

## STACK EMISSION MONITORING & ANALYSIS DATA BASE

(October'2021 to March'2022)

### Stack Physical Parameters

Existing Plant		
Stack connected to	Height from GL (m)	Internal dia at sampling point (m)
DEG	58	3.16
Hot oil Heater	69	1.9
Boiler/Incinerator	88	1.7
PX oxidation off gas (PX - Paraxylene)	21.85	2.2
Vent gas scrubber -I (Scrubbing of Process off ) gas from	18.35	1.6
Vent gas scrubber -II (PTA Storage Scrubber)	15.15	2.1

Expansion Plant		
Stack connected to	Height from GL (m)	Internal dia at sampling point (m)
Hot oil Heater	30	1.4
DEG & Incinerator	70	2.2
Off Gas Combustion Unit	30	

**Note:**

- Stack emissions are monitored wrt to PM ,CO, SO<sub>2</sub>, NO<sub>2</sub>. However as per the Air & Water Consent to operate only PM & CO are to be monitored. Hydrocarbon monitoring done on quarterly basis in Hot oil heater stacks.
- As there is no PM, SO<sub>2</sub> & NO<sub>2</sub> from Process emission ( PX off gas, Vent gas scrubber- I & II, off gas combustion unit)
- Incinerator emission is through Boiler stack ie Boiler & Incinerator stack is common in the existing plant.
- Boiler not running during normal operation. It is operated only during start up & shut down of the Plant.
- Stack sampling from Hot Oil Heater, DEG, Incinerator in the Existing & Expansion Plant are conducted by third party, whereas for vent gas scrubber I,II, PX Off Gas stack, off gas combustion emission sampling is conducted in-house.

## ANALYSIS RESULTS

Month -October'2021

S No.	Parameter	Existing Plant					Expansion Plant			
		Hot oil heater	DEG	Incinerator	PX off gas Stack	Vent gas scrubber-I	Vent gas scrubber-II	Hot Oil Heater	DEG & Incinerator	Off Gas Combustion
1	PM (mg/Nm3)	19.0	stop**	stop*		Not venting	Stop	Not done	Standby	-
2	CO (% v/v)	89.5			0.15					-
3	SO <sub>2</sub> (mg/Nm3)	598.3			-					
4	NO <sub>2</sub> (mg/NM <sup>3</sup> )	276.0			-					

## ANALYSIS RESULTS

Month - November'2021

S No.	Parameter	Existing Plant					Expansion Plant			
		Hot oil heater	DEG	Incinerator	PX off gas Stack	Vent gas scrubber-I	Vent gas scrubber-II	Hot Oil Heater	DEG & Incinerator	Off Gas Combustion
1	PM (mg/Nm3)	86.8	stop**	stop*		Not venting	Not venting	66.5	Standby	-
2	CO (% v/v)	91.2			0.17			69.4		
3	SO <sub>2</sub> (mg/Nm3)	580.0			383.8			-		
4	NO <sub>2</sub> , (mg/Nm3)	276.7			168.7			-		

### WBPCB SAMPLING:

November'2021

S No.	Parameter	Existing Plant			Expansion Plant	
		Hot oil heater	DEG	Incinerator	Hot Oil Heater	DEG & Incinerator
1	PM (mg/Nm3)	81.95	stop**	stop	63.80	stop

May'2021		Existing Plant			Expansion Plant	
S No.	Parameter	Hot oil heater	DEG	Incinerator	Hot Oil Heater	DEG & Incinerator
1	NMHC (ppm)	<1.0	stop**	stop	<1.0	stop

## ANALYSIS RESULTS

Month -December'2021

S No.	Parameter	Existing Plant					Expansion Plant			
		Hot oil heater	DEG	Incinerator	PX off gas Stack	Vent gas scrubber-I	Vent gas scrubber-II	Hot Oil Heater	DEG & Incinerator	Off Gas Combustion
1	PM (mg/Nm3)	86.8	stop**	stop*		Not venting	Not venting	45.7	standby	-
2	CO ( ppm)	77			0.12			86		-
3	SO <sub>2</sub> (mg/Nm3)	495.4			363.1			-		
4	NO <sub>2</sub> , (mg/Nm3)	216.6			173.5			-		

## ANALYSIS RESULTS

Month - January'2022

S No.	Parameter	Existing Plant					Expansion Plant			
		Hot oil heater	DEG	Incinerator	PX off gas Stack	Vent gas scrubber-I	Vent gas scrubber-II	Hot Oil Heater	DEG & Incinerator	Off Gas Combustion
1	PM (mg/Nm3)	30.3	stop**	stop*		Not venting	Not venting	22.6	standby	-
2	CO ( ppm)	87.4			0.13			80.6		-
3	SO <sub>2</sub> (mg/Nm3)	456.8			170.3			-		
4	NO <sub>2</sub> , (mg/Nm3)	218.5			170.3			-		

## ANALYSIS RESULTS

Month - February'2022

S No.	Parameter	Existing Plant					Expansion Plant			
		Hot oil heater	DEG	Incinerator	PX off gas Stack	Vent gas scrubber-I	Vent gas scrubber-II	Hot Oil Heater	DEG & Incinerator	Off Gas Combustion
1	PM (mg/Nm3)	33.3	stop**	stop*		Not venting	Not venting	40.2	standby	-
2	CO ( ppm)	76.2			0.14			90.6		-
3	SO <sub>2</sub> (mg/Nm3)	496.1			365.9			-		
4	NO <sub>2</sub> , (mg/Nm3)	175.5			126.4			-		

February'2022	Existing Plant	Expansion Plant
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S No.	Parameter	Hot oil heater	DEG	Incinerator	Hot Oil Heater	DEG & Incinerator
1	NMHC (ppm)	<1.0	stop**	stop	<1.0	stop

**WBPCB SAMPLING: February'2022**

		Existing Plant			Expansion Plant	
S No.	Parameter	Hot oil heater	DEG	Incinerator	Hot Oil Heater	DEG & Incinerator
1	PM (mg/Nm3)	59.35	stop**	stop	53.86	stop

**ANALYSIS RESULTS**

Month -March'2022

		Existing Plant					Expansion Plant			
S No.	Parameter	Hot oil heater	DEG	Incinerator	PX off gas Stack	Vent gas scrubber-I	Vent gas scrubber-II	Hot Oil Heater	DEG & Incinerator	Off Gas Combustion
1	PM (mg/Nm3)	Not done	stop**	stop*		Not venting	Not venting	37.9	standby	-
2	CO ( %, v/v)				0.11			78.8		-
3	SO <sub>2</sub> (mg/Nm3)				184.0			-		
4	NO <sub>2</sub> , (mg/Nm3)				167.3					

\* Co- processing activity is on process with M/S Orisha Cement Ltd (Dalmia) as per CPCB approval  
3rd party Laboratory Vendor's NABL / MOEFCC approval copies as Annexure-1a,  
NA- Not Analyzed

\*\* April'2015 onwards we are using Grid power & Bothe the In-house Inceinerators are in stop condition.