**  
**Krishnapatnam Village,**  
**Muthukur Mandal,**  
**Nellore District – 524 344**  
**E-mail: sanjayn@necltd.com**

(Hereinafter referred to as 'the Applicant') authorizing to operate the industrial plant to discharge the effluents from the outlets and the quantity of emissions per hour from the chimneys as detailed below:

**i) Out lets for discharge of effluents:**

Outlet No.	Outlet Description	Max Daily Discharge (KLD)	Point of Disposal
1	Domestic effluents after treatment in STP.	300	Treated water shall be used for plantation within the premises.

**ii) Emissions from chimneys:**

S. No	Description of Chimney	Quantity of Emissions in Nm <sup>3</sup> /hr. at peak flow
1.	Attached to 1 x 380 KVA + 1x 320 KVA + 2 x 250 KVA + 1x 160 KVA + 1 x 180 KVA + 2 x 125 KVA + 1 x 62.5 KVA + 2 x 40 MVA + 1 x 30 KVA + 1 x 25 KVA + 6 x 15 KVA + 2 x 7.5 KVA DG Sets	--

**iii) HAZARDOUS WASTE AUTHORISATION (FORM – II) [See Rule 5 (4)]:**

M/s. Krishnapatnam Port Co. Ltd., Krishnapatnam (V), Muthukur (M), SPSR Nellore District., is hereby granted an authorization to operate a facility for collection, reception, storage, treatment, transport and disposal of Hazardous Wastes namely:

**• HAZARDOUS WASTES WITH RECYCLING OPTION:**

S. No.	Name of the Hazardous Waste	Stream	Quantity of Hazardous waste	Disposal Option
1.	Waste oil from D.G. Set	5.1 of Schedule – I	1000 LPA	Authorised Reprocessors/ Recyclers.
2.	Waste oil from ships	5.1 of Schedule – I	2.5 Lakh LPA	

This consent order is valid for handling various port activities with capacities as indicated below:

S.No	Products	Quantity
1	Coal	36 Million Tons/Annum
2	Iron Ore	18 Million Tons/Annum
3	Fertilizers, Food Grains, sugar, Cement & Cement Clinker, Barites, Feldspar, Edible Oils (General Cargo)	9 Million Tons/Annum
4	Container Cargo	1.2 MTEU/Annum
	No.of Berths	8 Nos

This order is subject to the provisions of 'the Acts' and the Rules' and orders made thereunder and further subject to the terms and conditions incorporated in the schedule A, B & C enclosed to this order.

This combined order of consent & Hazardous Waste Authorization shall be valid for a period ending with the **31<sup>st</sup> day of October, 2015.**

Sd/-  
MEMBER SECRETARY

To  
M/s. Krishnapatnam Port Company Ltd.,  
Krishnapatnam Village,  
Muthukur Mandal,  
Nellore District – 524 344

//T.C.F.B.O//

  
JOINT CHIEF ENVIRONMENTAL ENGINEER  
(UNIT - IV)

SCHEDULE – A

1. The applicant shall make applications **through online** for renewal of Consent (under Water and Air Acts) and Authorisation under HWM Rules **at least 120 days before the date of expiry of this order**, along with prescribed fee under Water and Air Acts for obtaining Consent & HW Authorisation of the Board along with detailed compliance to the conditions stipulated in the CFO and HWA Order.
2. Any person aggrieved by an order made by the State Board under Section 25, Section 26, Section 27 of Water Act, 1974 or Section 21 of Air Act, 1981 may within thirty days from the date on which the order is communicated to him, prefer an appeal as per Andhra Pradesh Water Rules, 1976 and Air Rules 1982, to such authority (hereinafter referred to as the Appellate Authority) constituted under Section 28 of the Water(Prevention and Control of Pollution) Act, 1974 and Section 31 of the Air(Prevention and Control of Pollution) Act, 1981.
3. The industry may explore the possibility of tapping the solar energy for their energy requirements.
4. All other conditions stipulated in the Schedule – A of the earlier combined CFO & HWA order No: **APPCB/VSP/VJA/NLR/633/CFO/HO/2009-582, dated 08.06.2009** remains same. The industry shall ensure consistent compliance of each condition of Schedule-A.

## SCHEDULE - B

1. The industry shall take steps to reduce water consumption to the extent possible and consumption shall NOT exceed the quantities mentioned below:

S. No	Purpose	Quantity
1.	Dust suppression	550.0 KLD
2.	Domestic	400.0 KLD
3.	Gardening / Irrigation	400.0 KLD
4.	Miscellaneous (Fire protection services)	650.0 KLD
	<b>Total</b>	<b>2,000.0 KLD</b>

2. The Krishnapatnam Port shall file the water Cess returns in Form-I as required under section (5) of Water (Prevention and Control of Pollution) Cess Act, 1977 on or before the 5th of every calendar month, showing the quantity of water consumed in the previous month along with water meter readings. The industry shall remit water cess as per the assessment orders as and when issued by Board.
3. The Krishnapatnam Port shall comply with emission limits for DG sets upto 800 KW as per the Notification G.S.R.520 (E), dated 01.07.2003 under the Environment ( Protection ) Amendment Rules, 2003 and G.S.R.448(E), dated 12.07.2004 under the Environment ( Protection ) Second Amendment Rules, 2004. In case of DG sets more than 800 KW shall comply with emission limits as per the Notification G.S.R.489 (E), dated 09.07.2002 at serial no.96, under the Environment ( Protection ) Act, 1986.
4. The Krishnapatnam Port shall comply with ambient air quality standards of PM<sub>10</sub> (Particulate Matter size less than 10µm) - 100 µg/ m<sup>3</sup>; PM<sub>2.5</sub> (Particulate Matter size less than 2.5 µm) - 60 µg/ m<sup>3</sup>; SO<sub>2</sub> - 80 µg/ m<sup>3</sup>; NO<sub>x</sub> - 80 µg/ m<sup>3</sup>, NH<sub>3</sub> - 400 µg/ m<sup>3</sup> outside the factory premises at the periphery of the port.  
Standards for other parameters as mentioned in the National Ambient Air Quality Standards CPCB Notification No.B-29016/20/90/PCI-I, dated 18.11.2009  
Noise Levels: Day time (6 AM to 10 PM) - 75 dB (A)  
Night time (10 PM to 6 AM) - 70 dB (A).
5. The Port shall take all measures including latest available technologies to comply with above ambient air quality standards.
6. The Krishnapatnam Port shall not increase the capacity beyond the permitted capacity mentioned in this order, without obtaining CFE & CFO of the Board.
7. **Coal Stock pile heights shall not be more than 10 m and water jets height shall be sufficiently raised to ensure sprinkling of water on the surface of the pile. The stock pile heights shall be restricted to less than 8 m during the summer periods i.e., from April – June.**
8. The industry shall ensure required wetness all the time on the surface of stock piles to avoid dust emissions from the stock piles.
9. Loco shed shall not be put into operation till the MoEF communicates specific directions on it.
10. The industry shall install sufficient number of CAAQM stations in between the villages and the port area. The stations shall be located at the periphery of the villages to monitor all the parameters given in the consent order.
11. Unloading of iron ore from railway wagons house should be carried out with wagon tippers only, in case, handling of iron ore is more than 6 MTPA. As and when iron ore handling is to be done intermittently, it should be handled with water sprinkling system at high pressure with swiveling type nozzles operated regularly to cover entire stockpile. Nozzles shall be operated along stockpile at regular intervals to cover stockpile height and width.
12. The MDSS system shall be in continuous operation all throughout the year wherever the stock of any material is piled.
13. As regards to deviation in location of facilities such as stock piles and other facilities, from the originally envisaged plan, amendments for the EC and CFE have to be obtained immediately.

14. The industry shall submit bank guarantee of Rs. 8.4 Lakhs (@Rs.20,000/- per acre) with a validity of 3 years for green belt development as per Board circular dated 07.08.2013. Bank Guarantee will be forfeited if the green belt was not developed within one year. The industry shall submit action plan with time frames for development of green belt.
15. The industry shall earmark an amount of Rs. 0.2% of the Project cost per annum for 10 years or as per the norms of Director of Public Enterprise (DPE) towards the Enterprise Social Responsibility (ESR) activities and spend the amount in Local area.
16. The Krishnapatnam Port shall use road sweeping machines to clean all port internal roads regularly.
17. The Krishnapatnam Port shall ensure that the trucks transporting cargos from the berth shall be covered with tarpaulin to avoid fugitive emissions / spillages.
18. All conveyor belts and other transfer points shall be covered with GI sheets to mitigate fugitive emissions during conveying of dusty cargos.
19. The Krishnapatnam Port shall maintain water sprinklers for effective control of fugitive emissions generated during handling of cargo and increased volume of vehicular traffic.
20. The industry shall maintain automated Mechanical Dust Separation System (MDSS) for all stock yards, dusty cargo berths and conveyor belts.
21. The Port shall develop and maintain 100 m width greenbelt along the periphery & 20 m width around coal & iron ore stack yards.
22. The Krishnapatnam Port shall maintain empty dusty cargo vehicle washing / dry cleaning system to clean all outgoing dusty cargo empty vehicles.
23. The Krishnapatnam Port shall provide Separate energy meters for Effluent Treatment Plant (ETP) and Air pollution Control equipments to record energy consumed.
24. The Krishnapatnam Port shall not allow any hazardous wastes through the port. The Krishnapatnam Port shall not store any hazardous cargo containers within premises.
25. In case a leaky container of hazardous cargo is found, a separate permission of the Board may be obtained after establishing the quantity and the type of waste for disposal.
26. All types of the fertilizers should be stored in the closed warehouses only. The Port should ensure that there should not be any open storage of urea or any other fertilizer materials. There shall not be any effluent generation.
27. The Krishnapatnam Port shall store fuel oils used for construction equipment, vessels and vehicles in a well designed manner and protect them against fire hazards by construction of compound wall to prevent access to unauthorized elements. The surface run off from storage area shall pass through oil water separator before being discharged.
28. The Krishnapatnam Port shall provide fire detection and fire fighting facilities with adequate water storage in fire prone areas in consultation with Directorate of fire fighting.
29. The Krishnapatnam shall comply latest technologies for controlling fugitive emissions including the following:
  - a. Fully mechanized handling equipment for loading and unloading operations.
  - b. Closed conveyor belt with water sprinkling arrangement for suppression of dust while conveying dusty cargos like coal, iron ore, etc.,
  - c. Specially designed iron ore ship loader with goose neck chute to reduce drop height of iron ore into the ship.
  - d. The Krishnapatnam Port shall maintain unit bag filter / Telescopic chute at ship loading points.
  - e. Automated mechanical water sprinkling shall be provided on roads and at dusty cargo storage areas for suppression of dust.
30. The Krishnapatnam Port shall maintain adequate number of ground water monitoring locations on scientific basis and the same shall be monitored every six months.
31. The Krishnapatnam Port should construct the storm water drains to avoid the contamination of runoff with other effluents.
32. The Krishnapatnam Port shall regularly clean the drains to avoid siltation.
33. The Krishnapatnam Port shall operate Sewerage Treatment Plant (STP) and after treatment waste water should be used for washing purposes / flushing of sewers / green belt development etc., treated sewage should not be disposed into the sea.
34. The Krishnapatnam Port shall monitor compliance through Environment Management Cell with qualified and trained staff.

35. The Krishnapatnam Port shall maintain onsite and offsite emergency action plan after carrying out risk analysis and hazop studies.
36. The Krishnapatnam Port shall comply with the conditions of CFE order No.633/PCB/CFE/RO-NLR/HO/2010, dated 08.05.2010.
37. The Krishnapatnam Port shall submit monthly monitoring reports to R.O, Nellore.
38. The Krishnapatnam Port shall follow the directions issued by the Board from time to time.
39. The applicant shall submit Environment statement in Form V before 30<sup>th</sup> September every year as per Rule No.14 of E (P) Rules, 1986 & amendments thereof.

**SCHEDULE - C**

**[see Rule 5(4)]**

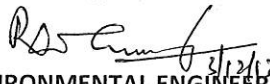
**[ CONDITIONS OF AUTHORISATION FOR OCCUPIER OR OPERATOR HANDLING HAZARDOUS WASTES ]**

1. The industry shall give top priority for waste minimization and cleaner production practices.
2. The industry shall not store hazardous waste for more than 90 days as per the Hazardous Wastes (Management, Handling and Transboundary Movement) Rules, 2008 and amendments thereof.
3. The industry shall store Used / Waste Oil and Used Lead Acid Batteries in a secured way in their premises till its disposal.
4. The industry shall not dispose Waste oils to the traders and the same shall be disposed to the authorized Reprocessors/ Recyclers.
5. The industry shall dispose Used Lead Acid Batteries to the manufacturers / dealers on buyback basis.
6. The industry shall take necessary practical steps for prevention of oil spillages and carry over of oil from the premises.
7. The industry shall maintain 6 copy manifest system for transportation of waste generated and a copy shall be submitted to Board Office and concerned Regional Office.
8. The industry shall maintain good house keeping & maintain proper records for Hazardous Wastes stated in Authorisation.
9. The industry shall maintain proper records for Hazardous Wastes stated in Authorisation in FORM-3 i.e., quantity of Incinerable waste, land disposal waste, recyclable waste etc., and file annual returns in Form- 4 as per Rule 22(2) of the Hazardous Wastes (Management, Handling & Transboundary Movement) Rules, 2008 and amendments thereof.
10. The industry shall submit the condition wise compliance report of the conditions stipulated in Schedule A, B & C of this Order on half yearly basis to Board Office, Hyderabad and concerned Regional Office.
11. The industry shall dispose of e-waste to the authorised recyclers only.

**Sd/-  
MEMBER SECRETARY**

To  
M/s. Krishnapatnam Port Company Ltd.,  
Krishnapatnam Village,  
Muthukur Mandal,  
Nellore District – 524344

//T.C.F.B.O//

  
**JOINT CHIEF ENVIRONMENTAL ENGINEER  
(UNIT - IV)**



ANDHRA PRADESH POLLUTION CONTROL BOARD  
PARYAVARAN BHAVAN, A-3, INDUSTRIAL ESTATE,  
SANATHNAGAR, HYDERABAD - 500 018.

Phone: 040-23887500  
Fax: 040- 23815631  
Grams : Kalusya Nivarana  
Website : appcb.ap.nic.in

RED CATEGORY  
AMENDMENT ORDER  
BY REGISTERED POST WITH ACKNOWLEDGEMENT DUE

Consent Amendment Order No : APPCB/ VJA/NLR/11344/CFO/HO/2014-693 Date:19.03.2014

Sub : APPCB – CFO – M/s. Krishnapatnam Port Co. Ltd., Krishnapatnam (V), Muthukur (M), SPSR Nellore District – CFO Amendment – Order - Issued – Reg.

- Ref : 1. Combined Consent Order No: APPCB/VJA/NLR/11344/CFO/HO/2013-5128  
Dated: 30.11.2013, valid upto 31.10.2015.  
2. Industry's representation dated 27.01.2014.  
3. CFO Committee meeting held on 03.03.2014

\*\*\*

The Board vide reference 1st cited, issued combined CFO & HWA order to M/s. Krishnapatnam Port Co. Ltd., Krishnapatnam(V), Muthukur (M), SPSR Nellore District with certain conditions with validity upto 31.10.2015. Condition No. 7 of Schedule – B of CFO order 1st cited is as follows:

“Coal Stock pile heights shall not be more than 10 m and water jets height shall be sufficiently raised to ensure sprinkling of water on the surface of the pile. The stock pile heights shall be restricted to less than 8 m during the summer periods i.e., from April – June.”

The industry vide reference 2nd cited, requested the Board for amendment to increase the stacking height from 8 m to 12 m in all the coal storage yards for the following reasons:

- Hitherto following 12 m height of coal stacking which was considered in the EIA report based on which EC and CFE were accorded by MoEF and APPCB respectively.
- Developing 12 m height ware houses on the west side of FTP-1 coal stacking area which act as wind barrier.
- Wind shield developed on the North side of FTP-1 area will be increased, such that the height of wind shield shall be 2 meters above the height of the coal stack.
- Heights of sprinklers of MDS system installed for the coal stack yards have been increased to ensure spraying of water on the top of the 12 m high coal stacks.
- 25 Nos of mobile tankers equipped with water sprayers are deployed as and when necessary.

The issue was placed in the CFO Committee meeting held on 03.03.2014. The Board after careful examination, hereby amends the Condition No.7 of Schedule-B of CFO Order dated 30.11.2013 and condition no.7 shall be read as follows:

“Coal Stack heights in all coal yards shall not be more than 12 m”



**Special Conditions:**

- Water sprinklers of sufficient capacity and height shall be maintained and operated to cover the entire coal stack and there shall not be any fugitive dust emission from coal stacks.
- Wind barrier shall be maintained to control dust emissions in Plant area.

All other conditions of Schedules – A, B & C of combined CFO & HWA order dated 30.11.2013 shall remain the same.

Sd/-

**MEMBER SECRETARY**

To

M/s. Krishnapatnam Port Company Ltd.,  
Krishnapatnam Village,  
Muthukur Mandal,  
Nellore District – 524 344

//T.C.F.B.O//

  
CHIEF ENVIRONMENTAL ENGINEER



**BY REGD. POST WITH ACK. DUE**  
**CONSENT & AUTHORISATION ORDER**

**Consent Order No : APPCB/VJA/NLR/11344/CFO/HO/2013- 4022 Date:24.09.2015**

(Consent Order for Existing/New or altered discharge of sewage and/or trade effluents/outlet under Section 25/26 of the Water (Prevention & Control of Pollution) Act, 1974 and amendments thereof, Operation of the plant under section 21 of Air (Prevention & Control of Pollution) Act 1981 and amendments thereof and Renewal of Authorisation under Rule 5 of the Hazardous Wastes (Management, Handling & Transboundary Movement) Rules, 2008 & Amendments thereof.

CONSENT is hereby granted under section 25/26 of the Water (Prevention & Control of Pollution) Act, 1974, under section 21 of Air (Prevention & Control of Pollution) Act 1981 and Authorisation under the provisions of HW (MH & TM) Rules, 2008 (hereinafter referred to as 'the Acts', 'the Rules') and the rules and orders made thereunder to:

**M/s. Krishnapatnam Port Company Ltd.,**  
**Krishnapatnam Village,**  
**Muthukur Mandal,**  
**Nellore District - 524 344**  
**E-mail: sanjayn@necltd.com**

*The industry shall handover the original Consent order No. APPCB/VJA/NLR/11344/CFO/HO/2013-5728, dt.30.11.2013, having validity upto 31.10.2015, to the RO, Nellore after receipt of this order. The earlier CFO order dated 30.11.2013 stands cancelled from the date of receipt of this order.*

(Hereinafter referred to as 'the Applicant') authorizing to operate the industrial plant to discharge the effluents from the outlets and the quantity of emissions per hour from the chimneys as detailed below:

**i) Out lets for discharge of effluents:**

Outlet No.	Outlet Description	Max Daily Discharge (KLD)	Point of Disposal
1	Domestic effluents after treatment in STP.	300	Treated water shall be used for plantation within the premises.

**ii) Emissions from chimneys:**

S. No	Description of Chimney	Quantity of Emissions in Nm <sup>3</sup> /hr. at peak flow
1.	Attached to 1 x 380 KVA + 2 x 320 KVA + 9 x 250 KVA + 4x 160 KVA + 5 x 125 KVA + 1 x 500 KVA + 2 x 320 KVA + 4 x 82.5 KVA DG sets	--

**iii) HAZARDOUS WASTE AUTHORISATION (FORM - II) [See Rule 5 (4)]:**

M/s. Krishnapatnam Port Co. Ltd., Krishnapatnam (V), Muthukur (M), SPSR Nellore District., is hereby granted an authorization to operate a facility for collection, reception, storage, treatment, transport and disposal of Hazardous Wastes namely:

**• HAZARDOUS WASTES WITH RECYCLING OPTION:**

S. No.	Name of the Hazardous Waste	Stream	Quantity of Hazardous waste	Disposal Option
1.	Waste oil/Used oil from D.G. Sets, vehicles, dredgers and other machinery	5.1 of Schedule - I	350 KLPA	Authorised Reprocessors/ Recyclers.
2.	Waste oil from Ships	5.1 of Schedule - I	2.5 Lakh LPA	

This consent order is valid for handling various port activities with capacities as indicated below:

S. No.	Products	Quantity
1	Coal	36 Million Tons/Annum
2	Iron Ore	18 Million Tons/Annum
3	Fertilizers, Food Grains, Sugar, Cement & Cement Clinker, Barites, Feldspar, Edible Oils (General Cargo)	9 Million Tons/Annum
4	Container Cargo	1.2 MTEU/Annum
	No. of Berths	9 Nos. (Phase - I (3 Nos.) & Phase - II (6 Nos.))

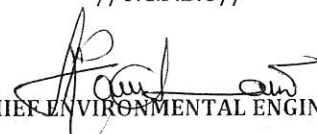
This order is subject to the provisions of 'the Acts' and the Rules' and orders made thereunder and further subject to the terms and conditions incorporated in the schedule A, B & C enclosed to this order.

This combined order of consent & Hazardous Waste Authorization shall be valid for a period ending with the 31<sup>st</sup> day of October, 2018.

Sd/-  
MEMBER SECRETARY

To  
M/s. Krishnapatnam Port Company Ltd.,  
Krishnapatnam Village,  
Muthukur Mandal,  
Nellore District - 524 344

//T.C.F.B.O//

  
CHIEF ENVIRONMENTAL ENGINEER  
A1

SCHEDULE - A

1. The applicant shall make applications **through online** for renewal of Consent (under Water and Air Acts) and Authorisation under HWM Rules **at least 120 days before the date of expiry of this order**, along with prescribed fee under Water and Air Acts for obtaining Consent & HW Authorisation of the Board along with detailed compliance to the conditions stipulated in the CFO and HWA Order.
2. Any person aggrieved by an order made by the State Board under Section 25, Section 26, Section 27 of Water Act, 1974 or Section 21 of Air Act, 1981 may within thirty days from the date on which the order is communicated to him, prefer an appeal as per Andhra Pradesh Water Rules, 1976 and Air Rules 1982, to such authority (hereinafter referred to as the Appellate Authority) constituted under Section 28 of the Water(Prevention and Control of Pollution) Act, 1974 and Section 31 of the Air(Prevention and Control of Pollution) Act, 1981.
3. All other conditions stipulated in the Schedule - A of the earlier combined CFO & HWA order No: APPCB/VSP/VJA/NLR/633/CFO/HO/2009-582, dated 08.06.2009 remains same. The industry shall ensure consistent compliance of each condition of Schedule-A.
4. The industry shall comply with the all the directions issued by the Board from time to time.
5. The Board reserves its right to modify above conditions or stipulate any further conditions and to take action including revoke of this order in the interest of protection of public health and environment.
6. The industry may explore the possibility of tapping the solar energy for their energy requirements.

**SCHEDULE - B**

1. The industry shall take steps to reduce water consumption to the extent possible and consumption shall NOT exceed the quantities mentioned below:

S. No.	Purpose	Quantity
1.	Dust suppression	1050.0 KLD
2.	Domestic	400.0 KLD
3.	Gardening / Irrigation	400.0 KLD
4.	Miscellaneous (Fire protection services)	650.0 KLD
<b>Total</b>		<b>2,500.0 KLD</b>

2. **The additional water quantity of 500 KLD shall be used for dust suppression measures only, as committed by the Port in the CFO meeting held on 13.08.2015.**
3. The Krishnapatnam Port shall file the water Cess returns in Form-I as required under section (5) of Water (Prevention and Control of Pollution) Cess Act, 1977 on or before the 5th of every calendar month, showing the quantity of water consumed in the previous month along with water meter readings. The industry shall remit water cess as per the assessment orders as and when issued by Board.
4. The Krishnapatnam Port shall comply with emission limits for DG sets upto 800 KW as per the Notification G.S.R.520 (E), dated 01.07.2003 under the Environment ( Protection ) Amendment Rules, 2003 and G.S.R.448(E), dated 12.07.2004 under the Environment ( Protection ) Second Amendment Rules, 2004. In case of DG sets more than 800 KW shall comply with emission limits as per the Notification G.S.R.489 (E), dated 09.07.2002 at serial no.96, under the Environment ( Protection ) Act, 1986.
5. The Krishnapatnam Port shall comply with ambient air quality standards of PM<sub>10</sub> (Particulate Matter size less than 10µm) - 100 µg/ m<sup>3</sup>; PM<sub>2.5</sub> (Particulate Matter size less than 2.5 µm) - 60 µg/ m<sup>3</sup>; SO<sub>2</sub> - 80 µg/ m<sup>3</sup>; NO<sub>x</sub> - 80 µg/m<sup>3</sup>, NH<sub>3</sub> - 400 µg/m<sup>3</sup> outside the factory premises at the periphery of the port.  
Standards for other parameters as mentioned in the National Ambient Air Quality Standards CPCB Notification No.B-29016/20/90/PCI-I, dated 18.11.2009  
Noise Levels: Day time (6 AM to 10 PM) - 75 dB (A)  
Night time (10 PM to 6 AM) - 70 dB (A).
6. The Port shall take all measures including latest available technologies to comply with above ambient air quality standards.
7. The Krishnapatnam Port shall not increase the capacity beyond the permitted capacity mentioned in this order, without obtaining CFE & CFO of the Board.
8. **The industry shall handover the original Consent order No. APPCB/VJA/NLR/11344/CFO /HO/2013-5728, dt.30.11.2013, having validity upto 31.10.2015, to the RO, Nellore after receipt of this order. The earlier CFO order dated 30.11.2013 stands cancelled from the date of receipt of this order.**
9. Coal Stock pile heights shall not be more than 12 m and water jets height shall be sufficiently raised 2 m above the stacking height to ensure sprinkling of water on the surface of the pile. The stock pile heights shall be restricted to less than 8 m during the summer periods i.e., from April - June.
10. The industry shall ensure required wetness all the time on the surface of stock piles to avoid dust emissions from the stock piles.
11. Loco shed shall not be put into operation till the MoEF communicates specific directions on it.
12. The industry shall install sufficient number of CAAQM stations in between the villages and the port area. The stations shall be located at the periphery of the villages to monitor all the parameters given in the consent order.
13. The Port shall link the 2<sup>nd</sup> CAAQM station to Board website within one month.
14. Unloading of iron ore from railway wagons house should be carried out with wagon tippers only, in case, handling of iron ore is more than 6 MTPA. As and when iron ore handling is to be done intermittently, it should be handled with water sprinkling system at high pressure with swiveling type nozzles operated regularly to cover entire stockpile. Nozzles shall be operated along stockpile at regular intervals to cover stockpile height and width.
15. The MDSS system shall be in continuous operation all throughout the year wherever the stock of any material is piled.
16. As regards to deviation in location of facilities such as stock piles and other facilities, from the originally envisaged plan, amendments for the EC and CFE have to be obtained immediately.

17. In no case the Hazardous chemicals shall be handled openly in the Port either from or into the ship. Hazardous chemicals if any shall be handled only in closed containers. Hazardous chemicals / cargo shall not be stored in CRZ area.
18. The Port shall maintain the existing Green belt with adequate width and density and in vacant places.
19. The Krishnapatnam Port shall use road sweeping machines to clean all port internal roads regularly.
20. The Krishnapatnam Port shall ensure that the trucks transporting cargos from the berth shall be covered with tarpaulin to avoid fugitive emissions / spillages.
21. All conveyor belts and other transfer points shall be covered with GI sheets to mitigate fugitive emissions during conveying of dusty cargos.
22. The Krishnapatnam Port shall maintain water sprinklers for effective control of fugitive emissions generated during handling of cargo and increased volume of vehicular traffic.
23. The industry shall maintain automated Mechanical Dust Suppression System (MDSS) for all stock yards, dusty cargo berths and conveyor belts.
24. The Port shall develop and maintain 100 m width greenbelt along the periphery & 20 m width around coal & iron ore stack yards.
25. The Krishnapatnam Port shall maintain empty dusty cargo vehicle washing / dry cleaning system to clean all outgoing dusty cargo empty vehicles.
26. The Krishnapatnam Port shall provide Separate energy meters for Effluent Treatment Plant (ETP) and Air pollution Control equipments to record energy consumed.
27. The Krishnapatnam Port shall not allow any hazardous wastes through the port. The Krishnapatnam Port shall not store any hazardous cargo containers within premises.
28. In case a leaky container of hazardous cargo is found, a separate permission of the Board may be obtained after establishing the quantity and the type of waste for disposal.
29. All types of the fertilizers should be stored in the closed warehouses only. The Port should ensure that there should not be any open storage of urea or any other fertilizer materials. There shall not be any effluent generation.
30. The Krishnapatnam Port shall store fuel oils used for construction equipment, vessels and vehicles in a well designed manner and protect them against fire hazards by construction of compound wall to prevent access to unauthorized elements. The surface run off from storage area shall pass through oil water separator before being discharged.
31. The Krishnapatnam Port shall provide fire detection and fire fighting facilities with adequate water storage in fire prone areas in consultation with Directorate of fire fighting.
32. The Krishnapatnam shall comply latest technologies for controlling fugitive emissions including the following:
  - a. Fully mechanized handling equipment for loading and unloading operations.
  - b. Closed conveyor belt with water sprinkling arrangement for suppression of dust while conveying dusty cargos like coal, iron ore, etc.,
  - c. Specially designed iron ore ship loader with goose neck chute to reduce drop height of iron ore into the ship.
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34. The Krishnapatnam Port shall construct and maintain the storm water drains to avoid the contamination of runoff with other effluents.
35. The Krishnapatnam Port shall regularly clean the drains to avoid siltation.
36. The Krishnapatnam Port shall operate Sewerage Treatment Plant (STP) and after treatment waste water should be used for washing purposes / flushing of sewers / green belt development etc., treated sewage should not be disposed into the sea.
37. The Krishnapatnam Port shall monitor compliance through Environment Management Cell with qualified and trained staff.
38. The Krishnapatnam Port shall maintain onsite and offsite emergency action plan after carrying out risk analysis and hazop studies.
39. The Krishnapatnam Port shall comply with the conditions of CFE order No.633/PCB/CFE/RO-NLR/HO/2010, dated 08.05.2010.
40. The Krishnapatnam Port shall submit monthly monitoring reports to R.O, Nellore.
41. The Krishnapatnam Port shall follow the directions issued by the Board from time to time.
42. The applicant shall submit Environment statement in Form V before 30<sup>th</sup> September every year as per Rule No.14 of E (P) Rules, 1986 & amendments thereof.
43. The industry shall comply with Taskforce directions issued by the Board.

**SCHEDULE - C**

[see Rule 5(4)]

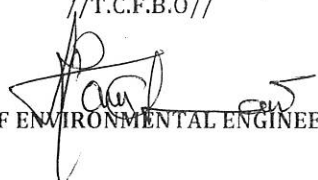
**[ CONDITIONS OF AUTHORISATION FOR OCCUPIER OR OPERATOR HANDLING HAZARDOUS WASTES ]**

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2. The industry shall not store hazardous waste for more than 90 days as per the Hazardous Wastes (Management, Handling and Transboundary Movement) Rules, 2008 and amendments thereof.
3. The industry shall store Used / Waste Oil and Used Lead Acid Batteries in a secured way in their premises till its disposal.
4. The industry shall not dispose Waste oils to the traders and the same shall be disposed to the authorized Reprocessors/ Recyclers.
5. The industry shall dispose Used Lead Acid Batteries to the manufacturers / dealers on buyback basis.
6. The industry shall take necessary practical steps for prevention of oil spillages and carry over of oil from the premises.
7. The industry shall maintain 6 copy manifest system for transportation of waste generated and a copy shall be submitted to Board Office and concerned Regional Office.
8. The industry shall maintain good house keeping & maintain proper records for Hazardous Wastes stated in Authorisation.
9. The industry shall maintain proper records for Hazardous Wastes stated in Authorisation in FORM-3 i.e., quantity of Incinerable waste, land disposal waste, recyclable waste etc., and file annual returns in Form- 4 as per Rule 22(2) of the Hazardous Wastes (Management, Handling & Transboundary Movement) Rules, 2008 and amendments thereof.
10. The industry shall submit the condition wise compliance report of the conditions stipulated in Schedule A, B & C of this Order on half yearly basis to Board Office, Hyderabad and concerned Regional Office.
11. The industry shall dispose of e-waste to the authorised recyclers only.

**Sd/-  
MEMBER SECRETARY**

To  
M/s. Krishnapatnam Port Company Ltd.,  
Krishnapatnam Village,  
Muthukur Mandal,  
Nellore District - 524 344.

//T.C.F.B.O//

  
CHIEF ENVIRONMENTAL ENGINEER

AA





ANDHRA PRADESH POLLUTION CONTROL BOARD  
Paryavarana Bhavan, A-III, Industrial Estate,  
Sanathnagar, Hyderabad-500 018  
Phone : 040-23887500, Website : www.appcb.ap.nic.in

**RED CATEGORY  
CFO & HWA AMENDMENT ORDER**

**BY REGD POST WITH ACK DUE**

**Order No: APPCB/VJA/NLR/11344/CFO/HO/2016**

**Dt: 01.02.2016**

- Sub: APPCB-UH-IV-CFO-M/s. Krishnapatnam Port Company Ltd., Krishnapatnam (V), Muthukur (M), SPSR Nellore District – CFO Amendment – Order – Issued – Reg.
- Ref: 1. Consent order no. APPCB/VJA/NLR/11344/CFO/HO/2013-4042 dt.24.09.2015  
2. Industry's representation No. KP/APPCB/205 dt.07.10.2015  
3. Industry's representation No. KP/APPCB/214 dt.20.10.2015  
4. Industry's representation No. KP/APPCB/215 dt.20.10.2015

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The Board in the reference 1<sup>st</sup> cited issued combined CFO & HWA order to M/s. Krishnapatnam Port Company Ltd., Krishnapatnam (V), Muthukur (M), SPSR Nellore District with duly stipulating conditions with validity upto 31.10.2018.

The industry in the ref. 2<sup>nd</sup> cited represented the Board for amendment of the CFO condition no.9, 26 and 27 of Schedule-B pertaining to coal stock pile height, separate energy meters and hazardous wastes respectively and further in the ref.3<sup>rd</sup> cited requested for amendment of CFO condition no.11 of Schedule – B duly enclosing the MoEF lr. Dt.02.06.2015. The Board after careful examination of the representations of the industry, hereby amends the conditions of Schedule – B of CFO order dt.24.09.2015 as below:

- a) The condition no.11 is deleted based on MoEF Letter.  
b) The condition No. 9 shall be read as

**“Coal stack heights in all coal yards shall not be more than 12 mts”**

- c) Condition No.26 shall be read as

**The Krishnapatnam port shall record the energy consumption for the energy meters provided for Sewage Treatment Plant (STP), pump houses to water sprinklers / dust suppression measures and Air pollution control equipments.**

- d) Condition No.27 shall be read as

**The Krishnapatnam port shall not allow any hazardous waste through the port other than waste oil / used oil generated in the port without prior permission of Board and shall comply with EC conditions. The port shall not store any hazardous waste within the premises as per the time frame mentioned in the HWM Rules.**

All other conditions of Schedules – A, B & C of combined CFO & HWA order dt.24.09.2015 including validity period shall remain the same.

Sd/-  
**MEMBER SECRETARY**

✓ To  
M/s. Krishnapatnam Port Company Limited,  
Krishnapatnam (V), Muthukur (M),  
SPSR Nellore District – 524 344.

//T.C.F.B.O//

*Wla* 1/2/16.  
**JOINT CHIEF ENVIRONMENTAL ENGINEER  
(UNIT - IV)**

*R*





ANDHRA PRADESH POLLUTION CONTROL BOARD  
PARYAVARAN BHAVAN, A-3, INDUSTRIAL ESTATE,  
SANATHNAGAR, HYDERABAD - 500 018.

Phone: 040-23887500  
Fax: 040- 23815631  
Grams : Kalusya Nivarana  
Website : appcb.ap.nic.in

**Consent Amendment Order No: APPCB/VJA/NLR/ 11344/CFO/HO/ 2016 Dt. 05.05.2016**

**Sub:** APPCB- UH: IV- CFO: VJA- M/s. Krishnapatnam Port Company Ltd, Krishnapatnam (V), Muthukur (M), SPSR Nellore District- CFO amendment – Order – Issued - Reg.

- Ref:** 1. Consent order No. APPCB/VJA/NLR/11344/CFO/HO/2013 - 4042 dt. 24.09.2015.  
2. Consent amendment order No. APPCB/VJA/NLR/11344/CFO/HO/2016, dt. 01.02.2016.  
3. CFE amendment order No. 633/APPCB/CFE/RO-NLR/HO/2010, dt. 10.02.2016.  
4. RO letter No. N-641/PCB/RO/NLR/2016 – 52, dt. 07.04.2016.  
5. CFO committee Meeting held on 16.04.2016.

\*\*\*\*

The Board in the reference 1<sup>st</sup> cited issued combined CFO & HWA order to M/s. Krishnapatnam Port Company Ltd, Krishnapatnam (V), Muthukur (M), SPSR Nellore District duly stipulating conditions with validity up to 31.10.2018 duly including coal quantity of 36 million tonnes /Annum, No. of berths 9 in addition to other products with certain quantities. The Board in the reference 2<sup>nd</sup> cited issued CFO amendment order for certain conditions of the CFO order dt. 24.09.2015.

The RO in the reference 4<sup>th</sup> cited submitted that the industry applied for amendment of CFO order dt. 24.09.2015 based on CFE amendment order issued in the reference 3<sup>rd</sup> cited pertaining to the new cargo mix and reported that the port commissioned 10<sup>th</sup> berth and requested the Board to issue amendment to the CFO order issued in the reference 1<sup>st</sup> cited by increasing coal handling capacity from 36 million tonnes/Annum to 40.5 million tonnes / Annum.

The issue was placed in the CFO committee meeting held on 16.04.2016 and committee recommended to issue CFO amendment subject to certain conditions. The Board after careful examination, hereby issues the following amendments to the CFO order dt. 24.09.2015 as below.

- a. Coal quantity shall be substituted with 40.5 Million tonnes/Annum.
- b. No. of berths shall be substituted with "10 berths".

The industry shall comply with the following additional conditions:

1. The mechanical dust suppression system (sprinklers and fogging) of adequate capacity shall be provided at the coal handling points such as loading and unloading from the ship, stacking and reclaiming processed in the stack yard to control dust generation and air emissions.
2. Wind breaking wall / sheets shall be provided all along the Coal / Iron ore stacks yards towards villages viz., Chalivendra, Gopalapuram and Krishnapatnam taking into consideration the meteorological characteristics of the location within one month.

P.T.O

All other conditions of Schedule – A,B&C of combined CFO & HWA order dt. 24.09.2015 and CFO amendment order dt. 01.02.2016 including validity period shall remain the same.

Sd/-  
MEMBER SECRETARY

To,

M/s. Krishnapatnam Port Company Ltd,  
Krishanpatnam (V),  
Muthukur (M),  
SPSR Nellore District – 524 344.

//T.C.F.B.O//

*W*  
6/5/16  
JOINT CHIEF ENVIRONMENTAL ENGINEER  
(UH-IV)  
*KS*



## ANDHRA PRADESH POLLUTION CONTROL BOARD

Paryavarana Bhavan, A-III, Industrial Estate,  
Sanathnagar, Hyderabad-500 018  
Phone : 040-23887500, Website : www.appcb.ap.nic.in

**Consent Amendment Order No: APPCB/VJA/NLR/ 11344/CFO/HO/2017** **Date: 17.01.2017**

**Sub:** APPCB - UH: IV - CFO: VJA - M/s. Krishnapatnam Port Company Ltd, Krishnapatnam (V), Muthukur (M), SPSR Nellore District - CFO Amendment - Order - Issued - Reg.

- Ref:**
1. Consent order No: APPCB/VJA/NLR/11344/CFO/HO/2013-4042, dated 24.09.2015.
  2. Consent amendment order No: APPCB/VJA/NLR/11344/CFO/HO/2016, dated 01.02.2016.
  3. Consent Amendment Order No: APPCB/VJA/NLR/ 11344/CFO/HO/2016, dated 05.05.2016.
  4. Industry representation Ref. No. KP/APPCB/164, dated 31.10.2016
  5. RO: Nellore Lr. No. GN/PCB/RO/NLR/2016-1755, dated 03.12.2016.
  6. CFO committee Meeting held on 24.12.2016.

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The Board in the reference 1<sup>st</sup> cited has issued combined CFO&HWA order to M/s. Krishnapatnam Port Company Ltd, Krishnapatnam (V), Muthukur (M), SPSR Nellore District duly stipulating conditions with validity upto 31.10.2018. The Board in the reference 2<sup>nd</sup> and 3<sup>rd</sup> cited issued CFO amendment orders for certain conditions of the CFO order dated 24.09.2015.

The industry in the reference 4<sup>th</sup> cited requested to amend some of the conditions stipulated by the Board in the CFO order issued in the reference 1<sup>st</sup> cited.

The EE, RO: Nellore in the reference 5<sup>th</sup> cited submitted report on the request made by the industry for modification of conditions stipulated in the CFO order of the Board dated 24.09.2015.

The issue was placed in the CFO committee meeting held on 24.12.2016. After detailed discussions, the committee recommended to issue amendments to CFO orders as requested by the industry keeping in view of the practical problems.

The Board, after careful scrutiny of the request of the industry, report of Regional Officer and recommendations of the CFO Committee hereby issues Amendment to the Conditions Stipulated in the CFO Order to your unit under Section 25 of Water (Prevention & Control of Pollution) Act 1974 and Section 21 of Air (Prevention & Control of Pollution) Act, 1981 and the rules made there under as following:

The conditions stipulated in the CFO&HWA order issued in the reference 1<sup>st</sup> cited shall be read as following:-

S. No	Existing Condition	Condition after Amendment
15	The MDSS system shall be in continuous operation all throughout the year wherever the stock of any material is piled.	The MDSS system shall be in operation wherever the stock of any bulk material (Dusty cargo) is piled in a way to ensure wetness on the surface of stock piles.
20	The Krishnapatnam Port shall ensure that the trucks transporting cargos from the berth shall be covered with tarpaulin to avoid fugitive emissions / spillages.	The Krishnapatnam Port shall ensure that the trucks transporting cargos to outside the port shall be covered with tarpaulin to avoid fugitive emissions / spillages.
23	The industry shall maintain automated Mechanical Dust Suppression System (MDSS) for all stock yards, dusty cargo berths and conveyor belts.	The industry shall maintain Mechanical Dust Suppression System (MDSS) for stock yards, dusty cargo berths and conveyor belts.

25	The Krishnapatnam Port shall maintain empty dust cargo vehicles washing/dry cleaning system to clean all out going dusty cargo empty vehicles.	The Krishnapatnam Port shall maintain empty dusty cargo vehicles washing system to clean dusty cargo empty vehicles.
32	The Krishnapatnam Port shall comply latest technologies for controlling fugitive emissions including the following:	The Krishnapatnam Port shall comply latest technologies for controlling fugitive emissions including the following:
	a. Fully mechanized handling equipment for loading and unloading operations.	Fully mechanized handling equipment for loading and unloading operations.
	b. Closed conveyor belt with water sprinkling arrangement for suppression of dust while conveying dusty cargoes like coal, iron ore etc.,	Closed conveyor belt with water sprinkling arrangement for suppression of dust while conveying dusty cargoes like coal, iron ore etc.,
	c. Specially designed iron ore ship loader with goose neck chute to reduce drop height of iron ore into the ship.	Specially designed iron ore ship loader with necessary precautions to reduce drop height of iron ore into the ship.
	d. The Krishnapatnam Port shall maintain unit bag filter/Telescopic chute at ship loading points.	Removed.
	e. Automated mechanical water sprinkling shall be provided on roads and at dusty cargo storage areas for suppression of dust.	Mechanical water sprinkling shall be provided on roads and at dusty cargo storage areas for suppression of dust.
38	The Krishnapatnam Port shall maintain onsite and offsite emergency action plan after carrying out risk analysis and hazop studies.	The Krishnapatnam Port shall maintain onsite emergency action plan after carrying out risk analysis and hazop studies.

All other conditions of Schedule – A, B & C of combined CFO&HWA order issued in the reference 1<sup>st</sup> cited including validity period remain the same.

Sd/-  
**MEMBER SECRETARY**

**To**

**M/s. Krishnapatnam Port Company Ltd,  
Krishnapatnam (V), Muthukur (M),  
SPSR Nellore District – 524 344, AP.  
E-mail: info@krishnapatnamport.com**

**Copy to:**

1. The JCEE, Zonal Office: Vijayawada for information and necessary action.
2. The EE, Regional Office: Nellore for information and necessary action.

//T.C.F.B.O//

*U Rao 19/11/17*  
**Joint Chief Environmental Engineer**  
★ (UH: IV)



# ANDHRA PRADESH POLLUTION CONTROL BOARD

D. No. 33-26-14 D/2, Near Sunrise Hospital, Pushpa Hotel Centre,

Chalamalavari Street, Kasturibaipet, Vijayawada - 520 010

Website: www.appcb.ap.nic.in

**Lr. No: APPCB/VJA/NLR/11344/CFO/HO/2018-**

**Date: 16.04.2018**

**Sub:** APPCB - UH: IV - CFO: VJA - M/s. Krishnapatnam Port Company Ltd, Krishnapatnam (V), Muthukur (M), SPSR Nellore District - CFO Amendment - Reg.

- Ref:**
1. Consent order No: APPCB/VJA/NLR/11344/CFO/HO/2013-4042, dated 24.09.2015.
  2. Consent Amendment order No: APPCB/VJA/NLR/11344/CFO/HO/2016, dated 01.02.2016.
  3. Consent Amendment Order No: APPCB/VJA/NLR/11344/CFO/HO/2016, dated 05.05.2016.
  4. Consent Amendment Order No: APPCB/VJA/NLR/11344/CFO/HO/2017, dated 17.01.2017
  5. EC order No. F. No. 10-22/2005-1A-III, dated 26.07.2005 (Phase-I) issued by MoE&F, GoI.
  6. EC order No. F. No. 11-62/2009-1A-III, dated 13.11.2009 (Phase-II) issued by MoE&F, GoI.
  7. Industry's request letter no. KP/APPCB/12 dated 14.02.2018 received at RO, Nellore on 22.02.2018.
  8. RO: Nellore Lr. No. N-641/PCB/RO-NLR/2017-3171, dated 05.03.2018.
  9. CFO Committee Meeting held on 15.03.2018.

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The Board vide reference 1<sup>st</sup> cited has issued combined CFO&HWA order to M/s. Krishnapatnam Port Company Ltd, Krishnapatnam (V), Muthukur (M), SPSR Nellore District duly stipulating conditions with validity upto 31.10.2018. The Board in the references 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> cited above issued CFO amendment orders for certain conditions in the CFO order dated 24.09.2015.

The industry in the reference 7<sup>th</sup> cited requested to issue CFO amendment for development of storage sheds (warehouses) for Hazardous chemicals as per MSHC rules for stuffing & de-stuffing of Hazardous chemicals containers in closed sheds within the port's approved cargo handling capacity.

The EE, RO: Nellore in the reference 8<sup>th</sup> cited submitted report on the request made by the industry.

The issue was placed in the CFO committee meeting held on 15.03.2018. After detailed discussions, the committee recommended to issue amendment to CFO subject to the confirmation of applicability of EC as per EIA Notification, 2006 at Sl.6 (b) "Isolated storage & handling of Hazardous chemicals (As per threshold planning quantity indicated in column 3 of schedule 2 & 3 of MSIHC Rules 1989 amended 2000).

In view of the above, the industry is directed to obtain confirmation on the applicability of Environmental Clearance for Isolated storage & handling of Hazardous chemicals.

**Bandla  
Siva Sankar  
Prasad**

**MEMBER SECRETARY**

Digitally signed by Bandla Siva Sankar Prasad  
DN: c=IN, o=APPCB, ou=EFS and T Head Office, cn=Bandla Siva Sankar Prasad, postalCode=520010,  
2.5.4.20=c040c01b77f6f398976702e0c9b479454f18c98b21c03bc47f7349d6555b35, st=Andhra Pradesh  
Date: 2018.04.18 11:13:38 +05'30'

**To**

**M/s. Krishnapatnam Port Company Ltd,  
Krishnapatnam (V), Muthukur (M),  
SPSR Nellore District - 524 344, A.P.  
E-mail: info@krishnapatnamport.com**

**Copy to:**

1. The JCEE, **ZO: Vijayawada** for information and necessary action.
2. The EE, **RO: Nellore** for information and necessary action.



Member Secretary

**ANDHRA PRADESH POLLUTION CONTROL BOARD**  
D. No. 33-26-14 D/2, Near Sunrise Hospital, Pushpa Hotel Centre,  
Chalamalavari Street, Kasturibaipet, Vijayawada – 520 010  
Website: www.appcb.ap.nic.in

**RED CATEGORY  
RENEWAL OF CONSENT & AUTHORIZATION ORDER**

**Consent Order No: APPCB/VJA/NLR/11344/CFO/HO/2018-****29/07/2018**

CONSENT is hereby granted for Operation under section 25/26 of the Water (Prevention & Control of Pollution) Act, 1974 and under section 21 of Air (Prevention & Control of Pollution) Act 1981 and amendments thereof and Authorisation under Rule 6 of the Hazardous and Other Wastes (Management & Transboundary Movement) Rules, 2016 & Amendments thereof and the rules and orders made there under (hereinafter referred to as 'the Acts', 'the Rules') to:

**M/s. Krishnapatnam Port Company Ltd.,  
Krishnapatnam (V), Muthukur (M),  
SPSR Nellore District – 524 344, A.P.  
E-mail: info@krishnapatnamport.com**

(Hereinafter referred to as 'the Applicant') authorizing to operate the industrial plant to discharge the effluents from the outlets and the quantity of emissions per hour from the chimneys as detailed below:

i. Outlets for discharge of effluents:

Outlet No.	Outlet Description	Max Daily Discharge	Point of Disposal
1	Domestic effluents after treatment in STP	300 KLD	Treated water shall be used for Plantation within the premises.

ii) Emissions from chimneys:

Chimney No.	Description of Chimney
1	Stack attached to 1 x 380 KVA, 2x 320 KVA, 9 x 250 KVA, 4x 160 KVA, 5 x 125 KVA, 1 x 500 KVA, 2 x 320 KVA, 4 x 82.5 KVA DG Sets

iii) Hazardous Waste Authorisation (Form – II) [See Rule 6 (2)]:

M/s. Krishnapatnam Port Company Ltd., SPSR Nellore District is hereby granted an authorization to operate a facility for collection, reception, storage, treatment, transport and disposal of Hazardous Wastes namely:

• **Hazardous Wastes With Disposal Option:**

S. No	Name of Hazardous Waste	Stream	Quantity	Method of disposal
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1.	Waste oil/Used oil from D.G. Sets, vehicles, dredgers and other machinery	5.1 of Schedule – I	350 KLPA	Authorised Reprocessors/ Recyclers.
2.	Waste oil from Ships	5.1 of Schedule – I	2.5 Lakh LPA	

**This consent order is valid for handling various port activities with capacities as indicated below:**

S. No	Products	Quantity
1.	Coal	46.5 Million Tons/ Annum
2.	Iron Ore	8 Million Tons/ Annum
3.	Fertilizers, Food Grains, Sugar, Cement & Cement Clinker, Barites, Feldspar, Edible Oils (General Cargo)	9.0 Million Tons/ Annum
4	Bulk Liquid Cargo (POL Berth)	---
5.	Container Cargo	2.0 MTEUs/ Annum
6.	No. of Berths	11 Berths

This order is subject to the provisions of 'the Acts' and the Rules' and orders made thereunder and further subject to the terms and conditions incorporated in the schedule A, B & C enclosed to this order.

This combined order of consent & Hazardous Waste Authorization shall be valid for a period ending with the 31<sup>st</sup> October, 2023.

**VIVEK YADAV IAS, MS(VY), O/o MEMBER SECRETARY-APPCB**

**To**

**M/s. Krishnapatnam Port Company Ltd.,  
Krishnapatnam (V), Muthukur (M),  
SPSR Nellore District – 524 344, A.P.**

**Copy to:**

1. The JCEE, ZO: **Vijayawada** for information and necessary action.
2. The JCEE (UH: II), **Vijayawada** for information.
3. The EE, RO: **Nellore** for information and necessary action.

**SCHEDULE-A**

1. Any up-set condition in any industrial plant / activity of the industry, which result in, increased effluent / emission discharge and/ or violation of standards stipulated in this order shall be informed to this Board, under intimation to the Collector and District Magistrate and take immediate action to bring down the discharge / emission below the limits.
2. The industry shall carryout analysis of waste water discharges or emissions through chimneys

- for the parameters mentioned in this order on quarterly basis and submit to the Board.
3. All the rules & regulations notified by Ministry of Law and Justice, Government of India regarding Public Liability Insurance Act, 1991 should be followed as applicable.
  4. The industry shall put up two sign boards (6x4 ft. each) at publicly visible places at the main gate indicating the products, effluent discharge standards, air emission standards, hazardous waste quantities and validity of CFO and exhibit the CFO order at a prominent place in the factory premises.
  5. Notwithstanding anything contained in this consent order, the Board hereby reserves the right and powers to review / revoke any and/or all the conditions imposed herein above and to make such variations as deemed fit for the purpose of the Acts by the Board.
  6. The industry shall file the water cess returns in Form-I as required under section (5) of Water (Prevention and Control of Pollution) Cess Act, 1977 on or before the 5th of every calendar month, showing the quantity of water consumed in the previous month along with water meter readings. The industry shall remit water cess as per the assessment orders as and when issued by Board.
  7. The applicant shall submit Environment statement in Form V before 30th September every year as per Rule No.14 of E (P) Rules, 1986 & amendments thereof.
  8. The applicant shall make applications through Online for renewal of Consent (under Water and Air Acts) and Authorization under HWM Rules at least 120 days before the date of expiry of this order, along with prescribed fee under Water and Air Acts and detailed compliance of CFO conditions for obtaining Consent & HW Authorization of the Board. The industry should immediately submit the revised application for consent to this Board in the event of any change in the raw material used, processes employed, quantity of trade effluents & quantity of emissions. Any change in the management shall be informed to the Board. The person authorized shall not let out the premises / lend / sell / transfer their industrial premises without obtaining prior permission of the State Pollution Control Board.
  9. Any person aggrieved by an order made by the State Board under Section 25, Section 26, Section 27 of Water Act, 1974 or Section 21 of Air Act, 1981 may within thirty days from the date on which the order is communicated to him, prefer an appeal as per Andhra Pradesh Water Rules, 1976 and Air Rules 1982, to Appellate authority constituted under Section 28 of the Water(Prevention and Control of Pollution) Act, 1974 and Section 31 of the Air(Prevention and Control of Pollution) Act, 1981.

### SCHEDULE-B

#### **Water Pollution:**

1. The industry shall comply the following effluent standards based on the disposal points permitted:

<b>Outlet</b>	<b>Parameter</b>	<b>Concentration</b>
1	pH	5.5 - 9.0
	Total Suspended Solids (TSS)	1000 mg/l
	Total Dissolved Solids (TDS)	2100 mg/l
	Oil and Grease	10.0 mg/l
	COD	250 mg/l
	BOD	100 mg/l

2. The industry shall take steps to reduce water consumption to the extent possible and consumption shall NOT exceed the quantities mentioned below:

<b>S. No</b>	<b>Purpose</b>	<b>Quantity</b>
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1.	Dust suppression	1050.0 KLD
2.	Domestic	400.0 KLD
3.	Gardening / Irrigation	400.0 KLD
4.	Miscellaneous (Fire protection services)	650.0 KLD
	<b>Total</b>	<b>2,500.0 KLD</b>

Separate meters with necessary pipe-line shall be maintained for assessing the quantity of water used for each of the purposes mentioned above for Cess assessment purpose.

3. The additional water quantity of 500 KLD shall be used for dust suppression measures only, as committed by the Port in the CFO meeting held on 13.08.2015.
4. The Krishnapatnam Port shall comply with emission limits for DG sets upto 800 KW as per the Notification G.S.R.520 (E), dated 01.07.2003 under the Environment (Protection) Amendment Rules, 2003 and G.S.R.448(E), dated 12.07.2004 under the Environment (Protection) Second Amendment Rules, 2004. In case of DG sets more than 800 KW shall comply with emission limits as per the Notification G.S.R.489 (E), dated 09.07.2002 at serial no.96, under the Environment (Protection) Act, 1986.

#### **Air Pollution:**

5. The industry shall comply with ambient air quality standards of PM10 (Particulate Matter size less than 10mm) - 100 mg/ m<sup>3</sup>; PM2.5 (Particulate Matter size less than 2.5 mm) - 60 mg/ m<sup>3</sup>; SO<sub>2</sub> - 80 mg/ m<sup>3</sup>; NO<sub>x</sub> - 80 mg/m<sup>3</sup>, outside the factory premises at the periphery of the industry.

Standards for other parameters as mentioned in the National Ambient Air Quality Standards CPCB Notification No.B-29016/20/90/PCI-I, dated 18.11.2009.

Noise Levels: Day time (6 AM to 10 PM) - 75 dB (A)

Night time (10 PM to 6 AM) - 70 dB (A)

6. The Port shall take all measures including latest available technologies to comply with above ambient air quality standards.
7. The Krishnapatnam Port shall not increase the capacity beyond the permitted capacity mentioned in this order, without obtaining CFE & CFO of the Board.
8. Coal stack heights in all coal yards shall not be more than 12mts.
9. The industry shall ensure required wetness all the time on the surface of stock piles to avoid the dust emissions from the stock piles.
10. The industry shall install sufficient number of CAAQM stations in between the villages and the port area. The stations shall be located at the periphery of the villages to monitor all the parameters given in the consent order.
11. The Port shall link the 2<sup>nd</sup> CAAQM station to Board website within one month.
12. Unloading of iron ore from the railway wagons house should be carried out with wagon tippers only, in case, handling of iron ore is more than 6 MTPA. As and when iron ore handling is to be done intermittently, it should be handled with water sprinkling system at high pressure with swiveling type nozzles operated regularly to cover entire stockpile. Nozzles shall be operated along stockpile at regular Intervals to cover stockpile height and width.

#### **General:**

13. The MDSS system shall be in operation wherever the stock of any bulk material (Dusty cargo) is piled in a way to ensure wetness on the surface of stock piles.

14. As regards to deviation in location of facilities such as stock piles and other facilities, from the originally envisaged plan, amendments for the EC and CFE have to be obtained immediately.
15. In no case the Hazardous chemicals shall be handled openly in the Port either from or into the ship. Hazardous Chemicals if any shall be handled only in closed containers. Hazardous chemicals / cargo shall not be stored in CRZ area.
16. The port shall maintain the existing green belt with adequate width and density and in vacant places.
17. The Krishnapatnam Port shall use road sweeping machines to clean all port internal roads regularly.
18. The Krishnapatnam Port shall ensure that the trucks transporting cargos to outside the port shall be covered with tarpaulin to avoid fugitive emissions / spillages.
19. All conveyor belts and other transfer points shall be covered with GI sheets to mitigate fugitive emissions generated during conveying of dusty cargos.
20. The Krishnapatnam Port shall maintain water sprinklers for effective control of fugitive emissions generated during handling of cargo and increased volume of vehicular traffic.
21. The industry shall maintain Mechanical Dust Suppression System (MDSS) for stock yards, dusty cargo berths and conveyor belts.
22. The Port shall develop and maintain 100 m width greenbelt along the periphery & 20 m width around coal & iron ore stack yards.
23. The Krishnapatnam Port shall maintain empty dusty cargo vehicles washing system to clean dusty cargo empty vehicles.
24. The Krishnapatnam Port shall record the energy consumption for the energy meters provided for Sewage Treatment Plant (STP), pump houses to water sprinklers / dust suppression measures and Air Pollution Control Equipments (APCE).
25. The Krishnapatnam Port shall not allow any hazardous wastes through the port other than waste oil / used oil generated in the Port without prior permission of Board and shall comply with EC conditions. The Krishnapatnam Port shall not store any hazardous waste within the premises as per the time frame mentioned in HWM Rules.
26. In case a leaky container of hazardous cargo is found, a separate permission of the Board may be obtained after establishing the quality and the type of waste for disposal.
27. All types of the fertilizers should be stored in the closed warehouses only. The Port should ensure that there should not be any open storage of urea or any other fertilizer materials. There shall not be any effluent generation.
28. The Krishnapatnam Port shall store fuel oils used for construction equipment, vessels and vehicles in a well designed manner and protect them against fire hazards by construction of compound wall to prevent access to unauthorized elements. The surface run off from storage area shall pass through oil water separator before being discharged.
29. The Krishnapatnam Port shall provide fire detection and fire fighting facilities with adequate water storage in fire prone areas in consultation with Directorate of fire fighting.
30. The Krishnapatnam Port shall comply latest technologies for controlling fugitive emissions including the following:
  - a. Fully mechanized handling equipment for loading and unloading operations.
  - b. Closed conveyor belt with water sprinkling arrangement for suppression of dust while conveying dusty cargoes like coal, iron ore etc.,
  - c. Specially designed iron ore ship loader with necessary precautions to reduce drop height of iron ore into the ship.
  - d. Mechanical water sprinkling shall be provided on roads and at dusty cargo storage areas for suppression of dust.
31. The Krishnapatnam port shall maintain adequate number of ground water monitoring location on scientific basis and the same shall be monitored every six months.
32. The Krishnapatnam port shall construct the storm water drains to avoid the contamination of

runoff with other effluents.

33. The Krishnapatnam port shall regularly clean the drains to avoid siltation.
34. The Krishnapatnam port shall operate Sewerage Treatment Plant (STP) and after treatment waste water should be used for washing purposes/flushing of sewers /green belt development etc, treated sewage should not be disposed into the sea.
35. The Krishnapatnam port shall monitor compliance through Environment Management Cell with qualified and trained staff.
36. The Krishnapatnam Port shall maintain onsite emergency action plan after carrying out risk analysis and hazop studies.
37. The Krishnapatnam Port shall comply with the conditions of CFE order dated 08.05.2010.
38. The Krishnapatnam Port shall submit monthly monitoring reports to RO: Nellore.
39. The Krishnapatnam Port shall follow the directions issued by the Board from time to time.
40. The Port shall comply with standards and directions issued by CPCB / MoEF&CC as and when notifications are issued.
41. The Port shall submit compliance report on the conditions mentioned in the consent order every six months i.e., on 1<sup>st</sup> of January and July of every year to the Regional Office/ Zonal Office.

**SCHEDULE – C**

*[See rule 6 (2)]*

**[CONDITIONS OF AUTHORISATION FOR OCCUPIER OR OPERATOR  
HANDLING HAZARDOUS WASTES]**

1. All the rules and regulations notified by Ministry of Environment and Forests, Government of India under the E (P) Act, 1986 in respect of management, handling, transportation and storage of the Hazardous wastes should be followed.
2. The industry shall not store hazardous waste for more than 90 days as per the Hazardous and Other Wastes (Management & Transboundary Movement) Rules, 2016.
3. The industry shall store Used / Waste Oil and Used Lead Acid Batteries in a secured way in their premises till its disposal to the manufacturers / dealers on buyback basis.
4. The industry shall maintain 7 copy manifest system for transportation of waste generated and a copy shall be submitted to concerned Regional Office of APPCB. The driver who transports Hazardous Waste should be well acquainted about the procedure to be followed in case of an emergency during transit. The transporter should carry a Transport Emergency (TREM) Card.
5. The industry shall maintain proper records for Hazardous and Other Wastes stated in Authorisation in FORM-3 i.e., quantity of Incinerable waste, land disposal waste, recyclable waste etc., and file annual returns in Form- 4 as per Rule 20 (2) of the Hazardous and Other Wastes (Management & Transboundary Movement) Rules, 2016.

**VIVEK YADAV IAS, MS(VY), O/o MEMBER SECRETARY-APPCB**

**To**

**M/s. Krishnapatnam Port Company Ltd.,  
Krishnapatnam (V), Muthukur (M),  
SPSR Nellore District – 524 344, A.P.**

**ANDHRA PRADESH POLLUTION CONTROL BOARD**

D. No. 33-26-14 D/2, Near Sunrise Hospital, Pushpa Hotel Centre,  
Chalamalavari Street, Kasturibaipet, Vijayawada - 520 010  
Website: www.appcb.ap.nic.in



**Amendment order. No: APPCB/VJA/NLR/11344/CFO/HO/2018-**

**30/08/2018**

**Sub:** APPCB - UH: IV - CFO: VJA - M/s. Krishnapatnam Port Company Ltd, Krishnapatnam (V), Muthukur (M), SPSR Nellore District - CFO Amendment – Issued -Reg.

- Ref:**
1. Consent order No: APPCB/VJA/NLR/11344/CFO/HO/2018 dt. 29.07.2018.
  2. EC order No. F. No. 10-22/2005-1A-III, dt. 26.07.2005 (Phase-I) issued by MoE&F, GoI.
  3. EC order No. F. No. 11-62/2009-1A-III, dt. 13.11.2009 (Phase-II) issued by MoE&F, GoI.
  4. Industry's request letter No. KP/APPCB/12 dt. 14.02.2018 received at RO, Nellore on 22.02.2018.
  5. RO:Nellore Lr. No. N-641/PCB/RO-NLR/2017-3171, dated 05.03.2018.
  6. CFO Committee Meeting held on 15.03.2018.
  7. Lr. No.17/SEIAA/AP/SEAC mtgs follow-up/2015-498 dt.06. 06.2018 issued by SEIAA, AP.
  8. CFO Committee Meeting held on 19.07.2018.

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The Board vide reference 1<sup>st</sup> cited has issued combined CFO&HWA order to M/s. Krishnapatnam Port Company Ltd, Krishnapatnam (V), Muthukur (M), SPSR Nellore District duly stipulating conditions with validity upto 31.10.2023.

The industry in the reference 4<sup>th</sup> cited requested the Board to issue an amendment to CFO for storage & handling (including container stuffing & de-stuffing) of Hazardous chemicals Non CRZ area of the Port area.

The EE, RO: Nellore in the reference 5<sup>th</sup> cited submitted report on the request made by the industry.

The issue was placed in the CFO committee meeting held on 15.03.2018. After detailed discussions, the committee recommended to issue amendment to CFO subject to the confirmation of applicability of EC as per EIA Notification, 2006 at Sl.6 (b) "Isolated storage & handling of Hazardous chemicals (As per threshold planning quantity indicated in column 3 of schedule 2 & 3 of MSIHC Rules 1989 amended 2000).

Vide ref 7<sup>th</sup> cited, the SEIAA vide lr. dt.06.06.2018 stated that M/s. Krishnapatnam Port Company Ltd has already obtained Environmental Clearance for handling of hazardous chemicals and recommended that APPCB is the competent authority for providing valid authorization for handling / storing of hazardous chemicals beyond CRZ area and within the port area.

The issue was again placed in the CFO committee meeting held on 19.07.2018 along with renewal of consent application. After detailed discussions, the committee recommended to issue to renewal of CFO&HWA and consider the request of the industry for handling / storing of hazardous chemicals beyond CRZ area and within port area in the consent order.

The Board after careful examination, hereby issues the following amendment to the CFO&HWA order issued vide reference 1<sup>st</sup> cited under section 25/26 of the Water (Prevention &

Control of Pollution) Act, 1974 and under section 21 of Air (Prevention & Control of Pollution) Act 1981 and amendments thereof and Authorisation under Rule 6 of the Hazardous and Other Wastes (Management & Transboundary Movement) Rules, 2016 and amendments thereof

**Amendment:**

The Condition No. 15 of Schedule – B of CFO &HWA order dt.29.07.2018 shall be substituted with the following:

**“In no case the Hazardous chemicals shall be handled openly either from or into the ship. The storage and handling (including container stuffing and de-stuffing) of hazardous chemicals / Cargo shall be carried out non CRZ area of the port area.”**

All other conditions mentioned in Schedules A, B & C of the CFO&HWA order issued by the Board vide reference 1<sup>st</sup> cited including the validity i.e. 31.10.2023 remain same.

VIVEK YADAV IAS  
MEMBER SECRETARY

To  
M/s. Krishnapatnam Port Company Ltd,  
Krishnapatnam (V), Muthukur (M),  
SPSR Nellore District - 524 344, A.P.  
E-mail: info@krishnapatnamport.com

Copy to:

1. The JCEE, ZO: Vijayawada for information.
2. The EE, RO: Nellore for information and necessary action.

Validity unknown

Digitally signed by VIVEK  
YADAV  
Date: 2018.08.30 17:35:46 IST  
Reason: Approved





**ANDHRA PRADESH POLLUTION CONTROL BOARD**

D. No. 33-26-14 D/2, Near Sunrise Hospital, Pushpa Hotel Centre,  
Chalamalavari Street, Kasturibaipet, Vijayawada – 520 010

Website: www.pcb.ap.nic.in

**Order.No: APPCB/VJA/NLR/11344/CFO/HO/2019-**

**Date: 10/02/2020**

**Sub: APPCB-UH-IV- Amendment to CFO & HWM Order for the berth of NW-3 and for enhance Cargo Handling Capacities – M/s. Krishnapatnam Port Co. Ltd., Krishnapatnam (V), Muthukur (M), SPSR Nellore District = Amendment Order Issued – Reg.**

- Ref:**
1. CFE Order Dt.25.05.2004 for Phase - I.
  2. EC Order Dt.26.07.2006 for Phase - I
  3. EC Order Dt.13.11.2009 for Phase - II
  4. CFE Order Dt.08.05.2010 for Phase - II.
  5. CFE Amendment Orders Dt.14.03.2014, 02.07.2015, 10.02.2016 & 22.02.2018.
  6. CRZ Clearance from GoAP Dt.02.02.2013 & NOC of GoAP Dt.14.08.2014
  7. EC & CRZ Amendment Dt.16.03.2016.
  8. CFO Order Dt.29.07.2018, which is valid up to 31.10.2023.
  9. CFO application for Amendment of CFO & HWMA Order, received through APOCMMS on 25.10.2019.
  - 10.RO, Nellore report received through mail Dt.02.11.2019.
  - 11.T.O. sought clarification on 28.11.2019.
  - 12.Port clarification submitted on 04.12.2019.
  - 13.CFO Committee meeting held on 18.12.2019.
  - 14.Board sought clarification from RO, Nellore regarding applicability of EC to the port activities on 13.01.2020.
  - 15.RO, Nellore submitted report vide mail Dt.28.01.2020.
  - 16.The issue of applicability of EC to the port activities, discussed with Chairman and received instructions on 03.02.2020.

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M/s. Krishnapatnam Port Co. Ltd., Krishnapatnam (V), Muthukur (M), SPSR Nellore District had proposed 11 berths in North side and 6 berths in South side in Phase – I & II, with Coal handling capacity 45 Million TPA, Iron ore - 18 Million TPA, General Cargo - 9 Million TPA, Bulk liquid cargo - 0.3 Million TPA and Container cargo - 3.3 Million TEU. The total berth length proposed in North side is 2850 mtrs and in South side is 2100 mtrs.

The Board issued CFE for the port activities, vide reference 1<sup>st</sup> & 4<sup>th</sup> cited, proposed under Phase – I & II and issued subsequent amendments vide reference 5<sup>th</sup> cited.

The port has obtained NOC from GoAP, vide ref. 6<sup>th</sup> cited, for lateral shifting of general cargo berth towards West to an extent of 500 m in the approved berthing front layout without change in Number of berths as approved in the Environmental Clearance and obtained subsequent EC & CRZ Amendment for the minor modifications vide ref. 7<sup>th</sup> cited.

The port has obtained renewal of CFO & HWA Order vide ref. 8<sup>th</sup> cited, and is valid up to 31.10.2023.

The port has applied for Amendment of CFO & HWM Order, through APOCMMS, vide reference 9<sup>th</sup> cited, for inclusion of berth of NW-3 and for enhanced additional coal handling capacity of 4.5 Million TPA, with a project cost of Rs. 388 Crores. The RO, Nellore furnished the inspection report, vide ref. 10<sup>th</sup> cited.

This office sought clarification from the port on the details of EC obtained for the existing berth in NW-1, and the details of CFE & EC obtained for inclusion of additional berth of NW-3 and the permissions obtained for change in cargo mix under Notification S.O. 3518 (E), dt.23.11.2016 of the MoEF & CC. The port furnished the reply to the clarification sought by the Board, vide ref. 12<sup>th</sup> cited.

The issue of Amendment to CFO & HWA Order of M/s. KPCL, is placed before the CFO Committee held on 18.12.2019 for along with port's CFO amendment application, RO's report, port's reply to clarification and Agenda.

After careful examination, the CFO Committee recommended to issue **AMENDMENT TO THE CFO & HWA ORDER Dt.29.07.2018 for the berth NW-3** and for enhanced additional coal handling capacity of 4.5 Million TPA, without increasing the total permitted cargo handling capacity, under Section 25/26 of the Water (Prevention and Control of Pollution) Act, 1974 and under Section 21 of the Air (Prevention and Control of Pollution) Act, 1981 and amendments thereof, to the following cargo handling capacities :

S.No.	Name of the materials handling at Port	Existing Capacity as per CFO Order Dt.29.07.2018	Applied for Amendment for the capacity	Total Capacity After Amendment
1.	Coal	46.5 Million TPA	4.5 Million TPA	51 Million TPA
2.	Iron Ore	8 Million TPA	---	8 Million TPA
3.	Fertilizers, Food Grains, Sugar, Cement & Cement Clinker, Barites, Feldspar, Edible Oils (General Cargo)	9.0 Million TPA	---	9.0 Million TPA
4	Bulk Liquid Cargo (POL Berth)	---	---	---
5.	Container Cargo	2.0 Million TEUs / Annum	---	2.0 Million TEUs / Annum
	<b>Total</b>	63.5 Million Tons / Annum : A Non-container cargo + 2.0 Million TEUs / Annum : A container cargo	---	<b>68.0 Million TPA : A Non-container cargo + 2.0 Million TEUs / Annum : A container cargo</b>
6.	No. of Berths	11 Berths	1 Berth	12 Berths



However, the Board sought clarification from RO, Nellore, vide reference 14th cited, regarding applicability of EC to the port activities. In response to that, the RO, Nellore vide reference 15th cited submitted clarification duly obtaining from the port authority. After carefully considering the above aspects, the Amendment for change in cargo handling capacities of coal with additional berth of NW-3 is issued to M/s. Krishnapatnam Port Company Limited subject to the following conditions :

1. The port shall take adequate air pollution control measures with respect to the enhanced dusty materials handling capacities.
2. The port shall stock all the dusty materials with in the designated storage yards only.
3. The port activities are concentrating in north quay by construction of 12<sup>th</sup> Berth, hence the stocking of dusty materials shall not be extended towards the residential areas around the port area.
4. The dusty materials transporting vehicles shall be closed in all respects/ covered with tarpaulin for controlling fugitive emissions.
5. The port shall provide wheel washing facility near the dusty cargo stocking area, to the freighted vehicles going outside the port.
6. The port shall inform the modifications made in port infrastructure developments to the MoEF&CC and to the Board time to time.
7. The port shall obtain EC for any change of scope of the project and shall restrict the port activities as permitted vide EC Orders Dt.26.07.2006 for Phase - I, 13.11.2009 for Phase - II and Amendments issued on 16.03.2016.
8. The port shall continuously operate the 3 CAAQM stations installed in between villages and port area to monitor all the parameters given in the consent order and upload the data continuously to the APPCB / CPCB websites.

**All the other conditions stipulated in the existing CFO Order vide reference 8<sup>th</sup> cited, shall remain the same.**

Digitally signed by Bandla Siva  
Sankar Prasad  
Date: 2020.02.11 15:34:41 +05'30'

**BANDLA SIVA SANKARA PRASAD, CHAIRMAN, O/o CHAIRMAN-APPCB**

**To**

**M/s. Krishnapatnam Port Company Ltd.,  
Krishnapatnam (V), Muthukur (M),  
SPSR Nellore District – 524 344, A.P.  
E-mail: venugopal.r@krishnapatnamport.com**

**Copy to:**

1. The JCEE, ZO: **Vijayawada** for information and necessary action.
2. The JCEE (UH: II), **Vijayawada** for information.
3. The EE, RO: **Nellore** for information and necessary action.



**ANDHRA PRADESH POLLUTION CONTROL BOARD**  
**Paryavarana Bhavan, A-III, Industrial Estate,**  
**Sanathnagar, Hyderabad-500 018**  
 Phone : 040-23887500, Website : www.appcb.ap.nic.in

**RED CATEGORY**  
**CONSENT & AUTHORIZATION ORDER**

**Consent Order No: APPCB/VJA/NLR/11344/CFO/HO/2019**

**08/08/2022**

CONSENT is hereby granted for Operation under section 25/26 of the Water (Prevention & Control of Pollution) Act, 1974 and under section 21 of Air (Prevention & Control of Pollution) Act 1981 and amendments thereof and Authorisation under Rule 6 of the Hazardous and Other Wastes (Management & Transboundary Movement) Rules, 2016 & Amendments thereof and the rules and orders made there under (hereinafter referred to as 'the Acts', 'the Rules') to:

**M/s. Adani Krishnapatnam Port Limited (Expansion Phase-III),**  
**(formerly M/s. Krishnapatnam Port Co. Ltd),**  
**Krishnapatnam (V), Muthukur (M),**  
**SPSR Nellore District.**  
**Email: [environment.akpl@adani.com](mailto:environment.akpl@adani.com)**

(Hereinafter referred to as 'the Applicant') authorizing to operate the industrial plant to discharge the effluents from the outlets and the quantity of emissions per hour from the chimneys as detailed below:

**(i) Outlets for discharge of effluents:**

Outlet No.	Outlet Description	Max Daily Discharge (KLD)	Point of Disposal
1.	Domestic	240.0	Treated domestic effluents shall be utilized for Green belt development and dust suppression

**(ii) Emissions from chimneys: NIL**

**(iii) Hazardous Waste Authorisation (Form – II) [See Rule 6 (2)]:**

M/s. Adani Krishnapatnam Port Limited (formerly M/s. Krishnapatnam Port Co. Ltd), Krishnapatnam (V), Muthukur (M), SPSR Nellore District is hereby granted an authorization to operate a facility for collection, reception, storage, treatment, transport and disposal of Hazardous Wastes namely:

• **Hazardous Wastes With Disposal Option:**

Sl. No.	Name of the Hazardous Waste	Quantity	Method of disposal
1	Solid waste (degradable)	2050 Kgs/ day	To use as manure for green belt.
2	Solid waste (Non-degradable)	200 Kgs/ day	Shall be disposed to authorized recyclers through APEMC
3	STP sludge	120 Kgs/	To use as manure

		day	
4	Oil containing cargo residue washing water and sludge	250 KLPA	Shall be disposed to authorized recyclers/ reprocessor / TSDF through APEMC
5	Chemical containing cargo residue and sludge	100 KLPA	
6	Sludge and filters contaminated with oil	200 TPA	
7	Ballast water containing oil from ships	250 KLPA	
8	Used/ Spent Oil	350 KLPA	
9	Wastes / residues containing oil	100 KLPA	
10	Sludge from treatment of waste water arising out of cleaning/ disposal of barrels/ containers	100 TPA	
11	Discarded containers/ barrels/ liners contaminated with Haz. Waste/ chemicals	100 TPA	
12	Oil and grease skimming residues	20 TPA	

This consent order is valid to manufacture the following products along with quantities only:

Sl. No.	Products	Quantity
1.	General Cargo (Fertilizers, granites, Edible Oil and Lube oils, others).	5.0 Million* Tons/Annum

\*The port shall reduce the existing consented (issued vide order dt.29.07.2018) coal handling capacity from 51 Million Tons/Annum to 46 Million Tons/Annum to cater this additional General Cargo of 5 Million Tons/Annum.

This order is subject to the provisions of 'the Acts' and the Rules' and orders made there under and further subject to the terms and conditions incorporated in the schedule A, B & C enclosed to this order.

This combined order of consent & Hazardous Waste Authorization shall be valid for a period ending with the **29<sup>th</sup> February, 2024.**

**VIJAY KUMAR GSRKR IAS, MEMBER SECY(GSRKRVK), O/o MEMBER SECRETARY-  
APPCB**

**To**

**M/s. Adani Krishnapatnam Port Limited,  
(formerly M/s. Krishnapatnam Port Co. Ltd),  
Krishnapatnam (V), Muthukur (M),  
SPSR Nellore District.  
Email: [environment.akpl@adani.com](mailto:environment.akpl@adani.com)**

**Copy to:**

1. The JCEE, Zonal Office, Vijayawada for information and necessary action.
2. The Environmental Engineer, Regional Office, Nellore for information and necessary action.

#### **SCHEDULE - A**

1. Any up-set condition in any industrial plant / activity of the industry, which result in, increased effluent / emission discharge and/ or violation of standards stipulated in this order shall be informed to this Board, under intimation to the Collector and District Magistrate and take immediate action to bring down the discharge / emission below the limits.
2. The industry should carryout analysis of waste water discharges or emissions through chimneys for the parameters mentioned in this order on quarterly basis and submit to the Board.
3. All the rules & regulations notified by Ministry of Law and Justice, Government of India

regarding Public Liability Insurance Act, 1991 should be followed as applicable.

4. Notwithstanding anything contained in this consent order, the Board hereby reserves the right and powers to review / revoke any and/or all the conditions imposed herein above and to make such variations as deemed fit for the purpose of the Acts by the Board.
5. The industry shall ensure that there shall not be any change in the process technology, source & composition of raw materials and scope of working without prior approval from the Board.
6. The applicant shall submit Environment statement in Form V before 30th September every year as per Rule No.14 of E (P) Rules, 1986 & amendments thereof.
7. The applicant should make applications through Online for renewal of Consent (under Water and Air Acts) and Authorization under HWM Rules at least 120 days before the date of expiry of this order, along with prescribed fee under Water and Air Acts and detailed compliance of CFO conditions for obtaining Consent & HW Authorization of the Board.
8. The industry should immediately submit the revised application for consent to this Board in the event of any change in the raw material used, processes employed, quantity of trade effluents & quantity of emissions. Any change in the management shall be informed to the Board. The person authorized should not let out the premises / lend / sell / transfer their industrial premises without obtaining prior permission of the State Pollution Control Board.
9. Any person aggrieved by an order made by the State Board under Section 25, Section 26, Section 27 of Water Act, 1974 or Section 21 of Air Act, 1981 may within thirty days from the date on which the order is communicated to him, prefer an appeal as per Andhra Pradesh Water Rules, 1976 and Air Rules 1982, to Appellate authority constituted under Section 28 of the Water(Prevention and Control of Pollution) Act, 1974 and Section 31 of the Air(Prevention and Control of Pollution) Act, 1981.
10. The conditions stipulated are without prejudice to the rights and contentions of this Board in any Hon'ble court of law.
11. The industry shall be liable to pay Environmental Compensation / Other Environmental Taxes, if any environmental damage caused to the surroundings, as fixed by the Collector & District Magistrate or any other competent authority as per the Rules in vogue.
12. The industry may explore the possibility of tapping the solar energy for their energy requirements.
13. The industry should educate the workers and nearby public of possible accidents and remedial measures.

**SCHEDULE-B**

**The industry shall comply with the following:**

1. High silt deposition is observed in the storm water drains for which the port need to make temporary and permanent measures to ensure no silt is carried into the storm water drains.
2. There is a high in-consistency in respect of the CAAQMS data. Hence, the port needs to replace the old CAAQM stations so that the data generated matches the actual scenario.

**Water:**

3. The source of water is Muthukur Reservoir 1000 KLD and 4 MLD of water from Nakkala kalava irrigation drain. The maximum permitted water consumption after proposed expansion is as following:

S. No.	Purpose	Quantity (KLD)
1.	Dust suppression & other utilities	250.0
2.	Domestic	250.0
	<b>Total</b>	<b>500.0</b>

Separate meters with necessary pipe-line shall be maintained for assessing the quantity of water used for each of the purposes mentioned above.

4. The port shall comply the following effluent discharged standards based on the disposal points permitted:

Outlet	Parameter	Concentration
1	pH	5.5 - 9.0
	Total Suspended Solids (TSS)	<100 mg/l
	Oil and Grease	10 mg/l
	Biochemical Oxygen Demand (BOD)	30 mg/l
	Fecal Coliform (FC) (Most Probable Number per 100 Milliliter, MPN/100ml)	<1000 MPN/100 ml

**Air:**

5. The port shall comply with emission limits for DG sets of capacity upto 800 KW as per the Notification G.S.R.520 (E), dated 01.07.2003 under the Environment (Protection) Amendment Rules, 2003 and G.S.R.448(E), dated 12.07.2004 under the Environment (Protection) Second Amendment Rules, 2004. In case of DG sets of capacity more than 800 KW shall comply with emission limits as per the Notification G.S.R.489 (E), dated 09.07.2002 at serial no.96, under the Environment (Protection) Act, 1986.

6. The port shall comply with ambient air quality standards of PM10 (Particulate Matter size less than 10mm) - 100 mg/ m<sup>3</sup>; PM2.5 (Particulate Matter size less than 2.5 mm) - 60 mg/ m<sup>3</sup>; SO<sub>2</sub> - 80 mg/ m<sup>3</sup>; NO<sub>x</sub> - 80 mg/m<sup>3</sup>, outside the factory premises at the periphery of the industry.

Standards for other parameters as mentioned in the National Ambient Air Quality Standards CPCB Notification No.B-29016/20/90/PCI-I, dated 18.11.2009.

Noise Levels: Day time (6 AM to 10 PM) - 75 dB (A)

Night time (10 PM to 6 AM) - 70 dB (A)

7. The Port shall take all measures including latest available technologies to comply with above ambient air quality standards.

8. The Port shall not increase the capacity beyond the permitted capacity mentioned in this order, without obtaining CFE & CFO of the Board.

9. Coal stack heights in all coal yards shall not be more than 12mts.

10. The port shall ensure required wetness all the time on the surface of stock piles to avoid the dust emissions from the stock piles.

11. The port shall install sufficient number of CAAQM stations in between the villages and the port area. The stations shall be located at the periphery of the villages to monitor all the parameters given in the consent order.

12. The port shall maintain properly the three CAAQM stations provided.

13. Unloading of iron ore from the railway wagons house should be carried out with wagon tippers only, in case, handling of iron ore is more than 6 MTPA. As and when iron ore handling is to be done intermittently, it should be handled with water sprinkling system at high pressure with swiveling type nozzles operated regularly to cover entire stockpile. Nozzles shall be operated along stockpile at regular Intervals to cover stockpile height and width.

**General:**

14. The MDSS system shall be in operation wherever the stock of any bulk material (Dusty cargo) is piled in a way to ensure wetness on the surface of stock piles.

15. As regards to deviation in location of facilities such as stock piles and other facilities, from the originally envisaged plan, amendments for the EC and CFE have to be obtained immediately.

16. In no case the Hazardous chemicals shall be handled openly in the Port either from or into the ship. Hazardous Chemicals if any shall be handled only in closed containers. Hazardous

- chemicals / cargo shall not be stored in CRZ area.
- 17.The port shall maintain the existing green belt with adequate width and density and in vacant places
  - 18.The port shall use road sweeping machines to clean all port internal roads regularly.
  - 19.The port shall ensure that the trucks transporting cargos to outside the port shall be covered with tarpaulin to avoid fugitive emissions / spillages.
  - 20.All conveyer belts and other transfer points shall be covered with GI sheets to mitigate fugitive emissions generated during conveying of dusty cargos.
  - 21.The port shall maintain water sprinklers for effective control of fugitive emissions generated during handling of cargo and increased volume of vehicular traffic.
  - 22.The port shall maintain Mechanical Dust Suppression System (MDSS) for stock yards, dusty cargo berths and conveyer belts.
  - 23.The port shall develop and maintain 100 m width greenbelt along the periphery & 20 m width around coal & iron ore stack yards
  - 24.The port shall maintain empty dusty cargo vehicles washing system to clean dusty cargo empty vehicles.
  - 25.The port shall record the energy consumption for the energy meters provided for Sewage Treatment Plant (STP), pump houses to water sprinklers / dust suppression measures and Air Pollution Control Equipments (APCE)
  - 26.The port shall not allow any hazardous wastes through the port other than waste oil / used oil generated in the Port without prior permission of Board and shall comply with EC conditions.
  - 27.The port shall not store any hazardous waste within the premises a per the time frame mentioned in HWM Rules.
  - 28.In case a leaky container of hazardous cargo is found, a separate permission of the Board may be obtained after establishing the quality and the type of waste for disposal
  - 29.All types of the fertilizers should be stored in the closed warehouses only. The Port should ensure that there should not be any open storage of urea or any other fertilizer materials. There shall not be any effluent generation
  - 30.The port shall store fuel oils used for construction equipment, vessels and vehicles in a well designed manner and protect them against fire hazards by construction of compound wall to prevent access to unauthorized elements. The surface run off from storage area shall pass through oil water separator before being discharged.
  - 31.The port shall provide fire detection and fire fighting facilities with adequate water storage in fire prone areas in consultation with Directorate of fire fighting.
  - 32.The port shall comply latest technologies for controlling fugitive emissions including the following:
    - a. Fully mechanized handling equipment for loading and unloading operations
    - b. Closed conveyer belt with water sprinkling arrangement for suppression of dust while conveying dusty cargoes like coal, iron ore etc.
    - c. Specially designed iron ore ship loader with necessary precautions to reduce drop height of iron ore into the ship.
    - d. Mechanical water sprinkling shall be provided on roads and at dusty cargo storage areas for suppression of dust.
  - 33.The port shall maintain adequate number of ground water monitoring location on scientific basis and the same shall be monitored every six months.
  - 34.The port shall construct the storm water drains to avoid the contamination of runoff with other effluents.
  - 35.The port shall regularly clean the drains to avoid siltation.
  - 36.The port shall operate Sewerage Treatment Plant (STP) and after treatment, the treated water should be used for washing purposes/flushing of sewers /green belt development etc, treated sewage should not be disposed into the sea.
  - 37.The port shall monitor compliance through Environment Management Cell with qualifies and trained staff
  - 38.The port shall maintain onsite emergency action plan after carrying out risk analysis and

hazop studies.

39. The port shall comply with the conditions of CFE order dated 08.05.2010, 22.02.2018 and 25.2.2021.
40. The port shall submit monthly monitoring reports to RO: Nellore
41. The port shall comply with standards and directions issued by APPCB / CPCB / MoEF&CC as and when notifications are issued from time to time.
42. The port shall install digital display boards at publicly visible places at the main gate indicating the products manufactured Vs permitted quantities, Treated effluent concentrations Vs discharge standards, Stack emission & AAQ concentrations Vs standards, hazardous waste generation, disposed, stock Vs permitted quantities and validity of CFO; and exhibit the CFO order at a prominent place in the factory premises, as per Hon'ble Supreme Court order
43. The port shall submit Half yearly compliance reports to all the stipulated conditions in Environmental Clearance (EC), Consent for Establishment (CFE) and Consent for Operation (CFO) through website i.e., <https://pcb.ap.gov.in> by 1<sup>st</sup> of January and 1st July of every year. The first half yearly compliance reports shall be furnished by the industry and second half yearly compliance reports shall be the audited through MoEF&CC recognized and National Accreditation Board for Laboratory Testing (NABL) accredited third party.

**Special Conditions:**

44. The port shall possess valid NOC issued by the Andhra Pradesh State Disaster Response and Fire Service Dept., (APSDRFSD) and submit a copy at concerned Regional Office, APPCB.
45. The port shall prepare a safety report and carry out an independent safety audit report of the respective industrial activities including chemical storages / isolated storages by an expert not associated with such industrial activity as required under Rule 10 of MSIHC Rules, 1989 and get it approved by the Factories Dept., and submit the compliance along with copy of the safety report, safety audit report and safety certificate at concerned Regional Office, APPCB.
46. The port shall extend training to the working personnel for the prevention of accidents and necessary antidotes to ensure safety, as per the MSIHC Rules, 1989.
47. The port shall carryout calibration of safety equipment and leak detection systems at regular intervals and shall certify the same with the Factories Department. That certified copy shall be submitted to the APPCB, Regional Office.
48. The port shall install fluorescent Wind Vane at the highest point in the industry premises.
49. The port shall submit Risk analysis and risk assessment covering worst scenario clearly describing impact within the industry premises and outside the industry premises and emergency response system.
50. The port shall submit the copy of the safety audit report and On-Site / Off Site Emergency Plans as applicable after being certified by the Factories Department to the APPCB, Regional Office from time to time, if the storage quantity of hazardous chemicals is equal to or, in excess of the threshold quantities specified in schedule 2 & 3 of MSIHC Rules, 1989.

**SCHEDULE – C**

***[See rule 6]***

**[CONDITIONS OF AUTHORISATION FOR OCCUPIER OR OPERATOR HANDLING  
HAZARDOUS WASTES]**

1. The authorised person shall comply with the provisions of the Environment (Protection) Act, 1986, and the rules made there under.
2. The authorisation or its renewal shall be produced for inspection at the request of an officer authorised by the State Pollution Control Board.
3. The person authorised shall not rent, lend, sell, transfer or otherwise transport the Hazardous and other wastes except what is permitted through this authorisation.
4. Any unauthorised change in personnel, equipment or working conditions as mentioned in the application by the person authorised shall constitute a breach of his authorisation.

5. The person authorised shall implement Emergency Response Procedure (ERP) for which this authorisation is being granted considering all site specific possible scenarios such as spillages, leakages, fire etc. and their possible impacts and also carry out mock drill in this regard at regular interval of time;
6. The person authorised shall comply with the provisions outlined in the Central Pollution Control Board guidelines on “Implementing Liabilities for Environmental Damages due to Handling and Disposal of Hazardous Waste and Penalty”.
7. It is the duty of the authorised person to take prior permission of the State Pollution Control Board to close down the facility.
8. An application for the renewal of an authorisation shall be made as laid down under these Rules.
9. Any other conditions for compliance as per the Guidelines issued by the Ministry of Environment, Forest and Climate Change or Central Pollution Control Board from time to time.

**Specific Conditions:**

10. The industry shall comply with the provisions of HWM Rules, 2016 in terms of interstate transport of Hazardous Waste and manifest document prescribed Under Rule 18 and 19 of the HWM Rules, 2016.
11. The industry shall not store hazardous waste for more than 90 days as per the Hazardous and Other Wastes (Management & Transboundary Movement) Rules, 2016.
12. The industry shall store Used / Waste Oil and Used Lead Acid Batteries in a secured way in their premises till its disposal to the manufacturers / dealers on buyback basis.
13. The industry shall transport the hazardous waste to cement industries only through vehicle fitted with GPS tracking system.
14. The industry shall maintain 7 copy manifest system for transportation of waste generated and a copy shall be submitted to concerned Regional Office of APPCB. The driver who transports Hazardous Waste should be well acquainted about the procedure to be followed in case of an emergency during transit. The transporter should carry a Transport Emergency (TREM) Card.
15. The industry shall maintain proper records for Hazardous and Other Wastes stated in Authorisation in Form-3 i.e., quantity of Incinerable waste, land disposal waste, recyclable waste etc., and file annual returns in Form-4 as per Rule 20 (2) of the Hazardous and Other Wastes (Management & Transboundary Movement) Rules, 2016.
16. Annual return shall be filed by June 30th for the period ensuring 31st March of the year.

**VIJAY KUMAR GSRKR IAS, MEMBER SECY(GSRKRVK), O/o MEMBER SECRETARY-  
APPCB**

**To**  
**M/s. Adani Krishnapatnam Port Limited,**  
**(formerly M/s. Krishnapatnam Port Co. Ltd),**  
**Krishnapatnam (V), Muthukur (M),**  
**SPSR Nellore District.**  
**Email: [environment.akpl@adani.com](mailto:environment.akpl@adani.com)**





**ANDHRA PRADESH POLLUTION CONTROL BOARD**

D.No.33-26-14D/2, Near Sunrise Hospital, Pushpa Hotel Centre,  
Chalamalavari Street, Kasturibaipet, Vijayawada – 520 010  
Phone. No.0866-2463200, Website : <https://pcb.ap.gov.in/>

**RED CATEGORY  
COMBINED CONSENT & AUTHORIZATION ORDER**

**Consent Order No: APPCB/VJA/NLR/11344/CFO/HO/2019**

**11/11/2022**

CONSENT is hereby granted for Operation under section 25/26 of the Water (Prevention & Control of Pollution) Act, 1974 and under section 21 of Air (Prevention & Control of Pollution) Act 1981 and amendments thereof and Authorisation under Rule 6 of the Hazardous and Other Wastes (Management & Transboundary Movement) Rules, 2016 & Amendments thereof and the rules and orders made there under (hereinafter referred to as 'the Acts', 'the Rules') to:

**M/s. Adani Krishnapatnam Port Limited,  
(formerly M/s. Krishnapatnam Port Co. Ltd),  
Krishnapatnam (V), Muthukur (M),  
SPSR Nellore District.**

**Email:** [environment.akpl@adani.com](mailto:environment.akpl@adani.com); [venugopalreddy.e@adani.com](mailto:venugopalreddy.e@adani.com); [eswarasarma6@gmail.com](mailto:eswarasarma6@gmail.com)

**(The Consent Order No. APPCB/VJA/NLR/11344/CFO/HO/2018 dated 29.07.2018, valid up to 31.10.2023; CFO Amendment Order No. APPCB/VJA/NLR/11344 /CFO/ HO/2018 dt 30.08.2018 for storage & handling of Haz. Chemicals; CFO Amendment Order No.APPCB/VJA/NLR/11344/ CFO/HO/2019 dt.10.02.2020 (for additional berth NW-3 and for enhanced additional coal handling capacity of 4.5 Million TPA) and CFO (Expansion Phase-III) Order No.APPCB/VJA/NLR/11344/ CFO/HO/2019, dt.08.08.2022 issued to the industry is having validity up to 29<sup>th</sup> February, 2024, stands cancelled)**

(Hereinafter referred to as 'the Applicant') authorizing to operate the industrial plant to discharge the effluents from the outlets and the quantity of emissions per hour from the chimneys as detailed below:

**i) Outlets for discharge of effluents:**

Outlet No.	Outlet Description	Max Daily Discharge (KLD)	Point of Disposal
1.	Domestic	540.0	Treated domestic effluents shall be utilized for Green belt development and dust suppression.

**ii) Emissions from chimneys:**

Chimney No.	Description of Chimney	Quantity of Emissions at peak flow (m <sup>3</sup> /hr)
1.	Attached to 1 x 380 KVA D.G. Set	---
2.	Attached to 4 x 320 KVA D.G. Set	---
3.	Attached to 9 x 250 KVA D.G. Set	---
4.	Attached to 4 x 160 KVA D.G. Set	---

5.	Attached to 5 x 125 KVA D.G. Set	---
6.	Attached to 1 x 500 KVA D.G. Set	---
7.	Attached to 2 x 320 KVA D.G. Set	---
8.	Attached to 4 x 82.5 KVA D.G. Set	---

**iii) Hazardous Waste Authorisation (Form – II) [See Rule 6 (2)]:**

M/s. Adani Krishnapatnam Port Limited (formerly M/s. Krishnapatnam Port Co. Ltd), Krishnapatnam (V), Muthukur (M),SPSR Nellore District is hereby granted an authorization to operate a facility for collection, reception, storage, treatment, transport and disposal of Hazardous Wastes namely:

• **Hazardous Wastes With Disposal Option:**

Sl. No.	Name of the Hazardous Waste	Quantity	Method of disposal
1	Solid waste (degradable)	250 Kgs/ day	To use as manure for green belt.
2	Solid waste (Non-degradable)	2050 Kgs/ day	Shall be disposed to authorized recyclers / cement industries through APEMC
3	STP sludge	120 Kgs/ day	To use as manure
4	Waste Oil from DG sets	350 KLPA	Shall be disposed to authorized recyclers/ re-processor / TSDF through APEMC
5	Waste Oil from Ships	2.5 Lakhs LPA	
6	Wastes / residues containing oil from ships	100 KLPA	
7	Sludge from treatment of waste water arising out of cleaning/ disposal of barrels/ containers	100 TPA	
8	Discarded containers/ barrels/ liners contaminated with Haz. Waste/ chemicals	100 TPA	
9	Oil and grease skimming residues	20 TPA	
10	Oil containing cargo residue washing water and sludge from ships	2500 KLPA	
11	Chemical containing cargo residue and sludge	100 KLPA	
12	Sludge and filters contaminated with oil	200 TPA	

This consent order is valid to handle the following cargo along with quantities only:

Sl. No.	Products	Quantity
1.	Coal	46 Million Tons/ Annum
2.	Iron Ore	8 Million Tons/Annum
3.	General Cargo (Fertilizers, granites, Edible Oil and Lube oils, others ).	14 Million Tons/Annum
4.	Liquid Cargo (POL, LNG, LPG, Chemical products)	10 Million Tons/Annum
5.	Container Cargo	2.0 Million TEUs/A
	<b>Total :</b>	78.0 Million Tons/A, Non-container cargo + 2.0 Million TEUs/A container cargo

6. No. of Berths	13 Berths (12 + Liquid Jetty L4)
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This order is subject to the provisions of 'the Acts' and the Rules' and orders made there under and further subject to the terms and conditions incorporated in the schedule A, B & C enclosed to this order.

This combined order of consent & Hazardous Waste Authorization shall be valid for a period ending with the **31<sup>st</sup> August, 2027.**

**VIJAY KUMAR GSRKR IAS, MEMBER SECY(GSRKRVK), O/o MEMBER SECRETARY-  
APPCB**

**To**

**M/s. Adani Krishnapatnam Port Limited,  
(formerly M/s. Krishnapatnam Port Co. Ltd),  
Krishnapatnam (V), Muthukur (M),  
SPSR Nellore District.**

**Email:** [environment.akpl@adani.com](mailto:environment.akpl@adani.com); [venugopalreddy.e@adani.com](mailto:venugopalreddy.e@adani.com); [eswarasarma6@gmail.com](mailto:eswarasarma6@gmail.com)

**Copy to:**

1. The JCEE, Zonal Office, Vijayawada for information and necessary action.
2. The Environmental Engineer, Regional Office, Nellore for information and necessary action.

#### **SCHEDULE - A**

1. Any up-set condition in any industrial plant / activity of the port, which result in, increased effluent / emission discharge and/ or violation of standards stipulated in this order shall be informed to this Board, under intimation to the Collector and District Magistrate and take immediate action to bring down the discharge / emission below the limits.
2. The port should carryout analysis of waste water discharges or emissions through chimneys for the parameters mentioned in this order on quarterly basis and submit to the Board.
3. All the rules & regulations notified by Ministry of Law and Justice, Government of India regarding Public Liability Insurance Act, 1991 should be followed as applicable.
4. Notwithstanding anything contained in this consent order, the Board hereby reserves the right and powers to review / revoke any and/or all the conditions imposed herein above and to make such variations as deemed fit for the purpose of the Acts by the Board.
5. The port shall ensure that there shall not be any change in the process technology, source & composition of raw materials and scope of working without prior approval from the Board.
6. The applicant shall submit Environment statement in Form V before 30th September every year as per Rule No.14 of E (P) Rules, 1986 & amendments thereof.
7. The applicant should make applications through Online for renewal of Consent (under Water and Air Acts) and Authorization under HWM Rules at least 120 days before the date of expiry of this order, along with prescribed fee under Water and Air Acts and detailed compliance of CFO conditions for obtaining Consent & HW Authorization of the Board.
8. The port should immediately submit the revised application for consent to this Board in the event of any change in the raw material used, processes employed, quantity of trade effluents & quantity of emissions. Any change in the management shall be informed to the Board. The person authorized should not let out the premises / lend / sell / transfer their industrial premises without obtaining prior permission of the State Pollution Control Board.
9. Any person aggrieved by an order made by the State Board under Section 25, Section 26, Section 27 of Water Act, 1974 or Section 21 of Air Act, 1981 may within thirty days from the date on which the order is communicated to him, prefer an appeal as per Andhra Pradesh Water Rules, 1976 and Air Rules 1982, to Appellate authority constituted under Section 28 of the Water(Prevention and Control of Pollution) Act, 1974 and Section 31 of the Air(Prevention and Control of Pollution) Act, 1981.
10. The conditions stipulated are without prejudice to the rights and contentions of this Board in

any Hon'ble court of law.

11. The port shall be liable to pay Environmental Compensation / Other Environmental Taxes, if any environmental damage caused to the surroundings, as fixed by the Collector & District Magistrate or any other competent authority as per the Rules in vogue.
12. The port may explore the possibility of tapping the solar energy for their energy requirements.
13. The port should educate the workers and nearby public of possible accidents and remedial measures.

**SCHEDULE-B**

**The port shall comply with the following conditions, as committed by the port vide undertaking dt.08.11.2022:**

1. The port shall complete mechanizing of Berth No.6 by 31<sup>st</sup> March, 2023.
2. The port shall complete the mechanization of Berth No. 5 within 24 months from the date when the coal handled at Birth No. 5 is adequate to handle through mechanization system. Till the mechanization is completed, the port shall do sprinkling along with MDSS to control dust pollution due to handling of coal.
3. The port shall maintain the existing greenbelt of 100m width along the periphery. Further, development of 100m green belt at other expansion areas shall be taken up at the time of expansion of the port facility and shall be completed within 3 years.
4. The port shall develop the 20m width greenbelt along the existing coal stock yards as per EC & CFO conditions within a time period of 2 years.
5. The port shall maintain storm water drains and improvement of the storm water drains in new areas shall be taken up along with the expansion of the port.

**Water:**

6. The source of water is Muthukur Reservoir 1000 KLD and 4 MLD of water from Nakkala kalava irrigation drain. The maximum permitted water consumption after proposed expansion is as following:

S. No.	Purpose	Quantity (KLD)
1.	Dust suppressions & Miscellaneous (Fire protection services)	1950.0
2.	Gardening	400.0
3.	Domestic	650.0
	<b>Total</b>	<b>3000.0</b>

Separate meters with necessary pipe-line shall be maintained for assessing the quantity of water used for each of the purposes mentioned above.

7. The port shall comply the following effluent discharge standards based on the disposal points permitted:

Outlet	Parameter	Concentration
1	pH	6.5 - 9.0
	Total Suspended Solids (TSS)	<100 mg/l
	Oil and Grease	10 mg/l
	Biochemical Oxygen Demand (BOD)	30 mg/l
	Fecal Coliform (FC) (Most Probable Number per 100 Milliliter, MPN/100ml)	<1000 MPN/100 ml

**Air:**

8. The port shall comply with emission limits for DG sets of capacity upto 800 KW as per the Notification G.S.R.520 (E), dated 01.07.2003 under the Environment (Protection) Amendment Rules, 2003 and G.S.R.448(E), dated 12.07.2004 under the Environment (Protection) Second Amendment Rules, 2004. In case of DG sets of capacity more than 800 KW shall comply with emission limits as per the Notification G.S.R.489 (E), dated 09.07.2002 at serial no.96, under the Environment (Protection) Act, 1986.
9. The port shall comply with ambient air quality standards of PM10 (Particulate Matter size less than 10mm) - 100 mg/ m<sup>3</sup>; PM2.5 (Particulate Matter size less than 2.5 mm) - 60 mg/ m<sup>3</sup>; SO<sub>2</sub> - 80 mg/ m<sup>3</sup>; NO<sub>x</sub> - 80 mg/m<sup>3</sup>, outside the factory premises at the periphery of the port. Standards for other parameters as mentioned in the National Ambient Air Quality Standards CPCB Notification No.B-29016/20/90/PCI-I, dated 18.11.2009.  
Noise Levels: Day time (6 AM to 10 PM) - 75 dB (A)  
Night time (10 PM to 6 AM) - 70 dB (A)
10. The Port shall take all measures including latest available technologies to comply with above ambient air quality standards.
11. The Port shall not increase the capacity beyond the permitted capacity mentioned in this order, without obtaining CFE & CFO of the Board.
12. Coal stack heights in all coal yards shall not be more than 12mts.
13. The port shall ensure required wetness all the time on the surface of stock piles to avoid the dust emissions from the stock piles.
14. The port shall install sufficient number of CAAQM stations in between the villages and the port area. The stations shall be located at the periphery of the villages to monitor all the parameters given in the consent order.
15. The port shall maintain properly the three CAAQM stations provided and shall be connected to APPCB website..
16. Unloading of iron ore from the railway wagons house should be carried out with wagon tippers only, in case, handling of iron ore is more than 6 MTPA. As and when iron ore handling is to be done intermittently, it should be handled with water sprinkling system at high pressure with swiveling type nozzles operated regularly to cover entire stockpile. Nozzles shall be operated along stockpile at regular Intervals to cover stockpile height and width.
17. The port shall take adequate air pollution control measures with respect to the enhanced dusty materials handling capacities.
18. The port shall stock all the dusty materials with in the designated storage yards only.
19. The port activities are concentrating in north quay by construction of 12<sup>th</sup> Berth, hence the stocking of dusty materials shall not be extended towards the residential areas around the port area.
20. The dusty materials transporting vehicles shall be closed in all respects/ covered with tarpaulin for controlling fugitive emissions.
21. The port shall provide wheel washing facility near the dusty cargo stocking area, to the freighted vehicles going outside the port.
22. The port shall inform the modifications made in port infrastructure developments to the MoEF&CC and to the Board time to time.
23. The port shall obtain EC for any change of scope of the project and shall restrict the port activities as permitted vide EC Orders Dt.26.07.2006 for Phase - I, 13.11.2009 for Phase - II & Phase-III (Expansion) 11.01.2021.
24. The port shall continuously operate the 3 CAAQM stations installed in between villages and port area to monitor all the parameters given in the consent order and upload the data continuously to the APPCB / CPCB websites.

**General:**

25. The MDSS system shall be in operation wherever the stock of any bulk material (Dusty cargo) is piled in a way to ensure wetness on the surface of stock piles.
26. As regards to deviation in location of facilities such as stock piles and other facilities, from the originally envisaged plan, amendments for the EC and CFE have to be obtained immediately.
27. The port shall maintain the existing green belt with adequate width and density and in vacant places
28. The port shall use road sweeping machines to clean all port internal roads regularly.
29. The port shall ensure that the trucks transporting cargos to outside the port shall be covered with tarpaulin to avoid fugitive emissions / spillages.
30. All conveyor belts and other transfer points shall be covered with GI sheets to mitigate fugitive emissions generated during conveying of dusty cargos.
31. The port shall maintain water sprinklers for effective control of fugitive emissions generated during handling of cargo and increased volume of vehicular traffic.
32. The port shall maintain Mechanical Dust Suppression System (MDSS) for stock yards, dusty cargo berths and conveyor belts.
33. The port shall develop and maintain 100 m width greenbelt along the periphery & 20m width around coal stack yards as per EC / CFE condition.
34. The port shall maintain empty dusty cargo vehicles washing system to clean dusty cargo empty vehicles.
35. The port shall record the energy consumption for the energy meters provided for Sewage Treatment Plant (STP), pump houses to water sprinklers / dust suppression measures and Air Pollution Control Equipments (APCE)
36. The port shall not allow any hazardous wastes through the port other than waste oil from DG Set, Waste oil from Ship, Wastes / residues containing oil from ships, used oil generated in the Port without prior permission of Board and shall comply with EC conditions.
37. The port shall not store any hazardous waste within the premises as per the time frame mentioned in HWM Rules.
38. In case a leaky container of hazardous cargo is found, a separate permission of the Board may be obtained after establishing the quality and the type of waste for disposal
39. All types of the fertilizers should be stored in the closed warehouses only. The Port should ensure that there should not be any open storage of urea or any other fertilizer materials. There shall not be any effluent generation
40. The port shall store fuel oils used for construction equipment, vessels and vehicles in a well designed manner and protect them against fire hazards by construction of compound wall to prevent access to unauthorized elements. The surface run off from storage area shall pass through oil water separator before being discharged.
41. The port shall provide fire detection and fire fighting facilities with adequate water storage in fire prone areas in consultation with Directorate of fire fighting.
42. The port shall comply latest technologies for controlling fugitive emissions including the following:
  - a. Fully mechanized handling equipment for loading and unloading operations
  - b. Closed conveyor belt with water sprinkling arrangement for suppression of dust while conveying dusty cargoes like coal, iron ore etc.
  - c. Specially designed iron ore ship loader with necessary precautions to reduce drop height of iron ore into the ship, while handling more than 6 Million Tons per annum.
  - d. Mechanical water sprinkling shall be provided on roads and at dusty cargo storage areas for suppression of dust.
43. The port shall maintain adequate number of ground water monitoring location on scientific basis and the same shall be monitored every six months.
44. The port shall construct the storm water drains to avoid the contamination of runoff with other effluents.
45. The port shall regularly clean the drains to avoid siltation.
46. The port shall monitor compliance through Environment Management Cell with qualified and

trained staff.

47. The port shall maintain onsite emergency action plan after carrying out risk analysis and hazop studies.
48. The port shall comply with the conditions of CFE order dated 08.05.2010, 22.02.2018 and 25.2.2021.
49. The port shall submit monthly monitoring reports to RO: Nellore
50. The port shall comply with standards and directions issued by APPCB / CPCB / MoEF&CC as and when notifications are issued from time to time.
51. The port shall install digital display boards at publicly visible places at the main gate indicating the products manufactured Vs permitted quantities, Treated effluent concentrations Vs discharge standards, Stack emission & AAQ concentrations Vs standards, hazardous waste generation, disposed, stock Vs permitted quantities and validity of CFO; and exhibit the CFO order at a prominent place in the factory premises, as per Hon'ble Supreme Court order
52. The port shall submit Half yearly compliance reports to all the stipulated conditions in Environmental Clearance (EC), Consent for Establishment (CFE) and Consent for Operation (CFO) through website i.e., <https://pcb.ap.gov.in> by 1<sup>st</sup> of January and 1st July of every year. The first half yearly compliance reports shall be furnished by the port and second half yearly compliance reports shall be the audited through MoEF&CC recognized and National Accreditation Board for Laboratory Testing (NABL) accredited third party.

**Special Conditions:**

53. The port shall possess valid NOC issued by the Andhra Pradesh State Disaster Response and Fire Service Dept., (APSDRFSD) and submit a copy at concerned Regional Office, APPCB.
54. The port shall prepare a safety report and carry out an independent safety audit report of the respective industrial activities including chemical storages / isolated storages by an expert not associated with such industrial activity as required under Rule 10 of MSIHC Rules, 1989 and get it approved by the Factories Dept., and submit the compliance along with copy of the safety report, safety audit report and safety certificate at concerned Regional Office, APPCB.
55. The port shall extend training to the working personnel for the prevention of accidents and necessary antidotes to ensure safety, as per the MSIHC Rules, 1989.
56. The port shall carryout calibration of safety equipment and leak detection systems at regular intervals and shall certify the same with the Factories Department. That certified copy shall be submitted to the APPCB, Regional Office.
57. The port shall install fluorescent Wind Vane at the highest point in the port premises.
58. The port shall submit Risk analysis and risk assessment covering worst scenario clearly describing impact within the port premises and outside the port premises and emergency response system.
59. The port shall submit the copy of the safety audit report and On-Site / Off Site Emergency Plans as applicable after being certified by the Factories Department to the APPCB, Regional Office from time to time, if the storage quantity of hazardous chemicals is equal to or, in excess of the threshold quantities specified in schedule 2 & 3 of MSIHC Rules, 1989.

**SCHEDULE – C**

***[See rule 6]***

**[CONDITIONS OF AUTHORISATION FOR OCCUPIER OR OPERATOR HANDLING HAZARDOUS WASTES]**

1. The authorised person shall comply with the provisions of the Environment (Protection) Act, 1986, and the rules made there under.
2. The authorisation or its renewal shall be produced for inspection at the request of an officer authorised by the State Pollution Control Board.
3. The person authorised shall not rent, lend, sell, transfer or otherwise transport the Hazardous

and other wastes except what is permitted through this authorisation.

4. Any unauthorised change in personnel, equipment or working conditions as mentioned in the application by the person authorised shall constitute a breach of his authorisation.
5. The person authorised shall implement Emergency Response Procedure (ERP) for which this authorisation is being granted considering all site specific possible scenarios such as spillages, leakages, fire etc. and their possible impacts and also carry out mock drill in this regard at regular interval of time;
6. The person authorised shall comply with the provisions outlined in the Central Pollution Control Board guidelines on “Implementing Liabilities for Environmental Damages due to Handling and Disposal of Hazardous Waste and Penalty”.
7. It is the duty of the authorised person to take prior permission of the State Pollution Control Board to close down the facility.
8. An application for the renewal of an authorisation shall be made as laid down under these Rules.
9. Any other conditions for compliance as per the Guidelines issued by the Ministry of Environment, Forest and Climate Change or Central Pollution Control Board from time to time.

**Specific Conditions:**

10. The port shall comply with the provisions of HWM Rules, 2016 in terms of interstate transport of Hazardous Waste and manifest document prescribed Under Rule 18 and 19 of the HWM Rules, 2016.
11. The port shall not store hazardous waste for more than 90 days as per the Hazardous and Other Wastes (Management & Transboundary Movement) Rules, 2016.
12. The port shall store Used / Waste Oil and Used Lead Acid Batteries in a secured way in their premises till its disposal to the manufacturers / dealers on buyback basis.
13. The port shall transport the hazardous waste through vehicle fitted with GPS tracking system.
14. The port shall maintain 7 copy manifest system for transportation of waste generated and a copy shall be submitted to concerned Regional Office of APPCB. The driver who transports Hazardous Waste should be well acquainted about the procedure to be followed in case of an emergency during transit. The transporter should carry a Transport Emergency (TREM) Card.
15. The port shall maintain proper records for Hazardous and Other Wastes stated in Authorisation in Form-3 i.e., quantity of Incinerable waste, land disposal waste, recyclable waste etc., and file annual returns in Form-4 as per Rule 20 (2) of the Hazardous and Other Wastes (Management & Transboundary Movement) Rules, 2016.
16. Annual return shall be filed by June 30th for the period ensuring 31st March of the year.

**VIJAY KUMAR GSRKR IAS, MEMBER SECY(GSRKRVK), O/o MEMBER SECRETARY-  
APPCB**

**To**

**M/s. Adani Krishnapatnam Port Limited,  
(formerly M/s. Krishnapatnam Port Co. Ltd),  
Krishnapatnam (V), Muthukur (M),  
SPSR Nellore District.**

**Email:** [environment.akpl@adani.com](mailto:environment.akpl@adani.com); [venugopalreddy.e@adani.com](mailto:venugopalreddy.e@adani.com); [eswarasarma6@gmail.com](mailto:eswarasarma6@gmail.com)



**Annexure D -  
MoU of FRICS and Sai Laboratories**



**Memorandum of Understanding Between**

**Falcon Resilient Infra Consultants & Sai Labs**

This Memorandum of Understanding (MoU) made on the following conditions this date 31.03.2023

**BETWEEN**

M/s Falcon Resilient Infra Consultants (FRICS), 501A, Sudheer Tapani Towers, Opposite Telugu Academy, Himayat Nagar, Hyderabad- 500029 Represented by Mrs. Susruta Mamidanna, Director-Technical.

**AND**

M/s. Sai Laboratories Private Limited (NABL Accredited & MoEF&CC,CPCB Recognised Laboratory) having lab office at Sai Laboratories Private Limited, Flat No 211, Challa Estate, Erragadda, Hyderabad, Telangana, India . Represented by Ms. Shruthi S Bankar, Director.

S.No.	Particulars	Details
1.	Scope of Services covered by NABL accreditation & MoEF&CC Recognition	NABL Certificate No. TC-8396, Date of Expiry 04/07/2024, MoEF&CC recognition File No.Q-15018/34/2019-CPW Validity up to 23/03/2022. (Renewal is under process). CPCB recognition vide F.No.LB/99/7/2021-INST LAB-HO-CPCB-HO/Pvt.10324 dated March 31 2023 valid upto 04/07/2024.
2.	Parameters Covered under the agreement	All the Parameters covered under scope of NABL and MoEF&CC. Required List of parameters are mentioned in section 2.1.
2.1	List of parameters	
	<b>NABL Accredited /MOEF recognized</b>	<b>Parameters to be covered</b>   <b>Parameters covered by M/s. Sai Labs</b>
	<b>a. Water &amp; wastewater</b>	Basic- pH, DO, BOD, COD, MPN, Colour, Odour, TDS, TH, Calcium Hardness, Mg, Cu Additional for comprehensive- Hg, Cd, Se, As, CN, Pb, Zn, Cr <sup>6+</sup> , MBAS)
	<b>b. Ambient Air Quality</b>	Basic- PM10, PM2.5, SO2, NO2, CO Additional for comprehensive- NH3, O3, C6H6, BaP, Pb, As, Ni, HC (methane & non-methane), VOC





<b>c. Stack emission</b>	Basic- PM, SO <sub>2</sub> , NO <sub>X</sub> , Fluorides, NH <sub>3</sub>	
	Comprehensive- Hg for TPP	
<b>d. Soil characteristics</b>	Basic- pH, EC, N, P K, OC, P <sub>2</sub> O <sub>5</sub> , nitrites, nitrates, soluble cations - Na, Ca, Mg, K, moisture, bulk density, particle size distribution, moisture, texture, porosity, SAR	
	Additional for comprehensive- Pb, Mn, Fe, Ni, Ba, Zn, Cu, Cr <sup>6+</sup> , Cd, Hg	
<b>e. Noise monitoring</b>		
<b>3.</b>	Duration of association	Two Years from date of MoU
<b>4.</b>	Type of Projects	Monitoring of EIA projects & EC,CFE,CFO,CRZ compliance projects awarded by FRICS on mutual consent basis
<b>5.</b>	Financial terms: rate of specific item of work	Terms and conditions of the rates will be mutually agreed based on the scope, study area & site conditions.

The Parties hereby agree that the effective date of the Agreement shall be date on which the agreement is signed. The agreement will be valid for a period of two years from the effective date of agreement and shall be extended on need basis.

The MoU is extended in duplicate with each being an official version and having equal validity. By signing below, both parties have caused this memorandum of understanding to be executed, effective as of the day and year first written above.

**M/s. Falcon Resilient Infra Consultants**

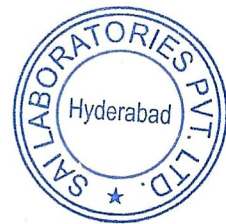
  


Mrs. Susruta Mamidanna,  
Director-Technical.


**M/s. Sai Laboratories Private Limited**



Ms. Shruthi S Bankar  
Director.



Witness

1. 
- 2.



**Annexure E -  
Water Withdrawal Permission letter**

## IRRIGATION &amp; CAD DEPARTMENT

Subeuper

From

Sri Md. Nayeem, B.E.,  
Executive Engineer,  
Drainage Division,  
S.P.S.R. Nellore.

To

✓ Krishnapatnam Port Company Ltd.,  
(M/s. Narayana Engineer & Co.,)  
Krishnapatnam Port,  
Krishnapatnam Village,  
Muthukur Mandal.

Letter No. DB/ATO/ 366<sup>H</sup>

Dated: 28-7-10

Gentle man,

Sub:- Agreement - Drawal of 4.9 Cusecs of water  
from Nakkala Kalaya drain by Krishnapatnam  
Port Company Ltd. - Agreement accepted -  
Regarding.

Ref:- S.E's Memo.No.DB/ATO.1/Krishnapatnam/767 NC,  
dated 19.9.09.

The Agreement for "Drawal of 4.9 Cusecs of Water from  
Nakkala Kalaya drain is accepted in your favour and  
Registered as Divisional Agreement No. <sup>On</sup> 1-lease /2010-11.

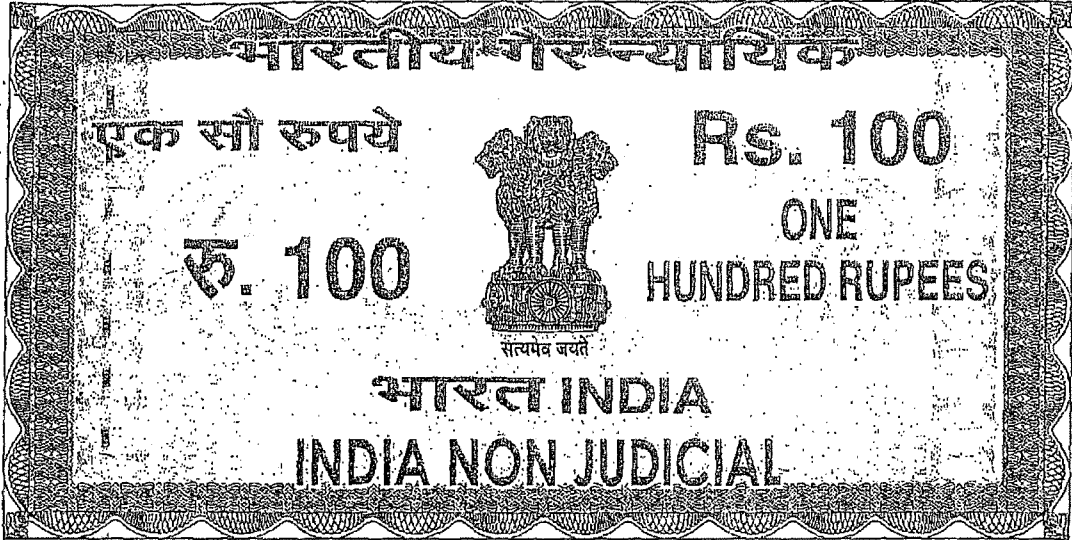
A Copy of the Agreement is herewith enclosed. You  
are requested to Contact the Deputy Executive Engineer,  
Drainage Sub-division No.III, Nellore is the authorised  
representation at all times at site of work.

Ends. Copy of Ast

Yours sincerely,

*A. S. S. S.*  
Executive Engineer, I&CAD.,  
Drainage Division, Nellore.

28/7



ఆంధ్ర ప్రదేశ్ రాష్ట్రం ANDHRA PRADESH

AF 771741

Srno: 17630 Date: 12.07.2010 Rs 100/-

Krishnapatnam Port Company Limited Muthukur  
 P. Penchalaiiah S.V.  
 L.No. 1/1993, R.L. No. 3/2008  
 Gajattamma Colony, NELLORE - 4.

Agreement for the drawal of 4.9 Cusecs (17640 cft Water per hour) for 8 hours in a day from Nakkala kalava drain in Muthukur (M) S.P.S.R. Nellore District by Krishnapatnam Port Company.

Agreement made between his excellency the Governor of Andhra Pradesh represented by the Executive Engineer, I&CAD Department, Drainage Division, Nellore (here in after called the Government) and Krishnapatnam Port Company Limited.

Agreement No: 17630/2010-11. dt. 28.7.10.

Executive Engineer, I&CAD.,  
 Drainage Division, Nellore.



-3- 16  
-2-

during the scarcity year at the cost of irrigation needs and the other public purposes such as drinking water needs. The quantum of water drawn shall be measured by suitable measuring devices to be installed by the Company at their cost and measurements will be recorded by the supplier and such measurements are final for both the parties and not questionable in any Court of Law.

(b) Water will be made available to the Company at source i.e., Nakkala Kalva drain.

(c) The Company has to make its own arrangements for storing water in the storage reservoir by drawing water of sufficient Quantity and

(d) The supplier is no way be responsible for non supply of water at sources due to reasons, which are beyond the control of the supplier. The Company shall invariably store water in its premises.

3. The licence, liberties and privileges here by granted shall be held and exercised by the company from the day of first drawal of water

4. The Company shall pay water charges at Rs.1.50 per 1000 Gallons in terms of G.O.Ms.No.39 I&CAD PW QC & IWS COD Dept.,dt:2-4-2007 of at any other rate fixed by the government from time to time payable every month as agreed with the supplier. This rate is subject to revision by the government from time to time.

5. The company to the intent that the obligation may continue through out the continuance of this grant covenants hereby with the Governot as follows;

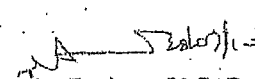
(a) to pay the water charges referred to in clause 4 above the water charges shall be payable every month against the bills raised by the Department and initially for 3 months in advance.

(b) to pay the subsequent monthly payment on or before the 15<sup>th</sup> day of each month provide, however that if the Company fails to pay to the Government the water charges and other amounts if any payable under those presents on the respective. dates on which they are made payable here under, the company shall pay interest at 12% per annum on such amounts from the dates which they were so payable until the date of payment or recovery.

  
Executive Engineer, I&CAD.,  
Division, Nellore



- B  
-4-5-
- (h) not to assign under let or part with the possession and benefit of the said company or of the liberties and privileges hereby granted or any part there of, without first obtaining the written consent of the Government;
- (i) not without previous consent in writing of the government has obtained to add, any new or additional machinery or replace the machinery installed at the time to the grant provided that any part or parts of the same may be renewed without such consent;
- (j) no field body, or pipe line should be taken through out or along Government land without prior approval of the Government, no cross bund or structure should be placed across any irrigation source along the alignment of the pipeline for drawing water by the company and the entire cost of pipe line construction of works including their maintenance should be borne by the company.
- (k) The prior concurrence of the Roads and Buildings Department or Panchayat Raj Department should be obtained by the company for laying of pipe line if any across the roads etc.,
- (l) the location, erection and arrangements to draw water shell be accordance with the plan approved by the suppliers
- (m) in the event, the company drawing excess water beyond the fixed quantity as agreed in the Agreement without prior consent of the Department and if the same is noticed by the Government subsequently the Government shall be at liberty to impose penalty i.e., it may double the rates fixed in the agreement or as the Government deem fit, and
- (n) Violation of any of the conditions mentioned above shall entitle the cancellation of permission granted for drawal of water after (15)days of notice.
6. The company has to abide by any other condition \*laid by the Government/irrigation department from time to time.
7. The Government of Andhra Pradesh shall have the right to modify or change or delete the terms of conditions of this agreement after giving one month notice to the company.

  
Executive Engineer, I&CAD.,  
Drainage Division, Nellore.





them and in either of the company at its registered office either by registered post or left there on to determine these presents and the licence hereby granted shall immediately cease and determine but without prejudice to any right of section of remedy of the Government in respect of any previous breach or any convenient of on the part of the company herein contained or in the alternative the Government may step and prevent the taking and using by the company the water from the said source and for that purpose set up such intake wells, machinery, pumps, pipe line, Cross Masonry and Cross Drainage works, and other works as may be necessary until such sums of money as shall be in arrears shall be fully paid together with the expenses attending such hindrance or stoppage.

5) The sum of Rs.1,19,070/- deposited by the company under clause 8 above or such portion there of as may be returnable to the company on the expiration or sooner determination of the terms hereby created.

6) The conditions and terms as laid forth by the Government in G.O.Ms.No.118 I&CAD., (Irri.VII-I) Department dt:21-1-2008 forms as integral part of this agreement which are annexed there to. Except as other wise provided on the Agreement any disputes and difference arising out of or relating to the agreement shall be referred to adjudication as follows.

1) Settlement of claims up to Rs.50,000/- in value and below by way of Arbitration to be referred as follows:-

a) Claims above Rs.10,000 /- in Value: Superintending Engineer,  
Irrigation Circle, Nellore

b) Claims above Rs.10,00 and upt 50,000 in Value: Chief Engineer, Sri ram sagar,  
Project, Hyderabad.

The arbitration proceedings will be conducted in accordance with the provisions of the Arbitration and conciliation Act, 1996 as amended from time to time. The Arbitrator shall invariably give reasons in the award.

ii) Settlement of all claims above Rs.50,000/- in value:-

All claims above Rs.50,000/- in value shall be decided by the Civil Court of competent jurisdiction by way of regular suit and not by Arbitration.

In witness where of the parties here to have set hands and seal and the company here set their hands and seal the day and year first above written.

*[Signature]*  
Executive Engineer, I&CAD.,  
Drainage Division, Nellore.

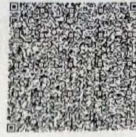
*[Signature]*  
Executive Engineer (I & C A  
DRAINAGE DIVISION, NELLORE



**Annexure F –  
Copies of Plastic Waste Management**

KRISHNAPATNAM PORT LTD  
VILLAGE: GOPALAPURAM,MANDAL: MUTHUKUR

524344  
: AAACKB657J  
: U45203GJ1996PLC128239  
: 37AAACKB657J1Z1  
ode : 37



adani

Tax Invoice

ENTERPRISES  
T NO.A43 & A44 PHASE II,  
O NAGAR NELLORE,  
LLORE-524004,  
DHRA PRADESH,INDIA  
IN No. : CHNPS3843P  
STIN : 37CHNPS3843P1ZB  
ace of supply:ANDHRA PRADESH,INDIA  
ate Code:37

**Invoice No: 193700000751** Date: 10.10.2022  
Order No. : 1143501506 Date: 19.09.2022  
PO No. : KPCL/TC/SCRAP/21-22/ Date: 22.08.2022  
**Buyer:** R K ENTERPRISES  
PLOT NO.A43 & A44 PHASE II,  
AUTO NAGAR NELLORE,  
NELLORE-524004,  
ANDHRA PRADESH,INDIA  
GSTIN:37CHNPS3843P1ZB  
State Code:37  
SAP Ref No:3138501992

IRN No.:0d7e33d71a7ee262b540875219d2b96768f39aa2911d606d9ee064da891f58d8			
Version	1.1	Supply Type Code	B2B
Document Type Code	INV	Sub Supply Type	Supply
Preceding Invoice Number		Preceding Invoice Date	
Transaction Mode	Regular	Tax Scheme	GST

Whether the Tax is payable on Reverse Charge Basis: N  
Whether supply is Service or not: N

SNo	Item Description	Quantity	UoM	Rate	Per	Amount(INR)
1	SCRAP BLACK SHEET HSN/SAC No:39153010	5.380	MT	4,200.00	1	22,596.00
	IN: Central GST				9 %	2033.64
	IN: State GST				9 %	2033.64
	Scrap TCS Base 1%				1 %	266.64
<b>Total Value : 26,929.92</b>						

Amount in words : Rupee Twenty Six Thousand Nine Hundred Twenty Nine And Paise Ninety Two Only

Payment : 100% Advance Payment Inco Terms : Ex-Works

For ADANI KRISHNAPATNAM PORT LTD  
RAGHUNATH BYSANI Digitally signed by RAGHUNATH BYSANI  
Date: 2022.10.10 17:37:38 +05'30'  
Authorised Signatory

SCRAP BLACK SHEET Qty:5.38 MT@4,200/- V.H No:AP Q4 TU 5585

Registered Office : "Adani Corporate House",Shantigram,Near Vaishno Devi Circle,S.G. Highway,Khodiyar,Ahmedabad,Gujarat  
382421(India) Tel : +91 79 26565555, 25555555, Fax : +91 79 26565555, 25555555

Subject to Ahmedabad Jurisdiction

Scanned with CamScanner

ADANI KRISHNAPATNAM PORT LIMITED - Weighment Slip

Weighbridge No:

AKPL C6C-5

TP No : TPN2210008740

Truck Reg No: AP04TU5585

Contractor:

Transporter: SELF

Gross Wt: 9.98

Gross Wt time: 10.10.2022 14.53

Tare Wt: 4.6

Tare Wt Time: 10.10.2022 14.53

Net Wt: 5.38

Material Type: T BLACKSHEET

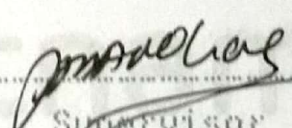
Count:

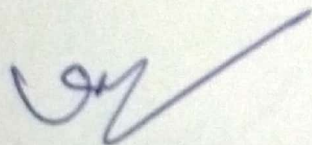
Location:

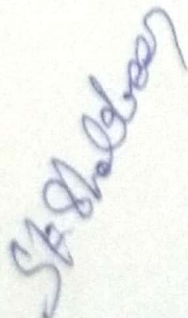
Remarks: T BLACK SHEET

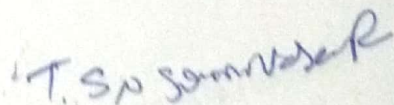
Surveyor Signature

Weighbridge Security  
Signature

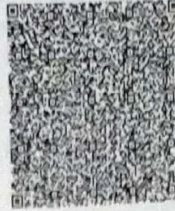
  
Supervisor  
Signature  
Print 10.10.2022







**NI KRISHNAPATNAM PORT LTD**  
 X 1, VILLAGE: GOPALAPURAM,,MANDAL: MUTHUKUR  
 JRE-524344  
 No. : AAACK8657J  
 Io. : U45203GJ1996PLC128239  
 N : 37AAACK8657J1Z1  
 Code : 37



**adani**

**Tax Invoice**

: K ENTERPRISES OT NO.A43 & A44 PHASE II, JTO NAGAR NELLORE, ELLORE-524004, ANDHRA PRADESH,INDIA PAN No. : CHNPS3843P GSTIN : 37CHNPS3843P1ZB Place of supply:ANDHRA PRADESH,INDIA State Code:37	<b>Invoice No: 193700000752</b>	Date: 10.10.2022
	Order No. : 1143501506	Date: 19.09.2022
	PO No. : KPCL/TC/SCRAP/21-22/	Date: 22.08.2022
	<b>Buyer: R K ENTERPRISES</b> PLOT NO.A43 & A44 PHASE II, AUTO NAGAR NELLORE, NELLORE-524004, ANDHRA PRADESH,INDIA GSTIN:37CHNPS3843P1ZB State Code:37 SAP Ref No:3138501993	

IRN No.:ad1a9ad9e16a22d417b66a7a48137dace1d4fc46ee973cab5a3bfb028dc36437			
Version	1.1	Supply Type Code	B2B
Document Type Code	INV	Sub Supply Type	Supply
Preceding Invoice Number		Preceding Invoice Date	
Transaction Mode	Regular	Tax Scheme	GST

Whether the Tax is payable on Reverse Charge Basis: N  
 Whether supply is Service or not: N

SNo	Item Description	Quantity	UoM	Rate	Per	Amount(INR)
1	SCRAP BLACK SHEET HSN/SAC No:39153010	4.880	MT	4,200.00	1	20,496.00
	IN: Central GST				9 %	1844.64
	IN: State GST				9 %	1844.64
	Scrap TCS Base 1%				1 %	241.86
<b>Total Value : 24,427.14</b>						

**Amount in words : Rupee Twenty Four Thousand Four Hundred Twenty Seven And Paise Fourteen Only**

**Payment** : 100% Advance Payment      **Inco Terms** : Ex-Works

**For ADANI KRISHNAPATNAM PORT LTD**  
**RAGHUNATH BYSANI**  
 Digitally signed by RAGHUNATH BYSANI  
 Date: 2022.10.10 17:38:18 +05'30'  
**Authorised Signatory**

SCRAP BLACK SHEET Qty:4.88MT@4.200/- V.H.No:AP 26 TL 3494

Registered Office : "Adani Corporate House", Shantigram, Near Vaishno Devi Circle, S.G. Highway, Khodiyar, Ahmedabad, Gujarat  
 382421(India) Tel : +91 79 26565555, 25555555, Fax : +91 79 26565555, 25555555

Subject to Ahmedabad Jurisdiction

ADANI KRISHNAPATNAM PORT LIMITED - Weightsent Slip

Weighbridge No:

AKPL CBC-5

TP No : TPR2210008744

Truck Reg No: AP26TL3494

Contractors:

Transporters: SELF

Gross Wt: 10.1

Gross Wt time: 10.10.2022 14.55

Tare Wt: 5.22

Tare Wt Time: 10.10.2022 14.55

Net Wt: 4.88

Material Type: BLACK SHEET

Counts:

Locations:

Remarks: BLACK SHEET

Surveyor Signature

Weighbridge Security  
Signature

*[Signature]*  
Supervisor  
Signature

Print 10.10.2022

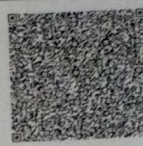
**adani**

Ports and  
Logistics

*[Handwritten signature]*  
10/10/22  
SK. Shalbeen

*[Handwritten signature]*  
T. S. Suman

**KRISHNAPATNAM PORT LTD**  
 VILLAGE: GOPALAPURAM, MANDAL: MUTHUKUR  
 E-524344  
 : AAACK8657J  
 : U45203GJ1996PLC128239  
 : 37AAACK8657J1Z1  
 Code : 37



adani

**Tax Invoice**

**BUYER:** PRIYANKA TRADERS  
 S B NAGAR, PAVAGADH ROAD,  
 HALOL DISTRICT PANCHMAHAL,  
 PANCHMAHAL-389350,  
 GUJARAT,INDIA  
 PAN No. : AEBPK8531P  
 STIN : 24AEBPK8531P1Z7  
 Place of supply: GUJARAT, INDIA  
 State Code: 24

**INVOICE No: 193700000804**  
 Order No. : 1143501627  
 PO No. : NFA # AKPL-2022-0096  
 Date: 18.10.2022  
 Date: 17.10.2022  
 Date: 23.09.2022

**BUYER:** PRIYANKA TRADERS  
 S B NAGAR, PAVAGADH ROAD,  
 HALOL DISTRICT PANCHMAHAL,  
 PANCHMAHAL-389350,  
 GUJARAT,INDIA  
 GSTIN:24AEBPK8531P1Z7  
 State Code:24  
 SAP Ref No:3138502045

IRN No:ac4df107c412a8441e6adc06e7f01498a296f3c7d01f08ee8b4dc25a3c7616ec	Supply Type Code	B2B
Version 1.1	Sub Supply Type	Supply
Document Type Code INV	Preceding Invoice Date	
Preceding Invoice Number	Tax Scheme	GST
Transaction Mode Regular		

Whether the Tax is payable on Reverse Charge Basis: N  
 Whether supply is Service or not: N

SNO	Item Description	Quantity	UoM	Rate	Per	Amount(INR)
1	Nylon Belt Conveyor Scrap HSN/SAC No:40170020	28.600	MT	43,700.00	1	1,249,820.00
	IN: Integrated GST				5 %	62491.00
	Scrap TCS Base 1%				1 %	13123.11
<b>Total Value : 1,325,434.11</b>						

**Amount in words : Rupee Thirteen Lakh Twenty Five Thousand Four Hundred Thirty Four And Paise Eleven Only**

**Payment** : 100% Advance Payment      **Inco Terms** : Ex-Works

**For ADANI KRISHNAPATNAM PORT LTD**  
 RAGHUNATH  
 BYSANI  
 Digitally signed by RAGHUNATH  
 BYSANI  
 Date: 2022.10.18 11:33:32 +05'30'  
**Authorised Signatory**

Nylon Belt Conveyor Scrap Qty:28.600MT @43,700 ,Vehicle No:RJ 50 GA 3473.

Registered Office : "Adani Corporate House", Shantigram, Near Vaishno Devi Circle, S.G. Highway, Khodiyar, Ahmedabad, Gujarat  
 382421(India) Tel: +91 79 26565555, 25555555, Fax: +91 79 26565555, 25555555

Subject to Ahmedabad Jurisdiction

Scanned with CamScanner

Siguda REM  
E: 103284

*[Handwritten signature]*

*[Handwritten signature]*  
*[Handwritten signature]*

ADANI KRISHNAPATNAM PORT LIMITED - Weighment Slip

Weighbridge No:

AKPL CBC-4

TP No : TPN2210017158

Truck Reg No: RJ50BA3473

Contractor:

Transporter: SELF

Gross Wt: 41.74

Tare Wt: 13.14

Net Wt: 28.6

Count:

Remarks:

Gross Wt time: 17.10.2022 16.58  
Tare Wt Time: 17.10.2022 16.58  
Material Type:: NILON CONVER BELT  
Location: MMD STORE

Surveyor Signature

Weighbridge Security  
Signature

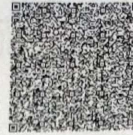
Supervisor  
Signature  
Print 17.10.2022

*[Handwritten signature]*  
*[Handwritten signature]*



**KRISHNAPATNAM PORT LTD**  
VILLAGE: GOPALAPURAM,MANDAL: MUTHUKUR  
524344

AAACKB657J  
U45203GJ1996PLC128239  
37AAACKB657J1Z1  
ode : 37



adani

**Tax Invoice**

ENTERPRISES  
T NO.A43 & A44 PHASE II,  
O NAGAR NELLORE,  
LLORE-524004,  
DHRA PRADESH,INDIA  
IN No. : CHNPS3843P  
STIN : 37CHNPS3843P1ZB  
ace of supply:ANDHRA PRADESH,INDIA  
ate Code:37

**Invoice No: 193700000751** Date: 10.10.2022  
Order No. : 1143501506 Date: 19.09.2022  
PO No. : KPCL/TC/SCRAP/21-22/ Date: 22.08.2022  
**Buyer:** R K ENTERPRISES  
PLOT NO.A43 & A44 PHASE II,  
AUTO NAGAR NELLORE,  
NELLORE-524004,  
ANDHRA PRADESH,INDIA  
GSTIN:37CHNPS3843P1ZB  
State Code:37  
SAP Ref No:3138501992

IRN No.:0d7e33d71a7ee262b540875219d2b96768f39aa2911d606d9ee064da891f58d8			
Version	1.1	Supply Type Code	B2B
Document Type Code	INV	Sub Supply Type	Supply
Preceding Invoice Number		Preceding Invoice Date	
Transaction Mode	Regular	Tax Scheme	GST

Whether the Tax is payable on Reverse Charge Basis: N  
Whether supply is Service or not: N

SNo	Item Description	Quantity	UoM	Rate	Per	Amount(INR)
1	SCRAP BLACK SHEET HSN/SAC No:39153010	5.380	MT	4,200.00	1	22,596.00
	IN: Central GST				9 %	2033.64
	IN: State GST				9 %	2033.64
	Scrap TCS Base 1%				1 %	266.64
<b>Total Value : 26,929.92</b>						

**Amount in words : Rupee Twenty Six Thousand Nine Hundred Twenty Nine And Paise Ninety Two Only**

**Payment** : 100% Advance Payment **Inco Terms** : Ex-Works

**For ADANI KRISHNAPATNAM PORT LTD**  
**RAGHUNATH BYSANI** Digitally signed by RAGHUNATH BYSANI  
Date: 2022.10.10 17:37:38 +05'30'  
**Authorised Signatory**

SCRAP BLACK SHEET Qty:5.38 MT@4,200/- V.H No:AP Q4 TU 5585

Registered Office : "Adani Corporate House",Shantigram,Near Vaishno Devi Circle,S.G. Highway,Khodiyar,Ahmedabad,Gujarat  
382421(India) Tel : +91 79 26565555, 25555555, Fax : +91 79 26565555, 25555555

Subject to Ahmedabad Jurisdiction

ADANI KRISHNAPATNAM PORT LIMITED - Weighment Slip

Weighbridge No:

AKPL C6C-5

TP No : TPN2210008740

Truck Reg No: AP04TU5585

Contractor:

Transporter: SELF

Gross Wt: 9.98

Gross Wt time: 10.10.2022 14.53

Tare Wt: 4.6

Tare Wt Time: 10.10.2022 14.53

Net Wt: 5.38

Material Type: T BLACKSHEET

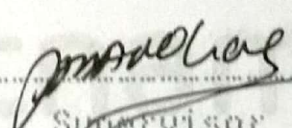
Count:

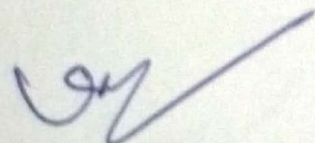
Location:

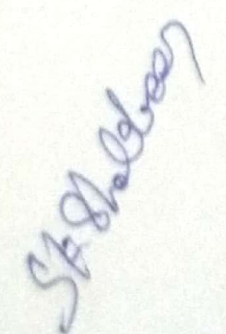
Remarks: T BLACK SHEET

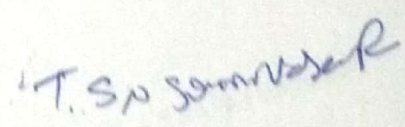
Surveyor Signature

Weighbridge Security  
Signature

  
Supervisor  
Signature  
Print 10.10.2022







**NI KRISHNAPATNAM PORT LTD**  
 X 1, VILLAGE: GOPALAPURAM,,MANDAL: MUTHUKUR  
 JRE-524344  
 No. : AAACK8657J  
 Io. : U45203GJ1996PLC128239  
 N : 37AAACK8657J1Z1  
 Code : 37



**adani**

**Tax Invoice**

ENTERPRISES  
 OT NO.A43 & A44 PHASE II,  
 JTO NAGAR NELLORE,  
 ELLORE-524004,  
 ANDHRA PRADESH,INDIA  
 PAN No. : CHNPS3843P  
 GSTIN : 37CHNPS3843P1ZB  
 Place of supply:ANDHRA PRADESH,INDIA  
 State Code:37

**Invoice No: 193700000752** Date: 10.10.2022  
 Order No. : 1143501506 Date: 19.09.2022  
 PO No. : KPCL/TC/SCRAP/21-22/ Date: 22.08.2022  
**Buyer: R K ENTERPRISES**  
 PLOT NO.A43 & A44 PHASE II,  
 AUTO NAGAR NELLORE,  
 NELLORE-524004,  
 ANDHRA PRADESH,INDIA  
 GSTIN:37CHNPS3843P1ZB  
 State Code:37  
 SAP Ref No:3138501993

IRN No.:ad1a9ad9e16a22d417b66a7a48137dace1d4fc46ee973cab5a3bfb028dc36437			
Version	1.1	Supply Type Code	B2B
Document Type Code	INV	Sub Supply Type	Supply
Preceding Invoice Number		Preceding Invoice Date	
Transaction Mode	Regular	Tax Scheme	GST

Whether the Tax is payable on Reverse Charge Basis: N  
 Whether supply is Service or not: N

SNo	Item Description	Quantity	UoM	Rate	Per	Amount(INR)
1	SCRAP BLACK SHEET HSN/SAC No:39153010	4.880	MT	4,200.00	1	20,496.00
	IN: Central GST				9 %	1844.64
	IN: State GST				9 %	1844.64
	Scrap TCS Base 1%				1 %	241.86
<b>Total Value : 24,427.14</b>						

**Amount in words : Rupee Twenty Four Thousand Four Hundred Twenty Seven And Paise Fourteen Only**

**Payment** : 100% Advance Payment **Inco Terms** : Ex-Works

**For ADANI KRISHNAPATNAM PORT LTD**  
**RAGHUNATH BYSANI** Digitally signed by RAGHUNATH BYSANI  
 Date: 2022.10.10 17:38:18 +05'30'  
**Authorised Signatory**

SCRAP BLACK SHEET Qty:4.88MT@4.200/- V.H.No:AP 26 TL 3494

Registered Office : "Adani Corporate House",Shantigram,Near Vaishno Devi Circle,S.G. Highway,Khodiyar,Ahmedabad,Gujarat  
 382421(India) Tel : +91 79 26565555, 25555555, Fax : +91 79 26565555, 25555555

Subject to Ahmedabad Jurisdiction

ADANI KRISHNAPATNAM PORT LIMITED - Weightsent Slip

Weighbridge No:

AKPL CBC-5

TP No : TPR2210008744

Truck Reg No: AP26TL3494

Contractors:

Transporters: SELF

Gross Wt: 10.1

Gross Wt time: 10.10.2022 14.55

Tare Wt: 5.22

Tare Wt Time: 10.10.2022 14.55

Net Wt: 4.88

Material Type: BLACK SHEET

Counts:

Locations:

Remarks: BLACK SHEET

Surveyor Signature

Weighbridge Security  
Signature

*[Signature]*  
Supervisor  
Signature

Print 10.10.2022

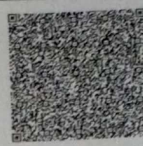
**adani**

Ports and  
Logistics

*[Handwritten signature]*  
10/10/22  
SK. Shalbeen

*[Handwritten signature]*  
T. S. S. S. S.

**KRISHNAPATNAM PORT LTD**  
 VILLAGE: GOPALAPURAM, MANDAL: MUTHUKUR  
 E-524344  
 : AAACK8657J  
 : U45203GJ1996PLC128239  
 : 37AAACK8657J1Z1  
 Code : 37



adani

**Tax Invoice**

**BUYER:** PRIYANKA TRADERS  
 S B NAGAR, PAVAGADH ROAD,  
 HALOL DISTRICT PANCHMAHAL,  
 PANCHMAHAL-389350,  
 GUJARAT,INDIA  
 PAN No. : AEBPK8531P  
 STIN : 24AEBPK8531P1Z7  
 Place of supply: GUJARAT, INDIA  
 State Code: 24

**INVOICE No: 193700000804**  
 Order No. : 1143501627  
 PO No. : NFA # AKPL-2022-0096  
 Date: 18.10.2022  
 Date: 17.10.2022  
 Date: 23.09.2022

**BUYER:** PRIYANKA TRADERS  
 S B NAGAR, PAVAGADH ROAD,  
 HALOL DISTRICT PANCHMAHAL,  
 PANCHMAHAL-389350,  
 GUJARAT,INDIA  
 GSTIN:24AEBPK8531P1Z7  
 State Code:24  
 SAP Ref No:3138502045

IRN No:ac4df107c412a8441e6adc06e7f01498a296f3c7d01f08ee8b4dc25a3c7616ec	Supply Type Code	B2B
Version 1.1	Sub Supply Type	Supply
Document Type Code INV	Preceding Invoice Date	
Preceding Invoice Number	Tax Scheme	GST
Transaction Mode Regular		

Whether the Tax is payable on Reverse Charge Basis: N  
 Whether supply is Service or not: N

SNO	Item Description	Quantity	UoM	Rate	Per	Amount(INR)
1	Nylon Belt Conveyor Scrap HSN/SAC No.40170020	28.600	MT	43,700.00	1	1,249,820.00
	IN: Integrated GST				5 %	62491.00
	Scrap TCS Base 1%				1 %	13123.11
<b>Total Value : 1,325,434.11</b>						

**Amount in words : Rupee Thirteen Lakh Twenty Five Thousand Four Hundred Thirty Four And Paise Eleven Only**

**Payment** : 100% Advance Payment      **Inco Terms** : Ex-Works

**For ADANI KRISHNAPATNAM PORT LTD**  
 RAGHUNATH  
 BYSANI  
 Digitally signed by RAGHUNATH  
 BYSANI  
 Date: 2022.10.18 11:33:32 +05'30'  
**Authorised Signatory**

Nylon Belt Conveyor Scrap Qty:28.600MT @43,700. Vehicle No.RJ 50 GA 3473.

Registered Office : "Adani Corporate House", Shantigram, Near Vaishno Devi Circle, S.G. Highway, Khodiyar, Ahmedabad, Gujarat  
 382421(India) Tel: +91 79 26565555, 25555555, Fax: +91 79 26565555, 25555555

Subject to Ahmedabad Jurisdiction

Scanned with CamScanner

Siguda REM  
E: 103284

*[Handwritten signature]*

*[Handwritten signature]*  
*[Handwritten signature]*

ADANI KRISHNAPATNAM PORT LIMITED - Weighment Slip

Weighbridge No:

AKPL CBC-4

TP No : TPN2210017158

Truck Reg No:

RJ50BA3473

Contractor:

Transporter: SELF

Gross Wt: 41.74

Tare Wt: 13.14

Net Wt: 28.6

Count:

Remarks:

Gross Wt time: 17.10.2022 16.58  
Tare Wt Time: 17.10.2022 16.58  
Material Type:: NILON CONVER BELT  
Location: MMD STORE

Surveyor Signature

Weighbridge Security  
Signature

Supervisor  
Signature

Print 17.10.2022

*[Handwritten signature]*  
*[Handwritten signature]*

**Annexure G –  
Manifest of Hazardous Waste  
Management**

**FORM 10**  
[See rule 19 (1)]

**MANIFEST FOR HAZARDOUS AND OTHER WASTE**

1	Sender's Name & Mailing Address (including PhoneNo. and email)	<b>Name :</b> Adani Krishnapatnam Port Limited <b>Address:</b> P.O. Bag No:1, Muthukur Mandal, SPSR Nellore Dist., A.P. - 524344, <b>Phone No :</b> 9866192789 <b>Email:</b> venugopalreddy.g@adani.com																						
2	Sender's Authorisation No:	APPCB/VJA/NLR/11344/CFO/HO/2019 11/11/2022																						
3	Manifest Document No:	37582																						
4	Transporter Name & Mailing Address: (including PhoneNo. and email):	<b>Name:</b> Jyothi Lubricants <b>Address:</b> plot no 185, IDA ,Kondapalli ,Vijayawada <b>Phone No :</b> 6300244004 <b>Email :</b> jyothilubricants@gmail.com																						
5	Type of Vehicle:	Truck																						
6	VehicleRegistration No:	AP16TJ2619																						
7	Receiver's Name& mailingAddress, (including PhoneNo. and Email:	<b>Name :</b> Jyothi Lubricants <b>Address:</b> Plot No. 186-B, IDA,IDA, Kondapalli (V)Ibrahimpattam (M),Krishna Dist., <b>Phone No :</b> 6300244004 <b>Email:</b> jyothilubricants@gmail.com																						
8	Receiver's Authorisation No:	K-1125/PCB/RO-VJACFO/W&A/2017-																						
9	Waste Description:	a) HW - Recyclable Waste - 5.1 Used or spent oil, Waste oil/Used oil from D.G Sets, Vehicles, dredgers and other machinery																						
10	Total Quantity No. of Containers:	a) 3.36 - Tonnes, 17 Drum																						
11	Physical Form:	a) Oily																						
12	Special Handling Instructions & Additional Information:	Use PPE while loading, unloading & Transit handling																						
13	Sender's Certificate:	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed, marked and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.																						
	Name and stamp:	Signature: Acknowledged from IP: 10.96.66.50					<table border="1" style="border-collapse: collapse; text-align: center;"> <tr> <td>D</td><td>D</td><td>M</td><td>M</td><td>Y</td><td>Y</td><td>Y</td><td>Y</td> </tr> <tr> <td>0</td><td>4</td><td>1</td><td>1</td><td>2</td><td>0</td><td>2</td><td>2</td> </tr> </table>		D	D	M	M	Y	Y	Y	Y	0	4	1	1	2	0	2	2
D	D	M	M	Y	Y	Y	Y																	
0	4	1	1	2	0	2	2																	
14	Transporter acknowledgement of receipt of Wastes:																							
	Name and stamp:	Signature: Acknowledged from IP: 10.96.66.50					<table border="1" style="border-collapse: collapse; text-align: center;"> <tr> <td>D</td><td>D</td><td>M</td><td>M</td><td>Y</td><td>Y</td><td>Y</td><td>Y</td> </tr> <tr> <td>0</td><td>4</td><td>1</td><td>1</td><td>2</td><td>0</td><td>2</td><td>2</td> </tr> </table>		D	D	M	M	Y	Y	Y	Y	0	4	1	1	2	0	2	2
D	D	M	M	Y	Y	Y	Y																	
0	4	1	1	2	0	2	2																	
15	Receivers certification for receipt of hazardous and other waste:																							
	Name and stamp:	Signature: Acknowledged from IP: 10.96.66.50					<table border="1" style="border-collapse: collapse; text-align: center;"> <tr> <td>D</td><td>D</td><td>M</td><td>M</td><td>Y</td><td>Y</td><td>Y</td><td>Y</td> </tr> <tr> <td>0</td><td>5</td><td>1</td><td>1</td><td>2</td><td>0</td><td>2</td><td>2</td> </tr> </table>		D	D	M	M	Y	Y	Y	Y	0	5	1	1	2	0	2	2
D	D	M	M	Y	Y	Y	Y																	
0	5	1	1	2	0	2	2																	



**FORM 10**  
[See rule 19 (1)]

**MANIFEST FOR HAZARDOUS AND OTHER WASTE**

1	Sender's Name & Mailing Address (including PhoneNo. and email)	<b>Name :</b> Adani Krishnapatnam Port Limited <b>Address:</b> P.O. Bag No:1, Muthukur Mandal, SPSR Nellore Dist., A.P. - 524344, <b>Phone No :</b> 9866192789 <b>Email:</b> venugopalreddy.g@adani.com																						
2	Sender's Authorisation No:	APPCB/VJA/NLR/11344/CFO/HO/2019 11/11/2022																						
3	Manifest Document No:	41743																						
4	Transporter Name & Mailing Address: (including PhoneNo. and email):	<b>Name:</b> PARAMOUNT FUELS AND LUBRICANTS <b>Address:</b> PLOT NO.39, BLOCK-F, AUTONAGAR, VISAKHAPATNAM-530012 <b>Phone No :</b> 9666017778 <b>Email :</b> paramountfuelslubricants@gmail.com																						
5	Type of Vehicle:	Tanker																						
6	VehicleRegistration No:	AP29TA1152																						
7	Receiver's Name & mailingAddress, (including PhoneNo. and Email:	<b>Name :</b> Paramount Fuels and Lubricants <b>Address:</b> Plot No 39 F Block Autonagar Gajuwaka Visakhapatnam <b>Phone No :</b> 9248085999 <b>Email:</b> paramountfuelslubricants@gmail.com																						
8	Receiver's Authorisation No:	3656 VSP APPCB RO VSP CFO 2018 2688																						
9	Waste Description:	a) HW - Recyclable Waste - 3.1 cargo residue, washing water and sludge containing oil, Oil containing cargo residue washing water and sludge from ships																						
10	Total Quantity No. of Containers:	a) 16.9 - Tonnes, 1 Container																						
11	Physical Form:	a) Sludge																						
12	Special Handling Instructions & Additional Information:	Use PPE, use hand glove, use helmet																						
13	Sender's Certificate:	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed, marked and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.																						
	Name and stamp:	Signature: Acknowledged from IP: 223.187.27.190					<table border="1" style="border-collapse: collapse; text-align: center;"> <tr> <td>D</td><td>D</td><td>M</td><td>M</td><td>Y</td><td>Y</td><td>Y</td><td>Y</td> </tr> <tr> <td>0</td><td>5</td><td>1</td><td>2</td><td>2</td><td>0</td><td>2</td><td>2</td> </tr> </table>		D	D	M	M	Y	Y	Y	Y	0	5	1	2	2	0	2	2
D	D	M	M	Y	Y	Y	Y																	
0	5	1	2	2	0	2	2																	
14	Transporter acknowledgement of receipt of Wastes:																							
	Name and stamp:	Signature: Acknowledged from IP: 103.105.103.34					<table border="1" style="border-collapse: collapse; text-align: center;"> <tr> <td>D</td><td>D</td><td>M</td><td>M</td><td>Y</td><td>Y</td><td>Y</td><td>Y</td> </tr> <tr> <td>0</td><td>5</td><td>1</td><td>2</td><td>2</td><td>0</td><td>2</td><td>2</td> </tr> </table>		D	D	M	M	Y	Y	Y	Y	0	5	1	2	2	0	2	2
D	D	M	M	Y	Y	Y	Y																	
0	5	1	2	2	0	2	2																	
15	Receivers certification for receipt of hazardous and other waste:																							
	Name and stamp:	Signature: Acknowledged from IP: 103.105.103.34					<table border="1" style="border-collapse: collapse; text-align: center;"> <tr> <td>D</td><td>D</td><td>M</td><td>M</td><td>Y</td><td>Y</td><td>Y</td><td>Y</td> </tr> <tr> <td>0</td><td>8</td><td>1</td><td>2</td><td>2</td><td>0</td><td>2</td><td>2</td> </tr> </table>		D	D	M	M	Y	Y	Y	Y	0	8	1	2	2	0	2	2
D	D	M	M	Y	Y	Y	Y																	
0	8	1	2	2	0	2	2																	

**FORM 10**  
[See rule 19 (1)]

**MANIFEST FOR HAZARDOUS AND OTHER WASTE**

1	Sender's Name & Mailing Address (including PhoneNo. and email)	<b>Name :</b> Adani Krishnapatnam Port Limited <b>Address:</b> P.O. Bag No:1, Muthukur Mandal, SPSR Nellore Dist., A.P. - 524344, <b>Phone No :</b> 9866192789 <b>Email:</b> venugopalreddy.g@adani.com																						
2	Sender's Authorisation No:	APPCB/VJA/NLR/11344/CFO/HO/2019 11/11/2022																						
3	Manifest Document No:	42405																						
4	Transporter Name & Mailing Address: (including PhoneNo. and email):	<b>Name:</b> PARAMOUNT FUELS AND LUBRICANTS <b>Address:</b> PLOT NO.39, BLOCK-F, AUTONAGAR, VISAKHAPATNAM-530012 <b>Phone No :</b> 9666017778 <b>Email :</b> paramountfuelslubricants@gmail.com																						
5	Type of Vehicle:	Tanker																						
6	VehicleRegistration No:	AP39W9819																						
7	Receiver's Name & mailingAddress, (including PhoneNo. and Email:	<b>Name :</b> Paramount Fuels and Lubricants <b>Address:</b> Plot No 39 F Block Autonagar Gajuwaka Visakhapatnam <b>Phone No :</b> 9248085999 <b>Email:</b> paramountfuelslubricants@gmail.com																						
8	Receiver's Authorisation No:	3656 VSP APPCB RO VSP CFO 2018 2688																						
9	Waste Description:	a) HW - Recyclable Waste - 3.1 cargo residue, washing water and sludge containing oil, Oil containing cargo residue washing water and sludge from ships																						
10	Total Quantity No. of Containers:	a) 23.44 - Tonnes, 1 Container																						
11	Physical Form:	a) Sludge																						
12	Special Handling Instructions & Additional Information:	Use PPE while loading, unloading & Transit handling																						
13	Sender's Certificate:	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed, marked and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.																						
	Name and stamp:	Signature: Acknowledged from IP: 112.133.252.82					<table border="1" style="border-collapse: collapse; text-align: center;"> <tr> <td>D</td><td>D</td><td>M</td><td>M</td><td>Y</td><td>Y</td><td>Y</td><td>Y</td> </tr> <tr> <td>0</td><td>8</td><td>1</td><td>2</td><td>2</td><td>0</td><td>2</td><td>2</td> </tr> </table>		D	D	M	M	Y	Y	Y	Y	0	8	1	2	2	0	2	2
D	D	M	M	Y	Y	Y	Y																	
0	8	1	2	2	0	2	2																	
14	Transporter acknowledgement of receipt of Wastes:																							
	Name and stamp:	Signature: Acknowledged from IP: 103.105.103.34					<table border="1" style="border-collapse: collapse; text-align: center;"> <tr> <td>D</td><td>D</td><td>M</td><td>M</td><td>Y</td><td>Y</td><td>Y</td><td>Y</td> </tr> <tr> <td>0</td><td>8</td><td>1</td><td>2</td><td>2</td><td>0</td><td>2</td><td>2</td> </tr> </table>		D	D	M	M	Y	Y	Y	Y	0	8	1	2	2	0	2	2
D	D	M	M	Y	Y	Y	Y																	
0	8	1	2	2	0	2	2																	
15	Receivers certification for receipt of hazardous and other waste:																							
	Name and stamp:	Signature: Acknowledged from IP: 103.105.103.34					<table border="1" style="border-collapse: collapse; text-align: center;"> <tr> <td>D</td><td>D</td><td>M</td><td>M</td><td>Y</td><td>Y</td><td>Y</td><td>Y</td> </tr> <tr> <td>1</td><td>3</td><td>1</td><td>2</td><td>2</td><td>0</td><td>2</td><td>2</td> </tr> </table>		D	D	M	M	Y	Y	Y	Y	1	3	1	2	2	0	2	2
D	D	M	M	Y	Y	Y	Y																	
1	3	1	2	2	0	2	2																	

**FORM 10**  
[See rule 19 (1)]

**MANIFEST FOR HAZARDOUS AND OTHER WASTE**

1	Sender's Name & Mailing Address (including PhoneNo. and email)	<b>Name :</b> Adani Krishnapatnam Port Limited <b>Address:</b> P.O. Bag No:1, Muthukur Mandal, SPSR Nellore Dist., A.P. - 524344, <b>Phone No :</b> 9866192789 <b>Email:</b> venugopalreddy.g@adani.com																						
2	Sender's Authorisation No:	APPCB/VJA/NLR/11344/CFO/HO/2019 11/11/2022																						
3	Manifest Document No:	42934																						
4	Transporter Name & Mailing Address: (including PhoneNo. and email):	<b>Name:</b> Thirupathi oil company unit 1 <b>Address:</b> M/s. Thirupathi Oil Company Unit-1, S.F.No. 129/2, Venmaniyatoor(V), Tindivanam (Tal), Villupuram District, Tamil Nadu State, TN-TN-TAMIL NADUmeu ip <b>Phone No :</b> 8919444215 <b>Email :</b> toc580026@gmail.com																						
5	Type of Vehicle:	Tanker																						
6	VehicleRegistration No:	TN52A8417																						
7	Receiver's Name & mailingAddress, (including PhoneNo. and Email:	<b>Name :</b> Thirupathi Oil Company Unit-1 <b>Address:</b> M/s. Thirupathi Oil Company Unit-1, S.F.No. 129/2, Venmaniyatoor(V), Tindivanam (Tal), Villupuram District, Tamil Nadu State <b>Phone No :</b> 8919444215 <b>Email:</b> toc580026@gmail.com																						
8	Receiver's Authorisation No:	180518936980																						
9	Waste Description:	a) HW - Recyclable Waste - 3.1 cargo residue, washing water and sludge containing oil, Oil containing cargo residue washing water and sludge from ships																						
10	Total Quantity No. of Containers:	a) 23.3 - Tonnes, 1 Container																						
11	Physical Form:	a) Oily																						
12	Special Handling Instructions & Additional Information:	Use PPE, use hand glove, use helmet																						
13	Sender's Certificate:	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed, marked and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.																						
	Name and stamp:	Signature: Acknowledged from IP: 106.217.247.65					<table border="1" style="width: 100%; text-align: center;"> <tr> <td>D</td><td>D</td><td>M</td><td>M</td><td>Y</td><td>Y</td><td>Y</td><td>Y</td> </tr> <tr> <td>1</td><td>2</td><td>1</td><td>2</td><td>2</td><td>0</td><td>2</td><td>2</td> </tr> </table>		D	D	M	M	Y	Y	Y	Y	1	2	1	2	2	0	2	2
D	D	M	M	Y	Y	Y	Y																	
1	2	1	2	2	0	2	2																	
14	Transporter acknowledgement of receipt of Wastes:																							
	Name and stamp:	Signature: Acknowledged from IP: 157.48.252.152					<table border="1" style="width: 100%; text-align: center;"> <tr> <td>D</td><td>D</td><td>M</td><td>M</td><td>Y</td><td>Y</td><td>Y</td><td>Y</td> </tr> <tr> <td>1</td><td>2</td><td>1</td><td>2</td><td>2</td><td>0</td><td>2</td><td>2</td> </tr> </table>		D	D	M	M	Y	Y	Y	Y	1	2	1	2	2	0	2	2
D	D	M	M	Y	Y	Y	Y																	
1	2	1	2	2	0	2	2																	
15	Receivers certification for receipt of hazardous and other waste:																							
	Name and stamp:	Signature: Acknowledged from IP: 157.47.91.79					<table border="1" style="width: 100%; text-align: center;"> <tr> <td>D</td><td>D</td><td>M</td><td>M</td><td>Y</td><td>Y</td><td>Y</td><td>Y</td> </tr> <tr> <td>2</td><td>0</td><td>1</td><td>2</td><td>2</td><td>0</td><td>2</td><td>2</td> </tr> </table>		D	D	M	M	Y	Y	Y	Y	2	0	1	2	2	0	2	2
D	D	M	M	Y	Y	Y	Y																	
2	0	1	2	2	0	2	2																	

**FORM 10**  
[See rule 19 (1)]

**MANIFEST FOR HAZARDOUS AND OTHER WASTE**

1	Sender's Name & Mailing Address (including PhoneNo. and email)	<b>Name :</b> Adani Krishnapatnam Port Limited <b>Address:</b> P.O. Bag No:1, Muthukur Mandal, SPSR Nellore Dist., A.P. - 524344, <b>Phone No :</b> 9866192789 <b>Email:</b> venugopalreddy.g@adani.com																					
2	Sender's Authorisation No:	APPCB/VJA/NLR/11344/CFO/HO/2019 11/11/2022																					
3	Manifest Document No:	42936																					
4	Transporter Name & Mailing Address: (including PhoneNo. and email):	<b>Name:</b> Thirupathi oil company unit 1 <b>Address:</b> M/s. Thirupathi Oil Company Unit-1, S.F.No. 129/2, Venmaniyatoor(V), Tindivanam (Tal), Villupuram District, Tamil Nadu State, TN-TN-TAMIL NADUmeu ip <b>Phone No :</b> 8919444215 <b>Email :</b> toc580026@gmail.com																					
5	Type of Vehicle:	Tanker																					
6	VehicleRegistration No:	TN31H7511																					
7	Receiver's Name & mailingAddress, (including PhoneNo. and Email:	<b>Name :</b> Thirupathi Oil Company Unit-1 <b>Address:</b> M/s. Thirupathi Oil Company Unit-1, S.F.No. 129/2, Venmaniyatoor(V), Tindivanam (Tal), Villupuram District, Tamil Nadu State <b>Phone No :</b> 8919444215 <b>Email:</b> toc580026@gmail.com																					
8	Receiver's Authorisation No:	180518936980																					
9	Waste Description:	a) HW - Recyclable Waste - 3.1 cargo residue, washing water and sludge containing oil, Oil containing cargo residue washing water and sludge from ships																					
10	Total Quantity No. of Containers:	a) 15.7 - Tonnes, 1 Container																					
11	Physical Form:	a) Oily																					
12	Special Handling Instructions & Additional Information:	Use PPE, use hand glove, use helmet																					
13	Sender's Certificate:	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed, marked and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.																					
	Name and stamp:	Signature: Acknowledged from IP: 106.217.247.65				<table border="1" style="width: 100%; text-align: center;"> <tr> <td>D</td><td>D</td><td>M</td><td>M</td><td>Y</td><td>Y</td><td>Y</td><td>Y</td> </tr> <tr> <td>1</td><td>2</td><td>1</td><td>2</td><td>2</td><td>0</td><td>2</td><td>2</td> </tr> </table>		D	D	M	M	Y	Y	Y	Y	1	2	1	2	2	0	2	2
D	D	M	M	Y	Y	Y	Y																
1	2	1	2	2	0	2	2																
14	Transporter acknowledgement of receipt of Wastes:																						
	Name and stamp:	Signature: Acknowledged from IP: 157.48.252.152				<table border="1" style="width: 100%; text-align: center;"> <tr> <td>D</td><td>D</td><td>M</td><td>M</td><td>Y</td><td>Y</td><td>Y</td><td>Y</td> </tr> <tr> <td>1</td><td>2</td><td>1</td><td>2</td><td>2</td><td>0</td><td>2</td><td>2</td> </tr> </table>		D	D	M	M	Y	Y	Y	Y	1	2	1	2	2	0	2	2
D	D	M	M	Y	Y	Y	Y																
1	2	1	2	2	0	2	2																
15	Receivers certification for receipt of hazardous and other waste:																						
	Name and stamp:	Signature: Acknowledged from IP: 157.47.91.79				<table border="1" style="width: 100%; text-align: center;"> <tr> <td>D</td><td>D</td><td>M</td><td>M</td><td>Y</td><td>Y</td><td>Y</td><td>Y</td> </tr> <tr> <td>2</td><td>0</td><td>1</td><td>2</td><td>2</td><td>0</td><td>2</td><td>2</td> </tr> </table>		D	D	M	M	Y	Y	Y	Y	2	0	1	2	2	0	2	2
D	D	M	M	Y	Y	Y	Y																
2	0	1	2	2	0	2	2																

**FORM 10**  
[See rule 19 (1)]

**MANIFEST FOR HAZARDOUS AND OTHER WASTE**

1	Sender's Name & Mailing Address (including PhoneNo. and email)	<b>Name :</b> Adani Krishnapatnam Port Limited <b>Address:</b> P.O. Bag No:1, Muthukur Mandal, SPSR Nellore Dist., A.P. - 524344, <b>Phone No :</b> 9866192789 <b>Email:</b> venugopalreddy.g@adani.com																						
2	Sender's Authorisation No:	APPCB/VJA/NLR/11344/CFO/HO/2019 11/11/2022																						
3	Manifest Document No:	42945																						
4	Transporter Name & Mailing Address: (including PhoneNo. and email):	<b>Name:</b> Thirupathi oil company unit 1 <b>Address:</b> M/s. Thirupathi Oil Company Unit-1, S.F.No. 129/2, Venmaniyatoor(V), Tindivanam (Tal), Villupuram District, Tamil Nadu State, TN-TN-TAMIL NADUmeu ip <b>Phone No :</b> 8919444215 <b>Email :</b> toc580026@gmail.com																						
5	Type of Vehicle:	Tanker																						
6	VehicleRegistration No:	TN10W7899																						
7	Receiver's Name & mailingAddress, (including PhoneNo. and Email:	<b>Name :</b> Thirupathi Oil Company Unit-1 <b>Address:</b> M/s. Thirupathi Oil Company Unit-1, S.F.No. 129/2, Venmaniyatoor(V), Tindivanam (Tal), Villupuram District, Tamil Nadu State <b>Phone No :</b> 8919444215 <b>Email:</b> toc580026@gmail.com																						
8	Receiver's Authorisation No:	180518936980																						
9	Waste Description:	a) HW - Recyclable Waste - 3.1 cargo residue, washing water and sludge containing oil, Oil containing cargo residue washing water and sludge from ships																						
10	Total Quantity No. of Containers:	a) 16.42 - Tonnes, 1 Container																						
11	Physical Form:	a) Oily																						
12	Special Handling Instructions & Additional Information:	Use PPE, use hand glove, use helmet																						
13	Sender's Certificate:	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed, marked and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.																						
	Name and stamp:	Signature: Acknowledged from IP: 106.217.247.65					<table border="1" style="width: 100%; text-align: center;"> <tr> <td>D</td><td>D</td><td>M</td><td>M</td><td>Y</td><td>Y</td><td>Y</td><td>Y</td> </tr> <tr> <td>1</td><td>2</td><td>1</td><td>2</td><td>2</td><td>0</td><td>2</td><td>2</td> </tr> </table>		D	D	M	M	Y	Y	Y	Y	1	2	1	2	2	0	2	2
D	D	M	M	Y	Y	Y	Y																	
1	2	1	2	2	0	2	2																	
14	Transporter acknowledgement of receipt of Wastes:																							
	Name and stamp:	Signature: Acknowledged from IP: 157.48.252.152					<table border="1" style="width: 100%; text-align: center;"> <tr> <td>D</td><td>D</td><td>M</td><td>M</td><td>Y</td><td>Y</td><td>Y</td><td>Y</td> </tr> <tr> <td>1</td><td>2</td><td>1</td><td>2</td><td>2</td><td>0</td><td>2</td><td>2</td> </tr> </table>		D	D	M	M	Y	Y	Y	Y	1	2	1	2	2	0	2	2
D	D	M	M	Y	Y	Y	Y																	
1	2	1	2	2	0	2	2																	
15	Receivers certification for receipt of hazardous and other waste:																							
	Name and stamp:	Signature: Acknowledged from IP: 157.47.91.79					<table border="1" style="width: 100%; text-align: center;"> <tr> <td>D</td><td>D</td><td>M</td><td>M</td><td>Y</td><td>Y</td><td>Y</td><td>Y</td> </tr> <tr> <td>2</td><td>0</td><td>1</td><td>2</td><td>2</td><td>0</td><td>2</td><td>2</td> </tr> </table>		D	D	M	M	Y	Y	Y	Y	2	0	1	2	2	0	2	2
D	D	M	M	Y	Y	Y	Y																	
2	0	1	2	2	0	2	2																	

**FORM 10**  
[See rule 19 (1)]

**MANIFEST FOR HAZARDOUS AND OTHER WASTE**

1	Sender's Name & Mailing Address (including PhoneNo. and email)	<b>Name :</b> Adani Krishnapatnam Port Limited <b>Address:</b> P.O. Bag No:1, Muthukur Mandal, SPSR Nellore Dist., A.P. - 524344, <b>Phone No :</b> 9866192789 <b>Email:</b> venugopalreddy.g@adani.com																						
2	Sender's Authorisation No:	APPCB/VJA/NLR/11344/CFO/HO/2019 11/11/2022																						
3	Manifest Document No:	48209																						
4	Transporter Name & Mailing Address: (including PhoneNo. and email):	<b>Name:</b> Thirupathi oil company unit 1 <b>Address:</b> M/s. Thirupathi Oil Company Unit-1, S.F.No. 129/2, Venmaniyatoor(V), Tindivanam (Tal), Villupuram District, Tamil Nadu State, TN-TN-TAMIL NADUmeu ip <b>Phone No :</b> 8919444215 <b>Email :</b> toc580026@gmail.com																						
5	Type of Vehicle:	Tanker																						
6	VehicleRegistration No:	TN05AU4915																						
7	Receiver's Name & mailingAddress, (including PhoneNo. and Email:	<b>Name :</b> Thirupathi Oil Company Unit-1 <b>Address:</b> M/s. Thirupathi Oil Company Unit-1, S.F.No. 129/2, Venmaniyatoor(V), Tindivanam (Tal), Villupuram District, Tamil Nadu State <b>Phone No :</b> 8919444215 <b>Email:</b> toc580026@gmail.com																						
8	Receiver's Authorisation No:	180518936980																						
9	Waste Description:	a) HW - Recyclable Waste - 3.1 cargo residue, washing water and sludge containing oil, Oil containing cargo residue washing water and sludge from ships																						
10	Total Quantity No. of Containers:	a) 10.84 - Tonnes, 1 Container																						
11	Physical Form:	a) Oily																						
12	Special Handling Instructions & Additional Information:	Use PPE, use hand glove, use helmet																						
13	Sender's Certificate:	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed, marked and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.																						
	Name and stamp:	Signature: Acknowledged from IP: 163.116.195.120					<table border="1" style="width: 100%; text-align: center;"> <tr> <td>D</td><td>D</td><td>M</td><td>M</td><td>Y</td><td>Y</td><td>Y</td><td>Y</td> </tr> <tr> <td>1</td><td>2</td><td>0</td><td>1</td><td>2</td><td>0</td><td>2</td><td>3</td> </tr> </table>		D	D	M	M	Y	Y	Y	Y	1	2	0	1	2	0	2	3
D	D	M	M	Y	Y	Y	Y																	
1	2	0	1	2	0	2	3																	
14	Transporter acknowledgement of receipt of Wastes:																							
	Name and stamp:	Signature: Acknowledged from IP: 157.48.76.200					<table border="1" style="width: 100%; text-align: center;"> <tr> <td>D</td><td>D</td><td>M</td><td>M</td><td>Y</td><td>Y</td><td>Y</td><td>Y</td> </tr> <tr> <td>1</td><td>3</td><td>0</td><td>1</td><td>2</td><td>0</td><td>2</td><td>3</td> </tr> </table>		D	D	M	M	Y	Y	Y	Y	1	3	0	1	2	0	2	3
D	D	M	M	Y	Y	Y	Y																	
1	3	0	1	2	0	2	3																	
15	Receivers certification for receipt of hazardous and other waste:																							
	Name and stamp:	Signature: Acknowledged from IP: 157.47.65.167					<table border="1" style="width: 100%; text-align: center;"> <tr> <td>D</td><td>D</td><td>M</td><td>M</td><td>Y</td><td>Y</td><td>Y</td><td>Y</td> </tr> <tr> <td>1</td><td>6</td><td>0</td><td>1</td><td>2</td><td>0</td><td>2</td><td>3</td> </tr> </table>		D	D	M	M	Y	Y	Y	Y	1	6	0	1	2	0	2	3
D	D	M	M	Y	Y	Y	Y																	
1	6	0	1	2	0	2	3																	

**FORM 10**  
[See rule 19 (1)]

**MANIFEST FOR HAZARDOUS AND OTHER WASTE**

1	Sender's Name & Mailing Address (including PhoneNo. and email)	<b>Name :</b> Adani Krishnapatnam Port Limited <b>Address:</b> P.O. Bag No:1, Muthukur Mandal, SPSR Nellore Dist., A.P. - 524344, <b>Phone No :</b> 9866192789 <b>Email:</b> venugopalreddy.g@adani.com																						
2	Sender's Authorisation No:	APPCB/VJA/NLR/11344/CFO/HO/2019 11/11/2022																						
3	Manifest Document No:	49398																						
4	Transporter Name & Mailing Address: (including PhoneNo. and email):	<b>Name:</b> PARAMOUNT FUELS AND LUBRICANTS <b>Address:</b> PLOT NO.39, BLOCK-F, AUTONAGAR, VISAKHAPATNAM-530012 <b>Phone No :</b> 9666017778 <b>Email :</b> paramountfuelslubricants@gmail.com																						
5	Type of Vehicle:	Tanker																						
6	VehicleRegistration No:	AP39TF5589																						
7	Receiver's Name & mailingAddress, (including PhoneNo. and Email:	<b>Name :</b> Paramount Fuels and Lubricants <b>Address:</b> Plot No 39 F Block Autonagar Gajuwaka Visakhapatnam <b>Phone No :</b> 9248085999 <b>Email:</b> paramountfuelslubricants@gmail.com																						
8	Receiver's Authorisation No:	3656 VSP APPCB RO VSP CFO 2018 2688																						
9	Waste Description:	a) HW - Recyclable Waste - 3.1 cargo residue, washing water and sludge containing oil, Oil containing cargo residue washing water and sludge from ships																						
10	Total Quantity No. of Containers:	a) 14.82 - Tonnes, 1 Container																						
11	Physical Form:	a) Oily																						
12	Special Handling Instructions & Additional Information:	Use PPE while loading, unloading & Transit handling																						
13	Sender's Certificate:	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed, marked and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.																						
	Name and stamp:	Signature: Acknowledged from IP: 112.133.252.82					<table border="1" style="border-collapse: collapse; text-align: center;"> <tr> <td>D</td><td>D</td><td>M</td><td>M</td><td>Y</td><td>Y</td><td>Y</td><td>Y</td> </tr> <tr> <td>2</td><td>0</td><td>0</td><td>1</td><td>2</td><td>0</td><td>2</td><td>3</td> </tr> </table>		D	D	M	M	Y	Y	Y	Y	2	0	0	1	2	0	2	3
D	D	M	M	Y	Y	Y	Y																	
2	0	0	1	2	0	2	3																	
14	Transporter acknowledgement of receipt of Wastes:																							
	Name and stamp:	Signature: Acknowledged from IP: 103.138.0.198					<table border="1" style="border-collapse: collapse; text-align: center;"> <tr> <td>D</td><td>D</td><td>M</td><td>M</td><td>Y</td><td>Y</td><td>Y</td><td>Y</td> </tr> <tr> <td>2</td><td>0</td><td>0</td><td>1</td><td>2</td><td>0</td><td>2</td><td>3</td> </tr> </table>		D	D	M	M	Y	Y	Y	Y	2	0	0	1	2	0	2	3
D	D	M	M	Y	Y	Y	Y																	
2	0	0	1	2	0	2	3																	
15	Receivers certification for receipt of hazardous and other waste:																							
	Name and stamp:	Signature: Acknowledged from IP: 103.138.0.198					<table border="1" style="border-collapse: collapse; text-align: center;"> <tr> <td>D</td><td>D</td><td>M</td><td>M</td><td>Y</td><td>Y</td><td>Y</td><td>Y</td> </tr> <tr> <td>0</td><td>3</td><td>0</td><td>2</td><td>2</td><td>0</td><td>2</td><td>3</td> </tr> </table>		D	D	M	M	Y	Y	Y	Y	0	3	0	2	2	0	2	3
D	D	M	M	Y	Y	Y	Y																	
0	3	0	2	2	0	2	3																	

**FORM 10**  
[See rule 19 (1)]

**MANIFEST FOR HAZARDOUS AND OTHER WASTE**

1	Sender's Name & Mailing Address (including PhoneNo. and email)	<b>Name :</b> Adani Krishnapatnam Port Limited <b>Address:</b> P.O. Bag No:1, Muthukur Mandal, SPSR Nellore Dist., A.P. - 524344, <b>Phone No :</b> 9866192789 <b>Email:</b> venugopalreddy.g@adani.com																						
2	Sender's Authorisation No:	APPCB/VJA/NLR/11344/CFO/HO/2019 11/11/2022																						
3	Manifest Document No:	52801																						
4	Transporter Name & Mailing Address: (including PhoneNo. and email):	<b>Name:</b> Thirupathi oil company unit 1 <b>Address:</b> M/s. Thirupathi Oil Company Unit-1, S.F.No. 129/2, Venmaniyatoor(V), Tindivanam (Tal), Villupuram District, Tamil Nadu State, TN-TN-TAMIL NADUmeu ip <b>Phone No :</b> 8919444215 <b>Email :</b> toc580026@gmail.com																						
5	Type of Vehicle:	Tanker																						
6	VehicleRegistration No:	TN03Z2499																						
7	Receiver's Name & mailingAddress, (including PhoneNo. and Email:	<b>Name :</b> Thirupathi Oil Company Unit-1 <b>Address:</b> M/s. Thirupathi Oil Company Unit-1, S.F.No. 129/2, Venmaniyatoor(V), Tindivanam (Tal), Villupuram District, Tamil Nadu State <b>Phone No :</b> 8919444215 <b>Email:</b> toc580026@gmail.com																						
8	Receiver's Authorisation No:	180518936980																						
9	Waste Description:	a) HW - Recyclable Waste - 3.1 cargo residue, washing water and sludge containing oil, Oil containing cargo residue washing water and sludge from ships																						
10	Total Quantity No. of Containers:	a) 21.78 - Tonnes, 1 Container																						
11	Physical Form:	a) Oily																						
12	Special Handling Instructions & Additional Information:	Use PPE, use hand glove, use helmet																						
13	Sender's Certificate:	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed, marked and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.																						
	Name and stamp:	Signature: Acknowledged from IP: 106.195.72.4					<table border="1" style="width: 100%; text-align: center;"> <tr> <td>D</td><td>D</td><td>M</td><td>M</td><td>Y</td><td>Y</td><td>Y</td><td>Y</td> </tr> <tr> <td>1</td><td>0</td><td>0</td><td>2</td><td>2</td><td>0</td><td>2</td><td>3</td> </tr> </table>		D	D	M	M	Y	Y	Y	Y	1	0	0	2	2	0	2	3
D	D	M	M	Y	Y	Y	Y																	
1	0	0	2	2	0	2	3																	
14	Transporter acknowledgement of receipt of Wastes:																							
	Name and stamp:	Signature: Acknowledged from IP: 157.47.104.243					<table border="1" style="width: 100%; text-align: center;"> <tr> <td>D</td><td>D</td><td>M</td><td>M</td><td>Y</td><td>Y</td><td>Y</td><td>Y</td> </tr> <tr> <td>1</td><td>0</td><td>0</td><td>2</td><td>2</td><td>0</td><td>2</td><td>3</td> </tr> </table>		D	D	M	M	Y	Y	Y	Y	1	0	0	2	2	0	2	3
D	D	M	M	Y	Y	Y	Y																	
1	0	0	2	2	0	2	3																	
15	Receivers certification for receipt of hazardous and other waste:																							
	Name and stamp:	Signature: Acknowledged from IP: 157.48.203.120					<table border="1" style="width: 100%; text-align: center;"> <tr> <td>D</td><td>D</td><td>M</td><td>M</td><td>Y</td><td>Y</td><td>Y</td><td>Y</td> </tr> <tr> <td>1</td><td>2</td><td>0</td><td>2</td><td>2</td><td>0</td><td>2</td><td>3</td> </tr> </table>		D	D	M	M	Y	Y	Y	Y	1	2	0	2	2	0	2	3
D	D	M	M	Y	Y	Y	Y																	
1	2	0	2	2	0	2	3																	



**FORM 10**  
[See rule 19 (1)]

**MANIFEST FOR HAZARDOUS AND OTHER WASTE**

1	Sender's Name & Mailing Address (including PhoneNo. and email)	<b>Name :</b> Adani Krishnapatnam Port Limited <b>Address:</b> P.O. Bag No:1, Muthukur Mandal, SPSR Nellore Dist., A.P. - 524344, <b>Phone No :</b> 9866192789 <b>Email:</b> venugopalreddy.g@adani.com																						
2	Sender's Authorisation No:	APPCB/VJA/NLR/11344/CFO/HO/2019 11/11/2022																						
3	Manifest Document No:	53302																						
4	Transporter Name & Mailing Address: (including PhoneNo. and email):	<b>Name:</b> Jyothi Lubricants <b>Address:</b> plot no 185, IDA ,Kondapalli ,Vijayawada <b>Phone No :</b> 6300244004 <b>Email :</b> jyothilubricants@gmail.com																						
5	Type of Vehicle:	Truck																						
6	VehicleRegistration No:	AP16TJ2619																						
7	Receiver's Name& mailingAddress, (including PhoneNo. and Email:	<b>Name :</b> Jyothi Lubricants <b>Address:</b> Plot No. 186-B, IDA,IDA, Kondapalli (V)Ibrahimpattam (M),Krishna Dist., <b>Phone No :</b> 6300244004 <b>Email:</b> jyothilubricants@gmail.com																						
8	Receiver's Authorisation No:	K-1125/PCB/RO-VJACFO/W&A/2017-																						
9	Waste Description:	a) HW - Recyclable Waste - 5.1 Used or spent oil, Waste oil/Used oil from D.G Sets, Vehicles, dredgers and other machinery																						
10	Total Quantity No. of Containers:	a) 10 - Tonnes, 50 Drum																						
11	Physical Form:	a) Oily																						
12	Special Handling Instructions & Additional Information:	Use PPE while loading, unloading & Transit handling																						
13	Sender's Certificate:	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed, marked and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.																						
	Name and stamp:	Signature: Acknowledged from IP: 117.99.205.152					<table border="1" style="border-collapse: collapse; text-align: center;"> <tr> <td>D</td><td>D</td><td>M</td><td>M</td><td>Y</td><td>Y</td><td>Y</td><td>Y</td> </tr> <tr> <td>1</td><td>3</td><td>0</td><td>2</td><td>2</td><td>0</td><td>2</td><td>3</td> </tr> </table>		D	D	M	M	Y	Y	Y	Y	1	3	0	2	2	0	2	3
D	D	M	M	Y	Y	Y	Y																	
1	3	0	2	2	0	2	3																	
14	Transporter acknowledgement of receipt of Wastes:																							
	Name and stamp:	Signature: Acknowledged from IP: 152.58.236.113					<table border="1" style="border-collapse: collapse; text-align: center;"> <tr> <td>D</td><td>D</td><td>M</td><td>M</td><td>Y</td><td>Y</td><td>Y</td><td>Y</td> </tr> <tr> <td>1</td><td>4</td><td>0</td><td>2</td><td>2</td><td>0</td><td>2</td><td>3</td> </tr> </table>		D	D	M	M	Y	Y	Y	Y	1	4	0	2	2	0	2	3
D	D	M	M	Y	Y	Y	Y																	
1	4	0	2	2	0	2	3																	
15	Receivers certification for receipt of hazardous and other waste:																							
	Name and stamp:	Signature: Acknowledged from IP: 61.2.10.21					<table border="1" style="border-collapse: collapse; text-align: center;"> <tr> <td>D</td><td>D</td><td>M</td><td>M</td><td>Y</td><td>Y</td><td>Y</td><td>Y</td> </tr> <tr> <td>1</td><td>5</td><td>0</td><td>2</td><td>2</td><td>0</td><td>2</td><td>3</td> </tr> </table>		D	D	M	M	Y	Y	Y	Y	1	5	0	2	2	0	2	3
D	D	M	M	Y	Y	Y	Y																	
1	5	0	2	2	0	2	3																	

**FORM 10**  
[See rule 19 (1)]

**MANIFEST FOR HAZARDOUS AND OTHER WASTE**

1	Sender's Name & Mailing Address (including PhoneNo. and email)	<b>Name :</b> Adani Krishnapatnam Port Limited <b>Address:</b> P.O. Bag No:1, Muthukur Mandal, SPSR Nellore Dist., A.P. - 524344, <b>Phone No :</b> 9866192789 <b>Email:</b> venugopalreddy.g@adani.com																						
2	Sender's Authorisation No:	APPCB/VJA/NLR/11344/CFO/HO/2019 11/11/2022																						
3	Manifest Document No:	54443																						
4	Transporter Name & Mailing Address: (including PhoneNo. and email):	<b>Name:</b> Thirupathi oil company unit 1 <b>Address:</b> M/s. Thirupathi Oil Company Unit-1, S.F.No. 129/2, Venmaniyatoor(V), Tindivanam (Tal), Villupuram District, Tamil Nadu State, TN-TN-TAMIL NADUmeu ip <b>Phone No :</b> 8919444215 <b>Email :</b> toc580026@gmail.com																						
5	Type of Vehicle:	Tanker																						
6	VehicleRegistration No:	TN18E4399																						
7	Receiver's Name & mailingAddress, (including PhoneNo. and Email:	<b>Name :</b> Thirupathi Oil Company Unit-1 <b>Address:</b> M/s. Thirupathi Oil Company Unit-1, S.F.No. 129/2, Venmaniyatoor(V), Tindivanam (Tal), Villupuram District, Tamil Nadu State <b>Phone No :</b> 8919444215 <b>Email:</b> toc580026@gmail.com																						
8	Receiver's Authorisation No:	180518936980																						
9	Waste Description:	a) HW - Recyclable Waste - 3.1 cargo residue, washing water and sludge containing oil, Oil containing cargo residue washing water and sludge from ships																						
10	Total Quantity No. of Containers:	a) 10.92 - Tonnes, 1 Container																						
11	Physical Form:	a) Oily																						
12	Special Handling Instructions & Additional Information:	Use PPE, use hand glove, use helmet																						
13	Sender's Certificate:	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed, marked and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.																						
	Name and stamp:	Signature: Acknowledged from IP: 117.99.200.215					<table border="1" style="border-collapse: collapse; text-align: center;"> <tr> <td>D</td><td>D</td><td>M</td><td>M</td><td>Y</td><td>Y</td><td>Y</td><td>Y</td> </tr> <tr> <td>2</td><td>1</td><td>0</td><td>2</td><td>2</td><td>0</td><td>2</td><td>3</td> </tr> </table>		D	D	M	M	Y	Y	Y	Y	2	1	0	2	2	0	2	3
D	D	M	M	Y	Y	Y	Y																	
2	1	0	2	2	0	2	3																	
14	Transporter acknowledgement of receipt of Wastes:																							
	Name and stamp:	Signature: Acknowledged from IP: 157.48.172.140					<table border="1" style="border-collapse: collapse; text-align: center;"> <tr> <td>D</td><td>D</td><td>M</td><td>M</td><td>Y</td><td>Y</td><td>Y</td><td>Y</td> </tr> <tr> <td>2</td><td>5</td><td>0</td><td>2</td><td>2</td><td>0</td><td>2</td><td>3</td> </tr> </table>		D	D	M	M	Y	Y	Y	Y	2	5	0	2	2	0	2	3
D	D	M	M	Y	Y	Y	Y																	
2	5	0	2	2	0	2	3																	
15	Receivers certification for receipt of hazardous and other waste:																							
	Name and stamp:	Signature: Acknowledged from IP: 157.51.165.195					<table border="1" style="border-collapse: collapse; text-align: center;"> <tr> <td>D</td><td>D</td><td>M</td><td>M</td><td>Y</td><td>Y</td><td>Y</td><td>Y</td> </tr> <tr> <td>0</td><td>2</td><td>0</td><td>3</td><td>2</td><td>0</td><td>2</td><td>3</td> </tr> </table>		D	D	M	M	Y	Y	Y	Y	0	2	0	3	2	0	2	3
D	D	M	M	Y	Y	Y	Y																	
0	2	0	3	2	0	2	3																	

**FORM 10**  
[See rule 19 (1)]

**MANIFEST FOR HAZARDOUS AND OTHER WASTE**

1	Sender's Name & Mailing Address (including PhoneNo. and email)	<b>Name :</b> Adani Krishnapatnam Port Limited <b>Address:</b> P.O. Bag No:1, Muthukur Mandal, SPSR Nellore Dist., A.P. - 524344, <b>Phone No :</b> 9866192789 <b>Email:</b> venugopalreddy.g@adani.com																						
2	Sender's Authorisation No:	APPCB/VJA/NLR/11344/CFO/HO/2019 11/11/2022																						
3	Manifest Document No:	54738																						
4	Transporter Name & Mailing Address: (including PhoneNo. and email):	<b>Name:</b> Jyothi Lubricants <b>Address:</b> plot no 185, IDA ,Kondapalli ,Vijayawada <b>Phone No :</b> 6300244004 <b>Email :</b> jyothilubricants@gmail.com																						
5	Type of Vehicle:	Truck																						
6	VehicleRegistration No:	AP16TJ2619																						
7	Receiver's Name& mailingAddress, (including PhoneNo. and Email:	<b>Name :</b> Jyothi Lubricants <b>Address:</b> Plot No. 186-B, IDA,IDA, Kondapalli (V)Ibrahimpattam (M),Krishna Dist., <b>Phone No :</b> 6300244004 <b>Email:</b> jyothilubricants@gmail.com																						
8	Receiver's Authorisation No:	K-1125/PCB/RO-VJACFO/W&A/2017-																						
9	Waste Description:	a) HW - Recyclable Waste - 5.1 Used or spent oil, Waste oil/Used oil from D.G Sets, Vehicles, dredgers and other machinery																						
10	Total Quantity No. of Containers:	a) 8.08 - Tonnes, 45 Drum																						
11	Physical Form:	a) Oily																						
12	Special Handling Instructions & Additional Information:	Use PPE, use hand glove, use helmet																						
13	Sender's Certificate:	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed, marked and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.																						
	Name and stamp:	Signature: Acknowledged from IP: 117.99.199.175					<table border="1" style="border-collapse: collapse; text-align: center;"> <tr> <td>D</td><td>D</td><td>M</td><td>M</td><td>Y</td><td>Y</td><td>Y</td><td>Y</td> </tr> <tr> <td>2</td><td>3</td><td>0</td><td>2</td><td>2</td><td>0</td><td>2</td><td>3</td> </tr> </table>		D	D	M	M	Y	Y	Y	Y	2	3	0	2	2	0	2	3
D	D	M	M	Y	Y	Y	Y																	
2	3	0	2	2	0	2	3																	
14	Transporter acknowledgement of receipt of Wastes:																							
	Name and stamp:	Signature: Acknowledged from IP: 49.37.134.134					<table border="1" style="border-collapse: collapse; text-align: center;"> <tr> <td>D</td><td>D</td><td>M</td><td>M</td><td>Y</td><td>Y</td><td>Y</td><td>Y</td> </tr> <tr> <td>2</td><td>3</td><td>0</td><td>2</td><td>2</td><td>0</td><td>2</td><td>3</td> </tr> </table>		D	D	M	M	Y	Y	Y	Y	2	3	0	2	2	0	2	3
D	D	M	M	Y	Y	Y	Y																	
2	3	0	2	2	0	2	3																	
15	Receivers certification for receipt of hazardous and other waste:																							
	Name and stamp:	Signature: Acknowledged from IP: 49.37.134.134					<table border="1" style="border-collapse: collapse; text-align: center;"> <tr> <td>D</td><td>D</td><td>M</td><td>M</td><td>Y</td><td>Y</td><td>Y</td><td>Y</td> </tr> <tr> <td>0</td><td>1</td><td>0</td><td>3</td><td>2</td><td>0</td><td>2</td><td>3</td> </tr> </table>		D	D	M	M	Y	Y	Y	Y	0	1	0	3	2	0	2	3
D	D	M	M	Y	Y	Y	Y																	
0	1	0	3	2	0	2	3																	

**FORM 10**  
[See rule 19 (1)]

**MANIFEST FOR HAZARDOUS AND OTHER WASTE**

1	Sender's Name & Mailing Address (including PhoneNo. and email)	<b>Name :</b> Adani Krishnapatnam Port Limited <b>Address:</b> P.O. Bag No:1, Muthukur Mandal, SPSR Nellore Dist., A.P. - 524344, <b>Phone No :</b> 9866192789 <b>Email:</b> venugopalreddy.g@adani.com																						
2	Sender's Authorisation No:	APPCB/VJA/NLR/11344/CFO/HO/2019 11/11/2022																						
3	Manifest Document No:	55311																						
4	Transporter Name & Mailing Address: (including PhoneNo. and email):	<b>Name:</b> Thirupathi oil company unit 1 <b>Address:</b> M/s. Thirupathi Oil Company Unit-1, S.F.No. 129/2, Venmaniyatoor(V), Tindivanam (Tal), Villupuram District, Tamil Nadu State, TN-TN-TAMIL NADUmeu ip <b>Phone No :</b> 8919444215 <b>Email :</b> toc580026@gmail.com																						
5	Type of Vehicle:	Tanker																						
6	VehicleRegistration No:	TN31H7511																						
7	Receiver's Name& mailingAddress, (including PhoneNo. and Email:	<b>Name :</b> Thirupathi Oil Company Unit-1 <b>Address:</b> M/s. Thirupathi Oil Company Unit-1, S.F.No. 129/2, Venmaniyatoor(V), Tindivanam (Tal), Villupuram District, Tamil Nadu State <b>Phone No :</b> 8919444215 <b>Email:</b> toc580026@gmail.com																						
8	Receiver's Authorisation No:	180518936980																						
9	Waste Description:	a) HW - Recyclable Waste - 3.1 cargo residue, washing water and sludge containing oil, Oil containing cargo residue washing water and sludge from ships																						
10	Total Quantity No. of Containers:	a) 18.2 - Tonnes, 1 Container																						
11	Physical Form:	a) Oily																						
12	Special Handling Instructions & Additional Information:	Use PPE, use hand glove, use helmet																						
13	Sender's Certificate:	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed, marked and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.																						
	Name and stamp:	Signature: Acknowledged from IP: 112.133.252.82					<table border="1" style="border-collapse: collapse; text-align: center;"> <tr> <td>D</td><td>D</td><td>M</td><td>M</td><td>Y</td><td>Y</td><td>Y</td><td>Y</td> </tr> <tr> <td>2</td><td>7</td><td>0</td><td>2</td><td>2</td><td>0</td><td>2</td><td>3</td> </tr> </table>		D	D	M	M	Y	Y	Y	Y	2	7	0	2	2	0	2	3
D	D	M	M	Y	Y	Y	Y																	
2	7	0	2	2	0	2	3																	
14	Transporter acknowledgement of receipt of Wastes:																							
	Name and stamp:	Signature: Acknowledged from IP: 157.51.49.85					<table border="1" style="border-collapse: collapse; text-align: center;"> <tr> <td>D</td><td>D</td><td>M</td><td>M</td><td>Y</td><td>Y</td><td>Y</td><td>Y</td> </tr> <tr> <td>2</td><td>7</td><td>0</td><td>2</td><td>2</td><td>0</td><td>2</td><td>3</td> </tr> </table>		D	D	M	M	Y	Y	Y	Y	2	7	0	2	2	0	2	3
D	D	M	M	Y	Y	Y	Y																	
2	7	0	2	2	0	2	3																	
15	Receivers certification for receipt of hazardous and other waste:																							
	Name and stamp:	Signature: Acknowledged from IP: 157.51.48.55					<table border="1" style="border-collapse: collapse; text-align: center;"> <tr> <td>D</td><td>D</td><td>M</td><td>M</td><td>Y</td><td>Y</td><td>Y</td><td>Y</td> </tr> <tr> <td>0</td><td>1</td><td>0</td><td>3</td><td>2</td><td>0</td><td>2</td><td>3</td> </tr> </table>		D	D	M	M	Y	Y	Y	Y	0	1	0	3	2	0	2	3
D	D	M	M	Y	Y	Y	Y																	
0	1	0	3	2	0	2	3																	

**FORM 10**  
[See rule 19 (1)]

**MANIFEST FOR HAZARDOUS AND OTHER WASTE**

1	Sender's Name & Mailing Address (including PhoneNo. and email)	<b>Name :</b> Adani Krishnapatnam Port Limited <b>Address:</b> P.O. Bag No:1, Muthukur Mandal, SPSR Nellore Dist., A.P. - 524344, <b>Phone No :</b> 9866192789 <b>Email:</b> venugopalreddy.g@adani.com																						
2	Sender's Authorisation No:	APPCB/VJA/NLR/11344/CFO/HO/2019 11/11/2022																						
3	Manifest Document No:	56712																						
4	Transporter Name & Mailing Address: (including PhoneNo. and email):	<b>Name:</b> Thirupathi oil company unit 1 <b>Address:</b> M/s. Thirupathi Oil Company Unit-1, S.F.No. 129/2, Venmaniyatoor(V), Tindivanam (Tal), Villupuram District, Tamil Nadu State, TN-TN-TAMIL NADUmeu ip <b>Phone No :</b> 8919444215 <b>Email :</b> toc580026@gmail.com																						
5	Type of Vehicle:	Tanker																						
6	VehicleRegistration No:	TN10W7899																						
7	Receiver's Name & mailingAddress, (including PhoneNo. and Email:	<b>Name :</b> Thirupathi Oil Company Unit-1 <b>Address:</b> M/s. Thirupathi Oil Company Unit-1, S.F.No. 129/2, Venmaniyatoor(V), Tindivanam (Tal), Villupuram District, Tamil Nadu State <b>Phone No :</b> 8919444215 <b>Email:</b> toc580026@gmail.com																						
8	Receiver's Authorisation No:	180518936980																						
9	Waste Description:	a) HW - Recyclable Waste - 3.1 cargo residue, washing water and sludge containing oil, Oil containing cargo residue washing water and sludge from ships																						
10	Total Quantity No. of Containers:	a) 11.46 - Tonnes, 1 Container																						
11	Physical Form:	a) Oily																						
12	Special Handling Instructions & Additional Information:	Use PPE, use hand glove, use helmet																						
13	Sender's Certificate:	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed, marked and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.																						
	Name and stamp:	Signature: Acknowledged from IP: 223.187.76.220					<table border="1" style="width: 100%; text-align: center;"> <tr> <td>D</td><td>D</td><td>M</td><td>M</td><td>Y</td><td>Y</td><td>Y</td><td>Y</td> </tr> <tr> <td>0</td><td>8</td><td>0</td><td>3</td><td>2</td><td>0</td><td>2</td><td>3</td> </tr> </table>		D	D	M	M	Y	Y	Y	Y	0	8	0	3	2	0	2	3
D	D	M	M	Y	Y	Y	Y																	
0	8	0	3	2	0	2	3																	
14	Transporter acknowledgement of receipt of Wastes:																							
	Name and stamp:	Signature: Acknowledged from IP: 157.51.175.125					<table border="1" style="width: 100%; text-align: center;"> <tr> <td>D</td><td>D</td><td>M</td><td>M</td><td>Y</td><td>Y</td><td>Y</td><td>Y</td> </tr> <tr> <td>0</td><td>8</td><td>0</td><td>3</td><td>2</td><td>0</td><td>2</td><td>3</td> </tr> </table>		D	D	M	M	Y	Y	Y	Y	0	8	0	3	2	0	2	3
D	D	M	M	Y	Y	Y	Y																	
0	8	0	3	2	0	2	3																	
15	Receivers certification for receipt of hazardous and other waste:																							
	Name and stamp:	Signature: Acknowledged from IP: 157.47.87.210					<table border="1" style="width: 100%; text-align: center;"> <tr> <td>D</td><td>D</td><td>M</td><td>M</td><td>Y</td><td>Y</td><td>Y</td><td>Y</td> </tr> <tr> <td>1</td><td>1</td><td>0</td><td>3</td><td>2</td><td>0</td><td>2</td><td>3</td> </tr> </table>		D	D	M	M	Y	Y	Y	Y	1	1	0	3	2	0	2	3
D	D	M	M	Y	Y	Y	Y																	
1	1	0	3	2	0	2	3																	

**Annexure H:  
Acknowledgement Copy of half yearly  
compliance report submitted to  
MoEF&CC and APPCB**



Ports and  
Logistics

Ref.No. AKPL /EHS-EC/MoEF&CC/099/2022-23

Dated: 30.11.2022

To

**Deputy Director,**

Ministry of Environment, Forests & Climate Change  
Integrated Regional office, (IRO)  
Green House Complex, Gopal Reddy Road,  
Vijayawada, 520010, Andhra Pradesh.

Sub: Submission of Half yearly Compliance Report on conditions of Environmental and CRZ clearances for phase I,II & III Development at Krishnapatnam Port for the period of April to September 2022 – Reg.

Ref: 1. EC& CRZ for Phase I of Krishnapatnam Port Ltr. No: 10-22/2005-IA-III dated 26.07.2006  
2. EC & CRZ for Phase II of Krishnapatnam Port Ltr. F.No: 11-62/2009-IA-III dated 13.11.2009  
3. EC&CRZ for Phase III of Krishnapatnam Port Ltr. F.No: 10-18/2016-IA-III dated 11.01.2021

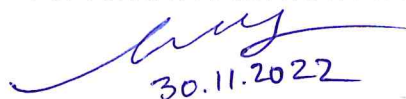
Dear Sir,

As per the general condition no 14. Of the Environmental and CRZ clearance cited at 2, and standard condition XI, Miscellaneous condition no. (iv) of the Environmental & CRZ clearance cited at 3, please find herewith attached condition wise six-monthly compliance report of Phase I,II & III developments of Krishnapatnam port along with Environment Monitoring Report for the period from April to September 2022.

Thanking you,

Yours faithfully,

For ADANI KRISHNAPATNAM PORT LIMITED



G Venugopal Reddy  
(Associate GM-EOHS)

Encl: Compliance Report on EC&CRZ Clearance conditions of Krishnapatnam Port Phase I,II & III development along with Environmental Monitoring Report for the period of Apr to Sep 2022

Copy to:

1. The regional Director, CPCB Zonal office, Bengaluru
2. Environment Engineer, A.P Pollution Control Board, Regional Office, Nellore

Adani Krishnapatnam Port Ltd  
(Formerly, Krishnapatnam Port Company Ltd)  
PO Bag No 1, Muthukur Mandal,  
SPSR Nellore District 524344  
Andhra Pradesh, India  
CIN: U45203AP1996PLC023529

Tel +91 861 2377999  
Fax +91 861 237 7046  
info@adani.com  
www.adaniports.com



Ports and  
Logistics

Ref.No. AKPL /EHS-CFE-CFO/104/2022-23

Dated: 23.12.2022

To  
**Environment Engineer,**  
Regional Office,  
APPCB,  
SPSR Nellore, Andhra Pradesh.

Sub: Submission of Half yearly Compliance Report on conditions of CFE & CFO for the period of April 2022 to September 2022 – Reg.

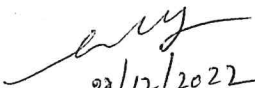
Ref:

1. Consent & Authorization order no: APPCB/VJA/NLR/11344/CFO/HO/2019- Dated 11.11.2022
2. CFE for Phase II order no 633/PCB/CFE/RO-NLR/HO/201-390 dated 08.05.2010
3. CFE for Phase III order no: 633/APPCB/CFE/ROONLR/O/2010 dated 25.02.2021

Dear Sir,

In compliance with the general condition no 52 of schedule – B of the CFO 1<sup>st</sup> cited, condition no 1 of Schedule – A of the CFE cited at 2 and condition no 21 of the CFE order cited at 3, please find herewith enclosed condition wise Half yearly compliance reports of Adani Krishnapatnam Port for the period April 2022 to September 2022 along with Half-yearly Environmental monitoring report.

Thanking you,  
Yours Sincerely,  
For ADANI KRISHNAPATNAM PORT LIMITED

  
23/12/2022  
G Venugopal Reddy  
(Associate GM-EOHS)



Encl: Half yearly compliance reports on conditions CFE, CFO by Adani Krishnapatnam Port along with Environmental Monitoring report

Copy to: The Joint Chief Environment Engineer, APPCB, Vijayawada

Adani Krishnapatnam Port Ltd  
(Formerly, Krishnapatnam Port Company Ltd)  
PO Bag No 1, Muthukur Mandal,  
SPSR Nellore District 524344  
Andhra Pradesh, India  
CIN: U45203AP1996PLC023529

Tel +91 861 2377999  
Fax +91 861 237 7046  
info@adani.com  
www.adaniports.com





**Annexure I:  
Mock Drill Report**

## MOCK DRILL REPORT

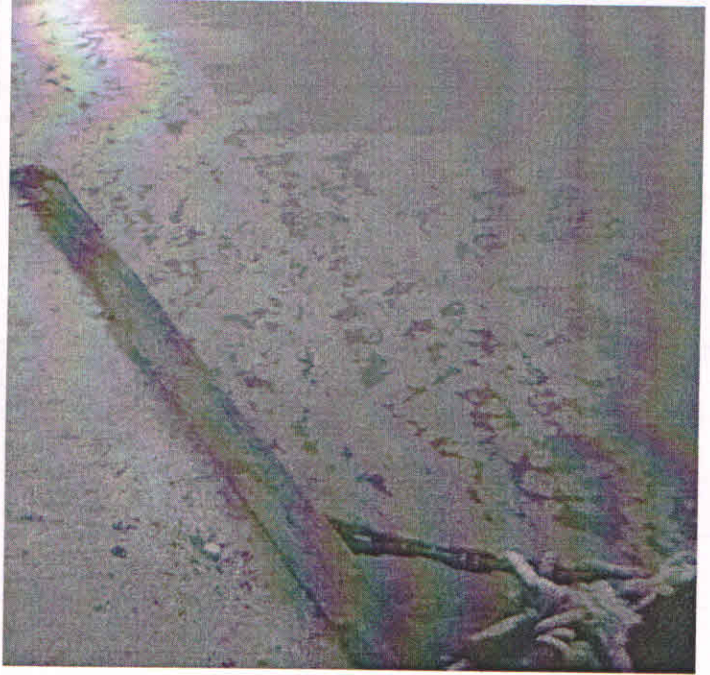
Name of the Mock Drill	<b>Oil Spill during Bunkering</b>
Type of Mock Drill	OPR DRILL
Date	16/04/2023
Location of the Event	NW3
Description of the event	MT AU TAURUS Reported - Oil Spill during bunkering.
Event	Oil Spill from the vessel during bunkering.
Mock drill conducted by	Sk. Junead
Name of the Observers	Capt Padhi (HoD)
	Capt Sahoo (HoS)
Emergency declared at (Time)	1500
All Clear declared at (Time)	1610

Emergency Actions:		
Time	VHF	ACTIONS
15:00	VHF/12	MT AU TAURUS at berth NW3 informed to Port control at 15:00 hrs that small quantity of oil spilled during bunkering.
15:05	PH	Port control informed to MT AU TAURUS vessel master to stop bunkering & initiate your oil pollution response operation.
15:20	VHF/12	Port control conveyed above message to HOD, HOS, In-charge of port control & oil pollution team. Also informed other departments concerned – Fire, Medical Services.
15:35	VHF 12	MT AU TAURUS vessel master informed to port control cargo operation stopped and total 15 ltrs of oil spilled onboard and crew standby.
15:38	VHF 12	Vessel crew started and collecting spilled oil On Board the vessel and same communicated to Port Control.
15:44	VHF/12	Port Control carried physical check and reported cleaning is ongoing with OPR Gears.
15:55	VHF/12	Port Control same communicated to all the concerns involved and instructed vessel to report Port Control once the cleaning is completed.
16:00	VHF/12	Vessel and Berthing Officer reported Oil recovery is completed. Collected above 15 ltrs which is being sent to EHS dept for safe disposal.
16:10	VHF/12	Instructed all the standby team to bring back skimmer and booms and secure them in OPR shed.
16:20	VHF/12	Drill was called off and instructed all participants for Debriefing. All departments concerned were informed regarding calling off the drill.

Items/ resource consumed	Boat 617, Fiber Boats -2, Towing Ropes, OPRC Team
No. of persons reported at assembly point (Attach list)	8
No. of persons inside the area/ building (Attach list)	N/A

No. of vehicles/ equipment evacuated	1 Boat				
No. of vehicle /equipment inside the area	N/A				
No of persons sent outside at safe place from assembly point	N/A				
No. of victims rescued	N/A				
No. of people injured a. Minor injuries b. Major injuries c. No.of victim Hospitalized d. Fatal	None Injured				
No.of Fire/ Rescue team involved	<u>Department</u> Nil	<u>No.of persons</u>			
Type of vehicle / equipment used in drill	<u>Vehicle/ Equipment</u> Dolphin (Patrolling) Boat Fiber (Patrolling) Boat	<u>No's</u> 1 2	<u>Reg. Number</u>		
Time taken for the drill :					
<b>Task</b>	<b>People Evacuation</b>	<b>Vehicle/ Equipment Evacuation</b>	<b>Fire Extinguishing</b>	<b>Rescue Operation</b>	<b>Total</b>
Actual			N/A	N/A	80 Min
Observations	Observer-1: Resources mobilization delays - Nil				
	Observer-2: None				
<b>Sl. No.</b>	<b>Action Plan</b>	<b>Responsibility</b>		<b>Target Date</b>	
1	Instruction from HOD to check proper connections of hoses during bunkering.	Port Control		Immediate	
 Drill conducted by:		 In Charge Signature			

Pictures of the Event:



**Annexure J –  
Form-V Environmental Statement**

Adani Krishnapatnam Port Limited

## **FORM-V ENVIRONMENTAL STATEMENT**

### **FORM-V**

**(See Rule – 14)**

The Ministry of Environment & Forest vide its notification dated 13<sup>th</sup> March, 1992 directed all industries which need to have consent under Water (Prevention & Control of Pollution) 1974 and Air (Prevention & Control of Pollution) 1981 to file the Environmental statement every year. This is to be filed for the period ending March by September 30<sup>th</sup> every year. The format for the same is as follows:

1. Environmental Audit Report for the financial year ending the 31<sup>st</sup> March 2021.

### **PART – A**

(i). Name and address of the owner : **M/s. Adani Krishnapatnam Port Limited**  
/ occupier of the industry, **Post Box No. 1, Krishnapatnam Village**  
operation or process. **Muthukur Mandal**

**Sri Potti Sri Ramulu Nellore District**

**Andhra Pradesh**

**Pin: 524 344**

(ii). Production capacity :

- **Approved cargo handling capacity of infrastructure so far developed i.e., as per the CFO dated 29.07.2018 and its amendment dated 10.02.2020 is 68 MTPA of various types of cargo plus 2.0 MTEUs PA of container cargo.**

- **Approved Cargo Handling Capacity of Phase-III development as per EC & CFE accorded is 150.2 MTPA of various cargo plus and 1.1 MTEUs PA of Container cargo. Phase -III Construction under progress.**

(iii). Year of establishment : **2004**

(iv). Date of the last environmental Statement submitted : **25.09.2020**

Adani Krishnapatnam Port Limited

**PART - B**

**WATER AND RAW-MATERIAL CONSUMPTION**

- i). WATER Consumption
- |  |              |
|--|--------------|
| Dust suppression                         | : 940 KL/Day |
| Gardening & Irrigation                   | : 385 KL/Day |
| Domestic                                 | : 379 KL/Day |
| Miscellaneous (Fire Protection Services) | : 450 KL/Day |

**Total consumption : 2154 KL/Day**

Name of the product	Water consumption per unit of product	
	Previous Fin. Year 2019-20	Current Fin. Year 2020-21
<b>Not Applicable</b>	<b>Not Applicable</b>	<b>Not Applicable</b>

- ii) RAW-MATERIAL CONSUMPTION

Name of Raw-Material	Name of Products	Consumption of Raw Material Per unit of output	
		Previous Fin. Year 2019-20	Current Fin. Year 2020-21
<b>Not Applicable</b>	<b>Not Applicable</b>	<b>Not Applicable</b>	<b>Not Applicable</b>
<b>Cargo Handling at Krishnapatnam Port</b>		<b>38.89 MT of non-container cargo + 0.54 MTEUs of Container cargo</b>	<b>32.66 MT of non-container cargo + 0.335 MTEUs of Container cargo</b>

**Cargo being handled through Adani Krishnapatnam Port Ltd comprise of Coal, Iron ore, General Cargo (Fertilizers, Food grains, Granite, Wind blades, Barites, Bentonite, Feldspar, Edible Oil, Project cargo, Clinker, Gypsum, Steel Coil, Steel Rebars, Cement etc.) and Containers.**

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

**PART – C**

**DISCHARGE TO ENVIRONMENT /UNIT OF OUTPUT  
SPECIFIED IF THE CONSENT ISSUED**

*(Parameters as specified in the Consent issued)*

Pollutants	Quantity of pollution generated	Percentage of variation from prescribed standards with reasons
a) Water	<b>241 KLD Treated effluent of STP used for plantation and dust suppression purposes</b>	<b>Nil</b>
b) Air	<b>Not Applicable</b>	<b>Not Applicable</b>

**PART – D**

**HAZARDOUS WASTES**

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

Hazardous Wastes	Total Quantity (Kg)	
	Previous Financial Year 2019-20	Current Financial Year 2020-21
a) From Process	<b>Not Applicable</b>	<b>Not Applicable</b>
b) From Pollution control facilities	<b>Not Applicable</b>	<b>Not Applicable</b>
c) Waste Oil	<b>1,09,090 Liters</b>	<b>20,135 Liters</b>

**PART - E**

**SOLID WASTES**

Solid Wastes	Total Quantity (Kg)	
	Previous Financial Year 2019-20	Current Financial Year 2020-21
a) From Process	<b>Not Applicable</b>	<b>Not Applicable</b>
b) From Pollution control facilities	<b>Not Applicable</b>	<b>Not Applicable</b>
c) (1) Quantity recycled or reutilizes within the unit.	<b>Not Applicable</b>	<b>Not Applicable</b>
(2) Solid	<b>Not Applicable</b>	<b>Not Applicable</b>



Adani Krishnapatnam Port Limited

(3) Disposed	<b>Composting of biodegradable wastes and the compost is used as manure for greenbelt development.</b>	<b>Composting of biodegradable wastes and the compost is used as manure for greenbelt development.</b>
--------------	--	--

**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 the categories of wastes.

1. **Composting is developed for biodegradable wastes (food wastes) and the compost is used for Green belt development within the port premises.**
2. **Non – Biodegradable solid waste, metal scrap, plastics etc., disposed to scrap buyers/ authorized agencies.**
3. **Hazardous wastes (Waste oil / used oil) is being disposed through APPCB authorized preprocessors / recyclers.**
4. **Lead acid batteries are being purchased on buy back basis and/or disposed through APPCB approved agencies.**

**PART – G**

Impacts of the pollution abatement measures taken up on conservation of natural resources and on the cost of production.

**The Environmental parameters viz., Ambient Air Quality, Ambient Noise, Marine Water Quality, Marine Sediment Quality, Surface water quality, Ground Water and Soil Quality in the periphery of the port are being monitored through an agency accredited to NABL and approved by MoEF&CC. Three CAAQM Stations established in the port and same are connected to APPCB website. Results of monitoring are within the statutory norms and periodical Monitoring Reports are being regularly submitted to the authorities. Periodical Reports of Compliance of Conditions of EC, CFE and CFO as well as progress of implementation of directions issued by the authorities from time to time are also being submitted regularly to the authorities.**

Adani Krishnapatnam Port Limited

**Following pollution control measures are being implemented at the Port:**

- i. Deploying 8 Nos. of heavy-duty Atomized mist sprayers.**
- ii. Installation and operation of Mechanical Dust Suppression System with 248 Nos., fixed and portable sprinklers at coal yards and wagon loading areas.**
- iii. Deploying 15 Nos. of Truck mounted (mobile) sprinklers for roads and transit areas.**
- iv. Developed paved roads and deployed vacuum road sweeping machines.**
- v. Developed warehouses for fertilizers, food grains and agri products: Handling fertilizers in closed warehouses.**
- vi. Conveyors have been covered with hood and Dust suppression system for transfer points have been commissioned and are operational.**
- vii. Wagon Loading Station (WLS) has been commissioned along with 02 Nos. stacker reclaimer for dust free cargo loading.**
- viii. Developed Drains, Collection Pits and Guard Ponds for runoff from coal stack yards with facility to recycle runoff water for dust suppression.**
- ix. Developed 300 KLD STP and the treated water from STP is being used for plantation and dust suppression.**
- x. Developed truck wash areas with collection pits baffle wall system and treated water is being used for dust suppression.**
- xi. Developed wind screen towards habitants to control dust.**

Adani Krishnapatnam Port Limited

- xii. Trucks and railway wagons transporting coal etc., destined to hinterland are being covered with tarpaulins.**
- xiii. Developing Greenbelt along boundary of port and around stockpiles. 191.5 Ha of greenbelt has already been developed in port area.**
- xiv. Existing Mangroves in the port area are being protected by fencing, providing suitable display boards, and ensuring tidal exchange by constructing pipe culvert.**
- xv. As stipulated, 50 Ha of mangroves were developed in the identified area in the port.**
- xvi. Developed 12 Nos. rainwater harvesting ponds.**
- xvii. Trained Senior Level executives on “In-House capacity building in environmental aspects” (Short term and Long term) by experts from ASCI. Also deputing officials to attend trainings conducted by ESCI, CII etc.**
- xviii. Developed Environmental Cell with qualified personnel under the Chief Operating Officer of the port.**
- xix. Regular review of implementation of EMP and environmental aspects is being undertaken regularly at the highest level.**

#### **PART – H**

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

- i. Augmentation of mechanized dust suppression with additional fixed/portable sprinklers and heavy-duty atomized mist sprayers.**
- ii. Mechanization of cargo handling with in-built dust suppression measures is in progress.**

Adani Krishnapatnam Port Limited

- iii. **Tidal exchange to the mangrove areas is maintained by constructing suitable culverts.**

**PART – I**

Any other particulars for improving the quality of the environment.

- i. **The Adani Krishnapatnam Port Ltd is Accredited to International Management systems**
- a. **ISO 9001:2015 Quality Management Systems,**
  - b. **ISO 14001:2015 Environmental Management Systems,**
  - c. **ISO 45001:20018 Occupational Health and Safety Management Systems,**
  - d. **ISO 28000:2007 Supply of Chain Security Management Systems.**
  - e. **ISPS – International Ship and Port facility Security**
  - f. **SUP- Single Use Plastics Free Certificate**
- ii. **Adani Krishnapatnam Port Ltd is bestowed with the top honors and a few are mentioned here under:**
- **Container Handling Terminal of the Year – 10th South East conclave & Awards 2018.**
  - **“5 star” Rating Award for excellence in EHS practices by CII – SR EHS Excellence awards 2017.**
  - **“First place” in Construction / Infrastructure / Power CII – SR EHS Excellence Award–2017.**
- iii. **PUC certificates are insisted for vehicles and random checks are also being carried out.**
- iv. **Disaster Management Plan, Oil Spill Contingency Plan, On-Site Emergency Plan, Fire Contingency plans have been prepared, submitted to concerned authorities and are being followed.**
- v. **Conducting mock drills, safety awareness training programs to all employees and workers periodically and displaying posters, sign boards in the work places wherever necessary.**

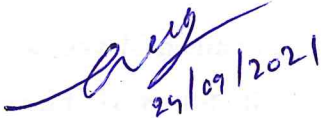
Adani Krishnapatnam Port Limited

- vi. Procured required oil spill control equipment and chemicals and deploying trained staff for “Tier – I” oil spills. Established tie-up with Coast Guard.
- vii. Provided display boards as per the directions of Pollution Control Board at the main gate of the Adani Krishnapatnam Port Limited.
- viii. Established continuous weather monitoring station in the port area for monitoring the meteorological parameters such as wind speed and direction, temperature, and rainfall.
- ix. Established continuous monitoring piezometer for recording ground water level.
- x. Established 03 Nos. Continuous Ambient Air Quality Monitoring stations as per the directions in the CFO and linked the same to APPCB web site.
- xi. Implementing waste management plan in port premises.
- xii. Further Greenbelt development is being continued.
- xiii. Expenditure towards Environmental Protection works undertaken in the port during the year 2020 – 2021 is Rs. 4.14 Crores.

**CSR Activities:**

Adani Krishnapatnam Port Limited is committed to ensure balanced sustainable development in harmony with the surrounding environment. Several socio-economic growth initiatives besides other clean and green measures as part of CSR activities in line with applicable guidelines are being implemented by the Port through CVR foundation to the benefit of local community and the region at large. R&R packages implemented by GoAP for the project affected villages have been augmented by AKPL under CSR activities for improving overall living standards of the villagers around the port catering to Housing, Education, Health and Medical Aid, Cooking gas supply, imparting Vocational Skills, Supply of Fishing gear, Women empowerment etc.,

For Adani Krishnapatnam Port Limited,

  
29/09/2021

**G Venugopal Reddy**  
Associate GM- EOHS

**Annexure K:  
Newspaper Advertisement of Phase III  
EC/CRZ Clearance issued by MoEF&CC**

## M/s Krishnapatnam Port Company Ltd. Regarding Environmental and CRZ Clearance of Phase-III Expansion

### PUBLIC NOTICE

This is to bring to the public notice that M/s Krishnapatnam Port Company Ltd. has been accorded Environmental Clearance (EC) for Development of Phase-III Expansion with supporting utilities and infrastructure facilities by the Ministry of Environment, Forest and Climate Change (MoEFCC), Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi 110003, vide File No. 10-18/2016-IA-III dated 11.01.2021. A copy of the above mentioned Clearance letter along with the Environmental Conditions and safeguard is published here and is available with Andhra Pradesh Pollution Control Board. This may also be seen on the website of Ministry of Environment, Forest and Climate Change at <https://www.moef.nic.in> and on website of <http://krishnapatnamport.com> in Environmental Information section.

**File No: 10-18/2016-IA-III**

**Proposal No: IA/AP/MIS/566/2009**

Government of India, Ministry of Environment, Forest and Climate Change (Impact Assessment Division), Indira Paryavaran Bhawan, Jor Bagh Road, Air Gan, New Delhi - 110 003.

**Dated: 11th January 2021**

To The Director and Chief Executive Officer, M/s Krishnapatnam Port Company Ltd, 1st Floor, 4B-9-17, Dwarakanagar, Vishakhapatnam - 530 016, Andhra Pradesh.

Subject: Expansion of Krishnapatnam Port (Phase-III) at SPSR Nellore District, Andhra Pradesh by M/s Krishnapatnam Port Company Ltd - Environmental and CRZ Clearance.

Sr.

This has reference to your online proposal to this Ministry on 05th June 2020 regarding Environmental and CRZ Clearance for Expansion of Krishnapatnam Port (Phase-III) at SPSR Nellore District, Andhra Pradesh by M/s Krishnapatnam Port Company Ltd.

2. Krishnapatnam Port located at 14°11'0" N Latitude and 80°08' 05" E Longitude in Sri Potti Sri Ramulu (SPSR) Nellore District, AP is developed by Krishnapatnam Port Company Ltd (KPCL) as an all-weather, deep water, multi-purpose port. The Phase B II developments of Krishnapatnam Port comprising of 12 berths out of 17 approved berths with required marine infrastructure were developed in a designated land area of 145.10 (Ac. 3054) to cater to 68 MT/DA of various types of cargo plus 2.0 MTEUs/DA of container traffic. To cater to future traffic needs, KPCL has proposed to take up Phase III expansion of the port.
3. The proposed phase-III project comprising of 16 Berths including 3 jetties for liquid cargo and 3 SBMs in deep waters within Port Limits to cater 150.2 MTPA of various types of cargo plus 11 MTEUs/DA of container cargo. The proposed expansion entail 60 million cu m of dredging in soft soil, utilize 26 million cum of dredged sand for reclamation of low lying areas of port, stock pile 2 million cu m on the coast north of north breakwater for long term coastal protection as recommended by NIOI and disposal of balance 32 million cu m of dredged spoil in the identified dredge disposal area of 56 km<sup>2</sup> beyond (0.20 m contour. In view of the severe floods that have occurred in the Nellore region during 2015, in order to improve the discharge through Kandaleru Creek the GoAP also suggested cutting through the islands in the Creek. The Masterplan development as well as the proposed Phase-III expansion of Krishnapatnam Port envisaged training the meanders of the Kandaleru Creek by forming a straight cut across the sand bar existing in the Kandaleru Creek within the port limits and develop the west dock with berths on both sides of the straight cut and reclaim the erstwhile meanders of the creek.
4. The proposed proposal fall under 7th, Category A as per EA notification 2006. The overall cost of the project is Rs. 907000 Lakhs. The Term of Reference (TOR) was issued vide letter No. 10-18/2016-IA-III dated 4th May 2016. Amendment in TOR was done vide Letter No. of even number dated 24th November 2017. Further amendment in TOR was done vide Letter No. of even number dated 27th August 2018. Public hearing was exempted as per the 10th amendment vide Letter No.10-18/2016-IA-III dated 24th November 2017. However, it was recommended that the Project Proponent shall address the compliance of these recommendations in the Public Hearing 2009 and submit the same as separate document attached to EIA report.
5. As per the commitments made during the public hearing 100 m green belt has been developed along the boundary of the port. Further as ordered by AP PCB, 191.5 Ha of green belt has been developed. Dedicated 4 lane port road connectivity has been developed to NH-16 by GoAP. Further, as requested by local public, Krishnapatnam Port is undertaking environmental protection measures to combat air pollution. Total no of village population working directly and indirectly in the port and port based industries are 10,500. Further KPCL has adopted 35 surrounding villages and is carrying out necessary developmental activities.
6. Total area of the proposed project is 1094 Ha (Ac.2703). The project does not involve any land acquisition and RBL as the proposed project activities will be developed within the existing designated Krishnapatnam port facility. There is no diversion of forest land. The patches of mangroves around 7128 Ha of area is falling in proposed Phase-III development area will be protected. There is no Eco-Sensitive Zone (ESZ) / Protected Area such as National Parks, Sanctuaries and Tiger Reserves etc., within the 10 km radius of the project area.
7. The proposed project site is located in the coastal area and atoxic CRZ Notification, 2011. The CRZ Area details of the proposed project activities as per the revised layout of the Phase-III expansion of KPCL has been provided by Institute of Remote Sensing, Anna University, which is an authorized agency for CRZ map preparation. The layout superimposed on CRZ map was done at 1:4000 scales. The proposed project was approved by the Andhra Pradesh Coastal Zone Management Authority (AP CZMA) and the recommendation was obtained vide Letter No. 1002/CRZ/IND/201930 dated 21.05.2020.
8. The project site is located on the east coast alongside Bay of Bengal. The Kandaleru Creek and Upputeru creeks, Buckingham canal passes through the project site. The other surface water bodies in the study area include irrigation drains from agricultural fields, Saravali reservoir and Goshidheerli reservoir. The superficial drains inside the project site will not be disturbed and culverts CED 1 and CED 2 are proposed to be provided for the road and rail bridges over the drains without affecting their flow. The mangroves inside the Phase III developmental area will be conserved and pipelines from the nearby drain are provided for tidal exchange. The Kandaleru Creek will be straightened to develop the west dock. NIOI has studied the impacts of creek re-routing and it was found that there is only slight change in the water level and no impact on flushing and tidal exchange due to the proposed development.
9. The existing port facility has a water supply of 9 MLD which includes 1 MLD of water from Multhar Reservoir provided by Government of Andhra Pradesh and 4 MLD of water from Nakkalakaivea Irrigation drain provided by Irrigation Department of Andhra Pradesh. The present Port facility (Phase-I and Phase-II developments) utilizes 2.5 MLD of water and the water requirement for the proposed Phase-III development is estimated to be 2.5 MLD. No groundwater will be extracted/utilized for the proposed project.
10. The port is proposed to install a Sewage Treatment Plant (STP) of capacity 700 KLD to treat the sewage and an Effluent Treatment Plant (ETP) of 300 KLD capacities to treat the wastewater from the Port. The treated wastewater will be utilized for greenbelt and dust suppression systems. Greenbelt is proposed in an area of 120 Ha along the Port boundary and around the coal storage areas with native species.
11. Benefits of the project: The proposed development would generate large scale direct and indirect employment for the local people in both the skilled and unskilled water class. Further there would be an improvement to the local infrastructures in the vicinity of the port through CSR. About 6200 people will get employment during construction and operation phase. The proposed development will help in handling the increased cargo demand due to industrialization. This will contribute towards the growth in economy of the region and the nation. The increased revenue due to proposed development would contribute to the exchequer i.e., Central Government departments like Customs & Excise, Railways, Commercial Taxes and Income Tax. This will eventually contribute towards the State Government of Andhra Pradesh by way of share of revenue and lease rentals.
12. The project proponent along with the EIA consultant, M/s Chalamandaram MS Risk Services Limited, Chennai made a presentation through Video Conferencing during 24th EAC meeting held on 14th December 2020. The EAC based on the information submitted and clarifications provided by the project proponent and detailed discussions held on all the issues, recommended the project for grant of environmental and CRZ clearance with stipulated specific conditions along with other Standard EC Conditions as specified by the Ministry vide OM dated 4th January, 2019 for the said project/activity.
13. The Ministry of Environment, Forest and Climate Change has considered the proposal based on the recommendations of the Expert Appraisal Committee (Infrastructure, CRZ and other Miscellaneous projects) and hereby decided to grant Environmental and CRZ Clearance for the "Expansion of Krishnapatnam Port (Phase-III) at SPSR Nellore District, Andhra Pradesh by M/s Krishnapatnam Port Company Ltd." under the EIA Notification, 2006 as amended and CRZ Notification 2011, subject to strict compliance of the following:
  - (v) Spillage of fuel / engine oil and lubricants from the construction site are a source of organic pollution which impacts marine life. This shall be prevented by suitable precautions and also by providing necessary mechanisms to trap the spillage.
  - (vi) Total fresh water use shall not exceed the proposed requirements as provided in the project details. Prior permission from competent authority shall be obtained for use of fresh water.
  - (vii) Sewage Treatment Plant shall be provided to treat the wastewater generated from the project. Treated water shall be reused for horticulture, flushing, backwash, HVAC purposes and dust suppression.
  - (viii) A certificate from the competent authority for discharging treated effluents / untreated effluents into the Public sewer / disposal / drainage systems along with the final disposal point should be obtained.
  - (ix) No diversion of the natural course of the river shall be made without prior permission from the Ministry of Water Resources.
  - (x) All the erosion control measures shall be taken at water front facilities. Earth protection work shall be carried out to avoid erosion of soil from the shoreline / boundary line from the land area into the marine water body.
- IV. Noise monitoring and prevention:
  - (i) Noise level survey shall be carried as per the prescribed guidelines and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.
  - (ii) Noise from vehicles, power machinery and equipment on-site shall not exceed the prescribed limit. Equipment should be regularly serviced. Attention should also be given to muffler maintenance and enclosure of noisy equipment.
  - (iii) Acoustic enclosures for DG sets, noise barriers for ground-run bays, ear plugs for operating personnel shall be implemented as mitigation measures for noise impact due to ground sources.
  - (iv) The ambient noise levels should conform to the standards prescribed under E(P)A Rules, 1986 viz. 75 dB(A) during day time and 70 dB(A) during night time.
- V. Energy Conservation measures:
  - (i) Provide solar power generation on roof tops of buildings, for solar light system for all common areas, street lights, parking around project area and maintain the same regularly.
  - (ii) Provide LED lights in their offices and port areas.
- VI. Waste management:
  - (i) Dredged material shall be disposed safely in the designated areas.
  - (ii) Shoreline should not be disturbed due to dumping. Periodical study on shore line changes shall be conducted and mitigation carried out, if necessary. The details shall be submitted along with the six monthly monitoring reports.
  - (iii) Necessary arrangements for the treatment of the effluents and solid wastes must be made and it must be ensured that they conform to the standards laid down by the competent authorities including the Central or State Pollution Control Board and under the Environment (Protection) Act, 1986.
  - (iv) The solid wastes shall be managed and disposed as per the norms of the Solid Waste Management Rules, 2016.
  - (v) Any wastes from construction and demolition activities related thereto shall be managed as per to strictly conform to the Construction and Demolition Waste Management Rules, 2016.
  - (vi) A certificate from the competent authority handling municipal solid wastes should be obtained, indicating the existing civic capacities of handling and their adequacy to cater to the M.S.W. generated from project.
  - (vii) Used CFLs and TFLs should be properly collected and disposed off / sent for recycling as per the prevailing guidelines / rules of the regulatory authority to avoid mercury contamination.
  - (viii) Oil spill contingency plan shall be prepared and part of DMP to tackle emergencies. The equipment and recovery of oil from a spill would be assessed. Guidelines given in MARPOL and Shipping Acts for oil spill management would be followed. Mechanism for integration of terminal oil contingency plan with the overall area contingency plan under the co-ordination of Coast should be covered.
- VII. Green Belt:
  - (i) Green belt shall be developed in area as provided in project details with a native tree species in accordance with CPCB guidelines.
  - (ii) Top soil shall be separately stored and used in the development of green belt.
- VIII. Marine Biology:
  - (i) The dredging schedule shall be so planned that the turbidity developed is dispersed soon enough to prevent any stress on the fish population.
  - (ii) While carrying out dredging, an independent monitoring shall be carried out through a Government Agency / Institute to assess the impact and necessary measures shall be taken on priority basis if any adverse impact is observed.
  - (iii) A detailed marine biodiversity management plan shall be prepared through the NIO or any other Institute of repute on marine, brackish water and fresh water ecology and biodiversity and submitted to and implemented to the satisfaction of the State Biodiversity Board and the CRZ authority. The report shall be based on a study of the impact of the project activities on the Herpetofauna, corals and coral communities, molluscs, sea grasses, sea weeds, sub-tidal habitats, fishes, other marine and aquatic invertebrates, macro and mega flora and fauna including benthos, plankton, turtles, birds etc. as also the productivity. The data collection and impact assessment shall be as per standards survey methods and include underwater photography.
  - (iv) Marine ecology shall be monitored regularly also in terms of sea weeds, sea grasses, mudflats, sand dunes, fisheries, echinoderms, shrimps, turtles, corals, coastal vegetation, mangroves and other marine biodiversity components including all micro, macro and mega flora and faunal components of marine biodiversity.
  - (v) The project proponent shall ensure that water traffic does not impact the aquatic wildlife sanctuaries that fall along the stretch of the river.
- IX. Public hearing and human health issues:
  - (i) The work space shall be maintained as per international standards for occupational health and safety with provision of fresh air respirators, blowers, and fans to prevent any accumulation and inhalation of undesirable levels of pollutants including VOCs.





**Annexure L:  
Acknowledgement copy of Monthly  
Compliance Report Submission to  
APPCB (Oct'22-Mar'23)**

# adani

Ports and  
Logistics

Ref: AKPL/APPCB/EMR.EHS/097/2022-23

Date: 24/11/2022

**To**  
**The Environmental Engineer**  
AP Pollution Control Board  
Regional Office,  
A.P.S.F.C. Building, A.K. Nagar  
Sri Potti Sriramulu Nellore



**Sub:** Submission of monthly analysis report - Reg.  
**Ref:** Compliance on /CFO/Schedule -B/Condition No.49; dt.11.11.2022

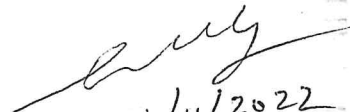
Dear Sir,

With reference to the above subject, kindly find the monthly analysis reports of Turbidity Monitoring, Marine Water Quality Monitoring, Sediment Quality Monitoring, STP water quality, Ambient Air Quality Monitoring and Ambient Noise Levels monitoring carried out during **Oct 2022** at Adani Krishnapatnam Port Limited, Nellore.

Kindly confirm the receipt.

Thanking you

Yours truly,  
For **ADANI KRISHNAPATNAM PORT LIMITED**

  
24/11/2022

(G. Venugopal Reddy)  
**Associate General Manager - EOHS**

Encls: Reports

Adani Krishnapatnam Port Ltd  
(Formerly, Krishnapatnam Port Company Ltd)  
PO Bag No 1, Muthukur Mandal,  
SPSR Nellore District 524344  
Andhra Pradesh, India  
CIN: U45203AP1996PLC023529

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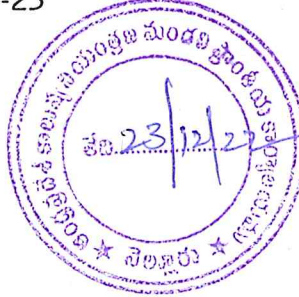
# adani

Ports and  
Logistics

Ref: AKPL/APPCB/EMR.EHS/103/2022-23

Date: 21/12/2022

**To**  
**The Environmental Engineer**  
AP Pollution Control Board  
Regional Office,  
A.P.S.F.C. Building, A.K. Nagar  
Sri Potti Sriramulu Nellore



**Sub:** Submission of monthly analysis report - Reg.  
**Ref:** Compliance on /CFO/Schedule -B/Condition No.49; dt.11.11.2022

Dear Sir,

With reference to the above subject, kindly find the monthly analysis reports of Turbidity Monitoring, Marine Water Quality Monitoring, Sediment Quality Monitoring, STP water quality, Ambient air quality monitoring and Ambient Noise Levels, Monitoring carried out during **Nov 2022** at Adani Krishnapatnam Port Limited, Nellore.

Kindly confirm the receipt.

Thanking you

Yours truly,  
For **ADANI KRISHNAPATNAM PORT LIMITED**

(G. Venugopal Reddy)  
**Associate General Manager - EOHS**

Encls: Reports

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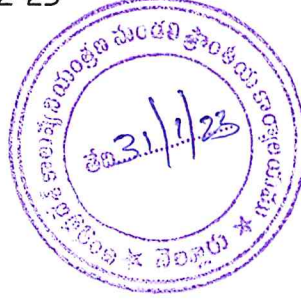
# adani

Ports and  
Logistics

Ref: AKPL/APPCB/EMR.EHS/115/2022-23

Date: 21/01/2023

**To**  
**The Environmental Engineer**  
AP Pollution Control Board  
Regional Office,  
A.P.S.F.C. Building, A.K. Nagar  
Sri Potti Sriramulu Nellore



**Sub:** Submission of monthly analysis report - Reg.  
**Ref:** Compliance on /CFO/Schedule -B/Condition No.49; dt.11.11.2022


Dear Sir,

With reference to the above subject, kindly find the monthly analysis reports of Turbidity Monitoring, Marine Water Quality Monitoring, Sediment Quality Monitoring, STP water quality, Ambient air quality monitoring and Ambient Noise Levels, Monitoring carried out during **Dec 2022** at Adani Krishnapatnam Port Limited, Nellore.

Kindly confirm the receipt.

Thanking you

Yours truly,  
For **ADANI KRISHNAPATNAM PORT LIMITED**

  
21/01/2023  
(G. Venugopal Reddy)  
**Associate General Manager - EOHS**

Encls: Reports

Adani Krishnapatnam Port Ltd  
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# adani

Ports and  
Logistics

Ref: AKPL/APPCB/EMR.EHS/129/2022-23

Date: 21/02/2023

To  
**The Environmental Engineer**  
AP Pollution Control Board  
Regional Office,  
A.P.S.F.C. Building, A.K. Nagar  
Sri Potti Sriramulu Nellore



**Sub:** Submission of monthly analysis report - Reg.  
**Ref:** Compliance on /CFO/Schedule -B/Condition No.49; dt.11.11.2022

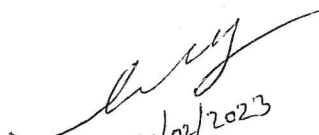
Dear Sir,

With reference to the above subject, kindly find the monthly analysis reports of Turbidity Monitoring, Marine Water Quality Monitoring, Sediment Quality Monitoring, STP water quality, Ambient air quality monitoring and Ambient Noise Levels, Monitoring carried out during **Jan 2023** at Adani Krishnapatnam Port Limited, Nellore.

Kindly confirm the receipt.

Thanking you

Yours truly,  
For **ADANI KRISHNAPATNAM PORT LIMITED**

  
21/02/2023  
(G. Venugopal Reddy)  
**Associate General Manager - EOHS**

Encls: Reports

Adani Krishnapatnam Port Ltd  
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Ports and  
Logistics

Ref: AKPL/APPCB/EHS/138/2022-23

Date: 20/03/2023

To

**Environment Engineer**

AP Pollution Control Board, Regional Office,  
A.P.S.F.C. Building, A.K. Nagar, Sri Potti Sriramulu Nellore

**Sub:** Submission of monthly analysis report - Reg.

**Ref:** Compliance on /CFO/Schedule -B/Condition No.49; dt.11.11.2022

Dear Sir,

With reference to the above subject, kindly find the monthly analysis reports of Turbidity Monitoring, Marine Water Quality Monitoring, Sediment Quality Monitoring, STP water quality, Ambient air quality monitoring and Ambient Noise Levels, Monitoring carried out during **Feb 2023** at Adani Krishnapatnam Port Limited, Nellore.

Also, we have complied all the directions given in APPCB's Order No.154/APPCB/UH-II/TF/NLR/2016- dated 29.11.2016 and submitted monthly status till Feb 2023. As, there are no further directions received on this order, we are closing the monthly compliance report submission.

Kindly confirm the receipt.

Thanking you

Yours truly,

For **ADANI KRISHNAPATNAM PORT LIMITED**

(G. Venugopal Reddy)

**Associate General Manager - EOHS**



Encls: Env. Reports

Adani Krishnapatnam Port Ltd  
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Ports and  
Logistics

Ref: AKPL/APPCB/EHS/007/2023-24

Date: 20/04/2023

To

**Environment Engineer**

AP Pollution Control Board, Regional Office,  
A.P.S.F.C. Building, A.K. Nagar, Sri Potti Sriramulu Nellore

**Sub:** Submission of monthly analysis report - Reg.

**Ref:** Compliance on /CFO/Schedule -B/Condition No.49; dt.11.11.2022

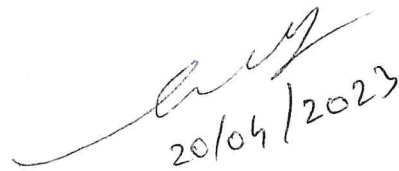
Dear Sir,

With reference to the above subject, kindly find the monthly analysis reports of Turbidity Monitoring, Marine Water Quality Monitoring, Sediment Quality Monitoring, STP water quality, Ambient air quality monitoring and Ambient Noise Levels, Monitoring carried out during **March 2023** at Adani Krishnapatnam Port Limited, Nellore.

Thanking you

Yours truly,

For **ADANI KRISHNAPATNAM PORT LIMITED**

  
20/04/2023

(G. Venugopal Reddy)  
**Associate General Manager - EOHS**

Encls: Env. Reports



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**Annexure M:  
Quality, Environment, Health & Safety  
and Energy Policy of AKPL**





Ports and  
Logistics

### Quality, Environment, Health & Safety and Energy Policy

- APSEZ is committed to Quality, Energy, Occupational Health & Safety and Environment in port business. We consider IMS responsibilities are integral part of our business. To meet this commitment, APSEZ will abide by the following principles:
  - Satisfy our customers by maintaining a standard of service that consistently meets the agreed requirements
  - Focus on occupational health & safety of employees, pollution prevention, preservation & protection of environment at all times and in all circumstances
  - Identify and analyze the HSE risks arising from our activities to reduce them to the lowest possible levels
  - Eliminate or reduce the potential and severity of injuries, occupational diseases and impact on environment & community arising out of our operations
  - Fulfill applicable legislations, regulations and other requirements on IMS and take additional measures considered necessary
  - Committed to ensure the availability of information and necessary resources to achieve objectives and energy targets
  - Shall Strive to achieve the IMS goals and performance objectives, using effective Integrated Management System; and reviewed to improve performance
  - Ensure consultation and participation of workers and their representatives
  - Develop, conduct and promote education and training to improve IMS performance
  - Continually improve IMS management system by monitoring, evaluating and reviewing through the definition of operational standards, assessments and audits
  - Communicate our policies and standards to employees, suppliers, business partners and where necessary work with them to raise their standards
  - Support design activities that consider energy performance improvement
  - Reduce consumption of energy
  - Use of renewable energy
  - Procure energy efficient equipment's, products and services
  - Design for energy performance improvement
  - Provide necessary information and resources to achieve objectives and targets to all employees comply with applicable legal requirements and other requirements to which organization subscribes related to its energy use consumption and efficiency
  - Policy will be communicate at all level to enhanced Energy performance and involve our employees and partners for continual improvement in efficiency usage of all variable effecting energy consumption. Commitment to continual improvement in energy performance.

  
Subrah Kripaathy  
Chief Executive Officer (CEO) – Ports

**Date:** 16/02/2023

**Rev:** 04



**FALCON RESILIENT**  
INFRA CONSULTANTS

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