

MONITORING OF ENVIRONMENTAL PLAN FOR JN PORT

ENVIRONMENTAL MONITORING REPORT-APRIL 2020 EXECUTIVE SUMMARY

1.0 Ambient Air Monitoring:

Monthly average values of Air Quality parameters at various stations in JNPT area during April, 2020

Parameters		Industrial (Port Operation) Area	Tank Farm Area	Residential Area	Eco sensitive Area
		Station name			
	Units	POC	IMC	RC	EC
PM ₁₀	($\mu\text{g}/\text{m}^3$)	50.4	73.9	42.5	31.5
PM _{2.5}	($\mu\text{g}/\text{m}^3$)	27.6	30.6	24.8	15.2
SO _x	($\mu\text{g}/\text{m}^3$)	11.9	12.9	10.6	10.5
NO _x	($\mu\text{g}/\text{m}^3$)	6.7	8.4	5.2	4.6
O ₃	($\mu\text{g}/\text{m}^3$)	67.7	99.0	48.4	17.4
C ₆ H ₆	($\mu\text{g}/\text{m}^3$)	1.3	1.6	0.8	0.7
B(a)P	(ng/m^3)	<0.5	<0.5	<0.5	<0.5
CO	(mg/m^3)	1.6	1.9	1.3	0.9
CO ₂	(ppm)	97.2	101.6	76.8	69.3
AQI		50.37	73.90	42.47	31.50

Conclusion:

- 24-hr average concentration of PM₁₀, PM_{2.5}, SO₂ and NO₂ and other parameters were measured at eight locations viz. POC, IMC, JNP residential township and EC area using high volume samplers, respirable sampler (APM 460 NL and APM 550 MFC) and gaseous sampler.
- During April 2020 overall ambient air quality of the JN Port area is within CPCB permissible limits. Anyway To overcome Particulate Matter problem, the port is using number of precautionary measures, such as maintained a wide expanse of Green zone, procured Electric Cart under green port initiatives, initiated Inter-Terminal Transfer (ITT) of tractor-trailers port saving huge fuel cost till date, switched from diesel to electrically powered e-RTGCs which not just help saving cost but are friendly to environment, installed solar panels on the roof tops of various building in the office premises which cumulatively reduces electricity consumption, the use of LED lights at JNP area helps in lower energy consumption and decreases the carbon foot prints in the environment, time to time cleaning

of paved and unpaved roads, use of tarpaulin sheets to cover dumpers at project sites etc.. For cleaner and greener future.

➤ The prominent wind direction (blowing from) was West North West (WNW) in the port area. Average values of wind speed, temperature, relative humidity and solar radiation were recorded 4.043m/s, 29.960C, 71.54% and 457.39 W/m² respectively.

Corrective Action Suggested:

- To avoid airborne disease Port workers must Maintain a safe distance from anyone who is coughing or sneezing.
- Practice should be initiated for using mask as preventative measure, to avoid inhalation of dust particle.
- Water sprinklers should be used on heavy traffic road to settle the dust particle.
- Avoid excessive idling of automobiles and ships.
- Dumper carrying construction material and earth filing material must be covered with tarpaulin sheet to reduce dispersal of dust in the air.
- Alternative fuels for yard equipment
- Boats and Ships in coastal stretch should Meet MARPOL-VI under global emission standards.
- Regular cleaning and time to time collection of wreckage should be done from paved and unpaved road as well construction sites to decrease PM₁₀ concentration.
- Promoting public transport as much as possible.
- Initiate Natural Gas (CNG) only as fuel by all buses and trucks.
- Each and every vehicles entering into the port region must be strictly checked PUC documents and encourage for regular maintenance of vehicle to minimize emission.
- New Services and technology like Electric cart, Inter-Terminal Transfer (ITT) are worthy selection to reduce Port operation efficiency and fuel cost.

Note: Survey of all other parameters is not possible due to the COVID -19 Pandemic issues