

STACK EMISSION MONITORING & ANALYSIS DATA BASE

(October'2022 to March'2023)
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, SO₂, NO₂. 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, SO₂ & NO₂ 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'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/Nm ³)	36.60	stop**	stop*		Not venting	Stop	75.10	Standby	-
2	CO (ppm)	78.00			0.12			-		
3	SO ₂ (mg/Nm ³)	168.50			-					
4	NO ₂ (mg/NM ³)	98.70			86.00			-		

ANALYSIS RESULTS

Month - November'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/Nm ³)	45.00	stop**	stop*		Not venting	Not venting	26.10	Standby	-
2	CO (ppm)	81.60			0.14			-		
3	SO ₂ (mg/Nm ³)	157.00			-					
4	NO ₂ , (mg/Nm ³)	211.60			160.00			-		

WBPCB SAMPLING:

November'2022

S No.	Parameter	Existing Plant			Expansion Plant	
		Hot oil heater	DEG	Incinerator	Hot Oil Heater	DEG & Incinerator
1	PM (mg/Nm ³)	49.76	stop**	stop	9.19	stop

November'22		Existing Plant			Expansion Plant	
S No.	Parameter	Hot oil heater	DEG	Incinerator	Hot Oil Heater	DEG & Incinerator
1	NMHC (ppm)	<0.5	stop**	stop	<0.5	stop

ANALYSIS RESULTS

Month -December'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)	SDM	stop**	stop*		Not venting	Not venting	26.10	standby	-
2	CO (ppm)				0.13			72.60		-
3	SO ₂ (mg/Nm3)				119.30			-		
4	NO ₂ , (mg/Nm3)				160.00			-		

ANALYSIS RESULTS

Month - January'2023

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)	18.80	stop**	stop*		Not venting	Not venting	72.60	standby	-
2	CO (ppm)	32.00			0.13			34.00		-
3	SO ₂ (mg/Nm3)	143.70			129.40			-		
4	NO ₂ , (mg/Nm3)	197.50			176.20			-		

ANALYSIS RESULTS

Month - February'2023

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)	38.90	stop**	stop*		Not venting	Not venting	20.30	standby	-
2	CO (ppm)	51.60			0.14			36.00		-
3	SO ₂ (mg/Nm3)	144.10			116.50			-		
4	NO ₂ , (mg/Nm3)	97.80			170.80			-		

WBPCB SAMPLING:

February'2023

S No.	Parameter	Existing Plant			Expansion Plant	
		Hot oil heater	DEG	Incinerator	Hot Oil Heater	DEG & Incinerator
1	PM (mg/Nm3)	36.92	stop**	stop	58.51	stop

ANALYSIS RESULTS

Month -March'2023

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)	31.10	stop**	stop*		Not venting	Not venting	24.50	standby	-
2	CO (%, v/v)	45.90			0.12			49.70		-
3	SO ₂ (mg/Nm3)	146.50			126.90			-		
4	NO ₂ , (mg/Nm3)	98.70			86.40					

March'2023		Existing Plant			Expansion Plant	
S No.	Parameter	Hot oil heater	DEG	Incinerator	Hot Oil Heater	DEG & Incinerator
1	NMHC (ppm)	<0.5	stop**	stop	<0.5	stop

* 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 & Both the In-house Incinerators are in stop condition.