

adani

Ports and
Logistics

AKPL/ENV/APPCB/063/2023-2024

Date: 21/09/2023

To

The Environmental Engineer
A.P. Pollution Control Board,
Regional Office,
Prasanthi Nagar, Ambedkar Nagar,
SPSR Nellore, Andhra Pradesh 524003



Sir,

Sub: Adani Krishnapatnam Port Limited, Muthukur (M), SPSR Nellore (D) –
- Environment Statement – FORM – V - Submitted – Reg.

Ref: CFO & HWA Order No. APPCB/VJA/NLR/11344/CFO/HO/2019
- 11.11.2022 valid up to 31.08.2027.

@@@

In compliance with the CFO condition No.6 stipulated in Schedule – A and as per Rule No.14 of E(P) Rules,1986 & amendments thereof, AKPL is submitting the Environment statement in Form V for the year 2022-2023.

Kindly acknowledge receipt of the same.

Thank you.

Yours faithfully,
for Adani Krishnapatnam Port Limited.,

Dr. D. Jyothi
Vice President – Environment & Sustainability

Encl: Copy of Form – V – Environment Statement along with attachments.

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



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ANNEXURE

ENVIRONMENTAL STATEMENT FORM-V
(See rule 14)

Environmental Statement for the financial year ending with 31st March

PART-A

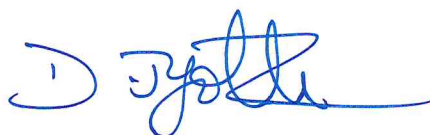
- I. Name and address of the owner/ Occupier of the industry : Adani Krishnapatnam Port Limited, Adani Corporate House, Shantigram, Nr.Vaishno Devi Circle, S.G. Highway, Khodiyar, Ahmedabad – 382421, Gujarat.
Corporate Office
- II. *Site Office* : Adani Krishnapatnam Port Limited, Muthukur(Mandal), SPSR Nellore (D) - 524344 Andhra Pradesh,
- III. *Operation or process* : **Port – Services**
- IV. *Industry category Primary-(STC Code) Secondary- (STC Code)* : ----
- V. *Production category. Units. -* : **Services**
- VI. *Year of establishment* : **2009**
- VII. *Date of the last environmental statement submitted* : **29.09.2022 for the period of 2021 - 2022**

PART .B

- I. *Water and Raw Material Consumption* : **Please refer Annexure A**

Water consumption in m³/d
Process :
Cooling :
Domestic:

Name of Products	Process water consumption per unit of products	
	During the previous financial year	During the current financial year
---	---	---



II. Raw material consumption : Please refer Annexure B

Name of raw materials*	Name of Products	Consumption of raw material per unit of output	
		During the previous financial year	During the current financial year
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* Industry may use codes if disclosing details of raw material would violate contractual obligations, otherwise all industries have to name the raw materials used.

PART-C

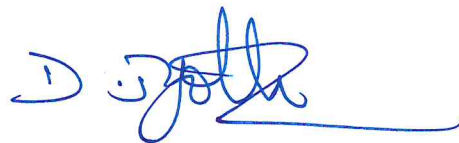
I. Pollution discharged to environment/unit of output - : Please refer Annexure C
(Parameter as specified in the consent issued)

Pollutants	Quantity of Pollutants discharged (mass/day)	Concentration of Pollutants Discharged (mass/volume)	Percentage of variation from Prescribed standards with Reasons.
(a) Water	---	---	---
(b) Air	---	---	---

PART-D

I. HAZARDOUS WASTES : Please refer Annexure D
(as specified under Hazardous Wastes (Management & Handling Rules, 1989).

Hazardous Wastes	Total Quantity (Kg)	
	During the previous financial year	During the current financial year
1. From Process	---	---
2. From Pollution Control Facilities		



PART - E

I. SOLID WASTES:

:

Solid Wastes	Total Quantity (Kg)	
	During the previous financial year	During the current financial year
a. From process	Plastic waste, iron, aluminum, & cardboard etc. are disposed to authorized recyclers/ re-processors permitted by Andhra Pradesh Pollution Control Board. - 2145 Tons of scrape was sold to authorized vendors for the FY 2021-2022. - Sludge generated from Sewage treatment plant is being used as manure for development of greenbelt within the Port premises. 12.68 Tons is used as manure during the FY 2021-2022	Plastic waste, iron, aluminum, & cardboard etc. are disposed to authorized recyclers/ re-processors permitted by Andhra Pradesh Pollution Control Board. - 3916.6 Tons of scrape was sold to authorized vendors for the FY 2022-2023. - Sludge generated from Sewage treatment plant is being used as manure for development of greenbelt within the Port premises. 9.91 Tons is used as manure during the FY 2022-2023

b. From Pollution Control Facility	-	-
c. Quantity recycled or re- utilized within the unit.	-	-

PART- F

- I. Please specify the characteristics (in terms of concentration and quantum) of hazardous as well as solid wastes and indicate disposal practice adopted for both these categories of wastes.* : **Not Applicable**

PART-G

- I. Impact of the pollution control measures taken on conservation of natural resources and consequently on the cost of production.* : **Not Applicable**

PART- H

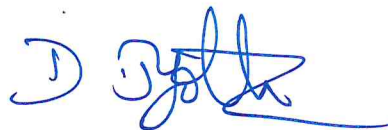
- I. Additional measures/investment proposal for environmental protection including abatement of pollution.* : **Please refer Annexure E**



PART .I

MISCELLANEOUS:

1.	<i>Any other particulars in respect of environmental protection and abatement of pollution.</i>
1.	<i>Celebrated World Environment Day 5th June 2022 by participating in the rally organized by Andhra Pradesh Pollution Control Board – Regional Office Nellore and conducting various long awareness program at the Port premises, to express commitment towards environment protection and environment sustainability.</i> <i>1. Exhibited banners & posters (English) at various locations of Port area emphasizing the significance of</i> <ul style="list-style-type: none">- <i>Environment sustainability,</i>- <i>Discarding single use plastic,</i>- <i>Using cloth carry bags in place of single use plastic.</i>- <i>Water conservation,</i>- <i>Afforestation,</i>- <i>Housekeeping,</i> <i>2. Plantation program organized at north conveyor belt in the Adani Krishnapatnam Port and planted 1000 no. of saplings on the eve of World Environment Day.</i> <i>3. Pledge towards commitment to environment sustainable measures taken by all the employees and other associates.</i>
2.	<i>Celebrated World Ocean's Day 8th June 2022 by initiating awareness program at the Marine Port Control Center and beach cleaning activity at the south side of the port.</i>
3	<i>Celebrated World Ozone Day 16th September 2022 by conducted various events like drawing programs etc. and awareness session to school children in Vidhya Vihar School in Muthukur in association with Andhra Pradesh Pollution Control Board – Regional Office Nellore.</i>
4	<i>Celebrated National Pollution Prevention Day December 2nd, 2022, by conducting plantation drive and planted 1000 no. of saplings in krishnapatnam port in association with Andhra Pradesh Pollution Control Board – Regional Office Nellore.</i>
5.	<i>Conducted awareness campaign Programme on 18th March 2023 on the Global recycling day.</i> <i>Awareness sessions given to various departments in the port.</i> <ul style="list-style-type: none">- <i>Awareness of E-waste given to IT, Finance and Electrical teams.</i>- <i>Awareness of Hazardous waste given to Operations and Techno commercial department</i> <i>Awareness of General waste, organic waste given to various work forces and admin department.</i>



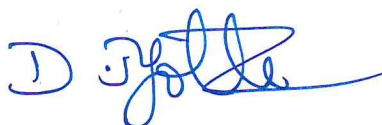
Annexure - A

**Water usage record for Dust Suppression System - (April 2022 - March 2023)
Source & Water Input**

Month/Year	Source			Total input Water (KLM)	
	(KL/Month)		STP Treated water	(KL/Month)	Average KLD
	Nakkala kalava	Water Tankers			
Apr.22	54290	23599	6539	84428	2814.3
May - 2022	52260	23370	4437	80067	2582.8
June - 2022	49360	24690	4692	78742	2624.7
July - 2022	48770	23950	4075	76795	2477.3
August - 2022	49935	23132	6121	79188	2554.5
September - 2022	52340	24190	7864	84394	2813.1
October - 2022	44230	23050	5488	72768	2347.4
November - 2022	45980	22940	6494	75414	2513.8
December - 2022	45910	29850	5895	81655	2634.0
January - 2023	54720	30300	6474	91494	2951.4
February - 2023	62659	30700	6731	100090	3574.6
March - 2023	67090	30260	7120	104470	3370.0
Total	627544.00	310031.00	71930.00	1009505.00	2765.8

Water Consumption (KLD)

Month	Application as per the Consent Order		
	Green belt	Dust Suppression	Domestic
Apr-22	12030	54290	11569
May - 2022	12560	52260	10810
June - 2022	12660	49360	12030
July - 2022	12410	48770	11540
August - 2022	12012	49935	11120
September - 2022	12320	52340	11870
October - 2022	11160	44230	11890
November - 2022	11170	45980	11770
December - 2022	11350	45910	18500
January - 2023	11150	54720	19150
February - 2023	11950	62659	18750
March - 2023	12100	67090	18160
Total KL/Month	142872.00	627544.00	167159.00
Average/KLD	391.00	1719.00	458.00
Consented Qty/KLD	400.00	1950.00	650.00



Annexure - B

Cargo handled at Adani Krishnapatnam Port - (April 2022-March 2023)

S. No	Name of the Cargo	Consented quantity	Commodities handled. MMTPA
1	Coal	46	AKPL has handled 48.26 MMTs of cargo(including containers) during the period from April 2022 to March, 2023
2	Iron Ore	8	
3	General Cargo (Fertilizers, granites, Edible Oil and Lube oils, others).	14	
4	Liquid Cargo (POL, LNG, LPG, Chemical products)	10	
6	Container Cargo (MTEUsA)	2.0	
	Total	78 MMTPA + 2 MTEUsA	

Annexure - C

Two numbers Sewage Treatment Plant (500 KLD and 40 KLD STPs) are provided to treat the wastewater generated in the port premises. The inlet and outlet water waters are being monitored regularly as per the statutory regulations and the treated water is well within the statutory limits. The treated water is being used for green belt development only.


Annexure - D

- I. *E - Waste in Form - III* : *Submitted on 30.06.2023 for the FY 2022 - 2023*
(Copy of Acknowledgement - attachment 2)
- II. *Hazardous Waste in Form - IV* : *Submitted on 30.06.2023 for the FY 2022 - 2023*
(Copy of Acknowledgement attachment 3)
- III. *Used Battery Returns in Form - VIII* : *Submitted on 30.06.2023 for the FY 2022 - 2023*
(Copy of Acknowledgement attachment 4)



Annexure E
COST OF ENVIRONMENTAL MEASURES FOR THE FINANCIAL YEAR 2022-
2023


S. NO	Facility details	Description	Cost in Rs.
1.	Operation & Maintenance of CAAQMS, STP (500 KLD & 40 KLD) and MDSS Systems	Annual operation & Maintenance of 3 nos. of CAAQM Stations, 2 STP's and Mechanical Dust Suppression Systems	1,83,50,126.00
2.	Water sampling & analysis	Marine, Drinking, Sewage water sampling & analysis cost	7,96,500.00
3.	Greenbelt department	Vermi compost, FYM, Plants, JCB, Transport, Diesel, Vehicle bills, Green Belt Water costing	32,55,334.23
4.	Dust suppression water tankers	Dust suppression through water tankers cost	5,81,31,422.00
5.	Water Cost – Nakkala Kalava.	Water consumption for Dust Suppression & other port operations	17,46,360.00
6.	Hydraulic Road Sweeping Machines	Sweeping machines operation, diesel consumption, & maintenance & Spares cost	36,48,638.00
7.	Sweeping with manpower	Manual cleaning of Roads, Berths, Go-downs & all operational areas	5,86,04,291.00
8.	Community development	200 farmers - Organic farming, crop change, suitability of land, marketing, soil/ water testing, applying bio fertilizers & vermicompost to derive high yield	91,63,000.00
9.	Fire tender	Fire tender diesel & maintenance cost (Engine & Tinkering works)	25,13,100.00
10.	Wheel Washing Facility	Cost of Wheel Washing Facility	27,26,559.92
11.	Vehicle Expenses	Tractors, JCB, Transport vehicles for Environment activities, Charges for collection of solid waste from 120 locations of AKPL	1,48,65,298.00
		Total Amount	17,38,00,628.00



Annexure F

Environmental measures in the Adani Krishnapatnam Port Limited

- Adani Krishnapatnam Port is all weather deep water & most environmentally friendly Port with state-of-the-art cargo handling equipment and operating with 13 berths, out which of 6 berths are completely mechanized and the principal cargoes are Coal & Iron Ore which are being handled through mechanized system.
- The State of art mechanical dust suppression system is provided at various critical points i.e., equipment (Hopper & Declaimer), hooded conveyor belts and the storage yards have been functioning well throughout the system. By using these measures, the Port is able to mitigate all the dust that is being generated during the operations. The other berths are being used to handle other cargos such as Project cargo, fertilizer (Urea), Sugar etc.
- The Pollution Control System is implemented, as a part of project, to mitigate the dust pollution, State of Art water sprinkling system at various locations. Around 30 people are working daily to operate the DSS.
- The dust suppression system comprises of canons supported by electrical motors and operated at regular intervals to cover water fog all over cargo stacks and other areas. The water is sprayed from various points by water cannons at pressure of about 2-4 Kg/cm² to form a mist over the cargo stacks and other places and the mist attracts the dust to settle it down without spreading along the wind. AKPL has established a total of 248 cannons.
- Water sprinkling is being carried out on the general cargo berth and in other areas viz. Roads and yards through water tankers to arrest the dust pollution caused by vehicular movement in the port. AKPL is spending around 5.98 Crores on water charges and maintenance. Around 50 people are working for this activity.
- Upgraded CAAQM Stations with latest analyzers of PM 10 and PM2.5 and included SO₂, NO_x, CO analyzers and digital display board with cost of 1.02 Crore.
- Provided facilities for truck tarpaulin covering stations of 14 nos. at various transit locations & at Silo to facilitate and ensure tarpaulin coverage to all the outgoing cargo trucks & wagons.
- Provided General Toilets at Berths, CS Go-downs, yards, and other operational locations to cater the needs of the contractual employees with a cost of 1 Crore.
- Established wheel washing faculty with a cost of Rs.27.2 Lakhs.



Environmental Monitoring Program in AKPL

As per the statutory guidelines AKPL appointed an authorized 3rd party agency, for monitoring of the environmental parameters of the Port as well as nearby villages such as Krishnapatnam village, Gopala Puram Village, Chalivendram village and Thamminapatnam Village areas.

Ambient Air Quality

Operating 3 No. of Continuous Ambient Air Quality Monitoring stations at the below mentioned locations as suggested by SPCB at the periphery of the Port premises to monitor the Ambient Air Quality viz., PM 10, PM 2.5 and the data is being uploaded to APPCB website. The Port also provided analyzers for measuring SO₂, NO, NO₂, & CO parameters,

- i. Towards the habitant's side of Chalivendram Village, Amenities Complex – CVR building (Station 1):
- ii. Towards the habitant's side of Thamminapatnam village, south boundary (Station2)
- iii. Towards the habitant's side of Krishnapatnam village, North-East Boundary (Station3) Ambient Air Quality Monitoring

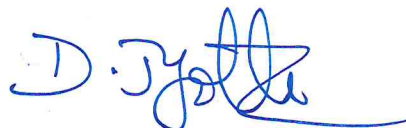
Ambient Air Quality monitoring is carried out by NABL accredited laboratory as per the statutory regulations for the seven locations and the reports are well within the statutory limits and the same are being submitted to the APPCB on a monthly basis.

1. Zero Point gate
2. Thamminapatnam
3. CVR Building
4. Gopalapuram village
5. Chalivendram village
6. Krishnapatnam village
7. Krishnapatnam village near light house

Noise Monitoring

Noise monitoring is being carried out as per the statutory regulations for the seven locations and the reports are well within the statutory limits and the same are being submitted to the APPCB on a monthly basis.

8. Zero Point gate (Industrial)
9. Thamminapatnam (Industrial)
10. CVR Building (Industrial)
11. Gopalapuram village (Residential)
12. Chalivendram village (Residential)
13. Krishnapatnam village (Residential)
14. Krishnapatnam village near light house (Residential)



Ground water quality monitoring

Ground water quality monitoring is being carried out on half yearly monthly basis as per the statutory regulations for the Krishnapatnam Port premises and reports are within the statutory limits and the same are being submitted to the APPCB along with 6 months report.

1. Port side
2. Krishnapatnam village
3. South side of the port
4. Gopalapuram village

Marine water /sediment monitoring

The marine water and sediment quality monitoring is being carried out weekly basis of tidal sampling for the Four locations as

1. Port entrance (Approach channel)
2. Turning Circle
3. Coal berth
4. Reclamation area (Mutable)

Physical, chemical, and biological parameters were analyzed for water as well as for sediment to assess the quality and the same is being submitted to the APPCB. The reports indicate that the waters are not having any noticeable contamination.

Wind Barrier Structure:

Erected & maintained a wind barrier structure of height 14 m to prevent any dust nuisance towards villages and also provided supported greenbelt adjacent to wind barrier structure.

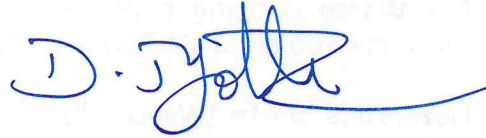
Environment Sustainability Measures:

- Converted 9 no's Liebherr cranes from diesel operated to Electrically operated.
- Converted 1 diesel operated oil compressor to electrically operated.
- All Marine tugs provided with shore power 100% while at jetty.
- Established hooded conveyor belts to mitigate dust emission into the atmosphere.
- Provided Fire hydrant system for Wagon loading station.
- Provided facilities for truck tarpaulin covering stations of 14 nos. at various transit locations to facilitate and ensure tarpaulin coverage to all the outgoing cargo trucks.
- Provided facilities for Railway Rake to ensure tarpaulin coverage to all the outgoing cargo rakes.



Details of Green belt in Adani Krishnapatnam Port

- Plantation is a regular process in the Port and for the period April, 2022 to March, 2023 AKPL has planted 1,02,604 no. of saplings within the Port premises. In total AKPL has completed plantation of in 194.5 Ha (480.6 acres) within the Port premises.
- A nursery with variety of species established and is being maintained in the Port Ltd, with variety of avenue and ornamental saplings which suits the soil condition of Adani Krishnapatnam Port Ltd.
- 5 Lakh saplings were propagated in the nursery between April 2022 to March 2023 for executing plantation plan for the financial year April 2023 to March 2023.



Weather & meteorological monitoring:

- Installed Weather station on the top of Port Operation Control for weather forecasting & meteorological data generation.

Water conservation measures:

Rainwater harvesting pits are provided across the port premises for recharging the ground water.

Domestic sewage water receiving from office buildings of different locations of Port is being treated in STPs of 500 KLD & 40 KLD and being used for greenbelt development.

Waste management:

- **Plastic waste** is being collected and disposed of to SPCB authorized plastic waste recycling units.
- **E - Waste** is being collected and disposed to SPCB authorized E-waste recyclers and submitting the details in Form - 3 to SPCB regularly
- **Hazardous waste (Waste oil)** - as per the CFO & HWA of APPCB, AKPL is permitted to generate & dispose of waste oil including bilge oil. AKPL is quantifying the waste oil and disposing to SPCB authorized Waste oil recyclers and submitting the details in Form - 4 to SPCB regularly.
- **Solid waste** - AKPL made arrangements for daily collecting and disposing of the domestic solid waste for further waste management process.
- **Organic waste**- is being collected on a regular basis within the Port and being used for greenbelt development.
- **Bio-Medical Waste** - Adani Foundation (a different entity) is operating an Onsite Health Centre (OHC) to provide First Aid facility to the victims and generating very less quantity of Bio-Medical Waste. Adani foundation made an agreement with M/s. SS Bio Care an authorized Bio-medical waste Treatment Facility, Safe Collection, Transportation & disposal of properly segregated and packed BMW and/or Bio-Hazardous waste as per APPCB, CPCB norms.

