

# STACK EMISSION MONITORING & ANALYSIS DATA BASE

(April'2019 to September'2019)  
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 DEG & 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 -April'2019

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/Nm <sup>3</sup> )	89.6	stop**	stop*		Not venting	Not venting	74.5	Standby	-
2	CO (%, v/v)	<0.2			0.09			-		
3	SO <sub>2</sub> (mg/Nm <sup>3</sup> )	765.0			-					
4	NO <sub>2</sub> (mg/NM <sup>3</sup> )	345.9			297.9			-		

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

## ANALYSIS RESULTS

Month -May'2019

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/Nm <sup>3</sup> )	47.6	stop**	stop*		Not venting	Not venting	47.3	Standby	-
2	CO (%, v/v)	<0.2			0.10			-		
3	SO <sub>2</sub> (mg/Nm <sup>3</sup> )	797.3			-					
4	NO <sub>2</sub> , (mg/Nm <sup>3</sup> )	296.2			206.2			-		

### WBPCB SAMPLING:

S No.	Parameter	Existing Plant			Expansion Plant	
		Hot oil heater	DEG	Incinerator	Hot Oil Heater	DEG & Incinerator
1	PM (mg/Nm <sup>3</sup> )	-	stop**	stop	23.31	stop

## ANALYSIS RESULTS

Month - June'2019

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)	70.2	stop**	stop*		Not venting	Not venting	52.9	standby	-
2	CO ( %, v/v)	<0.2			0.10			-		
3	SO <sub>2</sub> (mg/Nm3)	710.6			-					
4	NO <sub>2</sub> , (mg/Nm3)	385.6			296.4			-		

## ANALYSIS RESULTS

Month - July'2019

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)	83.7	stop**	stop*		Not venting	Not venting	94.6	standby	-
2	CO ( %, v/v)	<0.2			0.13			-		
3	SO <sub>2</sub> (mg/Nm3)	595.6			-					
4	NO <sub>2</sub> , (mg/Nm3)	312.7			278.5			-		

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

## ANALYSIS RESULTS

Month - August'2019

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)	93.4	stop**	stop*		Not venting	Not venting	65.7	standby	-
2	CO (%, v/v)	<0.2			0.1			<0.2		-
3	SO <sub>2</sub> (mg/Nm3)	498.2			395.4			-		
4	NO <sub>2</sub> , (mg/Nm3)	197.8			168			-		

### WBPCB SAMPLING:

S No.	Parameter	Existing Plant			Expansion Plant	
		Hot oil heater	DEG	Incinerator	Hot Oil Heater	DEG & Incinerator
1	PM (mg/Nm3)	Not done	stop**	stop*	0.43	standby

## ANALYSIS RESULTS

Month -September'2019

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)	SDM	stop**	stop*		Not venting	Not venting	24.9	standby	-
2	CO (%, v/v)	SDM			0.09			<0.2		-
3	SO <sub>2</sub> (mg/Nm3)	SDM			393.7			-		
4	NO <sub>2</sub> , (mg/Nm3)	SDM			186.8			-		

\* 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